

NTPC LIMITED
(A Government of India Enterprise)



BIDDING DOCUMENTS
FOR

**SITC of Project monitoring CCTV System
for Nabinagar Super Thermal Power
Project, NSTPP Stage-II (3x800 MW)**

SECTION - I, II, III, IV, V, VI & VIII

BIDDING DOCUMENT NO.: 9900325917

(This document is meant for the exclusive purpose of bidding against this Bid Document No. / Specification and shall not be transferred, reproduced or otherwise used for purposes other than that for which it is specifically issued).

BIDDING DOCUMENTS

BIDDING DOCUMENT NO.: 9900325917

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Acronyms

BDS	Bid Data Sheet
CIF	Cost, Insurance and Freight
CIP	Carriage and Insurance paid to (place)
CPM	Critical Path Method
EDI	Electronic Data Interchange
EXW	Ex factory, ex works or ex warehouse.
FCA	Free Carrier
FOB	Free on Board
FOR	Free on Rail / Road
FP	Forms & Procedures
GCC	General Conditions of Contract
ICC	International Chamber of Commerce
IFB	Invitation for Bids
ITB	Instructions to Bidders
SCC	Special Conditions of Contract
TS	Technical Specifications and Drawings
UNCITRAL	United Nations Commission on International Trade Law
INCOTERMS	International Commercial Terms

Note: The terms ExW, CIF, etc. shall be governed by the rules prescribed in the current edition of INCOTERMS, published by the international chambers of commerce, Paris, France.

SECTION - I

INVITATION FOR BIDS (IFB)

NTPC LIMITED
(A Government of India Enterprise)

CORPORATE CONTRACTS, NOIDA

INVITATION FOR BIDS (IFB)

FOR

SITC of Project monitoring CCTV System for Nabinagar Super Thermal Power Project, NSTPP Stage-II (3x800 MW)

(Domestic Competitive Bidding)

- A.** NTPC Limited invites **on-line bids** on **Single Stage Two Envelope Basis (i.e., Envelope-I: Techno-Commercial Bid and Envelope-II: Price Bid)** from eligible Bidders for aforesaid package, as per the scope of work briefly mentioned hereinafter.

B. BRIEF SCOPE OF WORK

SITC of Project monitoring CCTV System for Nabinagar Super Thermal Power Project, NSTPP Stage-II (3x800 MW)

Detailed scope of work has been specified in the bidding documents.

- C.** NTPC intends to finance the aforesaid Package through **a mix of debt and equity.**
- D.** Detailed specification, scope of work and terms & conditions are given in the Bidding Documents, which are available at the NTPC e-procurement portal of NIC at <https://eprocurementpc.nic.in/>. The Bidding Schedule for the Tender is as under:

Bidding Document No	9900325917
Location of work/Plant	Nabinagar STPS, PO-Ankhora Railway Station, NPGC-Shivanpur, Aurangabad - 824303, Bihar.
Form of Contract/Tender Category	WORKS CONTRACT
Cost of Bidding Document/Tender Fees	Nil
Documents Download Date and Time	As mentioned in GePNIC NIT
Last date for receipt of queries from bidders(if any)	As mentioned in GePNIC NIT
Pre Bid Conference Date	Not Applicable
Bid (both Techno-Commercial and Price bid) submission end date & time	As mentioned in GePNIC NIT
Date & Time for opening of Envelope-I (Techno-Commercial bid)	As mentioned in GePNIC NIT
Date & Time for opening of Envelope-II (Price bid)	Shall be intimated after opening of Techno- Commercial Bid.

Bid security (EMD)	INR 1,00,000/- (One lakh)
Integrity pact	Not applicable
Evaluation criteria	Package wise Evaluation
Splitting of Quantity	Not Applicable
Benefit to MSME	THIS IS A WORKS CONTRACT. MSE BENEFITS ARE NOT APPLICABLE.

Note: Bidders are advised to visit the GePNIC (e-tender) portal of NTPC for updated bidding schedule of the Tender, if any.

It is to be noted that “No Queries from Bidders, whatsoever, shall be entertained by the Employer beyond the last date of receipt of Queries as specified at GePNIC portal of NTPC.

- E.** All bids must be accompanied by a Bid Security for an amount of **INR 1,00,000/- (Indian Rupees One Lakh only)** in the form as stipulated in the Bidding Documents.

ANY BID NOT ACCOMPANIED BY AN ACCEPTABLE BID SECURITY IN A SEPARATE SEALED ENVELOPE SHALL BE REJECTED BY THE EMPLOYER AS BEING NON-RESPONSIVE. IN CASE, THE BID SECURITY IS SUBMITTED AS E-BG/ THROUGH ELECTRONIC FUND TRANSFER (EFT), BIDDER TO SUBMIT THE COPY OF E-BG/PROOF OF E-PAYMENT OF BID SECURITY EITHER IN A SEPARATE SEALED ENVELOPE OR IN THE E-TENDERING PORTAL.

EMD is not exempted in this tender being a works contract. Bidders are advised NOT to upload MSE/Udyam/other document for availing exemption. Bids without adequate Bid Security, as per tender provisions, shall be outrightly rejected.

- F.** **Qualifying Requirements for Bidders (QR): Not Applicable [Instead, refer Para ‘G’ below]**

- G. #Eligibility for Bidders:**

Bidders may please note that the above tender has been invited from only shortlisted vendors of NTPC Ltd. for subject tender. Only NTPC shortlisted bidders, who receive invitation email to participate in subject tender from NTPC Corporate Contracts & Materials, Noida Office, shall be eligible to submit their Bid.

Any other Bidder(s) who is/are not shortlisted, shall not be considered and Bids of such Bidder(s) shall be summarily rejected during Techno-Commercial Evaluation.

The bidder should not be under any banning/suspension/withholding with NTPC Ltd. and Bids of such Bidder(s) shall be summarily rejected during Techno-Commercial Evaluation.

- H.** A complete set of Bidding Documents may be downloaded by any interested Bidder from the e-Tender Portal as per specified schedule. The tender is invited under e-tendering process. The bidders can enroll themselves on the website <https://eprocurentpc.nic.in/>. The use of Digital Signature Certificate (DSC) Class-3 key is mandatory for e-tendering activities. Accordingly, bidders should have Digital Signature Certificate (DSC) key of Class 3 to participate in e-tendering. Bidders, if required, can obtain DSC Class-3 key from agencies authorized by Govt. of India. The e-Tender Portal also has the user manuals with detailed guidelines on enrolment and participation in the bidding process.

No hard copy of Bidding Documents shall be issued. Bids shall be submitted only at the e-Tender Portal i.e. <https://eprocurentpc.nic.in/>

- I. Notwithstanding anything stated above, the Employer reserves the right to assess the capabilities and capacity of the Bidder/ his collaborators / associates/ subsidiaries/ group companies to perform the contract, should the circumstances warrant such assessment in the overall interest of the Employer.
- J. Only 'Class-I local suppliers'/'Class-I & Class-II local suppliers' are eligible to participate in this tender, as defined in the bidding documents/ Public Procurement (Preference to Make in India), Order 2017 and its subsequent amendments/ revisions issued by DPIIT. The bidders may apprise themselves of the relevant provisions of bidding documents in this regard before submission of their bids.

Minimum Local Content for class -I local supplier = 50%

Minimum Local Content Class -II local supplier = 20%.

- K. Any 'Bidder from a country which shares a land border with India', as specified in the Bidding Documents, will be eligible to bid in this tender only if bidder is registered with the Competent Authority as mentioned in the Bidding Documents.

Any bidder from India having specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India, will be eligible to bid only if the bidder is registered with the Competent Authority as mentioned in the Bidding Documents.

However, the said requirement of registration will not apply to bidders from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects.

- L. Transfer of Bidding Documents by one intending Bidder to another is not permissible.
- M. Downloading/Issuance of Bidding Documents and /or submission of Bid shall not construe that such Bidder is considered to be qualified.
- N. NTPC reserves the right to reject any or all bids or cancel/ withdraw the Invitation for Bids under subject IFB without assigning any reason whatsoever and in such case no bidder / intending bidder shall have any claim arising out of such action.
- O. NTPC reserves the right to impose additional performance security wherever required, at its discretion to safeguard the Company's interests for contract execution.

- P. Address for Communication/Correspondence:**

DGM (CS) / AGM(CS)
NTPC Limited,
6th Floor, Engineering Office Complex,
A-8A, Sector-24, NOIDA,
Distt. Gautam Budh Nagar, (UP), INDIA Pin - 201 301
Tel. No.: 0120 4946581, 4946535
E-mail:matamlathamma@ntpc.co.in/shrishksingh@ntpc.co.in
Websites : <https://eprocurentpc.nic.in/> or www.ntpctender.ntpc.co.in or www.ntpc.co.in

- Q. Registered Office**

NTPC Limited
NTPC Bhawan, SCOPE Complex,
7, Institutional Area, Lodi Road,
New Delhi – 110003

Corporate Identification Number: L40101DL1975GOI007966,
Website: www.ntpc.co.in

SECTION – II

INSTRUCTION TO BIDDERS

INSTRUCTIONS TO BIDDERS (ITB)

TABLE OF CLAUSES (ITB)

S. No.	Description
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1.0	INTRODUCTION
2.0	SOURCE OF FUNDS
3.0	CONFLICT OF INTEREST
4.0	BIDDER'S SITE VISIT
B.	BIDDING DOCUMENTS
5.0	CONTENT OF BIDDING DOCUMENTS
6.0	CLARIFICATION OF BIDDING DOCUMENTS
7.0	PRE-BID CONFERENCE(If specified in the NIT/Tender Enquiry/BDS)
8.0	ADDENDA/ CORRIGENDA/ AMENDMENTS TO BIDDING DOCUMENTS
C.	PREPARATION OF BID
9.0	COST OF BIDDING
10.0	LANGUAGE OF BID AND UNITS OF MEASURE
11.0	DOCUMENTS COMPRISING THE BID
12.0	BID PRICES AND PRICE BASIS
13.0	BID VALIDITY
14.0	BID SECURITY / GUARANTEE / EARNEST MONEY
15.0	WORK SCHEDULE
16.0	FORMAT AND SIGNING OF BID
D.	SUBMISSION OF BID
17.0	SEALING AND MARKING OF BID
18.0	DEADLINE FOR SUBMISSION OF BID
19.0	LATE BIDS
20.0	MODIFICATION, SUBSTITUTION AND WITHDRAWAL OF BIDS
E.	BID OPENING AND EVALUATION
21.0	BID OPENING
22.0	CLARIFICATION OF BIDS
23.0	EVALUATION AND COMPARISON OF BIDS
F.	AWARD OF CONTRACT
24.0	AWARD CRITERIA
25.0	EMPLOYER'S RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS
26.0	LETTER OF AWARD
27.0	CONTRACT PERFORMANCE SECURITY / INITIAL CONTRACT PERFORMANCE SECURITY
28.0	SIGNING OF CONTRACT AGREEMENT
29.0	INELIGIBILITY FOR PARTICIPATION IN RE-TENDER/ FUTURE TENDERS
30.0	ADHERENCE TO NTPC SAFETY RULES
31.0	Corrupt or Fraudulent Practices
32.0	BENEFITS ON CUSTOM DUTY
33.0	INTEGRITY PACT

34.0 Restrictions on procurement from a Bidder of a country which shares a land border with India

G. Other Instructions

35.0 **Anti-Bribery and Anti-Corruption (ABAC) Policy**

36.0 Annulment of Award

37.0 **Declaration regarding insolvency, bankruptcy and Liquidation**

	INSTRUCTIONS TO BIDDERS (ITB) PART A - GENERAL
1.0	INTRODUCTION
1.1	NTPC Limited, (hereinafter called “NTPC” or “Employer”) wishes to receive bids for the Package named in Bid Data Sheet.
1.2	Throughout these Bidding Documents, the term “Bid” and “Tender” and their derivatives (Bidder/Tenderer, Bidding/Tendering, Bidding Document/Tender Document, etc.); Bill of Quantity / Schedule of Quantity / Schedule of Quantities/ Bill of Quantities; Employer / NTPC; Bid Security / Earnest Money Deposit; Security Deposit / Performance Security/ Performance Guarantee; Engineer-in-Charge / Engineer, appearing any where in the Bidding Documents shall have the same meaning and are synonymous to each other.
2.0	SOURCE OF FUNDS
2.1	Expenditure under this package is intended to be funded from internal resources and/ or borrowings by the Employer.
3.0	CONFLICT OF INTEREST
3.1	A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Employer’s interests. A bidder may be considered to have a conflict of interest with one or more parties in the bidding process, if: a) they directly or indirectly control, or are controlled by or are under common control of another entity; or b) they have the same legal representative/agent for purposes of their bids; or c) they have relationship with each other, directly or through common third party(ies), that puts them in a position to have access to information about or influence on the bid of another Bidder; or d) Bidder and/or any of its allied entity(ies), which directly or indirectly control(s) or is(are) controlled by or is(are) under common control of another entity, has(ve) participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the tender; or e) Bidder participates in more than one bid in this bidding process. For the purposes of this clause the term ‘control’ shall have the following meaning: “Control” shall include the right to appoint majority of the directors or to control the management or policy decisions exercisable by a person or persons acting individually or in concert, directly or indirectly, including by virtue of their

	shareholding or management rights or shareholders' agreements or voting agreements or in any other manner. Note: If two or more CPSEs/State PSEs participate in a tender, they will not be deemed to fall under the 'Conflict of Interest' provisions solely because they are under common control of Government of India / State Government.
3.2	Bidders shall certify their compliance to ITB Clause "Conflict of Interest" by accepting the following General Technical Evaluation (GTE) of the Tender at eTender Portal: "Do you certify full compliance to all provisions of Bidding Document?" Acceptance of above GTE shall be considered as Bidder's confirmation that Bidder has read and understood the ITB Clause regarding "Conflict of Interest" and its bid is in compliance to this clause. In case it is established that Bidder has provided any false information in pursuance of the aforesaid ITB Clause, while competing for this contract, then its bid shall be rejected and bid security shall be forfeited. In case of a successful bidder, if it is established that the Bidder has not complied with terms of aforesaid ITB Clause, during execution of contract, this would be considered as fraudulent practices as mentioned in para 5.1 (j) of "Policy for Debarment from Business Dealings" and shall be dealt accordingly.
4.0	BIDDER'S SITE VISIT
4.1	The Bidder is advised to visit and examine the site where the work is to be executed and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for execution of the facilities. The costs of visiting the site shall be borne by the bidder fully.
4.2	The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such inspection, but only upon the express condition that the Bidder, its personnel and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of the inspection.
	PART B - BIDDING DOCUMENTS
5.0	CONTENT OF BIDDING DOCUMENTS
5.1	The set of Bidding Documents issued for the purpose of bidding includes the following, which should be read in conjunction with amendments, if any, issued in

	accordance with ITB Clause 8.0 below. Section I Invitation for Bids (IFB)/ Notice Inviting Tender (NIT) II Instructions to Bidders (ITB) III Bid Data Sheet (BDS) IV General Conditions of Contract (GCC) V Special Conditions of Contract (SCC) VI Technical Specifications and Scope of Work VII Schedule of Quantities (SOQ) VII Forms and Procedures
5.2	The Bidder is expected to examine all instructions, forms, terms, conditions and specifications in the Bidding Documents, before submission of his bid. Failure to furnish all information or documentation required by the Bidding Documents may result in the rejection of such bid.
5.3	Bid Drawings The Bidder is requested to refer the Technical Specifications for the provisions in this regard.
6.0	CLARIFICATION OF BIDDING DOCUMENTS
6.1	A prospective Bidder requiring any clarification to the bidding documents may notify the Employer through 'Seek Clarifications' tab under e-Tender portal_or through_e-mail at the address indicated in Bid Data Sheet (BDS). Employer will respond to any request for clarification or modification of the bidding documents that it receives no later than last date of receipt of queries as specified in Invitation for Bids (IFB). Employer will post the clarifications at e-tender portal and Bidder can view these clarifications once they are posted at e-tender portal. Bidders are also advised to regularly check the e-tender portal regarding posting of clarification, if any. Further, no queries from Bidders shall be entertained after last date of receipt of Queries/ Pre-Bid Conference (if applicable) as specified in IFB. Accordingly, any query (ies) received from Bidders after the cut-off date shall not be considered and bidders to submit the bid based on the bidding documents (and amendments/ Errata/ Clarifications etc. thereof) issued.
7.0	PRE-BID CONFERENCE -NOT APPLICABLE
7.1	The Bidder or his authorised representative (s) is invited to attend the pre-bid conference which will take place as per details stipulated in Bid Data Sheets.

	Bidders are advised to visit and examine the site during the pre-bid conference, regardless of their visit to site earlier. The purpose of the conference will be to clarify package related issues and to respond to the Bidder's queries, which may arise from the Bidding Documents, site visit etc.
7.2	The Bidder is requested to submit questions ~~in writing or~~ by email so as to reach the Employer at the address indicated in BDS, not later than the date as specified in IFB. Employer's responses to the queries raised by the bidders shall be in the form of Clarification to the bidding documents, which will be uploaded / hosted on the e-tender portal. Any queries submitted by Bidder after the specified last date shall not be responded to by Employer and the Bidder will be required to submit their bid based on the Bidding documents read in conjunction with Amendments/ Clarifications/ Errata thereof.
7.3	Any modifications of the Bidding Documents which may become necessary as a result of the pre-bid conference shall be made by the Employer exclusively through an amendment to the bidding documents.
7.4	Non-attendance at the pre-bid conference will not be a case for disqualification of a bidder, However, Bidder is expected to visit and examine the site to acquaint itself with the ground situations and attend the pre-bid conference subsequently.
8.0	ADDENDA/ CORRIGENDA/ AMENDMENTS TO BIDDING DOCUMENTS
8.1	Addenda/ Corrigenda/ Amendment to the Bidding Documents may be issued prior to the date of opening of the Techno-Commercial bids to clarify or effect modification in specification and/or Contract terms included in Bidding Documents. The bidder shall suitably take into consideration such Addenda/ Corrigenda/ Amendment while submitting his bid. The addenda corrigenda/ amendment shall be posted at e-tender portal for viewing by the bidder. The addenda/ corrigenda/ amendments will be binding on Bidders and it will be assumed that the information contained therein will have been taken into account by the Bidder in bid. Bidders are also advised to regularly check at e-tender portal regarding posting of addenda/ corrigenda/ amendment if any.
8.2	In order to provide reasonable time to prospective Bidder for taking an Addenda/Corrigenda/ Amendment into account for preparing his bid, the Employer may, at its discretion, extend the deadline for the submission of bid in accordance with ITB Clause 18.0.
	PART C - PREPARATION OF BID

9.0	COST OF BIDDING
9.1	The Bidder shall bear all costs associated with the preparation and submission of his bid and the Employer will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.
10.0	LANGUAGE OF BID AND UNITS OF MEASURE
10.1	The bid and all correspondence and documents relating thereto exchanged by the Bidder and the Employer shall be written in English. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an appropriate translation of passages into English, in which case, for the purpose of interpretation of the bid such translations shall govern. The English Translation of the documents shall be carried out by professional translators and the translator shall certify that he is proficient in both languages in order to translate the document and that the translation is complete and accurate. Further, translation shall be authenticated by the Indian Consulate located in the Country where the documents have been issued or the Embassy of that Country in India.
10.2	The units of measurement shall be metric system of measures, unless otherwise specified elsewhere.
11.0	DOCUMENTS COMPRISING THE BID
11.1	The bidder has to submit Techno-Commercial Bid and Price Bid through website portal https://eprocurementpc.nic.in/ (electronic mode) only. In addition, the documents mentioned in clause no. 11.1.1[A] have to be submitted in Original in physical mode before the last date & time of submission of bid. To submit their bid through electronic mode, bidder has to use their digital signature certificate keys. The bidders are requested to download the entire bidding documents from the website https://eprocurementpc.nic.in/ , within the date and time as specified in the Invitation for Bids (IFB), after online registration in the above website.
11.1.1	Envelope-I: Techno-Commercial Bid The Techno-Commercial Proposal comprises of following two categories of documents: [A] Documents to be submitted in PHYSICAL FORM in separate sealed envelope(s): (a) Attachment 1: Bid Security (If specified in NIT/IFB/Tender Enquiry): Bid Security shall be submitted in accordance with ITB Clause 14.

	(a1) DELETED (b) Attachment-2: Documents related to legal status of Bidder. Documents relating to legal status of the bidder shall be submitted in accordance with ITB Clause No. 11.2(b). (c) Attachment-3D: Declaration regarding insolvency, bankruptcy and Liquidation (d) Other attachments as specified in BDS [B] Documents to be submitted ONLINE AT E-TENDER PORTAL The Bid Form as per Section-VIII, duly completed together with the attachments mentioned in ITB Clause 11.2 shall be uploaded on the e-tender portal (https://eprocurementpc.nic.in/) in Pre-Qual/Technical Cover/Envelope
11.1.2	The Techno-Commercial Bid should not contain any price content entry. In case, the Techno-Commercial Bid is found to contain any price content, such bid shall be liable for rejection.
11.1.3	Price Bid Schedule of Quantities/ Bill of Quantities (BOQ.XLS FILE- To be uploaded on- line in Finance Cover/Envelope).
11.1.4	Price Bid should not contain any matter in respect of Technical and / or Commercial aspects other than the details specifically sought in the Price Bid. If the Technical/commercial matters indicated in Price Bid are found to be in contradiction with the details furnished in Techno-Commercial Bid, the details furnished in Techno-Commercial Bid shall prevail.
11.1.5	General Technical Evaluation (GTE) Conditions: Bidders shall be required to accept the mandatory General Technical Evaluation (GTE) condition, if any, of the Tender at e-Tender Portal prior to the submission of Bid.

11.2	Each Bidder shall submit his bid together with the following attachments to the Bid Form for “ (TECHNO-COMMERCIAL) & (PRICE)” in the manner specified at ITB clause 11.1.1: (a) Attachment 1: Bid Security Bid Security shall be furnished in accordance with ITB Clause 14 in a separate sealed envelope. Bid not accompanied by the requisite Bid Security in a separate sealed envelope, or bid accompanied by Bid Security of insufficient value, shall not be entertained and in such case, the bid shall be returned to the Bidder without being opened pursuant to ITB Sub-Clause 14.4. (b) Attachment 2: Documents related to legal status of Bidder The Bidder and his associate, as the case may be, shall furnish the following declarations, information, legal documents so as to ascertain his/their legal status and to check that the person(s) signing the bid has/have the authority to sign the bid; and thus that the bid is binding upon the Bidder and his associate during the full period of its validity in accordance with ITB Clause No.13. 1. In case of Sole Proprietorship Concern i) The full name of an individual proprietor, his/her parentage, documentary proof of his/her age, permanent address and present postal address/ contact details. ii) A deed of declaration by the Proprietor, that no other individual or company has any share in the concern. 2. In case of Partnership Firm i) Certified photocopy of the Partnership Deed, with upto date amendments (if any). ii) Registration certificate issued by the Registrar of Firms concerned. iii) In case of change in the constitution of the firm due to retirement or death or addition of an incoming partner, photocopy of Deed of Dissolution, fresh registration Certificate and the fresh / extant Partnership Deed, as applicable. 3. In case of Private Limited Companies i) Certified to be true and upto date amended copy of Memorandum and Articles of Association of the Company.

	ii) Certificate of incorporation of the Company. iii) Board resolution authorising the Executive Director(s) to sign the bid/ execute contracts/agreements etc. and affix common seal thereon in accordance with the provision of Articles of Association of the Company. OR Original Power of Attorney issued by Competent Officer under the common seal of the Company, authorising the person to sign the bid/ execute contracts/agreements etc. 4. In case of Public Limited Companies and Statutory Corporations. i) Certified to be true copy of Memorandum and Articles of Association of the Company and/or the relevant Statute/Act. ii) Certificate of Incorporation of the company - In case of public limited Co. only. iii) Certificate of Commencement of Business - In case of public limited Co. only. iv) Board resolution authorising the Director(s)/ Executive Director(s) to sign the bid/ contracts/agreements and affix common seal thereon in accordance with the provisions of Article of Association of the Company. OR Original Power of Attorney issued by Competent Officer under the common seal of the Company authorising the person to sign the bid/ execute contracts/agreements etc. 5. Deleted (c) Attachment 3: Deleted (c1) Attachment 3A: Deleted (c2) Attachment 3B: Certificate Regarding Ownership change Declaration by the Bidder conforming that they do not anticipate any in change ownership during proposed period of execution of the work (if such a change is anticipated, the scope and effect there of shall be defined).

(d) **Attachment 4: Deleted**

(e) **Attachment 5: Deleted**

(f) (i) **Attachment 6: Equipment/ Machinery deployment Schedule**

The Bidder shall indicate the quantum and schedule of the equipment/ machinery/ lab equipment etc. he proposes to deploy for the work under this bid.

(ii) **Attachment 6A: Deleted**

(g) **Attachment 7: Subcontractors Proposed by the Bidder**

The Bidder shall furnish the names of the agencies for each sub-contract(s) alongwith the broad scope of work for each of the sub-contracting works proposed for subcontracting. The Bidder shall not propose sub-contracting of the whole of the Works. The subcontracting of Work shall preferably be of a sizeable quantum of work in specific work areas. While proposing the sub-contractor(s), Bidder should consider the progress/ requirements as per work schedule and accordingly assess the capacity & capability of the agency(s). The Bidder shall also furnish the complete credentials of each of the agencies in Attachment- 7 which inter-alia shall include the following:

(i) Details of similar works executed in Industrial/Infrastructure projects in the last seven (7) years including achievements. Details shall clearly indicate the name, address & contact details of the client, period of execution, the nature/scope of work, major civil/structural/ architectural quantities in his scope and physical progress achieved on monthly/yearly basis.

(ii) List of plant & equipment proposed for deployment indicating whether the plant & equipment are lying idle and/or will be diverted from other works indicating likely date of release by client.

(iii) Details of technical manpower available for deployment.

(iv) Details of financial status for last three (3) years.

(v) Letter of confirmation from the proposed sub-contractor, signifying his confirmation to execute the work.

(h) **Attachment 8: Deleted**

(i) **Attachment 9: General Declaration of Bidder-Not Applicable**

11.2.1	Declaration that the Bidder has carefully examined the Bidding Documents in totality and his authorised personnel have visited the site for assessment of all factors for the purposes of bidding. (j) Attachment 10: Deleted (k) Attachment 11: Deleted ~~(l) Attachment 12: Deleted~~ (m) Attachment 13: Electronic Fund Transfer Authorization Form Authorisation Form for release of payments through Electronic Fund Transfer System. (n) Attachment 14: DELETED (o) Attachment 15:-DELETED (p) Attachment 16 : DELETED (q) Attachment 17: DELETED (r) Attachment 18: Integrity Pact (if applicable and as specified in BDS) (s) Attachment 19: DELETED (t) Attachment 20: DELETED (u) Attachment 21: Deleted Other Attachments, if any, shall be as stipulated in BDS. General Technical Evaluation (GTE) Conditions: Bidders shall be required to accept the following mandatory General Technical Evaluation (GTE) condition of the Tender at e-Tender Portal prior to the submission of Bid: Do you certify full compliance to all provisions of Bidding Document?"

	By accepting above GTE, Bidder shall certify their compliance to all provisions of Bidding Documents including but not limited to the following important provisions: (a) Deleted (b) Fraud Prevention Policy of NTPC. (c) Policy for Debarment from Business Dealings of NTPC. (d) ITB Clause "Restrictions on procurement from a Bidder of a country which shares a land border with India" (e) All provisions of the Integrity Pact (if applicable) (f) Anti-Bribery and Anti-Corruption (ABAC) Policy of NTPC (g) Policy for Conflict of Interest of NTPC. (h) Declaration regarding insolvency, bankruptcy and Liquidation (i) Declaration regarding Minimum Local Content (j) Declaration regarding Power of Attorney Acceptance of above GTE shall be considered as Bidder's confirmation that any deviation to the provisions of Bidding Documents found anywhere in their Bid Proposal, implicit or explicit, shall stand unconditionally withdrawn, without any cost implication whatsoever to the Employer, failing which the bid shall be rejected and bid security shall be forfeited. Note: Techno-Commercial Bid should not contain any price content entry. In case, the Techno-Commercial Bid is found to contain any price content, such bid shall be liable for rejection.
11.3	Filling the information in the attachments with answers like "shall be given later" "or" "shall be mutually discussed and finalised" or "information already submitted at the time of enlistment" etc. shall not be accepted. Even if the information required in the attachments has been given in response to any other recent invitation for bids of the Employer or in some other reference, it is mandatory for the Bidder to give the information along with his bid as asked for. Non-compliance with the above or leaving the attachment(s) blank may lead to the rejection of the bid. The information furnished by the Bidder should be consistent, correct and true. The Employer reserves the right to verify the information given and if found incorrect, the bid may be rejected.
12.0	BID PRICES AND PRICE BASIS
12.1	The currency of the bid and currency of payment shall be Indian Rupees.
12.2	The rates/prices quoted in the Schedule of Quantities shall also be deemed to include any incidentals not shown or specified but reasonably implied or necessary for the proper completion and functioning of the specified Works in accordance with the Bidding Documents. Bidders are advised to price their bids in such a manner that the component for 'Amount linked to Safety Aspects/ compliance to Safety Rules' should not be

	less than the minimum percentage (as specified in BDS) of the total Contract price. Items of the work described in the Schedule of Quantities for which no rate or price has been entered therein by the Bidder, shall also be considered as an abnormally quoted item and shall be governed by the relevant provisions of ITB Sub-Clause 23.4 titled as “ABNORMALLY HIGH OR LOW RATED ITEMS”.
12.3	The rates/amount quoted in the Schedule of Quantities shall be inclusive of all taxes, duties, levies, fees, royalty, etc., except Goods and Service Tax (GST). The Goods and Services Tax (GST) applicable on all items of Works described in the Schedule of Quantities, shall be quoted separately in the Schedule of Quantities under the relevant Head/Column.. The GST quoted by the bidder shall be as applicable in the Employer’s country as on seven (7) days prior to the deadline for submission of Price Bids. Due Input Tax credits under GST as per the relevant Govt. Policy, wherever applicable, shall be taken into account by the Bidder while quoting his price. In case Bidder has quoted GST rate as ‘0’/Blank’/’Not Applicable’, the quoted price shall be considered as inclusive of GST as applicable. Accordingly, in case of consideration of award, the revised basic price shall be derived by deducting the applicable GST, at the rate prevailing as on seven (7) days prior to the date of opening of Techno-commercial Bids from the quoted price in BOQ.XLS.
12.4	The award of the Contract shall be on 'Works Contract' basis. The Employer shall bear and pay/reimburse to the Contractor Goods and Services Tax (GST) applicable on the items of Works Contract described in the Schedule of Quantities. However, the taxes, duties & levies as may be applicable on the materials used for Works Contract shall be to the contractor's account and no separate claim in this regard will be entertained by the Employer. Further, in case of any variation in the rates of the GST after the date seven (7) days prior to deadline set for submission of the Techno-Commercial bids, the same shall be paid/ reimbursed to/ recovered from the Contractor subject to submission of documentary evidence.
12.5	It shall be incumbent upon the successful Bidder to obtain a registration certificate under the GST Law, and other law(s) relating to levy of tax, duty, cess etc. and necessary evidence to this effect shall be furnished by the successful Bidder to the Employer. If the successful Bidder intends to engage itself in quarrying or mining of soil/earth, sand, stone/aggregates, metals, minerals or minor minerals required for the Works, as the case may be, it shall obtain necessary permits under the applicable law for such mining or quarrying from the State/Central Government authorities and pay the fee or charges applicable thereto.
12.6	The Bid Price shall also be inclusive of any Royalties or Seigniorage Fee or Cess or other charges payable on the quarried or mined metal, minerals, or minor minerals, as the case may be, at the rate(s) prevailing as on seven (7) days prior to the deadline set for Price Bid submission.

12.7	If a new tax, duty or levy is imposed under statute or law in India after the date seven (7) days prior to date of Price bid submission deadline and the successful bidder becomes liable there under to pay and actually pays the said new tax, duty or levy for bonafide use on the Works contracted, the same shall be reimbursed to the Successful Bidder against documentary evidence of proof of payment, provided that the amount thus claimed is not paid/payable under price variation provision of the Contract.
12.8	The payment/reimbursement of statutory variations in the rates of tax and/or of new tax, duty or levy imposed under statute or law in India as per ITB Sub-Clauses 12.4, 12.5, 12.6 and 12.7 above, would be restricted only to direct transactions between the Employer and the successful bidder.
12.9	The Employer shall be entitled to make necessary tax deductions at source as per the prevalent laws. The Contractor shall be required to submit the PAN details to the Engineer-in-Charge before the submission of the first bill.
12.10	The Bidder shall himself be informed of all the applicable laws, notifications, rules, circulars and other communications of the State or Central or other authorities with regard to levy of any tax, duty, cess, levy or fee such that his bid prices take into account all of them.
12.11	Unless otherwise provided in the Bid Data Sheet and Special Conditions of Contract, the rates and prices quoted by the Bidder will be subject to adjustment for price escalation during the performance of the Contract in accordance with GCC Clause 25. Any bid stipulating Price Adjustment provisions other than those specified in GCC Clause 25/SCC shall run the risk of rejection.
12.12	In case 'Amount linked to Safety Aspects / compliance to Safety Rules' is less than aforesaid minimum percentage specified of the total Contract Price, the amount by which it is lower shall be retained proportionately from the other components of the Contract price while releasing payments of each RA bill. No interest shall be payable on the amounts linked to Safety Aspects / Compliance to Safety Rules including aforesaid retained amount. The amounts linked to Safety Aspects / Compliance to Safety Rules including aforesaid retained amount shall be payable in part or full based on safety compliance duly certified by EIC and Safety-in-charge on quarterly basis.
13.0	BID VALIDITY
13.1	The bidder shall initially keep his bid (both Techno-Commercial Bid and Price Bid) valid for a Period of 120 days from the date of opening of Techno-commercial Bid. The bidder agrees not to vary, alter or revoke his bid either in whole or in part during that period.
13.2	In exceptional circumstances, prior to the expiry of the original bid validity period, the Employer may request the Bidders to extend the period of validity for a

	specified additional period. The request and the responses thereto shall be made in writing. A Bidder agreeing to the request will not be permitted to modify his bid.
14.0	BID SECURITY / GUARANTEE / EARNEST MONEY
14.1	The Bidder shall furnish, as part of its Bid, a Bid Security in a separate sealed envelope in the amount and currency as stipulated in the Bid Data Sheet (BDS). In case bid security amount is deposited as EFT, Proof of e-payment of Bid Security, shall be submitted in the e-tendering portal or in a separate sealed envelope.
14.2	The Bid Security shall, at the Bidder's option, be in the form of e-BG, Electronic Fund Transfer (EFT)/ irrevocable Letter of Credit or a bank guarantee from any of the banks specified in the Bid Data Sheets or an Insurance Surety Bond from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI). For the Bid Security amount up to Rs. 1,00,000/- (Rupees One Lacs only), the Bidders must submit the Bid Security amount through Electronic Fund Transfer (EFT) only. Upon successful e-payment of the Bid Security on the NTPC e-tender portal, an e-receipt shall be generated by the system, a copy of which is to be submitted by the bidder as a part of its bid, in the e-tendering portal or in a separate sealed envelope, as a proof of e-payment of Bid Security. The format of the Bank Guarantee/ Insurance Surety Bond shall be in accordance with the form of bank guarantee/ Insurance Surety Bond towards bid security included in the Bidding Documents. The Bank Guarantee/ Insurance Surety Bond shall be issued on Non-Judicial stamp paper/e-stamp paper of appropriate value as per applicable Stamp Act(s). Bid Security shall remain valid for a period of forty-five (45) days beyond the original Bid validity period and beyond any extension of bid validity subsequently requested under relevant clause of ITB.
14.3	Deleted
14.4	ANY BID NOT ACCOMPANIED BY AN ACCEPTABLE BID SECURITY IN A SEPARATE SEALED ENVELOPE SHALL BE REJECTED BY THE EMPLOYER AS BEING NON-RESPONSIVE. IN CASE, THE BID SECURITY IS SUBMITTED AS E-BG/ THROUGH ELECTRONIC FUND TRANSFER (EFT), BIDDER TO SUBMIT THE COPY OF E-BG/PROOF OF E-PAYMENT OF BID SECURITY EITHER IN SEPARATE SEALED ENVELOPE OR IN THE E-TENDERING PORTAL.
14.5	Deleted

14.6	Subject to clause 14.8 below, the Bid Security of the Bidder whose Techno-Commercial Bid has not been found acceptable, shall be returned along with letter communicating rejection of Techno-Commercial Bid. The Bid Security of the bidders who are unsuccessful after opening of Price Bids shall be returned expeditiously after placement of award on successful bidder.
14.7	The Bid Security of the successful Bidder to whom the contract is awarded will be returned when the said Bidder has signed the Contract Agreement and has furnished the required Performance Securities pursuant to relevant clauses of ITB.
14.8	The Bid Security may be forfeited a) If the Bidder withdraws or varies its Bid during the period of Bid validity; b) If the Bidder does not accept the correction of its Bid Price pursuant to ITB Sub- Clause for Arithmetical Correction. c) If the Bidder refuses to withdraw, without any cost to the Employer, any deviation, variation, additional condition or any other mention anywhere in the bid (Price bid in case of Two Stage Bid), contrary to the provisions of bidding documents; d) In the case of a successful Bidder, if the Bidder fails within the specified time limit to furnish the required Contract Performance Guarantee/Security Deposit in accordance with relevant clause of ITB. e) If the bidder/his representatives commits any fraud while competing for this contract pursuant to Fraud Prevention Policy of NTPC (f) In case the Bidder/Contractor is disqualified from bidding process in terms of Section 3 and 4 of Integrity Pact (IF APPLICABLE). (g) Any suppression of material fact or false declaration regarding Insolvency, bankruptcy and Liquidation proceeding against Bidder, Associate, Collaborator or Technology Provider.
14.9	CONFIRMATION OF PHYSICAL BGS THROUGH STRUCTURED FINANCIAL MESSAGING SYSTEM (SFMS)/ SWIFT (Not applicable for e-BGs through NESL platform) While issuing the physical BGs, the Bidder's Bank shall also send electronic message through secure SFMS (in case of BGs issued from

	within India) or SWIFT (in case of BGs issued from outside India) to Employer's Beneficiary Bank whose details are provided herein below: (i) Bank Name: ICICI Bank Limited (ii) Branch: CONNAUGHT PLACE BRANCH (iii) Bank Address: 9A, PHELPSBUILDING, INNER CIRCLE, NEW DELHI- 110001 (iv) IFSC Code: ICIC0000007 BG issuing/amending bank must send the BG advice in the form of message format via SFMS (Structured Financial Messaging System) as provided by RBI. The format of the message for confirmation of the BG shall be as below: BG advising message: IFN 760COV/ IFN 767COV via SFMS Field Number: Particulars (to be mentioned in Row 1) 7037: NTPCBG (unique identifier)
14.10	In case of Bidders opting for physical Bank Guarantee as Bid Security but unable to submit the Original Bank Guarantee at the tender opening location, before the deadline for submission of bids, following shall also be considered acceptable subject to para 14.11 below: (i) The issuing bank shall intimate through their own official e-mail id to concerned C&M department with a copy to Bidder regarding issuance / extension of Bank Guarantee (BG) along with following documents, before the deadline of submission of bids: - a) The scanned copy of the BG. b) SFMS / SWIFT message acknowledgement copy sent to Employer / Employer's banker stating the date of sending. c) An undertaking from the issuing Bank strictly as per format enclosed at Annexure-A to BDS. SFMS / SWIFT message must be sent to the Employer/Employer's bank, details of which are mentioned in Bidding documents. (ii) Bidders shall also be required to upload the scanned copy of the BG on e-Tender Portal in Fee Cover.
14.11	The bidder shall be required to submit all the documents in the manner as specified at para 14.10 above, to reach Employer before the deadline for submission of bids, failing which its bid shall be rejected as being non-responsive.

	In such a case, Bidder shall also be required to submit the Original BG in physical form to reach Employer at the address mentioned in Bidding Documents, not later than 10 days from the date of submission of Techno-Commercial bids or before the Price Bid opening, whichever is earlier, failing which its bid shall be rejected and not considered for further evaluation.
15.0	WORK SCHEDULE The entire Work covered under the contract of this bid shall be completed within the time specified in the Bid Data Sheet and further elaborated in the Technical Specifications. The Work shall be performed in time and to achieve the targets, the Contractor shall have to plan adequate mobilisation of all resources. List of equipment, construction methodology, site organisation setup and a detailed Work Schedule shall be discussed with the successful Bidder after the award of the Contract and agreed to and such agreed Work Schedule shall form part of Contract Agreement.
16.0	FORMAT AND SIGNING OF BID The bid including all documents uploaded at e-tender portal shall be digitally certified using class-III Digital signature by a duly authorized representative of the Bidder to bind him to the contract. By accepting the General Technical Evaluation as per ITB Clause 11.2.1, the Bidder certifies that the person who has digitally signed and submitted the bid is duly authorized through a valid Power of Attorney to act and submit the bid on behalf of the Bidder.
	PART D - SUBMISSION OF BID
17.0	SEALING AND MARKING OF BID Bid shall be submitted through e-tender mode in the manner specified elsewhere in bidding document. No Manual/ Hard Copy of the Bid shall be acceptable. <u>Bidder should note that file related to particular Attachment/ Schedule including their annexures/ appendices, if any, shall be given name of that Attachment/ Schedule only. Bidders to further ensure that documents uploaded online are being downloaded properly; Employer shall not be responsible for corrupt files, if any.</u>
17.1	Documents to be submitted in physical form (as brought out at ITB clause 11.1) shall be sealed and marked in the following manner: (i) The bid security furnished in accordance with ITB Clause 14 shall be sealed in a separate envelope duly marking the envelope as "ATTACHMENT-1: BID SECURITY". (ii) Deleted

	(iii) Deleted (iv) Deleted (v) Deleted (vi) Deleted”
17.2	The envelope shall: (a) be addressed to the Employer at the address given in the Bid Data Sheet, and (b) bear the Package name indicated in the Bid Data Sheet, the Invitation for Bids number indicated in the Bid Data Sheet, and the statement “DO NOT OPEN BEFORE [date],” to be completed with the time and date specified in the Bid Data Sheet, pursuant to ITB clause 21.0.
17.3	Deleted
17.4	If the envelope is not sealed and marked as required by ITB Sub-Clause 17.2 above, the Employer will assume no responsibility for its misplacement.
17.5	Any future correspondence shall be submitted at the address referred at ITB Sub-Clause 17.2.
18.0	DEADLINE FOR SUBMISSION OF BID
18.1	Bids must be submitted online no later than the time and date stated in the Bid Data Sheet. Original Bid Security to be submitted shall be submitted in physical form before stipulated bid submission time at the address specified in BDS. Employer shall not be liable for loss/non-receipt/late receipt of above documents in postal transit.
18.2	EMPLOYER may, at its discretion, extend this deadline for submission of bids by amending the bidding documents in accordance with ITB Sub-Clause 8.0, in which case all rights and obligations of Employer and Bidders will thereafter be subject to the deadline as extended.
19.0	LATE BIDS Not Accepted.
20.0	MODIFICATION, SUBSTITUTION AND WITHDRAWAL OF BIDS

20.1	The bidder may withdraw or modify its bid after the bid submission as per provision available in the web site. However, no bid can be withdrawn or modified subsequent to the deadline prescribed for submission of bids.
20.2	DELETED
20.3	DELETED
20.4	Withdrawal, cancelling or varying any terms in regard thereof of a bid during the interval between the deadline for the submission of Bids and the expiration of the period of bid validity specified in ITB Clause 13.0 above shall result in the forfeiture of the Bid Security pursuant to ITB Clause 14.0 above.
PART E - BID OPENING AND EVALUATION	
21.0	BID OPENING The bids will be opened at the time, date and location notified in the Bid Data Sheet, in the presence of the Bidder's authorised representatives (not exceeding two per Bidder) who choose to attend. All important information and any such other detail, as may be considered appropriate by the Employer will be read out during the bid opening.
21.1	Techno-Commercial Bid Opening
21.1.1	The Employer will first open Techno-Commercial Bid in the presence of bidders' representatives who choose to attend the opening at the time, on the date and at the place specified in the Bid Data Sheet. In the event of the specified date for the opening of bids being declared a holiday for EMPLOYER, the bids will be opened at the appointed time on the next working day. All important information and other such details as EMPLOYER, at its discretion, may consider appropriate, will be announced at the opening.
21.1.2	In case requisite bid security are not submitted before the stipulated bid submission closing date and time then Bid shall be rejected by EMPLOYER as being non-responsive and shall not be opened.
21.1.3	The Price Bid will remain unopened and the date and time for opening of price bids shall be intimated separately by EMPLOYER after completion of evaluation of Techno-Commercial Bids.
21.2	Price Bid Opening
21.2.1	After the evaluation process of Techno-Commercial bid is completed, Employer will inform in writing the eligible Bidders regarding date, time and venue set for the opening of Price Bid.

	Bidders, whose Techno-Commercial Bid is not substantially responsive or does not meet the Qualification Requirements set forth in the bidding documents or who are debarred under Employer's Policy for Debarment from Business Dealings relating to some other tender/contract, shall also be informed in writing that their bid has been rejected and their bid security shall be returned, in accordance with ITB clause 14.6
21.2.2	Price bids of those Bidders, who have been considered qualified and whose Techno-Commercial Bid found to be responsive, will be opened online in presence of the Bidder's authorised representatives who choose to attend.
21.2.3	The participating bidders will be able to view the bid prices of all the bidders at e-tender portal after online opening of Price Bids by Employer.
22.0	CLARIFICATION OF BIDS
22.1	During the bid evaluation, the Employer may, at its discretion, ask the Bidder for a clarification of its bid including documentary evidence. The request for clarification and the response shall be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.
22.2	Subject to ITB Clause 22.1, no Bidder shall contact Employer on any matter relating to its bid, from the time of the opening of bids to the time the contract is awarded. Any effort by a Bidder to influence Employer in bid evaluation, bid comparison or contract award decisions may result in rejection of the Bidder's bid.
23.0	EVALUATION AND COMPARISON OF BIDS
23.1	EVALUATION OF TECHNO-COMMERCIAL PROPOSALS INCLUDING QUALIFICATION DATA
23.1.1.1	The Employer will initially determine whether each Techno-Commercial bid is of acceptable quality, is generally complete and is substantially responsive to the Bidding Documents. For purposes of this determination, a substantially responsive bid is one that conforms to all the terms, conditions and specifications of the Bidding Documents without material deviations, objections, conditionalities or reservations. A material deviation, objection, conditionality or reservation is one (i) that affects in any substantial way the scope, quality or performance of the contract; or (ii) that limits in any substantial way, inconsistent with the Bidding Documents, the Employer's rights or the Bidder's obligations under the contract; or (iii) whose rectification would unfairly affect the competitive position of other Bidders who are presenting substantially responsive bids.
23.1.1.2	Compliance with the provisions of the bidding document No deviation, whatsoever, is permitted by the Employer to the provisions of Bidding Documents. The Bidders are advised that while making their Bid proposals and quoting prices, all conditions may appropriately be taken into consideration. Bidders are required to certify their full compliance to the complete Bidding

	Documents and its subsequent Amendment(s) / Clarification(s) / Addenda / Errata if any, issued by the Employer by accepting the following General Technical Evaluation (GTE) of the Tender at https://eprocurementpc.nic.in/: “Do you certify full compliance to all provisions of Bid documents ?” Acceptance of the above attribute shall be considered as Bidder's confirmation that any deviation to any Provisions found anywhere in their Bid Proposal, implicit or explicit, shall stand unconditionally withdrawn, without any cost implication whatsoever to the Employer, failing which the bid shall be rejected and bid security shall be forfeited.
23.1.1.2.1	Bidders shall certify their compliance to ITB Clause “Restrictions on procurement from a Bidder of a country which shares a land border with India” by accepting the following General Technical Evaluation (GTE) of the Tender at https://eprocurementpc.nic.in/: “Do you certify full compliance to all provisions of Bid documents?” Acceptance of above attribute shall be considered as Bidder's confirmation that Bidder has read and understood the ITB Clause regarding “Restrictions on procurement from a Bidder of a country which shares a land border with India” and its bid is in compliance to this clause. In case it is established that Bidder has provided any false information in pursuance of the aforesaid ITB Clause, while competing for this contract, then its bid shall be rejected and bid security shall be forfeited. In case of a successful bidder, if it is established that the Bidder has not complied with terms of aforesaid ITB Clause, during execution of contract, this would be considered as fraudulent practices as mentioned in 5.1 (j) of “policy for debarment from business dealings” and shall be dealt accordingly.
23.1.1.3	The Employer’s determination of a bid’s responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence. If a bid is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by the Bidder by correction of the nonconformity.
23.1.2	Deleted
23.1.3	An affirmative determination will be a prerequisite for opening of Price Proposal. A negative determination will result in rejection of the Bidder’s Techno-Commercial Bid in which event the earlier submitted Price Bid of the Bidder shall not be opened.
23.1.4	The capabilities of the vendors and subcontractors, proposed in Attachment-7, may also be evaluated for acceptability. Should a vendor or subcontractor be determined to be unacceptable, the Bidder will be required to substitute an acceptable vendor or subcontractor without any change in the Contract price.

23.1.5	The Employer will then carry out the evaluation of Techno-Commercial Proposals on the basis of their responsiveness to the scope of services, Technical Specification and other terms and conditions specified in the Bidding Documents to ascertain whether Techno-Commercial bid is generally complete, whether required security declarations have been furnished, whether documents have been properly signed, whether bids are generally in order and are substantially responsive.
23.1.6	The Employer will carry out a detailed evaluation of Techno-commercial Bids in order to determine to be substantially responsive whether the technical aspects are in accordance with the requirements set forth in the bidding documents. In order to reach such a determination, the Employer will examine and compare the technical aspects of the bids on the basis of the information supplied by the bidders, taking into account the following factors: (a) Overall completeness and compliance with the Technical Specifications and tender Drawings; and quality, function and operation of any process control concept included in the bid. The bid that does not meet acceptable standards of completeness, consistency and detail will be rejected for non-responsiveness. (b) Any other relevant factors listed in the General Conditions of Contract, Special Conditions of Contract and Instruction to Bidders, or that the Employer deems necessary or prudent to take into consideration. (c) Deleted
23.1.6.1	Bidder may note that deviations, variations and additional conditions etc. or any mention contrary to the bidding documents read in conjunction with Amendment(s)/ Clarification(s)/ Addenda/ Errata (if any) found anywhere in the Techno-Commercial and/or, Price Bid, implicit or explicit shall not be given effect to in evaluation and the same shall stand unconditionally withdrawn by the bidder without any cost implication to the Employer; failing which the bid shall be rejected and bid security shall be forfeited.
23.1.7	DELETED
23.2	OPENING OF PRICE PROPOSAL AND EVALUATION
23.2.1	After the evaluation process of Techno-Commercial bid is completed, Employer will inform in writing the eligible Bidders regarding date, time and venue set for the opening of Price Bid. Bidders, whose Techno-Commercial Bid is not substantially responsive or does not meet the Qualification Requirements set forth in the bidding documents, shall also be informed in writing and their bid will stand rejected and price bid shall not be opened.
23.2.2	Price Proposals of those Bidders, whose Techno-Commercial Proposal found to be substantially responsive, will be opened in presence of the Bidder's authorised representatives (not exceeding two per Bidder) who choose to attend. All important

	information and any such other detail, as may be considered appropriate by the Employer will be read out during the bid opening.
23.2.3	The Employer will determine whether the Price Proposals are complete, (i.e. whether they have taken into account cost of all services/items of the corresponding Techno-Commercial proposals, if not, the Employer will add cost of the same to the initial price) and correct any computational errors.
23.2.4	Arithmetical errors in the Price Proposals will be rectified on the following basis: If on check there are found to be differences between the rates/prices given by the Bidder in words and figures or in the amount worked out by him in each section of the Schedule of Quantities and in the Grand Total of all the sections of Schedule of Quantities, the same shall be adjusted in accordance with the following rules: - In the event of a discrepancy between description in words and figures in respect of item rates quoted by a Bidder, the description in words shall prevail. - In the event of an error occurring in the amount column of Schedule of Quantities as a result of wrong extension of the quantity and the unit rate, the unit rate shall be regarded as firm and extension shall be amended on the basis of the unit rate. - All errors in totalling in the amount column and in carrying forward totals shall be corrected. - The totals of various sections of Schedule of Quantities amended shall be carried over to the General Summary and the bid sum amended accordingly. The bid sum so altered shall, for the purpose of bid, be substituted for the sum originally bid and considered for evaluation and comparison of the bids and also for acceptance of the bid, instead of the original sum quoted by the Bidder.
23.3	The evaluation shall be based on the evaluated cost of fulfilling the contract in compliance with all commercial, contractual and technical obligations under this Bidding Document. The Employer's evaluation of a bid will also take into account the GST specified by the Bidder in its Bid (applicable on the items of Works described in Schedule of Quantity), which will be added to each Bidder's bid price to arrive at an "Evaluated Bid Price".
23.4	ABNORMALLY HIGH OR LOW RATED ITEMS
23.4.1	If the rates/prices quoted by the successful bidder for certain items of the Bill of Quantities (wherever such rates/prices have been called for in the bids,) are found to be having a variation of +/-25% or above in relation to Employer's estimate of the cost of work to be performed under the contract, then such items of works shall be identified as abnormally high rate (AHR) or abnormally low rate (ALR).

23.4.2	After evaluation of the rates/prices analysis which includes early cash flow analysis, Employer/NTPC may require the successful bidder to provide a suitable undertaking to execute the items of works including the ALR items and complete the entire work under the contract. Further, the Employer may invite the successful bidder for discussions/tieups to safeguard the interest of the Employer/NTPC and ensure that the Bidder executes the ALR items of works and completes the entire work under the contract. If the rates/prices quoted by the successful bidder for certain items of the Bill of Quantities (wherever such rates/prices have been called for in the bids,) are found to be having a variation of +/-25% or above in relation to Employer's estimate of the cost of work to be performed under the contract, then such items of works shall be identified as abnormally high rate (AHR) or abnormally low rate (ALR). After evaluation of the rates/prices analysis which includes early cash flow analysis, Employer/NTPC may require that amount of Performance Security be increased at the expense of the recommended bidder by 25% of the value of variation in respect of ALR item, to protect Employer against financial loss in the event of default by the contractor under the contract, to carry out such low rated items of works if award is placed on recommended bidder. Further, the Employer/NTPC may require the contractor to provide a suitable undertaking to execute the items of works to complete the entire work under the contract. The items for which performance security is enhanced shall be identified separately in the contract. Upon execution of such identified items, the enhanced value of Performance security will be reduced every three months on a pro –rata basis. The additional Performance security shall be furnished by Contractor prior to release of 1st RA Bill/Mobilization advance. PART F - AWARD OF CONTRACT 24.0 AWARD CRITERIA 24.1 Subject to ITB Clause 25.0 (Employer's Right to Accept any Bid and to Reject any or all bids) and Employer's Policy for Debarment from Business Dealings, the Employer will award the Contract to the successful Bidder [whose Techno-Commercial bid has been determined to be substantially responsive and the bidder is determined to be qualified to perform the Contract satisfactorily and whose Price Bid is determined to be the lowest evaluated bid after the Reverse Auction Process (if applicable)], as per methodology indicated in Annexure-II to BDS. 25.0 No contract shall be awarded to a bidder against whom a Debarment Order has been issued as per Employer's Policy for Debarment from Business Dealings. 25.0 EMPLOYER'S RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS Notwithstanding ITB Clause 24.0, the Employer reserves the right to accept, (whole or in part) and the Bidder shall be bound to perform the same at his quoted

	rate, or reject any bid for any reasons including national defence and security consideration and to annul the bidding process and to reject all bids at any time prior to award of contract without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Employer's action. Decision of Employer shall be final and binding in this regard.
26.0	LETTER OF AWARD
26.1	Prior to the expiration of the bid validity prescribed by the Employer, the Employer will issue a Letter of Award(LOA)/Purchase Order (PO) to the successful Bidder containing reference of the documents which form the Contract, Scope of Work, Contract Price, period of completion of the Works, terms of payment, price adjustment, and other important aspects in consideration of the execution and completion of the Works and the remedying of any defects therein by the Contractor as prescribed by the Contract.
26.2	This Letter of Award/Purchase Order will constitute the formation of the Contract.
27.0	CONTRACT PERFORMANCE SECURITY / INITIAL CONTRACT PERFORMANCE SECURITY
27.1.1	Within forty five (45) days from the date of Letter of Award or prior to release of 1st RA bill/Mobilization advance whichever is earlier, the successful Bidder shall furnish to the Employer a Contract Performance Guarantee (CPG) towards faithful performance of the Contract for an amount equivalent to 10% of the Contract Price. Alternatively, the successful Bidder may furnish the Contract Performance Guarantee in two Stages viz. A Contract Performance Guarantee for an amount equivalent to 5% of the Contract Price within forty five (45) days from the date of Letter of Award or prior to release of 1st RA bill/Mobilization advance whichever is earlier, to be followed up with another Contract Performance Guarantee for an amount equivalent to 5% of the Contract Price prior to the scheduled completion of 50% of total scope of work.
27.1.2	The successful Bidder also has the option to furnish an Initial Contract Performance Guarantee (ICPG) equivalent to a minimum of 2% of the Contract Price within forty-five (45) days from the date of Letter of Award or prior to release of 1st RA bill/Mobilization advance whichever is earlier. In case of the successful Bidder who furnishes Initial Contract Performance Guarantee, the Employer shall at the time of making any payment to him for the work done under the Contract, deduct towards the Contract Performance Security an amount equivalent to 10% of the gross bill amount accepted for payment until the total amount of Contract Performance Security so deducted including the amount of Initial Contract Performance Guarantee becomes equal to 10% of the Contract Price.
27.2	The CPG/ICPG shall be in the form of a Bank Guarantee issued by a Bank as per the list enclosed in the Bidding Documents. The format of the said bank guarantee shall be in accordance with the format included in the Bidding Documents.

27.3	While issuing the physical BG(s), the Bidder's Bank shall also send electronic message to Employer's Beneficiary Bank, whose details are provided in BDS through secure SFMS (in case of BGs issued from within India) or SWIFT (in case of BGs issued from outside India). Performance Security/Security Deposit amount up to Rs. 1,00,000/- (Rupees One Lac only), must be submitted through Electronic Fund Transfer (EFT) only. In such cases the provisions pertaining to submission of e-BG/Bank Guarantee (BG)/ Insurance Surety Bond towards performance security will not be applicable. However, depositing of Performance Security/Security Deposit by deducting requisite percentage of amount from RA bills, if specified in the bidding documents, will be applicable. In addition, in case a contractor/its assignee/collaborator/associate/JV Partner (if applicable), chooses to submit BG against performance securities, such BG will be mandatorily submitted in the form of e-BG, and no physical BG will be accepted.
28.0	SIGNING OF CONTRACT AGREEMENT
28.1	The Successful Bidder/ Contractor shall enter into a Contract Agreement with the Employer within forty-five (45) days from the date of Letter of Award or within such other time, as may be desired by the Employer.
28.2	Manner of Execution of Contract Agreement i) Unless and until a formal contract is prepared and executed, the Letter of Award read in conjunction with the Bidding Documents will constitute a binding contract. ii) The Contract Agreement shall be signed at the office of the Employer. The Contract Agreement will be signed in three originals and the Contractor shall be provided with one signed original and the other two originals will be retained by the Employer. iii) The Contract Agreement shall comprise of the following: (a) The Contract agreement alongwith its appendices, namely, 1. Invitation for Bids (IFB), 2. General Conditions of Contract, including any amendment/ errata thereto, 3. Special Conditions of Contract, including any amendment/ errata thereto, 4. The bid submitted by the Bidder i.e. Bid Form alongwith its Attachments and Schedule of Quantities

	5. Technical Specifications and Bid Drawings, including any amendment/ errata thereto. (b) Agreed Quality Assurance Plan (c) Letter of Award alongwith its appendices. iv) The Contractor shall provide free of cost to the Employer all the engineering data, drawings and descriptive materials submitted as a part of his bid, in at least three (3) copies to form an integral part of the Contract Agreement within twenty-eight (28) days after issuing of Letter of Award. The Contractor shall further provide for signing of the Contract Agreement as per prescribed proforma enclosed in the Bidding Documents, appropriate Power of Attorney and the requisite stamp papers. All the other documents required for the preparation of the Contract Agreement shall be provided by the Employer. v) Unless and until the Contract Agreement is signed as above, no payments under the Contract as per GCC Clauses entitled 'Payment On Account/Progressive Interim Payments' and 'Time Limit for Payment of Final Bill' shall be released to the Contractor by the Employer nor any materials shall be issued to the Contractor as stipulated in the Special Conditions of Contract or otherwise agreed to be issued by the Employer. vi) Subsequent to signing of the Contract Agreement, the Contractor at his own cost shall provide the Employer with ten(10) copies of electronic version of the signed Contract Agreement on CD-ROM/USB drive within twenty (20) days of its signing.
29.0	INELIGIBILITY FOR PARTICIPATION IN RE-TENDER/ FUTURE TENDERS
29.1	Notwithstanding the provisions specified in ITB Sub-Clause 14.7 and ITB Clause 26, if a bidder after having been issued the LETTER OF AWARD , either does not sign the Contract Agreement pursuant to ITB Clause 28 or does not submit an acceptable Performance Security pursuant to ITB Clause 27.1.1 to 27.3, and which results in retendering of the package, then such bidder/contractor shall be treated ineligible for participation in re-tendering of this particular package. Further, such bidder/contractor shall also be dealt as per the provisions of policy for Debarment from Business Dealings.
29.2.1	If a bidder after opening of tenders where EMD is 'NIL/Not applicable' or exempted for bidders as per policy guidelines, withdraws its offer within the validity period of the offer, then such bidder shall be treated as ineligible for participation in the future tenders for a period of 6 months from the date of withdrawal of the bid, and also in re-tendering of this particular package

29.2.2	If a bidder after having been issued the Notification of Award/ Purchase Order of a package where EMD is 'NIL/Not applicable' or exempted for bidder as per policy guidelines, either does not sign the Contract Agreement pursuant to ITB Clause titled 'Signing the Contract Agreement' or does not submit an acceptable Performance Security pursuant to ITB Clause titled 'Performance Security', and which result in retendering of the package, then such bidder/contractor shall be treated ineligible for participation in re-tendering of this particular package. Further, such bidder/contractor shall also be dealt as per the provisions of the contract and policy for Debarment from Business Dealings.
29.3	Contractor Performance Feedback and Evaluation System-Deleted
30.0	Deleted
31.0	Corrupt or Fraudulent Practices Employer requires that Bidders, Contractors and Suppliers observe the highest standard of ethics during the procurement and execution of the contracts. In pursuance of this policy, Employer : (a) defines, for the purposes of this provision, the terms set forth below as follows: (i) "corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution; and (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition; iii)"Anti-competitive practice": any collusion, bid rigging or anti-competitive arrangement, or any other practice coming under the purview of The Competition Act, 2002, between two or more bidders, with or without the knowledge of the Employer, that may impair the transparency, fairness and the progress of the procurement process or to establish bid prices at artificial, non-competitive levels; iv)"Coercive practice": harming or threatening to harm, persons or their property to influence their participation in the procurement process or affect the award or execution of a contract; V) "Obstructive practice": materially impede the Employer's investigation into allegations of one or more of the above mentioned prohibited practices either

31.1	by deliberately destroying, falsifying, altering; or by concealing of evidence material to the investigation; or by making false statements to investigators and/ or by threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or by impeding the Employer's rights of audit or access to information. (b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question; (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for or in executing a contract of the Employer. ADHERENCE TO FRAUD PREVENTION POLICY The Bidder alongwith its associate / collaborator / subcontractors / sub-vendors / consultants / service providers shall strictly adhere to the Fraud prevention policy of NTPC displayed on its tender website http://www.ntpctender.ntpc.co.in and shall immediately apprise the Employer/NTPC about any fraud or suspected fraud as soon as it comes to their notice. A certificate to this effect shall be furnished by the bidder along with his bid. If in terms of above Policy, it is established that the Bidder/His representatives have committed any fraud while competing for this Contract then the Bid Security of the Bidder shall be forfeited. Bidders shall certify their compliance on "Fraud Prevention Policy" of Employer by accepting the following GTE at the e-Tender Portal: "Do you certify full compliance to all provisions of Bid documents"
31.2	Policy for Debarment from Business Dealing The Employer has in place a Policy for Debarment from Business dealings displayed on the website www.ntpc.co.in / www.ntpctender.ntpc.co.in. The version of Policy presently applicable is mentioned in BDS. Bidder/Contractor may be debarred from Business dealings on account of any of the grounds and following the procedures as detailed in the said Policy for Debarment from Business Dealings. Bidders shall certify their compliance on "Policy for Debarment from Business Dealings " of Employer by accepting the following General Technical Evaluation (GTE) of the Tender at e-Tender Portal https://eprocurentpc.nic.in/:

	“Do you certify full compliance to all provisions of Bid Doc?” Acceptance of above GTE shall be considered as bidder's confirmation to the following conditions: (1) Bidder have read the contents of Debarment Policy (applicable version mentioned in BDS) displayed on the website www.ntpc.co.in / ntptender.ntpc.co.in and agreed to abide by this policy. a) Bidder is not Banned/Blacklisted by Ministry of Power or Deptt. of Expenditure, Ministry of Finance as on date of submission of bid. b) Bidder have not employed any public servant dismissed/removed or person convicted for an offence involving corruption or abetment of such offences. c) Bidder's Director(s)/ Owner(s)/ Proprietor/ Partner(s) have not been convicted by any court of law for offences involving corrupt and fraudulent practices including moral turpitude in relation to business dealings with Government of India or NTPC or NTPC's group companies during the last five years. (2) Bidder further confirms as under: that if at any point subsequent to award of Contract, the declarations given above are found to be incorrect, NTPC Limited/ Employer shall have the full right to terminate the Contract and take any action as per applicable laws for breach of contract including forfeiture of Bid Security/Performance Bank Guarantee.
32.0	BENEFITS ON CUSTOM DUTY- Deleted
33.0	INTEGRITY PACT The following GTE shall be required to be mandatorily confirmed by the bidder at e-tendering portal, without which bid cannot be submitted: “Do you certify full compliance to all provisions of Bid documents ?” On Bidder's acceptance to the above GTE, Bidder / JV Partner(s)/ Consortium members confirm to have read, understood and unconditionally accept & commit to all the contents, terms, conditions and undertakings mentioned in the Integrity Pact which has been presigned by the Employer and enclosed with the Bidding Documents (Attachment-18). On Acceptance of the above attribute, Integrity Pact shall be considered signed by the Bidder / JV Partner(s)/ Consortium members and the same shall come into force from the date of submission of bid. If the owner has terminated the contract pursuant to Section-3 of the Integrity Pact (IP), the

33.1	owner shall encash the Performance Bank Guarantee/Security Deposit, in accordance with Section-4 of "Integrity Pact". Independent External Monitors (IEMs): In respect of this package, the Independent External Monitors (IEMs) would be monitoring the implementation and effectiveness of the Integrity Pact Program as per the SOP issued by CVC from time to time and available in its website https://cvc.gov.in/ The Independent External Monitor(s) (IEMs) as mentioned at NTPC tender website(https://ntpctender.ntpc.co.in/) under Integrity Pact tab have been appointed by NTPC, in terms of Integrity Pact (IP) which forms part of the NTPC Tenders/Contracts. This panel is authorized to examine /consider all references made to it under this tender. The bidder(s), in case of any representation/grievance/complaint pertaining to this package may raise the issue directly with the IEMs at following Address or through e-mail as mentioned in https://ntpctender.ntpc.co.in/ : "The IEMs' Secretariat, Contracts Services, 6th Floor, EOC, NTPC Limited, A-8A, Sector-24, Noida-201301 (UP)."
34.0	Restrictions on procurement from a Bidder of a country which shares a land border with India
34.1	Any Bidder (including its Collaborator/Associate/DJU Partner/JV partner/Consortium Member/Assignee, wherever applicable) from a country which shares a land border with India will be eligible to bid in this tender only if bidder is registered with the Competent Authority as mentioned in Special Conditions of Contract (SCC). Further, any bidder (including bidder from India) having specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India, will be eligible to bid only if the bidder is registered with the same competent authority as mentioned in Special Conditions of Contract (SCC). (Definition/Requirement of ToT shall be as specified in DOE OM Ref. No. F.7/10/2021-PPD(1) dated 23.02.2023) Such registration should be valid for the entire period of bid validity or any extension thereof. However, in case the validity period of registration is less than bid validity period, the Bidder shall be required to submit the extension of the validity period of registration before the opening of price bids, failing which the bid shall be rejected. Further the successful bidder shall not be allowed to sub-contract works to any "Sub-contractor" from a country which shares a land border with India unless such Sub-contractor is registered with the competent Authority as mentioned in SCC.

	However, the said requirement of registration will not apply to bidders/sub- contractors from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects. Bidders may apprise themselves of the updated lists of such countries available in the website of the Ministry of External Affairs.
34.2	“Bidder” (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.
34.3	“Sub-contractor” (including the term ‘Sub-vendor’/Sub-supplier’ in certain contexts) means any person or firm or company, every artificial juridical person not falling in any of the descriptions of Sub-contractors stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
34.4	“Bidders from a country which shares a land border with India” / “Subcontractor from a country which shares a land border with India” / “Entity from a country which shares a land border with India” mentioned in para 34.1 above means; a) An entity incorporated, established or registered in such a country; or b) A subsidiary of an entity incorporated, established or registered in such a country; or c) An entity substantially controlled through entities incorporated, established or registered in such a country; or d) An entity whose beneficial owner is situated in such a country; or e) An Indian (or other) agent of such an entity; or f) A natural person who is a citizen of such a country; or g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
34.5	The beneficial owner for the purpose of clause “34.4” above will be as under; a) In case of company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means. Explanation- i. “Controlling ownership interest” means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company; ii. “Control” shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholdings or management rights or shareholders agreements or voting agreements; b) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more judicial person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

	c) In case of an unincorporated associations or body of individuals, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals; d) Where no natural person is identified under (a) or (b) or (c) above, the beneficial owner is the relevant natural person who holds the position of senior managing officials; e) In case of a trust, the identifications of beneficial owner(s) shall include identification of the author of trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
34.6	An Agent for the purpose of clause “34.4” is a person employed to do any act for another, or to represent another in dealings with third person. [Note: i. A person who procures and supplies finished goods from an entity from a country which shares a land border with India will, regardless of the nature of his legal or commercial relationship with the producer of the goods, be deemed to be an Agent. ii. However, a bidder who only procures raw material, components etc. from an entity from a country which shares a land border with India and then manufactures or converts them into other goods will not be treated as an Agent.]
35.0	Anti-Bribery and Anti-Corruption (ABAC) Policy The Bidder and its employees along with its Associate/ Collaborator/ Sub-Contractors/ Sub-Vendors / Consultants / Service Providers and all other persons associated with business of Employer shall strictly adhere to AntiBribery and Anti-Corruption (ABAC) Policy of Employer displayed on tender website https://ntpctender.ntpc.co.in/. Bidders shall certify their compliance on “Anti-Bribery and Anti-Corruption (ABAC) Policy” of Employer by accepting the following in the bid proposal sheet: “Do you certify full compliance to all provisions of Bidding Document?” Acceptance shall be considered as bidder's confirmation that they and their employees along with their associate / collaborator/ subcontractors / sub vendors / consultants / service providers shall strictly abide by “Anti-Bribery and Anti-Corruption (ABAC) Policy” of Employer as displayed on tender website at https://ntpctender.ntpc.co.in/ under section ‘policy docs’ and undertake that they represent and confirm that they are aware of, understand, and will comply with all applicable laws and regulations relating to anti- corruption and anti-bribery and the ABAC Policy of Employer.
36.0	Annulment of award

37.0	Failure of the successful Bidder to comply with the requirements of ITB Clause 27 or Clause 28.0 shall constitute sufficient grounds for the annulment of the award and forfeiture of his bid security. Declaration regarding insolvency, bankruptcy and Liquidation The Bidder shall not be eligible for bidding, if the Bidder has become the subject of proceedings under any bankruptcy or insolvency laws either by way of voluntary insolvency initiation or upon a judicial order being passed to that effect, thereby admitting the Bidder to Corporate Insolvency Resolution Process (CIRP) or Liquidation proceedings under Insolvency and Bankruptcy Code, 2016 or has a receiver appointed over its properties under any law for the time being in force in accordance with the guidelines of the Reserve Bank of India issued under the Banking Regulation Act, 1949. The aforesaid ineligibility provision owing to the pendency of CIRP, Liquidation, appointed receiver shall also be applicable to any Associate, Collaborator, Technology Provider or Bidder's Parent/Holding/Subsidiary company from whom the Bidder has taken, or intends to take, technical and/or financial support for qualification in the bid. In case of a Foreign Company who is participating either as a Bidder or an Associate, Collaborator, Technology Provider which is undergoing insolvency, bankruptcy or liquidation proceedings, as per the extant laws of the respective jurisdiction, shall also not be eligible for bidding or associating or collaborating or providing Technology or partnership with the Bidder. If, at the time of bid submission, any Bidder or its Associate, Collaborator, Technology Provider or Bidder's Parent/Holding/Subsidiary Company, from whom the Bidder has taken, or intends to take technical and/or financial support for qualification in the bid, was not undergoing CIRP , Liquidation, Bankruptcy or similar proceedings but subsequently during the period of evaluation of bids, including but not limited to technical, commercial and financial evaluation, or any time before the work is awarded, any such application is admitted by the Adjudicating Authority under the IBC, 2016 or any similar proceedings have started by any Judicial / Quasi-Judicial Body, the Bidder shall, with immediate effect, be considered as ineligible and his bid shall be rejected forthwith. Further, the Bidder, from the submission of bid until the award of work, shall immediately inform the Employer of any proceedings / admission / orders passed for admitting the Bidder or any of its Associate, Collaborator or Technology Provider or Bidder's Parent/Holding/Subsidiary Company (from whom the Bidder has taken or intends to take technical and/ or financial support for qualification of bid) to CIRP by the Adjudicating Authority under IBC, 2016 or any similar proceedings under other applicable laws (in cases where IBC, 2016 is not applicable). Any suppression of such material facts or false declaration shall immediately render the Bidder liable for rejection of his bid, forfeiture of bid security/EMD and

banning of business dealing as per terms and conditions of the Policy & Procedure for Debarment from Business Dealings.

Bidders shall certify their compliance to ITB Clause **"Declaration regarding insolvency, bankruptcy and Liquidation"** by accepting the following General Technical Evaluation (GTE) of the Tender at e-Tender Portal:

"Do you certify full compliance to all provisions of Bidding Document?"

Acceptance of above GTE shall be considered as Bidder's confirmation that Bidder has read and understood the ITB Clause **"Declaration regarding insolvency, bankruptcy and Liquidation"** and its bid is in compliance to this clause.

SECTION III

Bid Data Sheet (BDS)

BID DATA SHEET (BDS)

The following bid specific data for the above mentioned package shall amend and/or supplement the provisions in the Instructions to Bidders (ITB). Wherever there is a conflict, the provisions herein shall prevail over those in the ITB.

Before creating / submitting the bids, Bidders are required to go through the “Bidders Manual”/“Guidelines to bidder” or any other links provided at NTPC e-tendering website <https://eprocurentpc.nic.in> (GePNIC portal).

Sl.No.	ITB Clause Ref., if any.	Data
1.		Type of Bidding: Refer Section-I (IFB/NIT)
2.	ITB 1.1	Name and Address of Employer: DGM (CS) / AGM (CS) NTPC Limited, 6th Floor, Engineering Office Complex, Plot No. A-8A, Sector-24, NOIDA, Distt. Gautam Budh Nagar, (UP), Tel. No.: +91-9493547039 / 9650998374 E-mail: matamlathamma@ntpc.co.in/shrishksingh@ntpc.co.in Registered Office Address: NTPC Limited, NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodi Road, New Delhi-110003. CIN: L40101DL1975GOI007966, Website: www.ntpc.co.in Name of the Project (where works to be executed): Refer IFB
3.	ITB 6.1, 17.2,	For address for Correspondence: Refer NIT/IFB
4.	ITB 7.0	Whether Pre-Bid Conference will be held – No
5.	ITB 11.1.1(A)(b)	Whether Consortium / Joint Venture Bids are Permitted : No Whether Associate/ Collaborator is permitted : No
6.	ITB 11.1.3	Add following at clause No. 11.1.3 of ITB: In the Schedule of Items / Bill of Quantities (BOQ1 as indicated in BOQ.XLS file), the bidders have to quote Item rate and % GST Rate. The item rate and %GST rate quoted by the bidders shall only be considered for the purpose of evaluation. 1. The GST Rate (applicable on the items of Works described in Schedule of Quantity) specified by the Bidder in BOQ.xls

		file of its Bid will be added to each Bidder's bid price to arrive Cost to Employer or an "Evaluated Bid Price". The rates/amount quoted in the Schedule of Quantities shall be inclusive of all other taxes, duties, levies, fees, royalty, etc. <i>The Bids shall be evaluated on Overall basis.</i>
7.	ITB 11.2,17.1,33.0	Integrity Pact: Not Applicable
8.	ITB 12.2	Not applicable
9.	ITB 12.12	Not Applicable
10.	ITB 12.11	The Contract price adjustment shall be as per SCC clause 14.
11.	ITB 14.1 & 14.2	Amount of Bid Security/ EMD: Refer NIT/IFB NOTE: a.) BG/ISB submission/Online payment vide GePNIC portal is only acceptable against EMD /Bid security. b.) The Bank Guarantee for Bid Security shall be from a Bank as listed in Annexure-I to Bid Data Sheet of bidding documents.
12.	ITB 15.0 (Work Schedule)	Refer SCC
13.	ITB 21.0	Refer NIT/GePNIC Portal for location and schedule of Bid opening.

14.	ITB 27.3	Confirmation of physical BGs through Structured Financial Messaging System (SFMS)/SWIFT (Not applicable for E-BGs through NESL platform). While issuing the physical BGs, the Bidder's Bank shall also send electronic message through secure SFMS (in case of BGs issued from within India) or SWIFT (in case of BGs issued from outside India) to Employer's Beneficiary Bank whose details are provided herein below: Bank Name: ICICI Bank Limited Branch: CONNAUGHT PLACE BRANCH Bank Address: 9A, PHELPS BUILDING, INNER CIRCLE, NEW DELHI-110001 IFSC Code: ICIC0000007 BG issuing/amending bank must send the BG advice in the form of message format via SFMS (Structured Financial Messaging System) as provided by RBI. The format of the message for confirmation of the BG shall be as below: BG advising message: IFN 760COV/ IFN 767COV via SFMS Field Number: Particulars (to be mentioned in Row 1) 7037: NTPCBG (unique identifier))
15.		Deleted
16.	ITB 21.0	Bids are to be submitted online. Only Bid Security is to be submitted in physical form in original in a separate sealed envelope at the address mentioned below. DGM (CS) / AGM (CS) NTPC Limited, 6th Floor, Engineering Office Complex, Plot No. A-8A, Sector-24, NOIDA, Distt. Gautam Budh Nagar, (UP), INDIA, Pin-201301 Last Date & Time for Bid Submission : Please refer Section-I (Both Techno-Commercial & Price) (IFB) Date & Time for Bid Opening : Please refer Section-I (Techno-Commercial Bid) (IFB)
17.		The version of Policy for Debarment from Business Dealings presently followed by NTPC is Rev-4 .

18.	ITB 23.4	Not Applicable
19.	ITB 24.1	Reverse Auction is not applicable.
20.	Authorisation of Dealer/ Distributor/ Channel Partner	Wherever a Bidder (OEM/ OES/ Manufacturer) intends to forward the enquiry to his dealer/distributor/channel partner to quote in the tender, an Authorization Letter from the Bidder (OEM/OES/Manufacturer) is to be submitted to the tender issuing authority before the BOD to enable NTPC to add the dealer to enable the dealer/ distributor/ channel partner to submit the bid online
21.		Splitting of contract: NOT APPLICABLE MSE Benefits: NOT APPLICABLE Evaluation: LUMPSUM
22.		<u>ANNEXURES ENCLOSED WITH BDS</u> Annexure-I : List of banks for Bank guarantee NTPC letter dated 03.09.2014 to SBI Annexure-II: Preference to Make in India and granting of purchase preference to local suppliers .

**LIST OF BANKS FROM WHICH BANK GUARANTEES
FOR BID SECURITY CAN BE ACCEPTED**

SCHEDULED COMMERCIAL BANKS**A. SCHEDULED PUBLIC SECTOR BANKS**

1. Bank of Baroda
2. Bank of India
3. Bank of Maharashtra
4. Canara Bank
5. Central Bank of India
6. Indian Overseas Bank
7. Indian Bank
8. Punjab National Bank
9. Punjab & Sind Bank
10. State Bank of India
11. UCO Bank
12. Union Bank of India

B. SCHEDULED PRIVATE BANKS (INDIAN BANKS)

1. Axis Bank Limited
2. Bandhan Bank Limited
3. CSB Bank Limited
4. City Union Bank Limited
5. DCB Bank Limited
6. Dhanlaxmi Bank Limited
7. Federal Bank Limited
8. HDFC Bank Limited
9. ICICI Bank Limited
10. IndusInd Bank Limited
11. IDFC FIRST Bank Limited
12. Jammu & Kashmir Bank Limited
13. Karnataka Bank Limited
14. Karur Vysya Bank Limited
15. Kotak Mahindra Bank Limited
16. Nainital Bank Limited
17. RBL Bank Limited
18. South Indian Bank Limited
19. Tamilnad Mercantile Bank Limited
20. Yes Bank Limited
21. IDBI Bank Limited

C. SCHEDULED FOREIGN BANKS

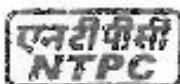
1. AB Bank PLC
2. American Express Banking Corporation
3. Australia & Newzealand Banking Group Limited
4. Barclays Bank Plc
5. Bank of America
6. Bank of Bahrain & Kuwait B.S.C.
7. Bank of Ceylon
8. Bank of China Limited
9. Bank of Nova Scotia
10. BNP Paribas
11. Citi Bank NA
12. Cooperatieve Rabobank U.A./Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A.
13. Crédit Agricole Corporate and Investment Bank
14. CTBC Bank Co Ltd
15. DBS Bank India Limited (Subsidiary of DBS Bank Ltd.)
16. Deutsche Bank A.G.
17. Doha Bank Q.P.S.C
18. Emirates NBD Bank P.J.S.C.
19. First Abu Dhabi Bank PJSC
20. FirstRand Bank Ltd
21. Hong Kong and Shanghai Banking Corporation Limited
22. Industrial & Commercial Bank of China
23. Industrial Bank of Korea
24. J.P. Morgan Chase Bank N.A.
25. JSC VTB Bank
26. KEB Hana Bank
27. Kookmin Bank
28. Mashreqbank P.S.C.
29. Mizuho Bank Ltd
30. MUFG Bank, Ltd
31. NatWest Markets Plc
32. NongHyup Bank
33. PT Bank Maybank Indonesia TBK
34. Qatar National Bank (Q.P.S.C.)
35. Sberbank
36. SBM Bank (India) Limited (Subsidiary of SBM Group)
37. Shinhan Bank
38. Societe Generale
39. Sonali Bank PLC
40. Standard Chartered Bank
41. Sumitomo Mitsui Banking Corporation
42. United Overseas Bank Ltd
43. UBS AG
44. Woori Bank

D SMALL FINANCE BANKS

1. AU Small Finance Bank Limited
2. Capital Small Finance Bank Limited
3. Equitas Small Finance Bank Limited
4. ESAF Small Finance Bank Limited
5. Suryoday Small Finance Bank Limited
6. Ujjivan Small Finance Bank Limited
7. Utkarsh Small Finance Bank Limited
8. North East Small Finance Bank Limited
9. Jana Small finance Bank Limited
10. Shivalik Small Finance Bank Limited
11. Unity Small Finance Bank Limited,

***Note - Any Addition/ Deletion/ Modification in Bank list shall be as per changes in Second Schedule List by RBI from time to time**

*In case, Bank Guarantee is getting issued from State Bank of India, Bidder to take note of NTPC letter ref. NTPC/FC/CS/BG/01 dated 03.09.2014 and SBI letter ref. CAG-I/AMT-1/2014- 15/370 dated 04.09.2014 attached herewith.



एन टी पी सी लिमिटेड
(भारत सरकार का उद्यम)

NTPC Limited
(A Govt. of India Enterprise)

केन्द्रीय कार्यालय/Corporate Centre

Date : 03rd September 2014

Ref. No.: NTPC/FC/CS/BG/01
Deputy General Manager,
State Bank of India,
CAG Branch,
12 th floor, Jawahar Vyapar Bhavan, 1, Tolstoy Marg,
New Delhi 110 001

Kind Attn: Sh. Sandeep Mishra

Sub: Format of the Bank Guarantee (BG) issued by State Bank of India – reg.

Dear Sir,

NTPC Limited is India's largest Power Company and a 'Maharatna PSU' with a significant presence in the entire value chain of power generation business. The procurement process of NTPC requires its participating Bidders to submit Bank Guarantees (BGs) as Bid security/other securities in a fixed format provided by NTPC.

It has been observed recently that BGs issued by various branches of State Bank of India are inserting the following additional clause.

QUOTE

Notwithstanding anything contrary contained in any law for the time being in force or banking practice, this guarantee shall not be assignable or transferable by the beneficiary. Notice or invocation by any person such as assignee, transferee or agent of beneficiary shall not be entertained by the bank. Any invocation of guarantee can be made only by the beneficiary directly.

UNQUOTE

The inclusion of the aforesaid clause in the BGs restricts the rights of NTPC under the BG and it may not be possible for NTPC to accept the aforesaid clause in the BGs submitted to us by our Bidders. It may also be mentioned that incorporation of the above additional clause in the BG results in the BG being returned by NTPC and consequently rejection of the bids of parties that have submitted such BGs.

In view of the above, it is requested that please take up at appropriate levels so that suitable instructions are issued to all your branches not to incorporate any such additional clause and henceforth BGs may be issued strictly as per NTPC format only.

Kindly acknowledge the receipt of this letter

Yours faithfully,

(K.P. Gupta)
General Manager (Finance)

Copy for Kind Information: ED(CC&M) for kind info

एन टी पी सी लिमिटेड एकोप कॉम्प्लेक्स, 7, इन्स्टीट्यूशनल एरिया, लोधी रोड, नई दिल्ली-110003 टेली: 24380100, फैक्स/फैक्स: 011-243801018
NTPC Bhawan, ECOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi-110003, वेबसाइट/Website: www.ntpc.co.in



भारतीय स्टेट बैंक
State Bank of India

कॉर्पोरेट लेखा समूह शाखा, जवाहर व्यापार भवन,
11-12 वा तल, 1, टॉलस्टॉय मार्ग, नई दिल्ली-110 001
Corporate Accounts Group Branch, Jawahar Vyapar Bhawan,
11th & 12th Floor, 1, Tolstoy Marg, New Delhi-110 001

Tel: 23374525, 23374506, 23374541 (AMT-1), 23353022 (DGM & COO), 23701043, 23359506 (A & A), 23352996 (CS), 23352966 (IB)
Fax: 23353101 (Sect), 23352793 (CS), 23353029 (IB)

Shri K.P. Gupta,
General Manager (Finance),
NTPC Limited
Scope Complex, 7, Institutional Area,
Lodhi Road,
New Delhi: 110 003.

CAG-I/AMT-1/2014-15/370

04.09.2014

Dear Sir,

Format of the Bank Guarantee (BG) Issued by State Bank of India

We refer to your letter dated 3rd September 2014 wherein you have requested for excluding bidders/vendors of NTPC from insertion of additional Clause restraining assignment/transferability of BG.

Looking at our relationship with NTPC, as a very special case, we have since obtained waiver from our Authorities for excluding NTPC from insertion of the referred clause for BGs issued in your favour.

We are taking steps to issue suitable instructions to our offices for exclusion of this clause for BGs issued in favour of NTPC. In case any bidder or vendor submits to you a Bank Guarantee issued by any of our Branches containing the additional clause as mentioned above, request you to please bring it to our notice and advise us so that we can take-up with the concerned Branch for excluding it.

This is for your information and necessary action please.

Yours faithfully,


(Sandeep Mishra)
Deputy General Manager &
Relationship Manager, AMT-1

Letter No. AMT-1/AMT-1/2014-15/370

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Format of Undertaking

(To be sent by Issuing Bank through official email-ID)

From: xxxbank@xx.in

To: xxx@ntpc.co.in

We have issued BG No. dated for an amount of Rs. on behalf of[Name of Bidder] towards Bid Security / EMD for Tender No. in favour of [Name of Employer].

Please find enclosed the soft copy of the Bank Guarantee and SFMS acknowledgement. This SFMS is sent on (date).

Any demand / claim made by the 'Employer' shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder till the validity period mentioned in the Bank Guarantee.

However, in absence of the physical copy of aforementioned BG with the Employer, we undertake that Employer's demand / claim will be binding and conclusive on us without the physical copy of aforementioned BG till fourteen (14) days from the due date of submission of Techno-Commercial bids.

We undertake not to cancel the aforementioned BG No. without written consent / instruction from NTPC.

(Name of Bank Official)
Authority No.

Sub: Preference to Make In India and Eligibility for Participation/ granting of Purchase Preference to Class-I local suppliers- regarding

It is the policy of the Government of India to encourage 'Make in India' and promote manufacturing and production of Goods and Services in India with a view to enhancing income and employment. In this regard, the following guidelines, concerning the procedure to be adopted for granting Eligibility for Participation/purchase preference to local suppliers, are hereby issued:

1.0 Definitions:

- a) **'Local content'** means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the goods, services or works procured (excluding net domestic indirect taxes) minus the value of imported content in the goods, services or works (including all customs duties) as a proportion of the total value, in percent.
- b) **'Class-I local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed.
'Class-II local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-II local supplier' but less than that prescribed for 'Class-I local supplier'.
'Non-Local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local supplier'.
- c) **'L1'** means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.
- d) **'Margin of purchase preference'** means the maximum extent to which the evaluated bid price of a 'Class-I local supplier' may be above the L1 for the purpose of purchase preference.
- e) **Fraud Prevention Policy** – shall mean the policy related to prevention of fraud displayed on NTPC tender website <http://www.ntpctender.ntpc.co.in/>
- f) **Policy & Procedure for Debarment from Business Dealings** – shall mean the policy related to Debarment from Business Dealings forming part of Bidding Document.

1.1 Minimum Local Content

- 1.1.1 The local content requirement to categorize a Bidder/Supplier as 'Class-I local supplier' is minimum 50%. For 'Class-II local supplier', the 'local content' requirement is minimum 20%.

2.0 Eligibility for Participation:

Only Class-I and Class-II Local Suppliers are eligible to Bid. Bids received (if any) from Non-Local Supplier shall be out rightly rejected.

3.0 Purchase Preference:

3.1 Margin of Purchase Preference

The margin of purchase preference shall be 20%.

3.2 Purchase preference shall be given to 'Class-I local suppliers' as specified hereunder:

- (i) In all procurements where MSE benefits are not applicable and **which are not divisible in nature and the same has been specified in bidding documents**, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:
 - Among all qualified bids and substantially responsive bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.
 - If L1 is not 'Class-I local supplier', the lowest evaluated bidder among the 'Class-I local supplier', will be invited to match the lowest evaluated bid (L1) price subject to Class-I local supplier's evaluated price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the lowest evaluated bid (L1) price.
 - In case such lowest eligible 'Class-I local supplier' fails to match the lowest evaluated bid (L1) price, the 'Class-I local supplier' with the next higher evaluated bid within the margin of purchase preference shall be invited to match the lowest evaluated bid (L1) price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the lowest evaluated bid (L1) price, the contract may be awarded to the L1 bidder.
- (ii) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by NTPC.
- (iii) For the purpose of matching of lowest evaluated bid (L1) price, the Class-I local supplier would have to necessarily reduce all components of the quoted price on pro-rata basis. The reduction should not apply on the evaluation loading on account of functional guarantees and other loadings (if any, which are not dependent on quoted price). Further, the Contract shall be awarded on such revised/ reduced quoted price. The summation of the revised / reduced quoted price and the evaluation loading on account of functional guarantees and other loadings (if any) shall be equal to the lowest evaluated bid (L1) price.

4.0 Deleted

5.0 Verification of Local Content:

- 5.1 The 'Class-I local supplier'/ 'Class-II local supplier' shall be required to provide, in the Bid Form/relevant Attachment of Techno- Commercial Bid, self-certification / declaration that the Item offered meets the local content requirement for 'Class-I local supplier'/ 'Class-II local supplier' and shall give details of the location(s) at which the local value addition is made.

- 5.2 In case the total bid price of the supplier / bidder is in excess of INR 10 crore, the 'Class-I local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content during execution prior to submission of last bill for payment.

In case aforesaid Certificate furnished by Contractor/Vendor is not in line with the declaration in respect of Local content in their bid, same shall be treated as false declaration.

- 5.3 Deleted

- 5.4 False declarations will be dealt in line with the Fraud Prevention Policy and Policy & Procedure for Debarment from Business Dealings of NTPC.

- 5.5 In case of false declaration / violation of the provision of PPP-MII Order, if a bidder has been debarred / banned by NTPC, then the fact and duration of debarment should be promptly brought to the notice of the Member-Convenor of the Standing Committee (as per para 16 of PPP-MII Order) and the Department of Expenditure through Ministry of Power, GOI.

- 5.6 A supplier who has been debarred / banned by any other procuring entity for violation of 'Public Procurement (Preference to Make In India), Order 2017' (PPP-MII Order) dated 15.06.2017 and its subsequent revisions / amendments issued by Department of Industrial Policy and Promotion (DIPP) shall not be eligible for evaluation/preference, as applicable[@], under the aforesaid procedures for duration of the debarment. The 'Class-I local supplier' shall be required to furnish a confirmation in this regard in the Bid Form/relevant Attachment of Techno-Commercial Bid.

[@] In case of debarment by NTPC- Such Supplier shall not be eligible for evaluation, in case of debarment by any other entity except NTPC Such Supplier shall not be eligible for preference.

6.0 Local Sourcing

- 6.1 The Bidder/its Sub-vendors must be Class-I local supplier for Item(s) mentioned at clause no. 18 of GTR in Technical Specifications, as applicable, in case such item(s) are Self Manufactured/Bought-out.
- 6.2 The Bidder / Contractor is requested to encourage and promote domestic manufacturing and production of goods and services by sourcing goods and services applicable under the contract / package from domestic suppliers / service providers. In this regard, Bidder shall also follow guidelines / advisory issued by Government of India from time to time, to the extent applicable to them, regarding promotion of local sourcing of goods including Bought out Items and services.

NTPC LIMITED

(A Government of India Enterprise)



SECTION – IV GENERAL CONDITIONS OF CONTRACT (GCC)

TABLE OF CLAUSES (GCC)

SL.	DESCRIPTION

A.	CONTRACT AND INTERPRETATION

1.	DEFINITIONS
2.	HEADING AND MARGINAL NOTES TO CONDITIONS
3.	SINGULAR & PLURAL
4.	ORDER OF THE PRECEDENCE OF THE DOCUMENTS
5.	INSTRUCTIONS AND NOTICES UNDER THE CONTRACT
6.	LAWS GOVERNING THE CONTRACT
7.	SETTLEMENT OF DISPUTES

B.	SUBJECT MATTER OF CONTRACT

8.	SCOPE OF CONTRACT
9.	NOTICES TO LOCAL BODIES
10.	HUMAN RESOURCES
11.	SHIFT WORK
12.	COOPERATION WITH OTHER CONTRACTORS/ AGENCIES
13.	MATERIALS OBTAINED FROM EXCAVATION
14.	TREASURE, TROVE, FOSSILS, ETC
15.	PROTECTION OF TREES
16.	SECURITY WATCH AND LIGHTING
17.	PREVENTION OF POLLUTION
18.	EXPLOSIVES
19.	TRAINING OF APPRENTICES
20.	HANDING OVER OF SITE
21.	DUTIES AND POWERS OF ENGINEER-IN-CHARGE AND HIS REPRESENTATIVES

C. PAYMENT

- 22. CONTRACT PERFORMANCE SECURITY
- 23. ADVANCE
- 24. PAYMENT ON ACCOUNT/PROGRESSIVE INTERIM PAYMENTS
- 25. CONTRACT PRICE ADJUSTMENT
- 26. TAXES, DUTIES, LEVIES ETC
- 27. OVERPAYMENTS AND UNDERPAYMENTS
- 28. TIME LIMIT FOR SUBMISSION & PAYMENT OF FINAL BILL AND WAIVER OF RIGHTS OF ALL CLAIMS

D. EXECUTION OF FACILITIES

- 29. WORK COMMENCEMENT, EXECUTION & DELAYS
- 30. SUB CONTRACTS
- 31. SETTING OUT THE WORKS
- 32. METHODOLOGY OF CONSTRUCTION & EQUIPMENT MOBILISATION
- 33. PATENT INDEMNITY
- 34. MATERIALS FOR THE PERFORMANCE OF THE CONTRACT
- 35. QUALITY ASSURANCE PROGRAMME
- 36. INSPECTION AND APPROVAL
- 37. RECORDS AND MEASUREMENT
- 38. METHODS OF MEASUREMENT
- 39. TEMPORARY / ENABLING WORKS
- 40. URGENT WORKS
- 41. CONSTRUCTION POWER AND CONSTRUCTION WATER SUPPLY AND STAFF / LABOUR COLONY
- 42. SITE LABORATORY
- 43. COMPLETION CERTIFICATE

E. DEFECTS LIABILITY

- 44. LIABILITY FOR DAMAGE, DEFECTS OR IMPERFECTIONS AND RECTIFICATION THEREOF
- 45. DEFECTS LIABILITY PERIOD

F. RISK DISTRIBUTION

- 46. EMPLOYER'S AND CONTRACTOR'S RISKS AND INSURANCE
- 47. FORCE MAJEURE

G. CHANGES IN CONTRACT ELEMENT/OTHERS

- 48. CHANGES IN CONSTITUTION
- 49. POWERS OF ENGINEER-IN-CHARGE FOR ALTERATIONS/ OMISSIONS/ ADDITIONS /SUBSTITUTIONS
- 50. SUSPENSION OF WORKS
- 51. TERMINATION
- 52. CORRUPT OR FRAUDULENT PRACTICES
- 53. DELETED
- 54. CONTRACTOR'S LABOUR INFORMATION MANAGEMENT SYSTEM (CLIMS)
- 55. CONTRACTOR PERFORMANCE FEEDBACK AND EVALUATION SYSTEM
- 56. LIMITATION OF LIABILITY
- 57. NO CLAIM FOR INTEREST OR DAMAGE
- 58. COMPLIANCE TO CARRIAGE BY ROAD RULES 2011
- 59. PROCEDURE FOR CONTRACT CLOSING
- 60. INDEPENDENT EXTERNAL MONITORS
- 61. DISPOSAL OF SCRAP
- 62. DISPOSAL OF SURPLUS MATERIAL, PLANT & EQUIPMENT
- 63. PACKING MATERIAL
- 64. ANTI-BRIBERY AND ANTI-CORRUPTION (ABAC) POLICY

1.	A. CONTRACT AND INTERPRETATION		
	Definitions		
	(a)	“Employer” / “Owner” means NTPC Limited, New Delhi, having its registered office at NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi and shall include their legal representatives, successors and permitted assigns.	
	(b)	“Contract” means the Contract Agreement entered into between the Employer and Contractor, together with contract documents referred therein. The term “Contract” shall in all such documents be construed accordingly and includes special conditions, specifications, designs, drawings, “Schedule of Quantities” with rates and amount. These documents taken together shall be deemed to form the Contract and shall be complimentary to one another.	
	(c)	“Contract Documents” mean the following documents that constitute the Contract between the Employer and the Contractor:	
		(i)	The Contract Agreement alongwith its appendices
		(ii)	Letter of Award alongwith its appendices,
		(iii)	Special Conditions of Contract
		(iv)	Technical Specifications and Bid Drawings
		(v)	General Conditions of Contract
		(vi)	The Bid and Schedule of Quantities submitted by the Contractor.
	(d)	“GCC” means the General Conditions of Contract	
	(e)	“SCC” means the Special Conditions of Contract.	
	(f)	“Day” means calendar day of the Gregorian Calendar.	
	(g)	“Week” means a continuous period of seven (7) calendar days.	
	(h)	“Month” means calendar month of the Gregorian Calendar.	
	(i)	The “Contractor” means the individual or firm or company whether incorporated or not, undertaking the Works and shall include its legal representatives, or successors, or permitted assigns.	
	(j)	“Sub-Contractor” shall mean a person or a Corporate body approved by Engineer-in-Charge who has entered into a contract with the Contractor to complete a part of	
Package name- Refer NIT Bidding Document no.-Refer NIT		Section-IV (GCC)	PAGE 1 OF 87

	the Works. (k) The “Contract Sum” / “Contract Price” means: (i) in the case of Lump Sum Contracts the sum for which the bid is accepted. (ii) In the case of item Rate Contracts the cost of the Works arrived at after extension of the quantities shown in Schedule of Quantities by the item rates for the various items and summing them to arrive at the total price. (l) “Engineer-in-Charge” shall mean the person appointed by the Employer or his duly authorized representative who shall direct, supervise and be in charge of the Works for purposes of the Contract. (m) “Market rate” means the rate for an item of Work, determined on the basis of the cost of labour, and material brought to Site and incorporated in the Works and for use of plant and equipment for the Work executed plus 10% (ten percent) of the rate to cover all overheads and profits of the Contractor. (n) “Schedule(s) of Quantities” shall mean the priced and completed Schedule of Quantities forming the part of the bid or such Schedule of Quantities forming the part of the Contract, as the case may be, with amendments, if any, thereto. (o) The “Site” means the land and / or other places on, under, in or through which the Works is to be executed under the Contract including any other land or places which may be allotted by the Employer or used for the purposes of the Contract. (p) “Temporary/ Enabling Works” means all temporary works of every kind required in or about the execution, completion or maintenance of the Works. (q) “Urgent Works” shall mean any urgent measures which, in the opinion of the Engineer-in-Charge, become necessary during the progress of the Works to obviate any risk of accident or failure or which become necessary for reasons of security and safety. (r) “The Works” shall mean the Works to be executed in accordance with the Contract or part(s) thereof as the case may be and shall include all extra or additional, altered or substituted works or temporary/ enabling Works and urgent works as required for performance of the Contract. (s) “Cost” shall mean all expenditure reasonably incurred or to be incurred by the Contractor or Employer, as the case may be, whether on or off the Site, including overhead and other charges, but excluding profit. (t) Throughout these Bidding Documents, the term “Bid” and “Tender” and their derivatives (Bidder/Tenderer, Bidding/Tendering, Bidding Document/Tender	
Package name- Refer NIT Bidding Document no.-Refer NIT	Section-IV (GCC)	PAGE 2 OF 87

Document, etc.); Bill of Quantity / Schedule of Quantity / Schedule of Items/Schedule of Quantities/ Bill of Quantities; Employer / NTPC; Security Deposit / Performance Security/ Performance Guarantee; Engineer-in-Charge / Engineer, appearing any where in the Bidding Documents shall have the same meaning and are synonymous to each other.

(u) Goods and Services Tax” or “GST” means taxes levied under the Central Goods and Services Tax Act, Integrated Goods and Services Tax Act, and various State/Union Territory Goods and Services Tax Laws and applicable cesses, if any under the laws in force (hereinafter referred to as relevant GST Laws).

(v) “Sub-contractor from a country which shares a land border with India” means;

- a) An entity incorporated, established or registered in such a country; or
- b) A subsidiary of an entity incorporated, established or registered in such a country; or
- c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
- d) An entity whose beneficial owner is situated in such a country; or
- e) An Indian (or other) agent of such an entity; or
- f) A natural person who is a citizen of such a country; or
- g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

(v1) The beneficial owner for the purpose of clause “v” above will be as under;

- a) In case of company of Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation-

- i. “Controlling ownership interest” means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company;
- ii. “Control” shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholdings or management rights or shareholders agreements or voting agreements;
- b) In case of a partnership firms, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more judicial person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
- c) In case of an unincorporated associations or body of individuals, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

	d) Where no natural person is identified under (a) or (b) or (c) above, the beneficial owner is the relevant natural person who holds the position of senior managing officials; e) In case of a trust, the identifications of beneficial owner(s) shall include identification of the author of trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership. (v2) An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
2.	Heading and Marginal Notes to Conditions Heading and marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the Contract.
3.	Singular & Plural Where the context so requires, words importing the singular only will also include the plural and vice versa.
4.	Order of the precedence of the Documents
4.1	The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawings, figured dimensions in preference to scale and Special Conditions in preference to General Conditions.
4.2	In the case of discrepancy between Schedule of Quantities, the Specifications and/or the Drawings, the following order of precedence shall govern: (a) Description in Schedule of Quantities (b) SCC (c) Technical Specifications (d) Drawings
4.3	If there are varying or conflicting provisions made with in any document forming part of the Contract, the Engineer-in-Charge shall be the deciding authority with regard to the intention of the document.
4.4	Any error in description, quantity or rate in Schedule of Quantities or any omission
Package name- Refer NIT Bidding Document no.-Refer NIT Section-IV (GCC) PAGE 4 OF 87	

	therefrom shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the Works comprised therein according to drawings and specifications or from any of his obligations under the Contract.
5.	Instructions and Notices under the Contract:
5.1	Subject as otherwise provided in the Contract, all notices to be given on behalf of the Employer and all other actions to be taken on its behalf may be given or taken by the Engineer-in-Charge or any officer for the time being entrusted with the functions, duties and powers of the Engineer-in-Charge by the Employer. All instructions, notices and communications, etc., under the Contract shall be given in writing.
5.2	Contractor's Representative
5.2.1	The Contractor shall appoint its Representative within fourteen (14) days of the date of issuance of Letter of Award or before start of work whichever is earlier and shall request the Employer in writing to approve the person so appointed.
5.2.1.1	The Contractor's representative shall be a regular Employee/ Partner/ Director only and the Contractor shall be required to submit a Power of Attorney in original in favour of its representative. Notarized photocopy of the Power of Attorney shall be acceptable only if the Power of Attorney has been registered by the Contractor. The Employer may verify the photocopy of the Power of Attorney with the Original and the Contractor shall be required to produce the original Power of Attorney for verification, if required by the Employer. The relation of the Contractor's representative with the contractor such as Partner/ Employee/Director etc. should be clearly brought out in the Power of Attorney. The Contractor would be required to submit a documentary proof of the relation of the Contractor's representative with the contractor in the form of self attested copy of any of the following documents: a) Previous financial year's Form 16 as available at TRACES site of Income tax department, if the POA holder is an employee of contractor. In case, the Contractor is not able to submit Form 16 (only in case of recent appointment or where Form 16 details are not uploaded at TRACES), the contractor would be required to submit an Appointment Letter/Salary Slip/other documentary evidence of the POA holder alongwith an affidavit stating the relationship between the POA holder and the Contractor alongwith. Further, the Contractor shall be required to submit the copy of Form 16 as available through TRACES site for every subsequent year also in respect of the POA holder till the period of authorization. b) Articles of Association / Registered Partnership Deed if the POA holder is a partner or stake holder in Company.
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5.2.1.2	In case, the Contractor's representative is also doing some other Contract(s)/Work(s) as nominee of the same contractor, the Contractor shall give a declaration citing list of all works where the Contractor's representative is the nominee.
5.2.1.3	If the Employer objects to the appointment giving the reason therefore, then the Contractor shall appoint a replacement within fourteen (14) days of such objection, and the foregoing provisions of this GCC Sub-Clause 5.2.1 shall apply thereto.
5.2.2	The Contractor's Representative shall represent and act for the Contractor at all times during the currency of the Contract and shall communicate and provide to the Engineer-in-charge all the Contractor's notices, instructions, information and all other communications under the Contract. All notices, instructions, information and all other communications given by the Employer or the Engineer-in-charge to the Contractor under the Contract shall be given to the Contractor's Representative or, in its absence, its deputy, except as herein otherwise provided. The Contractor or its authorised representative shall be in attendance at the Site(s) during all working hours and shall superintend the execution of the Works with such additional assistance in each trade as the Engineer-in-Charge may consider necessary. Orders given to the Contractor's representative shall be considered to have the same force as if they had been given to the Contractor. The Contractor shall not revoke the appointment of the Contractor's Representative without the Employer's prior written consent, which shall not be unreasonably withheld. If the Employer consents thereto, the Contractor shall appoint some other person as the Contractor's Representative, pursuant to the procedure set out in GCC Sub-Clause 5.2.1.
5.2.3	The Contractor's Representative may, subject to the approval of the Employer (which shall not be unreasonably withheld), at any time delegate to any person any of the powers, functions and authorities vested in him or her. Any such delegation may be revoked at any time. Any such delegation or revocation shall be subject to a prior notice signed by the Contractor's Representative, and shall specify the powers, functions and authorities thereby delegated or revoked. No such delegation or revocation shall take effect unless and until a copy thereof has been delivered to the Employer and the Engineer-in-charge. Any act or exercise by any person of powers, functions and authorities so delegated to him or her in accordance with this GCC Sub-Clause 5.2.3 shall be deemed to be an act or exercise by the Contractor's Representative.
5.2.4	The Employer may by notice to the Contractor object to any representative or person employed by the Contractor in the execution of the Contract who, in the reasonable opinion of the Employer, may behave inappropriately, may be incompetent or negligent, or may commit a serious breach of the Safety regulations provided under GCC Sub-Clause 10.4.9. The Employer shall provide evidence of the same, whereupon the Contractor shall

	remove such person from the Facilities.
5.2.5	If any representative or person employed by the Contractor is removed in accordance with GCC Sub-Clause 5.2.4, the Contractor shall, where required, appoint a replacement as per clause 5.2.1.
5.2.6	In case any of the information/declaration/undertaking provided by Contractor/Contractor's representative is found to be false and/or the contractor/Contractor's representative suppresses any relevant information at any stage, the Contractor will be liable for actions in terms of Employer's Banning policy.
5.3	The Engineer-in-Charge shall communicate or confirm the instructions to the Contractor in respect of the execution of Work in a 'Works Site Order Book' maintained in the office of the Engineer-in-Charge and the Contractor or his authorised representative shall confirm receipt of such instructions by signing the relevant entries in this Book. If required by the Contractor, he shall be furnished a certified true copy of such instruction(s).
6.	Laws governing the Contract
6.1	This Contract shall be governed by the Indian laws for the time being in force. The Courts at Delhi shall have jurisdiction, in all matters unless otherwise stated in the SCC.
7.	Settlement of Disputes
7.1.	Mutual Consultation
	<i>If any dispute of any kind whatsoever shall arise between the Employer and the Contractor in connection with or arising out of the Contract, including without prejudice to the generality of the foregoing, any question regarding its existence, validity or termination, or the execution of the Facilities, whether during the progress of the Facilities or after their completion and whether before or after the termination, abandonment or breach of the Contract, the parties shall seek to resolve any such dispute or difference by mutual consultation.</i>
	<i>On reference of such a dispute by either party, the Employer shall invite the Contractor for mutual consultation, within seven (07) working days of such reference.</i>
	<i>Without admitting the Employer's liability, the Employer may obtain, within 30 days of such reference of the dispute, further details from the Contractor and examine it relating to the dispute. Such examination (if any) by the Employer shall not be construed as or imply acceptance of the claim or liability or completeness of the details set forth in such request or reference. The Employer may hold discussions with Contractor with an effort to resolve the dispute.</i>

	<i>If the parties fail to resolve such a dispute or difference by mutual consultation within a period of forty-five (45) days from the date of receipt of reference of such dispute or within such extended period as the parties shall agree in writing, then the dispute may be settled through Independent Engineer (if applicable) and/ or Mediation through Independent External Monitors (if applicable) and/or through Conciliation and/or Arbitration (if applicable) / other remedies available under the applicable laws.</i> <i>Notwithstanding anything contained in any other law for the time being in force, the parties shall keep confidential all matters relating to the Mutual consultation proceedings. Confidentiality shall extend also to any agreement reached during Mutual consultation, except where its disclosure is necessary for purposes of implementation and enforcement.</i> <i>The parties shall not rely on or treat as evidence in Independent Engineer/ Mediation/ Conciliation/ and in any way Arbitral or Judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of the Mutual consultation proceedings-</i> a) <i>views expressed or suggestions made by the other party in respect of a possible settlement of the dispute;</i> b) <i>admissions made by the other party in the course of the mutual consultation proceedings;</i> c) <i>the fact that the other party had indicated his willingness to accept a proposal for mutual settlement.</i> 7.2. Resolution of Dispute through Independent Engineer (IE) (Not applicable) <i>If the parties fail to resolve the dispute or difference by mutual consultation within the period specified at Cl. 7.1 above, the dispute shall be referred to Independent Engineer (IE), as follows:</i> I. Appointment, Selection and Removal of IEs/Experts: i) <i>The Employer and Contractor shall jointly select only one Member for the Contract from the panel of Experts (for contracts of Hydro Projects), as enclosed in Special Conditions of Contract, as amended from time to time by Ministry of Power. For contracts of Thermal Projects, the Employer and Contractor shall jointly select only one Member for the Contract from the panel of Experts, to be notified by Ministry of Power, and communicated to Contractor by Employer .</i> <i>For the joint selection process, after the award of the contract, the Contractor shall shortlist at least 3 Experts from the ‘Panel of Experts as Independent Engineer’ and send to EMPLOYER who shall appoint one of them as ‘Independent Engineer’ for the Contract.</i> <i>The Expert would be designated as 'Independent Engineer' (IE) for the contract. Appointment of IE/ Expert shall be finalized within twenty-eight (28) days from award of Contract.</i>	
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ii)	<i>The initial term of appointment of IE would be for a period of five (5) years or contract period whichever is lesser and may be further renewed on a year-on year basis as may be mutually agreed between the Employer and the Contractor subject to the consent of IE and final approval by the Ministry of Power.</i>
iii)	<i>It will be mandatory for the IE to visit the site once in every two months to be constantly aware of the ongoing project activities and to have a fair idea of any situation that may lead to disagreement between the parties. Further, additional visits may also be undertaken as and when called upon to address issues of disagreements.</i>
iv)	<i>Employer or Contractor will not be able to change the IE in any case. In case of adverse finding about IE such as not performing duties or complaints of integrity, that Expert would be dropped by the Ministry from the panel itself and a new Expert would be selected by the Employer and Contractor jointly from the panel for performing the duties of IE.</i>
II.	<i>Standard Operating Procedure (SOPs) for Independent Engineer (IE)</i>
i)	<i>IE shall act as per the Standard Operating Procedures (SOPs) attached at Annexure-C.</i>
ii)	<i>Resolution by IE shall commence when the claimant Party submits detailed information as per Standard Format (for Disagreement Case filing attached as Annexure-D) to IE for intervention along with the necessary documentary evidences. Demand for IE intervention will not be admissible without initial documentary evidence.</i>
iii)	<i>Necessary information sought by IE during the course of investigation shall be provided in a time bound manner by both the Parties and non-compliance of the same shall lead to imposition of penalties, as specified in Special Conditions of Contract (SCC).</i>
iv)	<i>IE will examine the issue(s) raised by the Parties concerned as mentioned at point number (ii) above by conducting inspections involving field measurements as may be required to further investigate and to also conduct hearing/mediation with both the parties.</i>
v)	<i>Based on the preliminary hearing of the parties, IE shall prescribe resolution timeline depending upon the number and nature of disagreements subject to a maximum duration of thirty (30) days or within extended timeline under extraordinary circumstances and for reasons to be recorded in writing.</i>
vi)	<i>There shall not be any conflict of interest and it shall be ensured that IE should not have been engaged for providing any other services to any of the parties i.e. either Employer or Contractor in the last three years. An Undertaking in this regard shall be furnished by the Contractor for the purpose of avoiding any conflict of interest, at the time of bidding and finalization of IE/ Expert.</i>

vii)	<i>In the event of non-performance of obligations/services by the IEs at any time during the duration of its contract, the Employer and the Contractor, on mutually agreed basis, shall have the right and discretion to terminate IEs contract by giving a termination notice of thirty (30) days to IEs.</i>
viii)	<i>The role of 'Independent Engineer' under the Contract is an impartial and fair exercise, where the 'Independent Engineer' has to act as a neutral third-party facilitator. The decision of Independent Engineer shall not be binding on the parties unless the parties sign the written settlement agreement and the same is authenticated by IE. Such Settlement agreement would then be binding on the parties and both parties shall implement the same forthwith.</i>
III.	Terms and Conditions for Payments to 'Independent Engineer' -
i)	<i>Retainership Fee: A retainer fee, as specified in Special Conditions of Contract (SCC), for 'Independent Engineer for a specific project shall be considered as payment in full for:</i>
a.	<i>being available on a notice of 2 weeks for all site visits and hearings,</i>
b.	<i>becoming and remaining conversant with all the project developments and maintaining relevant files;</i>
c.	<i>compensating all office and overhead expenses including secretarial services, photocopying and office supplies incurred in connection with his duties; and</i>
	<i>The retainer fee of Experts, shall be increased annually by 10%. IE shall be eligible for maximum two retainer ship fee i.e. he can be engaged in maximum two CPSEs (CPSE shall include its JV/subsidiaries also). Further, IE can be engaged in maximum 02 contracts /packages in each CPSE. The duration of retainership shall be for such duration as may be mutually decided by the Employer and Contractor but shall not, in any case, extend beyond 3 months after the completion of works as per the contract.</i> <i>The retainership fee shall be shared by the Employer and the Contractor equally but shall initially be paid to the IE by the Employer.</i>
ii)	<i>Site Visit Fee: A daily visiting fee, as specified in Special Conditions of Contract (SCC), to either project site or project office, anywhere in India, limited to a maximum of 10 days in a month for Expert, shall be paid for hearing, preparing reports etc initially by the Employer. The daily visiting fee of Expert shall be increased on yearly basis @10%.</i>
iii)	<i>Reimbursement of travel, boarding/lodging expenses incurred by Independent Engineer: The travel, boarding/lodging expenses of the 'Independent Engineer', as per entitlement of Executive</i>

	Director of EMPLOYER, would be made initially by the Employer. If any expert of 'Independent Engineer does not receive payment of the amount due within 30 days after submitting claim, the expert shall be free to suspend his/her services without notice until the payment is received. iv) Meeting Expenses: All the payments for holding the meeting would be initially borne by the Employer and shall be shared equally by the Employer and Contractor. v) Sharing of Expenses on Independent Engineer: All the payments for holding the meeting, site visits, reimbursement of travel, boarding/lodging expenses and monthly compensation of Independent Engineer' shall be shared equally by both the parties i.e. Employer and Contractor. vi) The Employer shall maintain an account of all the expenses incurred by it on 'Independent Engineer'. Notwithstanding anything contained in any other law for the time being in force, the Independent Engineer and the parties shall keep confidential all matters relating to the Independent Engineer proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of implementation and enforcement. The parties shall not rely on or introduce as evidence in Mediation/ Conciliation/ Arbitral or Judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of the Independent Engineer proceedings, — a) views expressed or suggestions made by the other party in respect of a possible settlement of the dispute; b) admissions made by the other party in the course of the Independent Engineer proceedings; c) proposals made by the Independent Engineer; and d) the fact that the other party had indicated his willingness to accept a proposal for settlement made by the Independent Engineer.			
7.3.	*Mediation through Independent External Monitors (IEMs) If the parties fail to resolve a dispute or difference by mutual consultation and through Independent Engineer (if applicable) within a period specified at Cl. 7.1 and 7.2 above, the dispute, if the parties agree, may be referred to the Panel of IEMs for Mediation.			
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*The Mediation proceedings shall be completed in a time bound manner, in **not more than 45 days from the date of reference to IEMs for Mediation.***

The IEMs may conduct the Mediation proceedings in the manner, they consider appropriate. In case of 3-member Panel of IEMs, 2 members will constitute a valid quorum and the meeting can take place to proceed in the matter after seeking consent from the member who is not available. However, IEMs recommendations will be signed by all the members.

The fees for such meetings shall be as specified in the SCC. The travel and stay arrangement for such meetings shall be equal to that of Independent Board Member of Employer's Organization. However, not more than five meetings shall be held for a particular dispute resolution. The fees/ expenses on dispute resolution shall be equally shared by both the parties.

If decision of IEMs is acceptable to both the parties, a Settlement Agreement will be signed to the extent agreed by the parties within 15 days of acceptance by the parties and same shall be authenticated by all the IEMs.

Notwithstanding anything contained in any other law for the time being in force, the Mediator and the parties shall keep confidential all matters relating to the Mediation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of implementation and enforcement.

The parties shall not rely on or introduce as evidence in Conciliation or Arbitral or Judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of the Mediation proceedings, —

- a) views expressed or suggestions made by the other party in respect of a possible settlement of the dispute;*
- b) admissions made by the other party in the course of the Mediation proceedings;*
- c) proposals made by the Mediator; and*
- d) the fact that the other party had indicated his willingness to accept a proposal for settlement made by the Mediator.*

7.4.

Resolution of Dispute through Conciliation

If the parties fail to resolve such a dispute or difference by mutual consultation and through Independent Engineer (if applicable) and/or through Mediation (if applicable) within a period as specified at Cl. 7.1, 7.2 and 7.3 above, the dispute if the parties agree, may be referred to Conciliation.

(i) (ii)	<i>For cases where the disputed amount (Claim/ Counter claim, whichever is higher) is upto Rs. 25 Cr. (excluding interest), the matter for conciliation shall be referred to Expert Settlement Council (ESC), constituted by Employer</i> <i>For cases where the disputed amount (Claim/ Counter claim, whichever is higher) is above Rs. 25 Cr. (excluding interest), the matter for conciliation shall be referred to Conciliation Committee of Independent Experts (CCIE), constituted by Ministry of Power (MoP).</i> <i>If the claim/Counter-claim is in foreign currency, the SBI Bills Selling Exchange rate prevailing on the date of claim shall be used for the purpose of converting the claim in Indian Rupee.</i> <i>The Conciliation process shall be conducted as per Part III of the Arbitration and Conciliation Act, 1996.</i>			
7.4.1.	Resolution of Dispute through Expert Settlement Council (ESC), constituted by Employer {For cases with Disputed amount (Claim/ Counter claim, whichever is higher) upto Rs. 25 Crore excl. interest} <i>If the parties fail to resolve such a dispute or difference by mutual consultation and through Independent Engineer (if applicable) and/or through Mediation (if applicable) within a period specified at Cl. 7.1, 7.2 and 7.3 above, the dispute, if the parties agree, may be referred to Conciliation through Expert Settlement Council (ESC), in cases where the Disputed amount (Claim/ Counter claim, whichever is higher) is upto Rs.25 crore (excl. interest).</i>			
7.4.1.1.	Invitation for Conciliation through ESC:			
7.4.1.1.1.	<i>A party shall notify the other party in writing about such a dispute it wishes to refer for Conciliation through ESC within a period of 15 days from the date of failure to resolve the dispute through Mutual Consultation and Independent Engineer (if applicable) and/or through Mediation (if applicable) within a period as specified at Cl. 7.1, 7.2 and 7.3 above. Such Invitation for Conciliation shall contain sufficient information as to the dispute to enable the other party to be fully informed as to the nature of the dispute, amount of the monetary claim, if any, and apparent cause of action.</i>			
7.4.1.1.2.	<i>Upon acceptance of the invitation to conciliate, the other party shall submit its counter claim, if any, within a period of 15 days from the date of the invitation to conciliate. If the other party rejects the invitation or Disputed amount (Claim/ Counter claim, whichever is higher) exceeds Rs 25crore (excl. Interest), there will be no Conciliation proceedings through ESC.</i>			
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	<i>There shall be no Conciliation where disputed amount (Claim/ Counter claim, whichever is higher excl. interest) is only up to Rs 5 lakhs.</i>			
7.4.1.1.3.	<i>If the party initiating Conciliation does not receive a reply within fifteen (15) days from the date on which it sends the invitation, or within such other period of time as specified in the invitation, it shall treat this as a rejection of the invitation to conciliate from the other party.</i>			
7.4.1.2.	Conciliation through ESC:			
7.4.1.2.1.	<i>Where Invitation for Conciliation has been furnished under GCC sub clause 7.4.1.1, the parties shall attempt to settle such dispute through Expert Settlement Council (ESC) which shall be constituted by CMD/ Chairman of Employer.</i>			
7.4.1.2.2.	<i>ESC will be formed from experts comprising three members from the panel of Conciliators maintained by Employer. However, there will be single member ESC for disputes involving disputed amount (Claim/ Counter claim, whichever is higher excl. interest) is up to Rs. 1 crore.</i> <i>CMD/ Chairman of Employer shall have the authority to reconstitute the ESC to fill any vacancy.</i>			
7.4.1.2.3.	<i>The ESC shall be amongst Civil Servants of Govt. of India retired from the level of Joint Secretary and above, Retired Judges, Officers retired from the level of Executive Director and above of any Maharatna /Navratna company in India, other than NTPC Ltd, Retired Independent Directors who have served on the Board of any Maharatna / Navratna company in India, other than NTPC Ltd.</i>			
7.4.1.3.	Proceedings before ESC:			
7.4.2.1.1.	<i>The claimant shall submit its Statement of Claims (SOC) along with relevant documents to ESC members, and to the party(s) indicated in the appointment letter within 15 days of appointment of ESC. The respondent shall file its reply/Statement of Defence (SOD) and counter claim (if any) within 15 days of the receipt of the Statement of claims . Each party shall send a copy of such Statement along with relevant documents to the other party.</i> <i>Parties may file their rejoinder/additional documents, if any in support of their Claim/Counterclaim within next 7 days. No documents shall be allowed thereafter, except with the permission of ESC.</i>			
7.4.2.1.2.	<i>The parties shall file their claim and counterclaim in the following format</i> <i>a. Chronology of the dispute</i> <i>b. Brief of the contract</i> <i>c. Brief history of the dispute</i> <i>d. Issues</i>			
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Sl. No.	Description of Claims/ Counter claims	Amount (in foreign currency/INR)	Relevant Contract Clause

e. Details of Claim(s)/Counter Claim(s)

f. Basis/Ground of claim(s)/counter claim(s) (along with relevant clause of contract

Note: Statement of claims shall be restricted to maximum limit of 20 pages.

7.4.2.1.3. *In case of 3 members ESC, 2 members will constitute a valid quorum and the meeting can take place to proceed in the matter after seeking consent from the member who is not available. However, ESC recommendations will be signed by all the members.*

If required, meetings can be conducted through video conferencing/other digital means subject to the agreement between the parties and the ESC.

7.4.2.1.4. *The parties shall be represented by their in house employees. No party shall be allowed to bring any advocate or outside consultant/advisor/agent to contest on their behalf. Ex-officers of Employer's Organization who have handled the subject matter in any capacity shall not be allowed to attend and present the case before ESC on behalf of contractor. However, ex-employees of parties may represent their respective organizations. Parties shall not claim any interest on claims/counter-claims from the date of notice invoking Conciliation till execution of settlement agreement, if so arrived. In case, parties are unable to reach a settlement, no interest shall be claimed by either party for the period from the date of notice invoking Conciliation till the date of ESC recommendations and 30 days thereafter in any further proceeding.*

7.4.2.1.5. *ESC will conclude its proceedings in maximum 5 meetings and give its recommendations within 90 days from the date of reference to ESC. ESC will give its recommendations to both the parties recommending possible terms of settlement. CMD/ Chairman of Employer may extend the time/number of meetings, in exceptional cases, if ESC requests for the same with sufficient reasons and as agreed by the parties.*

7.4.2.1.6. *Depending upon the location of ESC members and the parties, the venue of the ESC meeting shall be either Delhi/Mumbai/Kolkata/Chennai or any other city whichever is most economical from the point of view of travel and stay etc. All the expenditure incurred in ESC proceedings shall be shared by the parties in equal proportion.*

7.4.1.4. Fees & Facilities to the Members of the ESC

The cost of Conciliation proceedings including but not limited to fees for Conciliator, Airfare, Local transport, Accommodation, cost towards conference facility etc shall be as

provided herein below:

Sl. No.	Fees/ Facility	Entitlement
1	Fees	Lumpsum fee of Rs. 2,50,000 per conciliator irrespective of the no. of meetings. *
2	Secretarial expenses	Rs. 10,000 lump sum (to 1 member only).
3	Transportation in the city of the meeting	Car as per entitlement or Rs. 2,000 per day
4	Venue for meeting	EMPLOYER'S conference rooms
Facilities to be provided to the out-stationed member		
5	Travel from the city of residence to the city of meeting	As per entitlement of Independent Directors. Executive class air tickets / first class AC train tickets/ Luxury car/ reimbursement of actual fare. However, entitlement of air travel by Business class shall be subject to austerity measures, if any, ordered by Govt of India.
6	Transport to and fro airport/ railway station in the city of residence	Car as per entitlement or Rs. 3,000
7	Stay for out stationed members	As per entitlement of Independent Directors.
8	Transport in the city of meeting	Car as per entitlement or Rs. 2000 per day

** Due to unavoidable circumstances, if there is requirement of more than 5 meeting to conclude the Conciliation proceedings, the same may be done at the discretion of ESC within the capping of fee of Rs 2.5 Lakhs per conciliator. However, logistic arrangements, including travel, etc. may be provided as per the extant Policy for such additional sittings.*

Aforesaid fees is subject to revision by Employer from time to time and subject to government guidelines on austerity measures, if any. All the expenditure incurred in the ESC proceedings shall be shared by the parties in equal proportions. The Parties shall maintain the account of expenditure and present to the other for the purpose of sharing on conclusion of the ESC proceedings.

7.4.1.5. *If recommendations/ report of ESC is acceptable to both the parties, a Settlement Agreement under Section 73 of the Arbitration and Conciliation Act, 1996 will be signed to the extent agreed*

	by the parties within 15 days of acceptance by the parties and same shall be authenticated by all the ESC members. <i>Parties are free to terminate Conciliation proceedings at any stage as provided under the Arbitration and Conciliation Act 1996.</i> 7.4.1.6. <i>Notwithstanding anything contained in any other law for the time being in force, the Conciliator and the parties shall keep confidential all matters relating to the Conciliation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of implementation and enforcement.</i> <i>The parties shall not rely on or introduce as evidence in Arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of the Conciliation proceedings, —</i> <i>a) views expressed or suggestions made by the other party in respect of a possible settlement of the dispute;</i> <i>b) admissions made by the other party in the course of the Conciliation proceedings;</i> <i>c) proposals made by the Conciliator; and</i> <i>d) the fact that the other party had indicated his willingness to accept a proposal for settlement made by the Conciliator.</i> 7.4.2. <i>Resolution of Dispute through Conciliation Committee of Independent Experts (CCIE), constituted by Ministry of Power (MoP) {For cases with Disputed amount (Claim/ Counter claim whichever is higher) above Rs. 25 Crore excl. interest}</i> <i>If the parties fail to resolve such a dispute or difference by mutual consultation and through Independent Engineer (if applicable) and/or through Mediation (if applicable) within a period specified at Cl. 7.1, 7.2, 7.3 above, the dispute, if the parties agree, may be referred to Conciliation Committee of Independent Experts (CCIE), in cases where the Disputed amount (Claim/ Counter claim whichever is higher) is above Rs. 25 crore excl. interest.</i> 7.4.2.1. <i>Invitation for Conciliation through CCIE:</i> 7.4.2.1.1. <i>A party shall notify the other party in writing about such a dispute it wishes to refer for CCIE within a period of 15 days from the date of failure to resolve the dispute through Mutual Consultation and Independent Engineer (if applicable) and/or through Mediation (if applicable) within a period as specified at Cl. 7.1, 7.2 and 7.3 above. Such Invitation for Conciliation shall contain sufficient information as to the dispute to enable the other party to be fully informed as to the nature of the dispute, amount of the monetary claim, if any, and apparent cause of action.</i>
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7.4.2.1.2.	<i>If the party initiating Conciliation does not receive a reply within fifteen (15) days from the date on which it sends the invitation, or within such other period of time as specified in the invitation, it shall treat this as a rejection of the invitation to conciliate from the other party.</i>
7.4.2.2.	<i>Conciliation Committee of Independent Experts:</i>
7.4.2.2.1.	<i>Where Invitation for Conciliation has been consented to under GCC sub clause 7.4.2.1, the same shall be referred to the Conciliation Committee of Independent Experts (CCIE) within 30 days.</i>
7.4.2.2.2.	<i>Conciliation Committees of Independent Experts (CCIE) have been constituted and notified by MoP for settlement of disputes arising in the Contract. There are three CCIEs, as specified in Special Conditions of Contract.</i>
7.4.2.2.3.	<i>The Contractor may select three CCIEs, in priority order, from the list of CCIEs enclosed with the Special Conditions of Contract, for finalization by Central Electricity Authority (CEA).</i> <i>There shall not be any conflict of interest for the members of the CCIE due to their past assignments. Individuals CCIE members shall submit an undertaking in this regard to the Employer, prior to appointment. It shall be ensured that they have not been engaged for providing any services to any of the parties i.e. either Employer or the Contractor in the last five years. An Undertaking in this regard, shall also be furnished by the Contractor for the purpose of avoiding any conflict of interest.</i>
7.4.2.3.	<i>Proceedings before CCIE:</i>
7.4.2.3.1.	<i>The procedure of CCIE shall not be treated as alternate arbitration proceedings where both parties come with Statement of claims/defence, arguments/counter arguments, rejoinders, written submissions etc., aided by their respective lawyers.</i>
7.4.2.3.2.	<i>The parties shall be brief and to the point before the Committee with regard to their respective stance and view the exercise in the spirit of conciliation/settlement.</i>
7.4.2.3.3.	<i>The possibility of non-availability of any one of the members of CCIE in any proceedings cannot be ruled out. As such, the Committee comprising the other two members shall be competent to proceed in the matter. The proceedings of the Committee shall not be vitiated if one of the three members of CCIE is not present in the deliberations of the Committee. When the parties sign the settlement agreement, at least two members of CCIE shall authenticate the same. Such conciliation proceedings shall be considered valid and the settlement agreement will be binding on the parties.</i>
7.4.2.3.4.	<i>The parties shall be represented by their in house employees. No party shall be allowed to bring any advocate or outside consultant/advisor/agent to contest on their behalf. Ex-officers of EMPLOYER who have handled the subject matter in any capacity shall not be allowed to attend and present the case before CCIE on behalf of contractor. However, ex-employees of parties may represent their respective organizations.</i>

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7.4.2.3.5.	<i>The Conciliation proceedings shall be completed in each case through 5 sittings in a period of not more than three months from the date the reference made to the CCIE. In exceptional cases, if any dispute so merits, the time period may be extended at the discretion of Conciliation Committee (with reasons to be recorded in writing), for a further period of three months.</i>
7.4.2.3.6.	<i>The CCIE shall hold day to day sitting at a suitable place (preferably the headquarter of the Employer or New Delhi) and may hold as many sittings every month as it deems appropriate keeping in view the volume of work.</i>
7.4.2.4.	<i>Fees & Facilities to the Members of the CCIE</i> <i>Each member of CCIE would be paid a sum of Rs. 50,000/- as sitting fee per sitting. In addition, Rs. 5,000/- per sitting will be paid for local transport charges for each day of proceeding.</i> <i>In case, a particular dispute requires more than 5 sittings, the same may be held at the discretion of the CCIE but with a cap on payment of fee for 5 sittings only. The local transport charges shall, however, be paid as provided for each day of sitting beyond the 5 sittings.</i> <i>All expenditure incurred on the conciliation proceedings including payment of fees to the Conciliators, office space, logistic, secretarial assistance and other incidental expenses etc. shall be borne by the Employer initially. Thereafter it shall be shared equally by both parties on completion of the conciliation process.</i>
7.4.2.5.	<i>The Parties shall maintain the account of expenditure and present to the other for the purpose of sharing on conclusion of the CCIE proceedings.</i> <i>The Conciliation process shall be conducted under Part III of the Arbitration and Conciliation Act, 1996.</i> <i>In case of failure of the conciliation process at the level of the Conciliation Committee, the parties may withdraw from conciliation process and take recourse to remedies as may be available to them under the applicable laws other than Arbitration.</i> <i>In the event of the conciliation proceedings being successful, the parties to the dispute would sign the written settlement agreement and the conciliators would authenticate the same. Such settlement agreement would then be binding on the parties in terms of Section 73 of the Arbitration and Conciliation Act, 1996.</i> <i>After successful conclusion of proceedings, the Parties to the conciliation process, have to undertake and complete all necessary actions for implementation of the terms of settlement within a period of 30 days from execution of settlement agreement, unless a different timeline not exceeding 60 days is agreed upon in settlement agreement. All pending claims</i>
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	<i>of parties, in connection with the dispute, before any other legal forum are to be withdrawn within the said 30 days in pursuance of the settlement agreement.</i> 7.4.2.6. <i>Notwithstanding anything contained in any other law for the time being in force, the Conciliator and the parties shall keep confidential all matters relating to the Conciliation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of implementation and enforcement.</i> <i>The parties shall not rely on or introduce as evidence in Arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of the Conciliation proceedings, —</i> <i>a) views expressed or suggestions made by the other party in respect of a possible settlement of the dispute;</i> <i>b) admissions made by the other party in the course of the Conciliation proceedings;</i> <i>c) proposals made by the Conciliator; and</i> <i>d) the fact that the other party had indicated his willingness to accept a proposal for settlement made by the Conciliator.</i>	
7.5.	Arbitration	
7.5.1.	<i>If the process of mutual consultation and IE (if applicable)and/or Mediation (if applicable) and/or ESC fails to arrive at a settlement between the parties, Employer or the Contractor may, within Thirty (30) days of such failure, give notice to the other party, of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. The mechanism of settling the disputes through arbitration shall be applicable only in cases where the disputed amount (i.e. Claim/ Counter claim, whichever is higher, excluding interest) is less than Rs. 10 crores.</i> <i>If the claim/ counter claim is in foreign currency, the SBI Bills Selling Exchange rate prevailing on the date of claim shall be used for the purpose of converting the claim in Indian Rupee.</i> <i>In case the disputed amount (Claim/ Counter claim, whichever is higher, excl. interest) is Rs. 10 Crores or above, the parties shall be within their rights to take recourse to remedies as may be available to them under the applicable laws other than Arbitration after prior intimation to the other party. There shall be no arbitration where the disputed amount (Claim/ counter claim, whichever is higher) is only up to Rs. 5 lakhs.</i> <i>The parties at the time of invocation of arbitration shall submit all the details of the claims and the counter-claims including the Heads/Sub-heads of the Claims/Counter-Claims and</i>	
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the documents relied upon by the parties for their respective claims and counter-claims. The parties shall not file any documents/details of the claims and counter-claims thereafter.

The claims and the counter claims raised by the parties at the time of invocation of the arbitration shall be final and binding on the parties and no further change shall be allowed in the same at any stage during arbitration under any circumstances whatsoever.

In case, multiple arbitrations are invoked (whether sub-judice or arbitral award passed) by any party to under this contract, then the cumulative disputed amount (i.e. Claim/Counter claim, whichever is higher, excluding interest) in all such arbitrations shall be taken into account while arriving at the total disputed amount for the subject contract. Disputes having cumulative value less than Rs 10 crores shall be resolved through arbitration. In case the disputed amount (Claim/Counter claim, whichever is higher, excluding interest) is Rs 10 crores and above, the parties shall be within their rights to take recourse to remedies as may be available to them under the applicable laws other than Arbitration after prior intimation to the other party.

7.5.2. Any dispute in respect of which a notice of intention to commence arbitration has been given, in accordance with GCC Sub Clause 7.5.1, shall be finally settled by arbitration.

7.5.3. It is agreed between the parties that the Arbitration proceedings shall be conducted as per the provisions of Fast Track Procedure as provided under The Arbitration and Conciliation Act, 1996, as amended from time to time.

Any dispute or difference raised by a party to arbitration shall be adjudicated by an arbitral tribunal consisting of three arbitrators, in the following manner:

a) *A party willing to commence arbitration proceeding shall invoke Arbitration Clause by giving notice to the other party.*

b) *The EMPLOYER and the Contractor shall each appoint one arbitrator, and these two arbitrators shall jointly appoint a third arbitrator within 30 days, who shall act as presiding arbitrator of the arbitral tribunal. If the two arbitrators do not succeed in appointing a third arbitrator within 30 days of the latter of the two arbitrators has been appointed, the third arbitrator shall be appointed by the High Court of Delhi.*

c) *If one party fails to appoint its arbitrator within 30 days after the other party has named its arbitrator, the party which has named its arbitrator may approach the High Court of Delhi to appoint the second arbitrator.*

d) *If any member of the arbitral tribunal dies, resigns, becomes incapacitated or withdraws for any reason from the proceedings or his mandate is terminated by the Court, a substitute shall be appointed in the same manner as the arbitrator whose mandate has*

terminated as above. After substitution of new member, the arbitration tribunal shall proceed with reference from the stage where the mandate of the arbitrator has been terminated.

e) Arbitrator tribunal shall be paid fees as per the Fee Schedule (presently Fourth Schedule) provided in 'The Arbitration and Conciliation Act, 1996' as amended from time to time. If the claim/ counter claim is in foreign currency, the SBI Bills Selling Exchange rate prevailing on the date of claim shall be used for the purpose of converting the claim in Indian Rupee which may be used for determining the arbitration fee.

f) If after commencement of the Arbitration proceedings, the parties agree to settle the dispute mutually or refer the dispute to mediation or Conciliation, the arbitral tribunal shall put the proceedings in abeyance until such period as requested by the parties. Where the proceedings are put in abeyance or terminated on account of mutual settlement of dispute by the parties, the fees payable to the arbitrator shall be determined as under:

- (i) 40% of the fees if the Pleadings are complete.*
- (ii) 60% of the fees if the Hearing has commenced.*
- (iii) 80% of the fees if the Hearing is concluded but the Award is yet to be passed.*

g) Each party shall pay its share of arbitrator's fees in stages as under or as per the directions of Arbitrator:

- (i) 40 % of the fees on Completion of Pleadings.*
- (ii) 40% of the fees on Conclusion of the Final Hearing.*
- (iii) 20% at the time when arbitrator notifies the date of final award.*

h) The Claimant shall be responsible for making all necessary arrangements for the travel/ stay of the Arbitrator including venue of arbitration, hearings. The parties shall share the expenses for the same equally.

i) The Arbitration shall be held at Delhi only.

j) The arbitral tribunal shall give reasoned and speaking award in prompt manner and it shall be final and binding on the parties.

k) Subject to the aforesaid conditions, provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment thereof as amended from time to time, shall apply to the arbitration proceedings under this clause.

7.5.4.

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract (s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/ Organizations (excluding

	<i>disputes relating to Railways, Income Tax, Customs & Excise Departments), such disputes or difference shall be taken up by either party for resolution through Administrative Mechanism for Resolution of CPSEs Disputes (AMRCD) as mentioned in DPE Office Memorandum No. 05/0003/2019-FTS-10937 dated 14.12.2022 issued by Department of Public Enterprises, Government of India and its further clarifications, modifications and amendments, issued from time to time.</i> <i>The limit on disputed amount as mentioned at clause 7.5.1 above shall not be applicable and matter may be referred to AMRCD irrespective of the amount involved in dispute, if the dispute could not be resolved through Mutual Consultation and IE (if applicable) as brought out at GCC Sub Clause 7.1 and 7.2 above.</i>			
7.6.	<i>Notwithstanding any reference to the Independent Engineer or Mediation or Conciliation or Arbitration herein,</i> <i>(a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree.</i> <i>(b) the Employer shall pay the Contractor any monies due to the Contractor.</i> <i>Settlement of Dispute clause cannot be invoked by the Contractor, if the Contract has been mutually closed or 'No Demand Certificate' has been furnished by the Contractor or any Settlement Agreement has been signed between the Employer and the Contractor.</i>			
	B. SUBJECT MATTER OF CONTRACT			
8.	Scope of Contract The Work to be carried out under the Contract shall be as delineated in Bidding Documents and shall, except as otherwise provided in these conditions, include all labour, materials, tools, plant, equipment, and transport which may be required in preparation of and for and in the full and entire execution and completion of the Works.			
9.	Notices to Local Bodies			
9.1	The Contractor shall comply with and give all notices required under any Governmental authority, instrument, rule or order made under any Act of Parliament, State Laws or any regulation or bye-laws of any local authority relating to the Works. He shall before making any variation from the "Technical Specification / Tender Drawings / Construction Drawings" necessitated by such compliance give to the Engineer-in-Charge a written notice giving reasons for the proposed variation and obtain the Engineer-in-Charge's instructions thereon, in writing.			
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9.2	The Contractor shall pay and indemnify the Employer against any liability in respect of any fees or charges payable under any Act of Parliament, State laws or any Government instrument, rule or order and any regulations or bye-laws of any local authority in respect of the Works.
10.	Human Resources
10.1	The Contractor for the purpose of the Contract shall engage / employ adequate number of key personnel in all areas such as design / engineering (wherever applicable), planning, scheduling and construction and carrying out of all maintenance of his plant and equipment (as detailed in the SCC) and competent and skilled work force as directed by the Engineer-in-Charge. The Engineer-in-Charge will approve any proposed replacement of such key personnel including work force only if their qualifications, experience, competence and capabilities are substantially equal to or better than those personnel originally identified and approved by the Engineer-in-Charge.
10.2	The Engineer-in-Charge may require the Contractor to remove from Site of Works or from any other area of Work related to the Contract, any member of the Contractor personnel or work force who (i) Persists in any misconduct or lack of care (ii) Performs his duties incompetently or negligently or otherwise carelessly (iii) Fails to conform with any provisions of the Contract or (iv) Persists in any conduct which is prejudicial to the safety, health or protection of the Work and environment. If appropriate, the Contractor shall appoint a suitable replacement within fourteen (14) days or within such period as may be agreed between the Engineer-in-Charge and Contractor.
10.3	The Contractor shall unless otherwise provided in the Contract, make his own arrangement for engagement of all staff and labour, local or otherwise and for their payment, housing, transport, lodging and welfare as may be required by law and or by industry practice. The Contractor shall provide the Engineer-in-Charge a return in detail in such form and at such intervals as he may reasonably prescribe showing the staff and number of the several classes of labour and other staff from time to time employed by the Contractor at Site or in connection with the Work along with such information as the Engineer-in-Charge may reasonably require.
10.4	Labour laws and Regulations and compliance thereof
10.4.1	During the entire period of Contract, the Contractor and his Sub-Contractors shall, at all times abide by all existing labour enactments, rules made therein, regulations, notifications and bye-laws by the appropriate government, local authority or any other labour laws or
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	notification that may be issued under any labour law prevailing as on the date seven (7) days prior to the deadline set for submission of the bids, published by the State or Central Government or Local Authorities. An illustrative list of applicable acts, notifications, rules etc. in connection with the labour as applicable is provided in SCC. This list is not in any way exhaustive and shall not absolve the Contractor from any of his liabilities or responsibilities in compliance with any other laws, regulations, notifications that may be in force during the tenure of Contract.			
10.4.1.1	During the entire period of Contract, the Contractor and his Sub-Contractors shall, at all times abide by the following Acts/ Statutes related to Human Resources 1. Factories Act, 1948; Contract Labour (Regulation & Abolition) Act, 1970; 2. EPF & MP Act, 1952; 3. Building & Other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996; 4. ESI Act, 1948; 5. Minimum Wages Act, 1948; 6. Payment of Wages Act, 1936; 7. Payment of Bonus Act, 1965; 8. Payment of Gratuity Act, 1972; 9. Workmen's Compensation Act, 1923; 10. ID Act, 1947; 11. Maternity Benefit Act, 1961; 12. Inter-State Migrant Workmen (Regulation of Employment & Conditions of Service) Act, 1979; 13. Fatal Accidents Act, 1855 14. Model Welfare Code The above will deem to include all relevant/ applicable rules made thereunder, regulations, notifications and bye laws of the State or Central Govt. or the local authority and any other labour law (including rules) regulations, bye laws as well as those that may be passed or notification that may be issued under any labour law present and in future either by State or Central Govt. or by local authority.			
10.4.2	The Contractor and his Sub-Contractors shall indemnify the Employer, from any action taken against the Employer by any competent authority in connection with the enforcement of the applicable laws, regulations, notifications, on account of contravention of any of the provisions therein, including amendments thereto. If the Employer is caused to pay or otherwise made liable, such amounts as may be necessary for non-observance of the provisions stipulated in the laws, rules, notifications including amendments, if any on the part of the Contractor and/or his Sub-Contractors, the Engineer-in-Charge / Employer shall have the right to deduct any such money from any amount due to the Contractor including his performance security, under the Contract. The Employer shall also have the right to recover from the Contractor any sum required or estimated as required for making good any loss or damage suffered / likely to be suffered by the Employer, on this account.			
10.4.3	If due to an enactment of any new Act or Statute and rules made thereunder or any modification to the Acts/Statute or rules made thereunder, all after seven (7) days prior to the deadline set for submission of the bids and as a consequence thereof, the Contractor has to incur additional cost or expenditure, the same will be reimbursed by the Employer			
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	to the Contractor, excepting those due to reasons attributable to the Contractor and those being already compensated by other provisions of the Contract, like Price Adjustment, Taxes and Duties etc.
10.4.4	It is specifically agreed that the Contractor and his Sub-Contractors shall obtain all the necessary registration, licenses, permits, authorisations etc. required under various enactments / Regulations enforced from time to time, specifically registration as employer under Provident Fund Act and Contract Labour Regulation & Abolition Act, and the Employer shall not be liable for any violation by the Contractor in this regard.
10.4.5	The employees of the Contractor or his Sub-Contractor(s) shall in no case be treated as the employees of the Employer at any point of time.
10.4.6	The Contractor and his Sub-Contractors shall be liable to make all due payments to all their employees and ensure compliance with labour laws. If the Employer, is held liable as 'PRINCIPAL EMPLOYER' or otherwise to incur any expenditure or to make any contributions under any legislation of the Government or Court decision, in respect of the employees of the Contractor or his Sub-Contractors, then the Contractor would reimburse the amounts of such expenditure/contribution so made by the Employer.
10.4.7	In case the ESI act is not applicable to the area where the Work is executed, as evidenced by the Certificate/Letter submitted to this effect from the local authorities, the Contractor shall be liable to arrange and pay for the expenses towards the medical treatment in respect of all labour employed by him for the execution of the Contract.
10.4.8	Staff quarters & labour hutments at Site if available, may be provided to the Contractor on chargeable basis at the discretion of the Engineer-in-Charge on mutually agreed terms and conditions.
10.4.9	Safety The Employer has formulated Safety Rules for Construction & Erection of Power Plants and is enclosed at Annexure-B to GCC. These Safety Rules lay down the safety requirements for safe execution of project activities, responsibilities of the Contractor, and all concerned involved in Construction and Erection. The Contractor, including his sub-contractors, while executing the Works, shall strictly comply with these Safety rules and statutory requirements (including amendments thereof), as applicable, in respect of safety of personnel, equipment and materials at site area under execution of the Contractor. In addition to other clauses specified in 'NTPC Safety Rules for Construction and Erection of Power Plants' [as enclosed with GCC/SCC], Contractor shall adhere to the following provisions for payment linked to Safety Compliances as specified in Payment Terms: i) Safety Personnel

	Contractor shall adhere to the requirements of Clause 2.3 (requirement of Safety personnel) of 'NTPC Safety Rules for Construction and Erection of Power Plants'. ii) Personal Protective Equipment & Safety Equipment Contractor shall adhere to the requirements of Clause 4 (Personal Protective Equipment) of 'NTPC Safety Rules for Construction and Erection of Power Plants' and the provisions of the Bidding Documents with regards to number of Safety Equipment/PPEs to be provided by the Contractor. In case Contractor fails to comply with aforesaid requirement, EIC/Safety Officer shall issue a warning letter/Non-compliance Memo to the Contractor regarding the same advising him to take corrective action. EIC/NTPC Safety Officer shall maintain written record of all such incidents when Warning letter/Non-compliance Memo is issued to the Contractor for not meeting the requirements of Clause 4.0 (Personal Protective Equipment) and the provisions of the Bidding Documents. iii) Safety Induction and Training Contractor shall adhere to the requirements of imparting Safety training as per Clause 8.0 (Safety Induction and Training) of 'NTPC Safety Rules for Construction and Erection of Power Plants. Contractor shall maintain written record of Safety trainings imparted to its Employees/ workmen for purpose of aforesaid payment. These records shall be available for review of EIC/NTPC Safety Officer all the time. iv) Medical and First Aid Amenities Contractor shall adhere to the requirements of Clause 13 (Medical and First Aid Amenities) of 'NTPC Safety Rules for Construction and Erection of Power Plants. NTPC Safety Officer/EIC shall maintain written record of incidences when requisite Medical and first aid amenities as per Clause 13 of Safety Rules were not available for purpose of aforesaid payment. v) Compliance to Work Permit System Contractor shall adhere to the requirements of Clause 17 (Work Permit System) of 'NTPC Safety Rules for Construction and Erection of Power Plants'. In case Contractor fails to obtain work permit or fails to comply to any requirements of aforesaid Work permit system, he will be issued a warning letter/Non-compliance Memo by EIC/Safety Officer of NTPC regarding the same advising him to take corrective action.	
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	NTPC Safety Officer / EIC shall maintain written record of all such incidents when Warning letter / Non-compliance Memo is issued to Contractor for not complying with the requirements of Work Permit System as per Clause 17 of Safety Rules for purpose of aforesaid payment.		
11.	Shift Work		
11.1	To achieve the required rate of progress in order to complete the Works within the Time for Completion, the Contractor may carry on the work, round the clock, in multiple shifts per day, as may be necessary. The Contractor shall however be responsible to comply with all applicable laws in this regard.		
11.2	No additional payment will be made on account of round the clock working in multiple shifts.		
11.3	Wherever the work is carried out at night adequate lighting of working areas and access routes for pedestrians or vehicles shall be provided by the Contractor at his cost. Sufficient notice should be given by the Contractor to the Engineer-in-Charge regarding the details of works in shifts so that necessary supervision could be provided.		
12.	Cooperation with other Contractors/ Agencies		
12.1	The Contractor shall extend all reasonable cooperation to other Contractors, agencies etc. of the Employer engaged in connection with the Work or any other Work not in the scope of this Work as may be required by the Engineer-in-Charge.		
12.2	The Contractor shall attend at his cost, all the meetings with the Engineer-in-Charge, other contractors and the Consultants of the Employer for the purposes of the Contract. The Contractor shall attend such meetings as and when required by the Engineer-in-Charge.		
13.	Materials obtained from Excavation		
13.1	Materials of any kind obtained from excavation on the Site shall remain the property of the Employer and shall be disposed of as the Engineer-in-Charge may direct.		
14.	Treasure, Trove, Fossils, etc		
14.1	All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the Site shall be the absolute property of the Employer and the Contractor shall take reasonable precautions to prevent his workmen or any other person from removing or damaging any such article or thing, shall immediately upon discovery thereof and before removal acquaint the Engineer-in-Charge with such discovery and carry out the Engineer-in-Charge's directions as to the disposition of the same, at the cost of the Employer.		
15.	Protection of Trees		
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15.1	Trees designated by the Engineer-in-Charge shall be protected from damage during the course of the Works and earth level within at least one (1) meter of each such tree shall not be disturbed. Where necessary, such trees shall be protected by providing temporary fencing at the cost of the Employer.
16.	Security Watch and Lighting
16.1	The Contractor shall provide and maintain at his own expense all lights, guards, fencing and watching when and where necessary or required by the Engineer-in-Charge for the protection of the Works or for the safety and convenience of those employed on the Works or the public.
17.	Prevention of Pollution
17.1	The Contractor shall make necessary arrangement to prevent pollution of the ground water and water in any adjacent water bodies including stream, springs, nallah, river and lakes etc. The Contractor shall be solely responsible and liable for all damage caused by any pollution that may take place during the execution of the Work.
18.	Explosives
18.1	Permission for the use of explosives shall be obtained from the Engineer-in-Charge or from any appropriate authority as directed by the Engineer-in-Charge and all explosive materials shall be used only under close supervision. It shall be the responsibility of the Contractor to seek and obtain any necessary permits, and to ensure that the requirements of the authorities are complied with, in all respects. Failure to do so may result in the Engineer-in-Charge withdrawing permission to use explosives. The indemnification provided for, under the General Condition of Contract shall include indemnification against all claims in respect of any incident arising from the use of explosives.
19.	Training of Apprentices:
19.1	The Contractor shall during the currency of the Contract when called upon by the Engineer-in-Charge engage and also ensure engagement by Sub-Contractors employed by the Contractor in connection with the Works, such number of Apprentices in the categories and for such periods as may be reasonably required by the Engineer-in-Charge. The Contractor shall train them as required under the Apprentices Act, 1961 and shall be responsible for all obligations of the Employer under the Act including the liability to make payment to apprentices as required under the Act.
20.	Handing over of Site
20.1	The Employer shall make available the Site to the Contractor as soon as possible after the

	award of the Contract free of encumbrance. The Contractor shall not be permitted to enter on (other than for inspection purposes) or take possession of the Site until instructed to do so by the Engineer-in-Charge in writing.
20.2	The Employer reserves the right to hand over the Site in parts progressively to the Contractor. The Contractor will be required to take possession of the Site without any undue delay and do Work on the released fronts in parts without any reservation whatsoever.
20.3	However, in case of any delay in handing over of the Site to the Contractor, which delays the performance of the Work, commensurate to the resources mobilised by the Contractor, then the Contractor will be eligible for suitable extension in time for completion of the Works or any other compensation as per the provisions of GCC Sub-Clause 29.7.
20.4	The portion of the Site to be occupied by the Contractor shall be defined and/or marked on the Site plan, failing which these shall be indicated by the Engineer-in-Charge at Site and the Contractor shall on no account be allowed to extend his operations beyond these areas. Further, the Contractor shall not hinder in any way the working of other contractors on the Site.
20.5	The Contractor shall plan his work as per available roads at Site. Wherever, the access roads near to the Work Site are not available, the Contractor shall make his own arrangement for approach to the Work Site including borrow/disposal areas and for movement of men, machinery, other equipment etc. required for carrying out the Works included under this Contract. All drainage of Works area and all weather truckable/haulage roads as required by the Contractor shall be constructed and maintained during the construction period by the Contractor at his own cost.
20.6	The Contractor shall provide, if necessary, all temporary access to the Work Site and shall alter, adapt and maintain the same as required from time to time and shall take up and clear them away as and when no longer required and, as and when ordered by the Engineer-in-Charge and make good all damage done to the Site.
20.7	The Contractor shall be permitted the usage of all access roads built by the Employer for the purposes of the Contract. If any damage is done to such roads and associated areas like drains, culverts and the like, by the Contractor, the same shall be made good by the Contractor at his own cost, but as may be directed by the Engineer-in-Charge.
21.	Duties and Powers of Engineer-in-Charge and his representatives
21.1	The Engineer-in-Charge shall have the full powers in respect of all the matters in connection with or arising out of this Contract, excepting those specifically reserved for the Employer. However, the Engineer-in-Charge shall not have any power to relieve the Contractor of any of his obligations and responsibilities under the Contract.
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21.2	The duties of the representative of the Engineer-in-Charge are to watch and supervise the Works and to test and examine any materials to be used or workmanship employed in connection with the Works. He shall have no authority to order any work involving any extra payment by the Employer nor to make any variation in the Works, creating a financial liability to the Employer.
21.3	The Engineer-in-Charge may from time to time in writing delegate to his representative any of the powers and authorities vested in the Engineer-in-Charge and shall furnish to the Contractor a copy of all such written delegation of powers and authorities. Any written instruction or written approval given by the representative of the Engineer-in-Charge to the Contractor within the terms of such delegation shall bind the Contractor and the Engineer-in-Charge as though it has been given by the Engineer-in-Charge.
21.4	Failure of the Representative of the Engineer-in Charge to disapprove any work or materials shall not prejudice the power of the Engineer-in-Charge thereafter to disapprove such Work or materials and to order the pulling down, removal or breaking up thereof.
21.5	If the Contractor shall be dissatisfied with any decision of the representative of the Engineer-in-Charge he shall be entitled to refer the matter to the Engineer-in-Charge who shall there-upon confirm, reverse or vary such decision.
	C. PAYMENT
22.	Contract Performance Security
22.1.1	The Contractor shall within Forty Five (45) days of the Letter of Award or prior to release of 1st RA bill/Mobilization advance whichever is earlier, provide a Contract Performance Guarantee (CPG) towards faithful performance of the Contract for ten percent (10%) of the Contract Price. Alternatively, the Contractor may furnish the Contract Performance Guarantee in two Stages viz. a Contract Performance Guarantee for an amount equivalent to 5% of the Contract Price within Forty Five (45) days of the Letter of Award or prior to release of 1st RA bill/Mobilization advance whichever is earlier, to be followed up with another Contract Performance Guarantee for an amount equivalent to 5% of the Contract Price prior to the scheduled completion of 50% of total scope of work.
22.1.2	The Contractor also has the option to furnish an Initial Contract Performance Guarantee (ICPG) equivalent to a minimum of 2% of the Contract Price within Forty Five (45) days of the Letter of Award or prior to release of 1st RA bill/Mobilization advance whichever is earlier. In case of such a Contractor, who furnishes Initial Contract Performance Guarantee, the Employer shall at the time of making any payment to him for the work done under the Contract deduct towards the Contract Performance Security an amount equivalent to 10% of the gross bill amount accepted for payment until the Contract Performance Security so deducted including the amount of Initial Contract Performance
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	Security becomes equal to 10% of the Contract Price.
22.1.3	The Contract Performance Guarantee/Initial Contract Performance Guarantee shall be in the form of a Bank Guarantee issued by a Bank from the list enclosed in the Bidding Documents. The format of the said bank guarantee shall be in accordance with the format included in the Section VIII (Forms and Procedures). This bank guarantee shall have an initial validity upto ninety (90) days beyond the completion of Defect Liability Period of the Contract. However, in case the date of completion of defects liability period gets extended, the validity of the Contract Performance Guarantee shall be extended by the period of extension of completion of defects liability.
22.2	One half (50%) of the Contract Performance Security amount shall be refunded/released to the Contractor on the issuance of Completion Certificate by the Engineer-in-Charge certifying the completion of entire Works under the Contract. The Engineer-in-Charge shall on demand from the Contractor, release/refund the remaining portion of the Contract Performance Guarantee on expiry of the Defects Liability Period or on payment of the amount of the Final Bill payable, whichever is later, provided the Engineer-in-Charge is satisfied that there is no demand outstanding against the Contractor, arising out of the Contract.
22.3	No interest shall be payable to the Contractor against the Contract Performance Guarantee furnished/recovered by way of deductions from running account payments from the Contractor, by the Employer.
23.	Advance
23.1	Mobilisation Advance i) A lumpsum mobilisation advance not exceeding 4% of the Contract Value as awarded shall be paid to the Contractor at the rate of interest mentioned in SCC subject to the following conditions: a) On unconditional acceptance of Letter of Award by the Contractor. b) Acceptance and finalisation of detailed Work Schedule and finalisation of equipment mobilization schedule. c) Submission of an irrevocable bank guarantee for the amount equivalent to 110% of the advance plus GST as applicable on the advance payment to be paid to the contractor in the proforma of bank guarantee provided in Section-VIII (Forms and Procedures) - Proforma of Bank Guarantee for Lumpsum Advance from any bank from the list enclosed in Bidding
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	Documents and acceptable to the Employer. d) Finalisation of Quality Assurance Programme in accordance with GCC Clause entitled 'Quality Assurance programme'. e) Submission of an unconditional, irrevocable bank guarantee for the amount of Initial Contract Performance Security Deposit/ Contract Performance Security Deposit from any bank from the list enclosed in Bidding Documents and acceptable to the Employer in the proforma of bank guarantee provided in Section VIII (Forms and Procedures)- Form of Bank Guarantee for Contract Performance Guarantee. f) On completion of the requirement of Qualifying Requirements, the documentation in respect of associate(s), if applicable, in line with the provisions thereof in BDS, and on submission of an unconditional and irrevocable bank guarantee from any bank as per list enclosed in Bidding Documents and acceptable to Employer in the proforma provided in Section VIII (Forms and Procedures). g) The advance payment shall be released only after the verification and confirmation of the above bank guarantees from the issuing bank. ii) A further lumpsum mobilisation advance not exceeding 4% of the Contract Value as awarded shall be paid to the Contractor from Project Site at the rate of interest mentioned in SCC subject to the following conditions: a) Fulfilment of conditions mentioned at GCC Sub-Clause 23.1 (i) a, b, d, e & f. b) On certification of the Engineer-in-Charge that the Contractor has opened his office at Site and mobilised the plant and equipment specifically identified in Letter of Award of the Contract for releasing this advance. c) Submission of an irrevocable bank guarantee for the amount equivalent to 110% of the advance plus GST as applicable on the advance payment to be paid to the contractor in the proforma provided in Section-VIII (Forms and Procedures) - Proforma of Bank Guarantee for Lumpsum Advance from any bank from the list enclosed in Bidding Documents and acceptable to the Employer. d) The advance payment shall be released only after the verification and confirmation of the above bank guarantees from the issuing bank. (e) Mobilisation advance shall be released after certification of Engineer-in-		
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	Charge that the Contractor has brought to site the Safety equipments & Safety Personal Protective Equipments as per minimum quantity specified in the Bidding Documents. In case the Contractor decides not to take Mobilisation advance, the first progressive payment shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipments & safety Personal Protective Equipments as per minimum quantity specified in the Bidding Documents.			
23.2	Equipment Advance An amount not exceeding 75% of the purchase price of the new plant and equipment specifically acquired for the Work and brought to Site against production of documents in support thereof and subject to the condition that the Engineer-in-Charge considers the price reasonable and that such plant and equipment are necessary for the Works and not in excess of requirements and are hypothecated in favour of the Employer in the form required by the Employer shall be payable. “In case the Contractor is an entity other than a Sole Proprietorship Concern or a Partnership Firm, the Contractor shall get the Hypothecation Deed thus executed, registered with the Registrar of Companies in the manner and timeframe required as per the Companies Act, 2013 of India.” Interest on the advance outstanding, shall be levied at the percentage mentioned in SCC. Total advance amount against plant and equipment shall in no case exceed 6% of the total contract value as awarded. Provided that if a request for loan is made by the Contractor against both the aforementioned provisions of this condition, viz. GCC Sub-Clauses 23.1 and 23.2, the total sum to be given as loan shall not exceed 10% of the total contract value as awarded.			
23.3	All the above advances mentioned at GCC Sub-Clause 23.1(i), 23.2 (ii) and 23.2 shall be interest bearing and the rate of interest for mobilization advance and equipment advance shall be as specified in SCC.			
23.4	Any of the above advances may be claimed by the Contractor at his option in instalments.			
23.5	The above advance shall be utilised by the Contractor for the purposes of this Contract only and for no other purpose.			
23.6	All payments of advances may be released electronically, wherever technically feasible.			
23.7	The recovery of the advances as above and interest thereon shall be made by deduction from the on account payments referred to in GCC Clause entitled ‘Payment on Account/Progressive Interim Payments’ in suitable percentages fixed by the Engineer-in-Charge in relation to the total cumulative advances released and the progress of the work, so that all the sums advanced with interest thereon shall be fully recovered starting from the time 10% and ending by the time 80% of the Work as awarded is completed. If the amount payable under any interim bill is not sufficient to cover all deductions to be made			
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	for sums advanced with interest and other sums deductible therefrom, the balance outstanding shall be deducted from subsequent interim bill/bills, as may be necessary, failing that, as otherwise provided for in the Contract.			
23.8	If for any reason, except for reasons of default of the Contractor, the Work under the Contract is suspended continuously for more than fourteen(14) days, the Contractor shall be at liberty to remove the plant and equipment or any part thereof hypothecated to the Employer under GCC Sub-Clause 23.2 above, to any other work site of the Contractor for carrying on his other works, on his furnishing prior to such removal a bank guarantee acceptable to the Employer for the amount of the outstanding advance granted under GCC Sub-Clause 23.2 above with interest and upon the Contractor undertaking to bring back to the Site, before expiry of the period of suspension, such plant and equipment as may be necessary for completion of the Works. If any such Plant and Equipment are not brought back, the Contractor shall forthwith repay the amount for the advance outstanding with interest thereon against such plant and equipment.			
23.9	The value of the bank guarantees towards any of the above advances shall be reduced every three (3) months after the date of commencement of recovery of corresponding advance and interest thereon under the Contract in accordance with GCC Sub-Clause 23.7. The quantum of reduction of the value of bank guarantee at any point of time shall be proportional to the quantum of work completed as certified by the Engineer-in-Charge and applicable GST. The Bank Guarantee value shall stand reduced to zero on completion of total work by the Contractor under the Contract as certified by the Engineer-in-Charge. It should be clearly understood that reduction in the value of bank guarantee towards advance shall not in any way dilute the Contractor's responsibility and liabilities under the Contract including in respect of the Works for which the reduction in the value of bank guarantee is allowed.			
24.	Payment on Account/Progressive Interim Payments			
24.1	"Bills for the progressive payments shall be submitted by the contractor monthly". In order to make the Progressive Interim Payment for the work to be executed on lump-sum basis, the contractor shall submit detailed Billing Break-up (BBU) of the lump-sum amount for Employer's approval. The BBU so submitted by the contractor shall be finalized in consultation with Employer.			
24.2	The progressive payment shall be released after certification by Employer's Field Quality Assurance Department that the Works have been performed in accordance with the Technical Specifications and also upon authorisation for the payment by the Engineer-in-Charge. However, the release of first progressive interim payment shall also be subject to submission of documentary evidence by the Contractor towards having taken the insurance policy(ies) in terms of relevant provisions of GCC Clause entitled Contractor's Liability and Insurance' and acceptance of the same by Engineer-in-Charge.			
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24.3	(i) The Contractor shall maintain a separate account with a Scheduled Bank at Site for the purpose of receiving all the payments under the Contract(s) and for utilization of payments received from the Employer for disbursement to sub-contractors, sub-vendors, PRW's etc., of the Contractor. The Contractor shall maintain separate books of accounts for all payments under this Contract and the Engineer-in-Charge shall have access to these at all times. (ii) <u>Account Tracking Mechanism</u> In case the Contractor wants to withdraw funds from the above bank account for any purposes other than the Contract, he shall be required to submit an undertaking to the Engineer-in-Charge certifying that all due statutory payments, labour payments and payments to all his sub-contractors have been disbursed corresponding to the total payment received by him under the Contract. For tracking of payments received from the Employer, the Contractor shall also submit a monthly statement by 7th of every month certifying the transactions pertaining to the above account along with the purpose of such transactions. In case the Contractors transfers funds for any purposes other than the Contract, without prior consent of the Employer, it will constitute a breach of Contract by the Contractor. (iii) In case the Contractor violates the above provisions, NTPC will have the right to give suitable instructions to the Bank to regulate / freeze the account.
24.4	(i) In case of part acceptance of the Work, the Engineer-in-Charge shall have the right to release payment for that part of the Work. (ii) Acceptance of the Work without fulfilling all the obligations mentioned under rates and measurement in Technical Specifications shall be considered as part acceptance of Work.
24.5	Payment on account for amount admissible shall be made on the Engineer-in-Charge certifying the sum to which the Contractor is considered entitled by way of interim payment for the following: (a) all Work executed, after deducting therefrom the amounts already paid, the performance security deposit and such other amounts as may be deductible or recoverable in terms of the Contract; (b) 75 per cent of the cost (as assessed by the Engineer-in-Charge) of any materials which are in the opinion of the Engineer-in-Charge reasonably required in accordance with the Contract with respect to the period of utilisation & quantum and have been brought to Site for incorporation in the Works and are safeguarded

	against loss due to any cause whatsoever to the satisfaction of the Engineer-in-Charge, but have not been so incorporated; provided the Contractor provides an insurance cover for the full cost of such materials. (c) Unless specifically certified/authorised by the Engineer-in-Charge, no such payment shall be made against the materials brought to Site which in the opinion of the Engineer-in-Charge are not likely to be used/incorporated in the Works in the ensuing period of four (4) months.			
24.6	The payments against materials brought to Site under (b) above shall be adjusted as and when materials are utilised/ incorporated in the Works.			
24.7	The Contractor shall submit his bill, by the date stipulated by the Engineer-in-Charge, in the prescribed proforma, supported with measurements, jointly acknowledged and accepted in the measurement books. Payments of the Contractor's bill shall be paid by the Employer within twenty-one (21) days from the date of submission of bill subject to the authorisation of the Engineer-in-Charge. Alternatively, if so desired by the Contractor, after preliminary scrutiny and certification by the Engineer-in-Charge, 75% of the certified net payable amount shall be made by the Employer within seven (7) days. The amount certified shall account for all deductions, including statutory deductions as for GST (if applicable), income tax, etc., recoveries for advances and any other amounts due from the Contractor. The balance 25% shall be paid within twenty-one (21) days, from the date of submission of the said bill. Such payments made by the Employer shall not constitute any acceptance of the measurements of items of the Works by the Employer and the Engineer-in-Charge shall have the right to alter, modify, reduce or diminish the quantities or classification entered in the Measurement Books or Bills. The Employer shall have right to recover any amount paid in an earlier bill from any subsequent bill and should the amount to be recovered be more than the amount of the subsequent bill, the Contractor shall on demand from the Engineer-in-Charge or Employer immediately refund the extra amount to the Employer within seven (7) days. Wherever technically feasible, the payments shall be released electronically only as per details of bank account indicated in the Contract.			
24.7.1	In cases of any discrepancy observed by the Employer in Contractor's bill, clarifications shall be sought in writing by the Employer within ten (10) days from the date of receipt of Contractor's bill/invoice/debit note by the Employer. The Contractor shall be required to submit the requisite clarifications within ten (10) days from the date of issuance of queries by the Employer. In case, no mutual agreement is reached between the Employer and the Contractor on any part of the bill/invoice, within ten (10) days of submission of clarification by the contractor, the Contractor shall issue a revised bill/invoice to avoid mismatch in GST returns of the Employer and the Contractor. Payment against agreed and admissible part shall be processed as per payment procedure within ten (10) days after receipt of the revised bill/invoice. The bill/invoice for the balance amount under question may be			
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	separately submitted for consideration of the Employer after resolution of issues of payment by the Employer. In case of nonsubmission of satisfactory clarification by the Contractor within the stipulated period, NTPC shall not be liable for the delay in making payment. If the bill submitted by Contractor is incorrect and has gross discrepancies, the bill shall be summarily rejected and returned to the Contractor. In the event of dispute, the same shall be settled as per GCC Clause (Settlement of Disputes).
24.7.2	The Employer has established a Vendor Bill tracking System where Vendor/Contractor can submit their bill/invoice and track its status.
24.8	Any interim certificate given relating to Work done or materials delivered, may be modified or corrected by any subsequent interim certificate or by the final certificate. No certificate of the Engineer-in-Charge supporting an interim payment shall itself be conclusive evidence that any Work or materials to which it relates is/are in accordance with the Contract.
24.9	In case of the delayed Work beyond the scheduled completion period, pending consideration of extension of time of completion if it had been requested by the Contractor, interim payments shall continue to be made as herein above provided.
24.10	GST applicable upon on account payment shall be paid/reimbursed to the Contractor along with such payments, on production of satisfactory documentary evidence by the Contractor. However, GST as applicable on Advance payment shall be paid to the Contractor along with the Advance sanctioned. The GST paid along with advance shall be adjusted prorata against the tax due upon on account payment, based on the value of the advance recovered from such on account payment. Notwithstanding anything to contrary contained in the Contract, the Contractor's right to payment under the Contract is subject to issuance of valid tax invoice, payment of applicable GST to the credit of appropriate Government and submission of valid particulars of tax invoice under GST returns in accordance with GST Law. The Contractor shall issue tax invoices, file appropriate returns, and deposit the applicable GST to the account of appropriate government within the time limit prescribed under the GST Law. In the event of any default, Contractor shall be liable to pay any penalty/demand raised on NTPC due to default by Contractor, and the same shall be recovered/Contractor shall make good the loss. The Contractor shall be responsible for the issuance of e-way bill and other compliances relating to e-way bill as per GST law.
24.11	Payment of Amount linked to Safety Aspects/ compliance to Safety Rules

I. **The amount linked to Safety Aspects/ compliance to Safety Rules shall be paid in two parts, viz,**

- A) 10% amount (calculated as 0.1 Y of RA bill) shall be linked to Fatal/Major Accidents, and
- B) 90% amount (calculated as 0.9 Y of RA bill) shall be linked to various Safety Aspects specified in Safety Rules of NTPC.

NOTE:

'Amount linked to Safety Aspects/ Compliance to Safety Rules' specified in Price Schedule

$$Y = \frac{\text{-----}}{\text{Total Contract Price}} \times 100$$

II. While raising each RA Bill, Contractor shall claim Amount linked to Safety Aspects/ Compliance to Safety Rules in such a manner that amount claimed is equal to Y% of RA Bill.

III. This aforesaid amount at para 24.11 (I.A) shall be withheld from first and second monthly RA bill of the respective quarter/three month period and shall be released in part or full based on safety compliance duly certified by EIC and Safety-in-charge on quarterly basis. The amount for the entire quarter (i.e. RA bills raised during a 3 month period) shall be paid to the Contractors at the end of that three months period along with 3rd/last RA Bill for the quarter/three months period upon complying the following conditions:

C) **Amount of RA Bill linked to Fatal/ Major Accidents (0.1Y i.e. 10% of amount as elaborated above at para I)**

Aforesaid amount (on quarterly basis) shall be payable to Contractor only in case, there is

- i) No fatal injury or accident causing death in that three months period
and
- ii) No Major injury or accident causing 25% or more permanent disablement to workmen or employees in that three months period. Permanent disablement shall have the same meaning as indicated in The Workmen's Compensation Act' 1923.

In case of any fatal injury or accident as elaborated above occurs during that three month period, the stipulated amount (0.1Y) subject to minimum of **Rs 10 Lakh per fatality** shall be forfeited and shall not be payable to the Contractor under the contract. In case, the amount to be deducted/forfeited exceeds the amount linked to Fatal/ Major Accidents, the same shall be recovered from remaining Amount (0.9Y) linked to

Compliance of Safety Rules and/or any other payments immediately due to the Contractor under the Contract.

In case of any Major injury or accident causing 25% or more permanent disablement to workmen or employees occurs during that three month period, **Rs 4 lakh per Major injury** shall be deducted from the amount (0.1Y) linked to Fatal/ Major Accidents and shall not be payable to the Contractor under the contract. In case, the amount to be deducted/forfeited exceeds the amount linked to Fatal/ Major Accidents, the same shall be recovered from remaining Amount (0.9Y) linked to Compliance of Safety Rules and/or any other payments immediately due to the Contractor under the Contract.

Further, in case, Contractor doesn't raise RA Bills in any three month period/quarter and if any fatal injury and/or major accident takes place in that period, EIC shall deduct the amount [Rs 10 Lakh per fatality and Rs 4 lakh per Major injury] pertaining to this particular quarter from his next RA bill/due payment. In case, the amount to be deducted/forfeited exceeds the amount linked to Safety, the same shall be recovered from any other payments immediately due to the Contractor under the Contract.

The amount deducted/forfeited as mentioned above shall be in addition to the compensation payable to the workmen / employees under the relevant provisions of the Workmen's Compensation Act' 1923 and rules framed there under or any other applicable laws as applicable from time to time.

D) Amount of RA Bill linked to Compliance of Safety Rules (0.9Y i.e. 90% of amount as elaborated above at para G.I.B)

Aforesaid amount (on quarterly basis) shall be payable to Contractor in five equal parts under five heads as under:

(i) Amount payable on deployment of required Safety Personnel

One fifth of the amount specified in para 24.11(I.B) (calculated as 0.18Y of RA Bill), on quarterly basis, shall be paid upon certification by EIC in consultation with Safety dept. that required number of Safety personnel as per Clause 2.3 of 'NTPC Safety Rules for Construction and Erection of Power Plants' (as enclosed with GCC/SCC) have been deployed. The aforesaid amount linked to deployment of requisite safety personnel shall be paid as under:

- a) 50% of the amount referred above at 24.11.III.B.(i), for deployment of Safety Supervisors shall be paid on pro-rata basis depending upon the actual no. of Safety Supervisors deployed vis-à-vis actual requirement:

Amount to be paid = $0.09Y \times \text{RA bill amount} \times (a/b)$

Where 'a' is actual no. of Safety supervisors deployed
and
'b' is required no. of Safety supervisors as per Safety Rules.

In case, actual no. of Safety supervisors deployed is more than requisite number (i.e. a/b is more than 1), the amount to be paid shall be restricted to 0.09Y.

- b) 50% of the amount referred at 24.11.III.B.(i), for deployment of Safety Officers shall be paid on pro-rata basis depending upon the actual no. of Safety Officers deployed vis-à-vis actual requirement :

Amount to be paid = 0.09Y x RA bill amount x (a/b)

Where 'a' is actual no. of Safety Officers deployed
and
'b' is required no. of Safety Officers as per Safety Rules.

In case, actual no. of Safety Officers deployed is more than requisite number (i.e. a/b is more than 1), the amount to be paid shall be restricted to 0.09Y.

- c) In case aforesaid requisite no. of Safety personnel are not deployed by Contractor, amount not to be paid as calculated above for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

(ii) Amount payable on providing requisite Personal Protective Equipment & Safety Equipment

One fifth of the amount specified in para 24.11(I.B) (calculated as 0.18Y of RA Bill), shall be paid upon certification by EIC in consultation with Safety dept. that Contractor has adhered to the requirements of Clause 4 (Personal Protective Equipment) of 'NTPC Safety Rules for Construction and Erection of Power Plants' and the provisions of the Bidding Documents with regards to number of Safety Equipment/PPEs to be provided by the Contractor.

In case of non-compliance by Contractor, warning letter/Non-compliance shall be issued by EIC/Safety Officer of NTPC as per clause 10.4.9 (ii) of GCC. Further, if more than two such warning letters/Non-Compliance Memos are issued in a quarter/three monthly period, above mentioned amount for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

(iii) Amount payable on providing requisite Safety Induction and Training

One fifth of the amount specified in para 24.11(I.B) (calculated as 0.18Y of RA Bill), shall be paid upon certification by EIC in consultation with Safety dept. that

Contractor has adhered to the requirements of imparting Safety training as per Clause 8.0 (Safety Induction and Training) of 'NTPC Safety Rules for Construction and Erection of Power Plants' to at least 90% of its employees/workmen (who have not been previously provided with requisite training) in a quarter/ three months period.

In case Contractor fails in meeting the aforesaid requirement, above mentioned amount for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

(iv) Amount payable on providing requisite Medical and First Aid Amenities

One fifth of the amount specified in para 24.11(I.B) (calculated as 0.18Y of RA Bill), shall be paid upon certification by EIC in consultation with Safety dept. that Contractor has adhered to the requirements of Clause 13 (Medical and First Aid Amenities) of 'NTPC Safety Rules for Construction and Erection of Power Plants'.

In case Contractor fails to provide Medical and first aid amenities as per requirement of aforesaid Clause 13 even on one incidence in any quarter/three month period, above mentioned amount for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

(v) Amount payable on compliance to Work Permit System

One fifth of the amount specified in para 24.11(I.B) (calculated as 0.18Y of RA Bill), shall be paid upon certification by EIC in consultation with Safety dept. that Contractor has adhered to the requirements of Clause 17 (Work Permit System) of 'NTPC Safety Rules for Construction and Erection of Power Plants'.

In case of non-compliance by Contractor, warning letter/Non-compliance shall be issued by EIC/Safety Officer of NTPC as per clause 10.4.9 (v) of GCC. Further, if more than two such warning letters/Non Compliance Memos are issued in a quarter/three monthly period, above mentioned amount for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

- II. In case 'Amount linked to Safety Aspects / compliance to Safety Rules' is less than **minimum percentage(as specified in SCC)** of the total Contract value, the amount by which it is lower shall be retained proportionately from the other components of the Contract price while releasing payments of each RA bill. No interest shall be payable on the amounts linked to Safety Aspects / Compliance to Safety Rules including aforesaid retained amount. The amounts linked to Safety Aspects / Compliance to Safety Rules including aforesaid retained amount shall be payable in part or full based on safety compliance duly certified by EIC and Safety-in-charge on quarterly basis.

25.	Contract Price Adjustment
25.1.0	The Contract Price (for definition, please refer to GCC Clause titled 'Definitions') as awarded shall be the base Contract Price.
25.2.0	The rates quoted by the Bidder shall be the base price which will be subject to price adjustment in accordance with the conditions and formula prescribed in SCC and further subject to satisfying the requirements specified in this clause only.
25.3.0	A certain fixed percentage of base price shall not be subject to any price adjustment. The balance percentage to be specified shall be of identified Components towards labour, materials, steel, cement and Diesel Oil/ (POL) and shall be subjected to Price Adjustment.
25.4.0	The value of "F" as specified in Special Conditions of Contract will remain unchanged and fixed component shall not be disputed.
25.5.0	No ceiling limit on Price Adjustment on the base contract price.
25.6.0	Price Adjustment(s) shall be calculated for the quantum of works executed for the month or the period of the bill as per agreed Work Schedule. For the purpose of payment/recovery of price variation provisions, the Contractor would be eligible for such claims or shall be liable for refund on the quantum of work scheduled or the actual quantum of work done provided always that the quantum of work done is more than or equal to the scheduled quantum of work as per the agreed Work Schedule. In other words, the Contractor shall not be eligible for these claims nor liable or payment/refund under these provisions if the work has been delayed beyond the scheduled date(s) for reasons attributable to Contractor. However the Contractor would be eligible for claim or liable for refund for price adjustment(s) for quantities of work executed beyond the scheduled dates based on the value of Indices as applicable to the schedule date of execution, for such delayed work provided that if the indices during the extended periods are lower than the indices during scheduled dates of execution, then lower indices shall be applicable.
25.7.0	Additional, altered or substituted items of work, derived from the agreed schedule of rate (to be attached in the "Award Letter") will also attract price adjustment as per this clause. No price adjustment is payable for the rate/amount of the additional, altered or substituted items of works, when derived from or based on Market rates as per clause 49 of Section-IV, GCC. No price adjustment for the cost of Owner Issued materials (viz. steel & cement or any other item(s) issued from Owner's Store) shall be applicable, which are issued at free of cost to the Contractor.
25.8.0	Every month after the award of Contract, the Contractor shall submit to the Engineer-in-Charge, a written notice of the changes, if any, that have occurred in the specified indices of materials, labour, Gases or High Speed Diesel Price, during the previous reporting period containing the effective date of such change, the amount of change for the claim of the amount of Contract price adjustment with authenticated documentary evidence of the relevant published indices/diesel price to substantiate the price adjustment.
25.9.0	Provided further that such payment/refund shall not be operative and payable after the Schedule expiry of the Contract period or authorized extended Contract period or extended date of completion of works or items of works in question, whichever is earlier.
25.10.0	In cases, the work or items of work, or group of items of work, are delayed beyond the schedule dates for the work, for reasons attributable to the Contractor, the price

25.11.0	adjustment provisions shall not be applicable for the period of time between the schedule date and the actual date, but for as provided above in sub-clause 25.6.0. For this purpose, the schedule date of work shall be as identified in line with provisions of clause entitled "TIME AND EXTENSION FOR DELAY" and/ or "The Work Schedule/ Bar Chart" (which will be discussed and finalised before Award of work) wherein the separate period of completion has been specified/ agreed to for items, or groups of items, or works.
25.12.0	TOTAL ADJUSTED CONTRACT PRICE The total adjusted Contract price shall be Sigma (ACP) + other elements of Contact price if any.
25.13.0	Except as provided therein, no other expenditure incurred by the Contractor, due to levy of additional/increase in royalty, insurance premium(s) benefits to workers/ Labourers or any other Clause(s)/ items(s) due to any reason whatsoever, shall be payable to the Contractor.
25.14.0	The Contractor shall be required to produce necessary "Price List" for High Speed Diesel at the Indian Oil Corpn. retail outlet nearest to the project and "Monthly Bulletins" issued by office of the Economic Adviser, Ministry of Commerce & Industry, Government of India/ Labour Bureau, Shimla (as published by RBI) or any other related bulletin for materials/ Labour for receiving payments from Employer/ Refund to be made to Employer as required in the Price Adjustment Formula mentioned in SCC.
26.	Taxes, Duties, Levies etc.
26.1	Except as other wise specifically provided in the Contract, the Contractor shall be liable and responsible for the payment of all taxes, duties, levies and charges imposed on the Contractor, its Sub-Contractors and those imposed on the Contractor's equipment, materials, supplies and services to be used in the performance of the Contract or furnished under the Contract.
26.2	The Award of the Contract is on 'Works Contract' basis. Notwithstanding GCC Sub-Clauses 26.1 above, the Employer shall bear and pay/reimburse to the Contractor, Goods and Services Tax (GST) applicable on the items of Works Contract described in the Schedule of Quantities. However, the taxes, duties & levies as may be applicable on the materials used for Works Contract shall be to the contractor's account and no separate claim in this regard will be entertained by the Employer. Further, in case of any variation in the rates of the GST after the date seven (7) days prior to deadline set for submission of the Techno-Commercial bids, the same shall be paid/ reimbursed to/ recovered from the Contractor subject to submission of documentary evidence.
26.3	It shall be incumbent upon the Contractor to obtain a registration certificate under the GST Law, and other law(s) relating to levy of tax, duty, cess etc. and necessary evidence to this effect shall be furnished by the Contractor to the Employer. If the Contractor intends to

	engage itself in quarrying or mining of soil/earth, sand, stone/aggregates, metals, minerals or minor minerals required for the Works, as the case may be, it shall obtain necessary permits under the applicable law for such mining or quarrying from the State/Central Government authorities and pay the fee or charges applicable thereto.
26.4	The Contract Price shall be inclusive of any Royalties or Seigniorage Fee or Cess or other charges payable on the quarried or mined metal, minerals, or minor minerals, as the case may be, at the rate(s) prevailing as on seven (7) days prior to the deadline set for submission of bids.
26.4.1	It shall be the responsibility of the Contractor to ensure that the Royalties or Seigniorage Fee or Cess or other charges on the quarried or mined metal, minerals or minor minerals are paid to the statutory authorities.
26.4.2	The component of Royalties or Seigniorage Fee or Cess or other charges, if applicable in a running account bill, shall only be released by the Employer to the Contractor on submission of the following documents in original: A) In case the Contractor is the primary license holder of the quarry / mines: i) Vehicle wise challan / transit permit and proof of payment of royalty, and ii) Any other document required as per the relevant Acts/Rules of the concerned state. B) In case the Contractor is the purchaser of soil/earth, sand, stone/aggregates, metals, minerals or minor minerals: i) Purchase voucher and vehicle wise challan / transit permit and proof of payment of royalty, and ii) Any other document required as per the relevant Acts/Rules of the concerned state.
26.4.3	In case the Contractor fails to provide the required proof of royalty payment with the RA bill then an amount based on the prevailing rates of the royalty shall be deducted from the respective RA bill, which shall be refunded to the Contractor on submission of proof of royalty payment. However, if the Contractor fails to provide the proof of royalty payment within a period of 60 days from the date of RA bill, NTPC shall issue a notice to the Contractor giving 30 days' time for submission of the proof of royalty payment. In case of non-submission of the proof of payment of royalty by the Contractor, the amount so deducted shall be deposited by NTPC to the concerned authority. Engineer in charge shall be responsible to ensure the compliance of the Royalty payment.
26.4.4	The Contractor shall pay and indemnify the Employer against any default in payment of Royalties or Seigniorage Fee or Cess or other charges by the Contractor or the agency from which the Contractor purchases soil/earth, sand, stone/aggregates, metals, minerals or minor minerals.
26.4.5	In the event of there being a statutory increase in the rates of royalty charges/fresh levy of royalty on materials, the same shall be reimbursed to the Contractor upon submission of
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	original challan by him of having made the payments at revised rates. In the event of there being a decrease in such rates, the same shall be recovered from the Contractor. The base date for calculating the increase or decrease shall be the rate as on seven (7) days prior to the date of Techno-Commercial bid opening. The total reimbursement (positive or negative) as specified above, to be paid or recovered, shall however be calculated on the quantity of materials actually considered while making the royalty payments to the concerned authorities, or the theoretical consumption of these materials (calculated on the basis of the volume of concrete or fill accepted for payment), whichever is less, and on the basis of documentary evidence of Govt. Notification. However, the Contractor will settle claims, if any, on account of over charge by the State Authorities.			
26.5	If a new tax, duty or levy is imposed under statute or law in India after the date seven (7) days prior to deadline set for submission of the bids and the Contractor becomes liable there under to pay and actually pays the said new tax, duty or levy for bonafide use on the Works contracted, the same shall be reimbursed to the Contractor against documentary evidence of proof of payment, provided that the amount thus claimed is not paid/payable under price variation provision of the Contract.			
26.6	The payment/reimbursement of statutory variations in the rates of tax and/or of new tax, duty or levy imposed under statute or law in India as per GCC Sub-Clauses 26.2, 26.3, 26.4 and 26.5 above, would be restricted only to direct transactions between the Employer and the Contractor.			
26.7	The Employer shall be entitled to make necessary tax deductions at source as per the prevalent laws. The Contractor shall be required to submit the PAN details to the Engineer-in-Charge before the submission of the first bill/ invoice under the Contract.			
26.8	The Contractor shall himself be informed of all the applicable laws, notifications, rules, circulars and other communications of the State or Central or other authorities with regard to levy of any tax, duty, cess, levy or fee etc, which in any manner may impinge upon him in performance of any obligations/responsibilities under or arising out of the Contract.			
27.	Overpayments and Underpayments			
27.1	Wherever any claim for the payment of a sum of money to the Employer arises out of or under this Contract against the Contractor, the Contractor upon demand by the Employer or by the Engineer-in-Charge on behalf of the Employer, with explanation of the reasons for such a sum/ claim becoming due, shall forthwith pay the same to the Employer. If the Contractor fails to do so within twenty-one (21) days of such a claim, then the same may be deducted by the Employer from any sum then due or which at any time thereafter may become due to the Contractor under this Contract or from any other sum due to the Contractor from the Employer which may be available with the Employer or from his security deposit.			
27.2	The Employer reserves the right to carry out post payment audit and technical examination			
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	of the final bill including all supporting vouchers, abstracts, etc. The Employer further reserves the right to enforce and recover any overpayment when detected, notwithstanding the fact that the amount of the final bill may include any item which is under dispute between the parties and referred to for settlement under GCC Clause entitled 'Settlement of Disputes' and notwithstanding the fact that the amount of the final bill figures in the arbitration decision/award.			
27.3	If as a result of such audit and technical examination, any overpayment is discovered in respect of any Work done by the Contractor or alleged to have been done by him under the Contract, it shall be recovered by the Employer from the Contractor by any or all of the methods prescribed above. Similarly, if any underpayment is discovered by the Employer, the amount shall be duly paid to the Contractor by the Employer forthwith.			
27.4	Provided that the aforesaid right of the Employer to adjust overpayments against amounts due to the Contractor under any other Contract with the Employer shall not extend beyond the period of two years from the date of payment of the final bill or in case the final bill is a minus bill, from the date the amount payable by the Contractor under the minus final bill is communicated to the Contractor.			
27.5	Any amount due to the Contractor under this Contract for underpayment may also be adjusted against any amount then due or which may at any time thereafter become due from the Employer to the Contractor under any other Contract or account whatsoever.			
28.	Time Limit for submission & payment of Final Bill and waiver of rights of all claims			
28.1	The final bill shall be submitted by the Contractor within three (3) months of physical completion of the Works unless otherwise a longer period is agreed to between the Engineer-in-Charge and the Contractor. No further claims shall be made by the Contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payment of the final bill will be made within four (4) months of receipt of the same.			
D. EXECUTION OF FACILITIES				
29.	Work Commencement, Execution & Delays			
29.1	Commencement of Works The execution of the Works shall commence from the 14th day after the date on which the Engineer-in-Charge issues written orders to commence the Work, unless otherwise stated elsewhere in the Contract.			
29.2	Time for Completion			
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	The entire scope of Work covered under this Contract shall be completed within the time stated in SCC or within such extended time granted to the Contractor by the Employer under the provisions of GCC Sub-Clause 29.5. The time allowed for execution of the Works as specified in the SCC or the extended time in accordance with these Conditions shall be the essence of the Contract.		
29.3	Work Progress		
29.3.1	Unless already incorporated in the Letter of Award, as soon as possible after the Contract is awarded, the Engineer-in-Charge and the Contractor shall agree upon a Work Schedule which will become the Contract Work Schedule. The Work Schedule shall be prepared in direct relation to the time stated in the Contract documents for the completion of the Works. The Work Schedule shall indicate the forecast of the dates of commencement and completion of various trades or sections of work.		
29.3.2	All the Contractor's activities shall be performed and completed strictly in accordance with the agreed Work Schedule and to achieve the targets, the Contractor shall have to plan adequate mobilisation of all resources. The Engineer-in-Charge, shall however, have the right to review the progress and modify the sequence of carrying out the Work suiting the Site conditions and the Contractor shall be required to comply with such modifications and complete his activities in accordance thereof without any extra cost to the Employer.		
29.3.3	Maintenance of Records of Weekly Progress Review Meetings at Site The Contractor shall be required to attend all weekly site progress review meetings organized by the 'Engineer-in-Charge' or his authorized representative. The deliberations in the meetings shall inter alia include the weekly program, progress of work (including details of manpower, tools and plants deployed by the contractor vis-a-vis agreed schedule), inputs to be provided by Employer, delays, if any, and recovery program, specific hindrances to work and work instructions by Employer. Record of Hindrances / events that lead to slow / stoppage of smooth execution of work shall be maintained in "Hindrance Register". The minutes of the weekly meetings shall be recorded in triplicate in a numbered register available with the 'Engineer-in-Charge', or his authorized representative. These recordings shall be jointly signed by the Engineer-in-Charge or his authorized representative and the Contractor and one copy of the signed records shall be handed over to the Contractor. The following documents shall form the principal basis for consideration of Time Extension pursuant to GCC Clause 29.5 with or without LD, determining the compensation amount pursuant to GCC Clause 29.6 and settlement of extra claims during the execution of contract: 1. The joint recordings in "Hindrance Register" and "Weekly Review Register".		
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	2. Records of Technical Coordination Meetings. 3. Records of Contract Review Meetings. 4. Written notices issued by the “Engineer-in-charge” or his authorized representative to contractor in the relevant period. 5. Written requests/ notices by the Contractor to Employer/ Engineer-in-Charge in the relevant period.
29.4	Contract Coordination Procedures, Coordination Meetings & Progress Reporting
29.4.1	The Contractor shall prepare and finalise in consultation with the Engineer-in-Charge, a detailed contract coordination procedure within twenty-eight (28) days from the date of issue of Letter of Award, for the purpose of execution of the Contract.
29.4.2	The Contractor shall have to attend all the meetings at his own cost with Engineer-in-Charge or any authorised representative of the Employer during the currency of the Contract, as and when required and fully cooperate with such persons and agencies involved during these discussions.
29.4.3	During the execution of the Work, the Contractor shall submit at his own cost a detailed monthly progress report to the Engineer-in-Charge in three copies, latest by 14 th of every month.
29.5	Extension of Time for Completion
29.5.1	The Time for Completion specified shall be extended if the Contractor is delayed or impeded in the performance of any of the obligations under the Contract by reason of any of the following: a) any occurrence of Force majeure as provided in GCC Clause entitled ‘Force Majeure’, or b) Work Schedules for beyond deviation limits & Extra Items as provided in GCC Sub-Clause 49.5, or c) any default or breach of the Contract by the Employer, or delay on the part of other contractors engaged by the Employer in executing work not forming part of this Contract, or d) any suspension order given by the Employer under GCC Sub-Clauses 50.1 (ii) and 50.1 (iii), or e) Any other sufficient cause which, in the opinion of the Engineer-in-Charge, is beyond the Contractor’s reasonable control;
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	by such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Contactor.
29.5.2	Except where otherwise specifically provided in the Contract, the Contractor shall submit to the Employer a notice in writing of a claim for an extension of the Time for Completion, together with particulars of the event or circumstance justifying such extension as soon as reasonably practicable, but no later than twenty-eight (28) days after the commencement of such event or circumstance. As soon as reasonably practicable, after the receipt of such notice and supporting particulars of the claim, the Employer shall give a fair and reasonable extension of time for completion of Work. Such extension shall be communicated to the Contractor by the Engineer-in-Charge in writing, within fifty-six (56) days of the date of receipt of such request by the Engineer-in-Charge.
29.5.3	The Contractor shall at all times use his reasonable efforts to minimise any delay in the performance of his obligations under the Contract.
29.5.4	The compensations, if any, payable to the Contractor on account of any one or more of the above reasons of delay have been separately dealt with under relevant provisions of the Contract.
29.6	Liquidated Damages for Delay
29.6.1	If the Contractor fails to complete the Work on or before the scheduled or extended date of completion as per GCC Sub-Clauses 29.2 and 29.5, he shall, without prejudice to any other right or remedy of the Employer, arising out of the Contract on account of such delay, be liable for payment of liquidated damages, not as penalty as per provisions of SCC Clause entitled 'Liquidated Damages for Delay'.
29.6.2	The following documents shall form the principal basis for consideration of Extension of Time for Completion pursuant to GCC Sub-Clause 29.5 with or without Liquidated Damages and determining the compensation amount pursuant to GCC Sub-Clause 29.6. 1. The joint recordings in "Hindrance Register" and "Weekly Review Register". 2. Records of Technical Coordination meetings, 3. Records of Contract Review meetings, 4. Written notices issued by the Employer and/or the Engineer-in-Charge or his authorized representative to the Contractor in the relevant period. 5. Written requests/ notices by the Contractor to Employer/ Engineer-in-Charge in the relevant period.
29.7	Delays by Employer or his Authorised Representative

29.7.1	In case the Contractor's performance is delayed due to any act of omission on the part of the Employer or his authorised representative, then the Contractor shall be given appropriate extension of time for the completion of the Works, to the extent such omission on the part of the Employer has caused delay in the Contractor's performance of his work. Regarding reasonableness or otherwise of the extension of time, the decision of the Engineer-in-Charge shall be final.		
29.7.2	If such delays by the Employer have resulted in any increase in the cost to the Contractor, the Contractor shall be eligible to claim demonstrable and reasonable costs supported by full details of such increased costs incurred by him with all documentary evidence. The Employer shall examine the justification for such a request for claim and if satisfied, the extent of compensation shall be mutually agreed depending upon the circumstances at the time of such an occurrence.		
30.	Sub-Contracts		
30.1	After the award of the Contract, the Contractor shall not subcontract the Works/ any part of the Works without the prior written consent of the Engineer-in-Charge. Any such consent shall not relieve the Contractor from any liability or obligation under the Contract and he shall be responsible for the acts, defaults and neglects of any Sub-Contractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents, servants or workmen. Provided that the Contractor shall not be required to obtain such consent for: a) the provision of labour, b) the purchase of materials which are in accordance with the standards specified in the Contract, or c) the subcontracting of any part of the Works for which the sub-contractor is named in the Contract. In the event of the Contractor proposing a sub-contractor for any part of the Works after the award of the Contract, he shall be required to take approval from the Engineer-in-Charge. If the Engineer-in-Charge approves of the same, he shall stipulate qualifying requirements for the sub-contractors to perform the specified part of Work. The Contractor will then submit the requisite credentials of the agency(ies) he proposes to engage. The details so furnished by the Contractor shall be reviewed by the Employer. In case the agency(ies) proposed by the Contractor for the subcontracting are not considered acceptable, the Contractor will be required to furnish credentials of alternate agency(ies) for approval of Engineer-in-Charge. Based on the review and assessment, the agency(ies) shall be approved by the Engineer-in-Charge within twenty-one (21) days of furnishing of		
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	credentials by the Contractor.
30.2	Where a list of approved agencies for a sub-contracting work is provided in the Contract, the Contractor shall inform the name of the sub-contractor selected by him within a period as agreed with the Engineer-in-Charge, however not later than twenty-eight (28) days of the date of such selection.
30.3	The Contractor shall not be allowed to sub-contract works to any sub-contractor/ sub-vendor from a country which shares a land border with India unless such sub-contractor is registered with the competent Authority. The Competent Authority for the purpose of registration shall be as mentioned in the relevant Annexure of SCC. However, the said requirement of registration will not apply to sub-contractors from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects. The Contractor may apprise itself of the updated lists of such countries available in the website of the Ministry of External Affairs.
31.	Setting out the Works
31.1	The Engineer-in-Charge shall supply dimensioned drawings, levels and other information necessary to enable the Contractor to set out the Works and the Contractor shall set out the Works and be responsible for the accuracy of the same. He shall amend at his own cost and to the satisfaction of the Engineer-in-Charge any error found at any stage which may arise through inaccurate setting out unless such error is based on incorrect data furnished in writing by the Engineer-in-Charge, in which case the cost of rectification shall be borne by the Employer. The Contractor shall protect and preserve all bench marks used in setting out the Works till date of submission of final bill under the Contract, unless the Engineer-in-Charge directs otherwise.
32.	Methodology of Construction & Equipment Mobilisation
32.1	Methodology of construction and the work plan adopted by Contractor shall match the construction methodology/requirements specified in Technical Specifications.
32.2	The suggested minimum plant & equipment and machinery to be deployed by the Contractor for the execution of Work shall be as given in Technical Specifications.
32.3	The Contractor shall arrange at his own expense all tools, plant and equipment including Crane(s) (hereinafter referred to as T&P) required for execution of the work.
32.3.1	If the Contractor requires any item of T & P on hire from the Employer, the Employer will, if
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	such item is available, hire it to the Contractor at an hourly rate to be fixed by the Engineer-in-Charge.			
32.3.2	The T&P shall be given to the Contractor on hire by the Employer for a period of one hour or its multiple thereof. In case the T&P is hired by the Contractor for a period of four hours or less, the hire charges applicable for a minimum period of four hours shall be recovered from the Contractor's bills. In case the T&P is hired by the Contractor for a period exceeding four hours, the hire charges shall be calculated based on the charges applicable as per hourly rate. The hire charges in respect of T&P given on hire to the Contractor by the Employer shall be recovered from the Contractor's bills.			
32.3.3	For accounting purpose, total working hours shall be considered to be the period between time of placement of T&P to the Contractor at the requested location and time of release of the same. This shall be logged in Record Book on daily basis and shall be signed between Contractor/ Subcontractor and the Engineer-in-charge or his authorised representative. In case the T&P issued to the Contractor is not owned by the Employer but hired from another agency, the authorised representative of the agency providing the T&P will also sign the said Record Book. In case the Contractor contests correctness of any entry and/or fails to sign the Record Book the decision of the Engineer-in-Charge shall be final and binding on him. Hire charges shall be calculated in accordance with the entries in the Record Book.			
32.3.4	The Contractor will be exempted from levy of any charges for the number of days he is called upon in writing by the Engineer - in- Charge to suspend execution of the work, provided Employer's T & P/ T&P hired by the Employer in question has, in fact, remained idle with the Contractor because of the suspension, provided the Contractor, in case the period of suspension exceeds 11 days, returns Employer's T & P/ T&P hired by the Employer to the place from where it was issued.			
32.3.5.1	T&P owned by Employer The hire charges will cover financing cost, charges of crew, depreciation, stores for maintenance and cleaning purposes and fuel needed to start a machine at the time of issue. All other charges such as cost of fuel for running a machine, engine oil, kerosene oil, etc., for working Employer's T&P, and all unskilled labour and water required for servicing/wash out shall be borne by the Contractor. The Contractor shall permit the Engineer-in-Charge to carry out periodical maintenance of Employer's T&P in accordance with the provision there for in the aforesaid Schedule, and there will be no deduction in hire charges for the period spent on such maintenance. However, the Contractor shall be allowed to return the tools and plants (issued by the Employer) for purposes of repairs and for the duration of such repairs no hire charges shall, be levied.			
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	The Contractor shall be responsible for care and custody of Employer's T&P (including employment of chowkidars) during the period Employer's T&P remain with him and any damage (fair wear and tear excepted) to any of the equipment(except for Excepted Risks provided always the Contractor has taken precautions necessary to protect it from such risks) shall be made good at the Contractor's expense to the satisfaction of the Engineer-in-Charge unless such damage is caused because of negligence of crew provided by the Employer.			
32.3.5.2	T&P hired by the Employer The hourly hiring rate for T&P hired by the Employer from another agency and issued to Contractor shall be all inclusive rate including the cost of hiring, operation & maintenance charges, fuel charges and other charges.			
32.3.6	The Employer gives no guarantee in respect of output of T & P hired to the Contractor and no reduction in rates or any compensation shall be allowed on the ground that out turn or performance of Employer's T & P/ T&P hired by the Employer was not to the Contractor's expectation.			
32.3.7	The T&P hired to the Contractor shall be returned at the place of issue by the Contractor to the Engineer-in-Charge (unless otherwise directed) on execution of the work or section of the work at the end of the day. In case the T&P is used by the Contractor in continuation of previous requisition and the crane has not moved out of his work area, then the movement of crane for fresh requisition(s) by the Contractor within his work area shall be to the Contractor's account.			
32.3.8	The Employer shall be entitled to terminate the hire without assigning any reason whatsoever and the Contractor shall have no claim to any payment of compensation or otherwise whatsoever on account of termination of hire of T&P issued by the Employer. On termination of the hire by the Employer, the Contractor shall return the T&P at the place of issue unless otherwise directed by the Engineer-in-Charge.			
33.	Patent Indemnity			
33.1	The Contractor shall indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, which the Employer may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Contract in the performance of the Contract.			
33.2	In the event of any claim being made or action being brought against the Employer or its representatives or its employees, in respect of any such matters as aforesaid, the Contractor shall immediately be notified thereof. However, such indemnity shall not apply			
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when such infringement has taken place in complying with the specific directions issued by the Employer; but the Contractor shall pay any royalties or other charges payable in respect of any such use, the amount so paid being reimbursed to the Contractor only if the use was as a result of any drawings and/or specifications issued after the award of Contract by the Employer, provided further that the Contractor has brought to the notice of the Engineer-in-Charge, of such infringement immediately upon the instructions of the Engineer-in-Charge or upon the Contractor becoming aware of such infringement.

34.

Materials for the performance of the Contract

(a) *Materials to be provided by the Contractor*

1. The Contractor shall at his own expense, provide all materials required for the Works other than those which are to be issued by the Employer.
2. All materials to be provided by the Contractor shall be in conformity with the specifications laid down in the Contract and the Contractor shall, if requested by the Engineer-in-Charge, furnish proof to the satisfaction of Engineer-in-Charge that the materials so comply.
3. Wherever required by the Engineer-in-Charge, the Contractor shall, at his own expense and without delay, provide samples of materials proposed to be used in the Works. The Engineer-in-Charge shall within seven (7) days thereafter or within such further period as he may require, intimate to the Contractor in writing, whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange for fresh samples complying with the Technical specifications laid down in the Contract, for approval.
4. The Engineer-in-Charge shall have full powers to require removal of any or all of the materials brought to site by the Contractor which are not in accordance with the Contract specifications or do not conform in character or quality to samples approved by him. In case of default on the part of the Contractor in removing rejected materials, the Engineer-in-Charge shall be at liberty to have them removed by other means. The Engineer-in-Charge shall have full powers to order the Contractor to provide other proper materials to be substituted for rejected materials and in the event of the Contractor refusing to comply, he may cause the same to be supplied by other means. All costs, which may attend upon such removal and/or substitution, shall be borne by the Contractor.
5. The Engineer-in-Charge shall be entitled to have tests carried out as specified in the Contract for any materials supplied by the Contractor other than those for which, as stated above, satisfactory proof has already been furnished, at the cost of the Contractor and the Contractor shall provide at

his expense all facilities which the Engineer-in-Charge may reasonably require for the purpose. If no tests are specified in the Contract, and such tests are required by the Engineer-in-Charge, the Contractor shall provide all facilities required for the purpose and the charges for these tests including the cost of materials consumed/used in such tests shall be to the account of Employer, except if the tests disclose that the said materials are not in accordance with the provision of the Contract, then the same shall be to the account of the Contractor.

6. The Contractor shall indemnify the Employer, its representatives or its employees against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties or other charges which may be payable in respect of any article or material or part thereof included in the Contract. In the event of any claim being made or action being brought against the Employer or its representatives or its employees, in respect of any such matters as aforesaid, the Contractor shall immediately be notified thereof. However, such indemnity shall not apply when such infringement has taken place in complying with the specific directions issued by the Employer; but the Contractor shall pay any royalties or other charges payable in respect of any such use, the amount so paid being reimbursed to the Contractor only if the use was as a result of any drawings and/or specifications issued after the award of Contract by the Employer, provided further that the Contractor has brought to the notice of the Engineer-in-Charge, of such infringement immediately upon the instructions of the Engineer-in-Charge or upon the Contractor becoming aware of such infringement.

7. Subject as hereinafter provided in GCC Clause entitled 'Contract Price Adjustment' all charges on account of **GST** and other levies/octroi on materials obtained for the Works from any source (excluding materials issued by the Employer) shall be borne by the Contractor.

(b) *Materials to be issued by the Employer:*

- (i) **Materials to be issued by the Employer free of cost**

The Employer, if so stipulated in SCC, may issue cement, reinforcement steel and structural steel to the Contractor free of cost for incorporation in the Works as per the terms and conditions specified in the SCC/Technical Specifications.

- (ii) **Materials to be issued by the Employer on chargeable basis**

If after the award of the Contract, the Contractor desires the Employer to issue/supply any other materials, for the purposes of the Contract such

materials may be issued by the Employer, if available, at rates and terms and conditions to be fixed by the Engineer-in-Charge. The Employer reserves the right not to issue any such materials. The non-issue of such materials will not entitle the Contractor for any compensation whatsoever either in time or in cost.

(c) *General:*

1. Materials required for the Works, whether brought by the Contractor or issued by the Employer, shall be stored by the Contractor only at places approved by the Engineer-in-Charge. Storage and safe custody of material shall be the responsibility of the Contractor.
2. Engineer-in-Charge shall be entitled at any time to inspect and examine any materials intended to be used in or on the Works, either on the Site or at factory or workshop or other place(s) where such materials are assembled, fabricated, manufactured or at any place(s) where these are lying or from which these are being obtained and the Contractor shall give such facilities as may be reasonably required for such inspection and examination.
3. All materials brought to the Site shall not be removed off the Site without the prior written approval of the Engineer-in-Charge. But whenever the Works are finally completed and advance, if any, in respect of any such material is fully recovered, the Contractor shall at his own expense forthwith remove from the Site all surplus material originally supplied by him.
4. The Employer may issue all the materials agreed to be issued to the Contractor under the Contract, at its site stores, or nearest railhead. In case the materials are issued at the nearest rail head, the cost of transportation only, from such rail head to the Site will be borne by the Employer, subject to the reasonableness of such transportation cost being certified by the Engineer-in-Charge. All other costs such as loading, unloading, transportation to Contractor's godown, storage etc. till the materials are incorporated in the Works or returned to the Employer shall be to the account of the Contractor.
5. All materials issued to the Contractor, by the Employer for incorporation or fixing in the Works (including preparatory work) shall, on completion or on termination of the Contract, be returned by the Contractor at his expense, at the Employer's store, after making due allowance for actual consumption, reasonable wear and tear and/or waste. If the Contractor is required to deliver such materials at a place other than the Employer's store, he shall do so and the transportation charges from the Site to such place, less the transportation charges which would have been incurred by the Contractor, had such materials been delivered at the Employer's store, shall be borne by the Employer.

35.	Quality Assurance Programme
35.1	Sampling, testing and quality assurance requirements are given in Technical Specifications.
35.2	All costs associated with testing of materials required as per Technical Specifications shall be deemed to be included in Contract rates/prices in the Schedule of Quantities.
36.	Inspection and Approval
36.1	All Works embracing more than one process shall be subject to examination and approval at each stage thereof and the Contractor shall give due notice to the Engineer-in-Charge or his authorised representative when each stage is ready. In default of such notice, the Engineer-in-Charge shall be entitled to appraise the quality and extent thereof.
36.2	No work shall be covered up or put out of view without the approval of the Engineer-in-Charge or his authorised representative and the Contractor shall provide full opportunity for examination and measurement of any work which is about to be covered up or put out of view and for examination of foundations before further work is placed thereon. The Contractor shall give due notice to the Engineer-in-Charge or his authorised representative whenever any such work or foundation is ready for examination and the Engineer-in-Charge or his representative shall without unreasonable delay, unless he considers it unnecessary and advises the Contractor accordingly' attend for the purpose of examining and measuring such work or of examining such foundations. In the event of the failure of the Contractor to give such notice he shall, if required by the Engineer-in-Charge, uncover such work at his own expense.
36.3	The Engineer-in-Charge or his authorised representative shall have powers at any time to inspect and examine any part of the Works and the Contractor shall give such facilities as may be reasonably required for such inspection and examination.
36.4	The Contractor shall uncover any part of the Works and/or make openings in or through the same as the Engineer-in-Charge may from time to time direct for his verification and shall reinstate and make good such part to the satisfaction of the Engineer-in-Charge. If any such part has been covered up or put out of view after being approved by the Engineer-in-Charge and is subsequently found on uncovering to have been executed in accordance with the Contract, the expenses of uncovering and/or making opening in or through, reinstating and making good the same shall be borne by the Employer. In any other case all such expenses shall be borne by the Contractor.
36.5	The additional & specific inspection and approval requirements in respect of the Works are detailed further in the Technical Specifications.

37.	Records and Measurement
37.1	The Engineer-in-Charge shall, except as otherwise stated, ascertain and determine by measurement the value of the Work done in accordance with the Contract.
37.2	All items having a financial value shall be entered in Measurement Book, level book, etc. prescribed by the Engineer-in-Charge so that a complete record is obtained of all Work performed under the Contract.
37.3	Measurements shall be taken jointly by the Engineer-in-Charge or his authorised representative and the Contractor or his authorised representative.
37.4	Before taking measurements of any Work the Engineer-in-Charge or his authorised representative for the purpose shall give a reasonable notice to the Contractor. If the Contractor fails to attend or send his authorised representative for taking the measurements after such a notice or fails to countersign or to record the objection, if any, within a week from the date of measurement, then in any such event measurements taken by the Engineer-in-Charge or his authorised representative shall be taken to be correct measurements of the Work.
37.5	The Contractor shall, without extra charge, provide assistance with every appliance, labour etc. necessary for taking measurements.
37.6	Measurements shall be signed and dated by both parties each day on the Site on completion of measurement. If the Contractor objects to any of the measurements recorded, a note to that effect shall be made in the Measurement Book against the item objected to and such note shall be signed and dated by both parties engaged in taking the measurement. The decision of the Engineer-in-Charge on any such dispute or difference or interpretation shall be final and binding on both the parties and shall be beyond the scope of the provisions of settlement of disputes under the Contract.
38.	Methods of Measurement
38.1	Measurement of Contract items of Work shall be taken in accordance with method of Measurement stipulated in the Technical Specifications/Schedule of Quantities. In case of extra items, the Engineer-in-Charge shall also specify the method of measurement for such items at the time of his order for execution of such extra items.
38.2	In case no method of measurement is stipulated in Technical Specifications/ Schedule of Quantities/ Order of the Engineer-in-Charge, then the Method of Measurement of such items shall be as per the relevant Standard Method of Measurement issued by Indian Standards Institution or general industry practice/ local custom.
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39. 39.1 39.2 39.3 39.4	Temporary / Enabling Works The siting and nature of all offices, access road to the work areas, access tracks to work areas, sumps, and all other Temporary / Enabling Works as may be required for the proper execution of the Works shall be subject to the approval of the Engineer-in-Charge. These Works shall be executed by the Contractor at his own cost. ~~Hard crusting for pre-assembly/fabrication yard shall be in line with Technical Specifications.~~ All equipment, labour, materials including cement, reinforcement and the structural steel required for the Enabling Works associated with the entire Contract shall have to be arranged by the Contractor only. Nothing extra shall be paid to the Contractor on this account and the unit rates quoted by the Contractor on this account and the unit rates quoted by the Contractor for various items in the Schedule of Quantities shall be deemed to include the cost of Enabling Works. Deleted. The Contractor shall make his own arrangement for approach to the work Site, including borrow / disposal area and for movement of men, machinery, other requirement etc. required for carrying out the Work included under this Contract.
40. 40.1 41. 41.1 41.1.1	Urgent Works If any Urgent Work becomes necessary and the Contractor is unable or unwilling at once to carry it out, the Engineer-in-Charge may by his own or other means, carry it out as he may consider necessary. If the Urgent Work shall be such as the Contractor is liable under the Contract to carry out at his expenses, all expenses incurred on it by the Employer shall be recoverable from the Contractor and be adjusted or set off against any sum payable to him. Construction Power and Construction Water Supply and Staff / Labour Colony Unless otherwise stated in SCC, the provisions for Construction Power and Construction Water Supply and Staff / Labour Colony shall be as under: The Contractor shall advise the Engineer-in-Charge, within twenty-eight (28) days from the date of acceptance of the Letter of Award, about his exact requirement of space for his office, storage area, preassembly and fabrication areas, etc. The above requirement shall be reviewed by the Engineer-in-Charge and space as decided by him will be allotted for his use as well as his Sub-Contractor's use. The contractor shall make his own arrangement for construction/ rented premises for labour / staff colony.
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41.1.2	On completion of Work, the Contractor shall handover the land duly cleaned to the Engineer-in-Charge. Until and unless the Contractor has handed over the vacant possession of land allotted to him for the above purpose, the payment of his final bill shall not be made. The Contractor shall be made liable to pay for the use and occupation at the rates to be determined by the Engineer-in-Charge if the Contractor overstays in the land after the Contract is completed.
41.1.3	Not applicable
41.1.4	Contractor shall arrange/provide necessary backup arrangement on his own for uninterrupted power supply.
41.1.5	The Contractor shall arrange power supply and drinking water to his workmen/staff at Work Site and other area for all purposes for his labour and other personnel at the worksite / colony on his own. The quality of water should meet the requirements for which it is proposed to be used. All Civil and Structural Work associated with the above including borings, pipe lines, valves, pumps, tube wells, pump house, underground storage tank, over ground storage tank, water tankers etc., whatsoever required for taking the water from the underground source or any other source to the place of use shall be provided / erected/ constructed / maintained by the Contractor at his own cost.
41.1.6	The contractor shall arrange for construction water from underground/local sources. All borings, pipe lines, pumps, water tankers, underground storage tank, over-ground storage tank, etc, whatsoever required for taking the water from the underground source to the site of work shall be provided / erected / constructed / maintained by the contractor at his own cost.
41.1.7	The Contractor shall not be entitled to any compensation on account of the expenditure incurred in arranging the power & water.
42.	Site Laboratory
42.1	As part of the Contract, the Contractor shall provide and maintain a site laboratory for the testing of construction materials under the direction and general supervision of the Engineer-in-Charge.
42.2	The laboratory building shall be constructed and installed with the appropriate facilities. Temperature and humidity controls shall be available wherever necessary during testing of samples.
42.3	All equipments shall be provided by the Contractor so as to be compatible with the testing requirements specified. The Contractor shall maintain the equipment in good working condition for the duration of the Contract.

42.4	The Contractor shall provide approved qualified personnel to operate and maintain the laboratory for the duration of the Contract. The number of staff and equipment available must at all times be sufficient to keep pace with the sampling and testing programme as required by the Engineer-in-Charge.
42.5	The Contractor shall fully service the site laboratory and shall supply everything necessary for its proper functioning, including all transport needed to move equipment and samples to and from sampling points on the site, etc.
42.6	The Contractor shall re-calibrate all measuring devices whenever so required by the Engineer-in-Charge and shall submit the results of such measurements without delay.
43.	Completion Certificate
43.1	As soon as the Work is completed, the Contractor shall give notice of such completion to the Engineer-in-Charge and within eighty-four (84) days of receipt of such notice the Engineer-in-Charge shall inspect the Work and shall furnish the Contractor with a certificate of completion indicating (a) date of completion, (b) defects, if any, in the Work to be rectified by the Contractor and/or (c) items, if any, for which payment shall be made at reduced rates. When separate periods of completion have been specified for items or groups of items, the Engineer-in-Charge shall issue separate completion certificates for such item or groups of items. No certificate of completion shall be issued nor shall the Work be considered to be complete till the Contractor shall have removed from the premises on which the Work has been executed all scaffolding, sheds and surplus materials (except such as are required for rectification of defects), and the like to the satisfaction of Engineer-in-Charge. If the Contractor shall fail to comply with any of the requirement of the conditions as aforesaid, on or before the date of completion of the Works, the Engineer-in-Charge may, at the expense of the Contractor fulfil such requirements and dispose of the scaffoldings, surplus materials and rubbish etc. as he thinks fit and recover the cost after giving due credit for the realised amount. The term 'completion' used herein means the physical completion of the Work and in no way means to connote the quality or time of performance of the Work.
43.2	If at any time before completion of the entire Work, items or groups of items for which separate periods of completion have been specified, have been completed, the Engineer-in-Charge can take possession of any part or parts of the same (any such part(s) being hereinafter in this Condition referred to as 'the relevant part') notwithstanding anything expressed or implied elsewhere in this Contract.
43.3	In case of such taking over of possession by Engineer-in Charge of the said item or group of items, the following shall govern:
43.3.1	Within twenty-eight (28) days of request by the Contractor, the Engineer-in-Charge shall issue completion certificate for the relevant part as in GCC Sub-Clause 43.1 above provided the Contractor fulfils his obligations under that Condition for the relevant part.

43.3.2	The Defects Liability Period in respect of such items and the relevant part shall be deemed to have commenced from the certified date of completion of such items or the relevant part as the case may be.
43.3.3	The Contractor may reduce the value insured under GCC Clause entitled 'Contractor's Liability and Insurance' to the extent of the value of the completed items or relevant part as estimated by the Engineer-in-Charge and notified for this purpose. This estimate shall be applicable for this purpose only and for no other.
43.3.4	For the purposes of ascertaining liquidated damages for delay under GCC Sub-Clause 29.6 in respect of any period during which the Works are not complete the relevant part will be deemed to form a separate item or group, with date of completion as given in the Contract or as extended under GCC Sub-Clause 29.2 and actual date of completion as certified by the Engineer-in-Charge under this Clause.
E. DEFECTS LIABILITY	
44.	Liability for Damage, Defects or Imperfections and Rectification thereof
44.1	If the Contractor or his workmen or employees shall injure or destroy any part of the building / structure in which they may be working or any building, road, fence etc. contiguous to the premises on which the Work or any part of it is being executed, or if any damage shall happen to the Work while in progress, the Contractor shall upon receipt of a notice in writing in that behalf make the same good at his own expense. If it shall appear to the Engineer-in-Charge or his representative at any time during construction or re-construction or prior to the expiration of the Defects Liability Period, that any work has been executed with unsound, imperfect or unskilled workmanship or that any materials or articles provided by the Contractor for execution of the Work are unsound or of a quality inferior to that contracted for, or otherwise not in accordance with the Contract, or that any defect, shrinkage or other faults have appeared in the Work arising out of defective or improper materials or workmanship, the Contractor shall, upon receipt of a notice in writing in that behalf from the Engineer-in-Charge, forthwith rectify or remove and re-construct the work so specified in whole or in part, as the case may require or as the case may be, and/or remove the materials or articles so specified and provide other proper and suitable materials or articles at his own expense, notwithstanding that the same may have been inadvertently passed, certified and paid for and in the event of his failing to do so within the period to be specified by the Engineer-in-Charge in his notice aforesaid, the Engineer-in-Charge may rectify or remove and re-execute the work and/or remove and replace with others, the materials or articles complained of, as the case may be, by other means at the risk and expense of the Contractor.
45.	Defects Liability Period
45.1	Unless otherwise specified in the SCC, the Contractor shall be responsible to make good
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	and remedy at his own expense within such period as may be stipulated by the Engineer-in-Charge, any defect which may develop or may be noticed before the expiry of twelve (12) months from the certified date of completion.			
45.1.1	On expiry of the period mentioned as defect liability period (GCC Clause 45), contractor's liability ceases except for latent defects. The contractor's liability for latent defect shall be limited to a period of five (5) years from the end of Defect liability period for the subject package. For the purpose of this clause the latent defects shall be the defects inherently lying within the material or arising out of design deficiency which do not manifest themselves during the defect liability period but may surface later.			
	F. RISK DISTRIBUTION			
46.	Employer's and Contractor's Risks and Insurance			
46.1	The Employer carries the risks which this Contract states as Employer's risks, and the Contractor carries risks which this Contract states as Contractor's risks, under this clause.			
46.2	Irrespective of the Employer's Risks or Contractor's Risks the Contractor shall execute the Works as per Contract and as directed by Engineer-in-Charge.			
46.3	Employer's Risks			
46.3.1	The 'Excepted Risks' are			
	(1) In so far as they occur in the Union of India and directly affect the execution of the Works:			
	(a) war and hostilities (whether war be declared or not), invasion, act of foreign enemies.			
	(b) rebellion, revolution, insurrection or military or usurped power or civil war.			
	(c) riot, commotion or disorder, unless solely restricted to employees of the Contractor or of his sub-contractors and arising from the conduct of the Works;			
	(d) ionizing radiations, or contamination by radio activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radioactive, toxic, explosive, or other hazardous properties of any explosive, nuclear assembly or nuclear component;			
	(e) pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speed;			
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	(f) any operation of the forces of nature, which is unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate precautions or (2) a cause due to the design of the Works, other than the Contractor's design.			
46.3.2	In the event of any loss or damage to the Works or any part thereof and/or to any materials or articles at the Site from out of any occurrence of Excepted Risks, the following provisions shall have effect: (a) The Contractor shall, as may be directed in writing by the Engineer-in-Charge, remove from the Site any debris and so much of the Works as shall have been damaged, take the same to the place identified by the Employer, at the Employer's cost. (b) The Contractor shall, as may be directed in writing by the Engineer-in-Charge, proceed to rectify, repair, reconstruct or replace the damaged articles, materials and the Works under and in accordance with the Conditions of the Contract, at the Employer's cost.			
46.3.3	The Contractor shall not be entitled to payment under the above provisions in respect of so much loss or damage as has been occasioned by any failure on his part to perform his obligations under the Contract or not taking precautions to prevent loss or damage or minimize the amount of such loss or damage.			
46.4	Contractor's Risks			
46.4.1	All risks of loss of or damage to the physical property and of personal injury and death, which arise during and in consequence of the performance of the Contract, other than those covered under the Excepted Risks, will be the liability of the Contractor, except as otherwise provided in the Contract.			
46.4.2	From commencement to completion of the Works, the Contractor shall take full responsibility for the care thereof and for taking precautions to prevent loss or damage and to minimize loss or damage to the greatest extent possible and shall be liable for any damage or loss that may happen to the Works or any part thereof from any cause whatsoever (save and except due to Excepted Risks) and shall at his own cost repair and make good the same so that at completion, the Works shall be in good order and condition and in conformity in every respect with the requirements of the Contract and instructions of the Engineer-in-Charge.			
46.4.3	The Contractor shall indemnify and keep indemnified the Employer against all losses and claims for injuries or damage to any person or any property whatsoever which may arise out of or in consequence of the construction and maintenance of the Works and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in			
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	respect of or in relation thereto; Provided always that nothing herein contained shall be deemed to render the Contractor liable for or in respect of or to indemnify the Employer against any Compensation or damage caused by any occurrence of the Excepted Risks.			
46.5	Insurance			
46.5.1	Before commencing the execution of the Works, the Contractor shall, without in any way limiting his obligations and responsibilities under this clause, indemnify the Employer against any damage/ loss or injury which may occur to any property or to any person (including any employee of the Employer) by or arising out of carrying out of the Contract, except due to reasons of 'Excepted Risks'.			
46.5.2	Towards this end, the Contractor shall arrange adequate insurance coverages, in the joint names of the Employer and the Contractor, from the date of commencement of the work to the end of the Defects Liability Period for at-least the following: (i) loss of or damage to the Works including Employer issued materials; (ii) loss of or damage to the Contractor's T&P; (iii) loss of or damage to the property other than Works including those of third parties; (iv) injury or death of personnel belonging to the Contractor, the Employer or any other party. (v) Worker's Compensation in accordance with the statutory requirements. The Contractor shall be compulsorily required to take Contractor's All Risk Insurance Policy for all risks except those covered under the Excepted risks with minimal deductible for the re-execution value of the Works on completion and replacement cost of the Contractor's T&P/ Plant & Equipment/ Employer's free issue materials/ Third party Property, etc. as mentioned above. For this purpose the re-execution value of the Works on completion/ replacement cost of the Contractor's T&P/ Plant & Equipment/ Employer's free issue materials/ Third party Property shall include all such expenses, costs, taxes, duties, levies, royalties, etc. which in case of total loss, the Employer/ Contractor would be reasonably expected to incur to bring these to the same state as if no damage had occurred. The Contractor and Employer shall mutually decide on the insured sum but in no case it shall be less than the 110% of the value of the Works on completion and Third party Property and 110% of the cost of Contractor's T&P/ Plant & Equipment/Employer's free issue materials delivered to site including all taxes, duties, levies and royalties etc. and escalation during the period of re-execution for the Works and delivery of replacement Contractor's T&P/ Plant & Equipment/ Employer's free issue materials to site. However, in case of any conflict, the Employer's decision regarding the insured sum shall be final and binding on the Contractor. The Employer shall be named coinsured in the policy and it shall include the extended cover at-least for the following: a) Third Party Liability			
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	b) Cross Liability c) Earthquake d) Cost of removal of debris e) Custom duty as applicable f) Escalation during re-execution g) Employer's surrounding property h) Storage risk at Fabricator's premises as applicable i) Cost of tools and tackles and material handling equipment used for construction purposes. j) SRCC & terrorism		
46.5.3	Where Employer's building or a part thereof is rented by the Contractor, he shall insure the entire building if the building or any part thereof is used by him for the purpose of storing or using materials of combustible nature as to which the decision of the Engineer-in-Charge shall be final.		
46.5.4	Contractor shall ensure that the insurance coverage of the above policies include any loss or damage to his Staff, Supervisors, Engineers and others who are not covered by Workmen Compensation Act. Alternatively, the Contractor will take suitable additional or separate insurance policies to cover the same.		
46.5.5	All monies payable by the insurers under such policy or policies shall be first to be paid to the Employer who shall pay to the Contractor in instalments for the purpose of rebuilding or replacement or repair of the damaged Works, Contractor's T&P and/or materials destroyed or damaged as the case may be. Such payments of monies will be made in a manner that the payments are commensurate with the progress and cost of the repair, replacement and reconstruction, as may be and as determined by the Engineer-in-Charge in consultation with the Contractor.		
46.5.6	Policies and certificate for insurance shall be delivered by the Contractor to the Project Engineer for the Project Engineer's approval before the date of commencement of the Works.		
46.5.7	If the Contractor has a blanket insurance policy for all his works and the policy covers all or some of the items to be insured under this Clause, the said policy shall be assigned by the Contractor in favour of the Employer; provided however if any amount is payable under the policy by the insurers in respect of works other than the Work under this Contract, the same may be recovered by the Contractor directly from the insurers.		
46.5.8	The aforesaid insurance policy/policies shall provide that they shall not be materially modified/ cancelled till the Engineer-in-Charge has agreed to such modification or cancellation in writing.		
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46.5.9	Upon grant of the time extension by the Engineer-in-Charge, it is understood that the Contractor's liability of indemnity will be extended suitably without any further action by the Employer and the Contractor shall promptly furnish documentary evidence to Engineer-in-Charge towards extension of insurance policies for the period of time extension.
46.5.10	The Contractor shall ensure that where applicable, his Sub-Contractor(s) shall take out and maintain in effect adequate insurance policies for their personnel and vehicles and for the part of the Works executed by them under the Contract, unless such Sub-Contractors are covered by the policies taken out by the Contractor.
46.5.11	If the Contractor and/or his Sub-Contractors (if any) shall fail to effect and keep in force the insurance coverage, referred to above or any other insurance which he/they may be required to effect under the terms of the Contract, then in any such case the Employer may, without being bound to, effect and keep in force any such insurance coverage and pay such premium or premiums, as may be necessary for that purpose from time to time and deduct the amount so paid by the Employer from any monies due or which may become due to the Contractor or recover the same as a debt due from the Contractor.
46.5.12	If the Contractor does not provide any of the policies and certificates required, the Employer, with due notice to the Contractor may effect the insurance which the Contractor should have provided and recover the premiums, the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due from the Contractor.
47.	Force Majeure
47.1	Definition of Force Majeure
47.1.1	"Force Majeure" shall mean any event beyond the control of the Employer or of the Contractor, as the case may be, (but excluding 'Excepted Risks', which shall be dealt in accordance with GCC Clause entitled "Employer's Risks") and which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affect the performance of the Contract.
47.1.2	Notwithstanding the generality of the above, the following events shall be termed as Force Majeure events in respect of the Contract (i) terrorist acts, (ii) confiscation, nationalization, mobilization, commandeering or requisition by or under the order of any government or de jure or de facto authority or ruler or any other act of failure to act of any local state or national government authority, (iii) national/sectoral/illegal strike, sabotage, lockout, embargo, import restriction, port
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	congestion, lack of usual means of public transportation and communication, industrial dispute, shipwreck, epidemics, quarantine and plague
47.2	Notice of Force Majeure
47.2.1	If either party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within fourteen (14) days after the occurrence of such event.
47.2.2	The party who has given such notice shall be excused from the performance or punctual performance is prevented, hindered or delayed.
47.2.3	Notwithstanding any other provision of the Clause, Force Majeure shall not apply to any obligations of the Employer to make payments to the Contractor herein.
47.3	Duty to Minimize Delay
47.3.1	The party or parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect thereof upon its or their performance of the Contract and to fulfill its or their obligations under the Contract, but without prejudice to either party's right to terminate the Contract under GCC Sub-Clause 47.5.
47.4	Consequence of Force Majeure
47.4.1	If the Contractor is prevented from performing its obligations under the Contract by reason of Force Majeure of which notice has been given under Sub-Clause 47.2.1, and suffers delay by reason of such Force Majeure, the Contractor shall be entitled to an extension of time for any such delay, if the Completion is or will be delayed, in accordance with GCC Sub-Clause entitled "Extension of Time for Completion".
47.4.2	No delay or nonperformance by either party hereto caused by the occurrence of any event of Force Majeure shall (a) constitute a default or breach of the Contract, (b) give rise to any claim for damages or additional cost or expense occasioned thereby if and to the extent that such delay or nonperformance is caused by the occurrence of an event of Force Majeure.
47.5	Termination for reasons due to extended Force Majeure
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47.5.1	If the performance of the Contract is substantially prevented, hindered or delayed for a single period of more than seventy (70) days or an aggregate period of more than one hundred and forty (140) days or any such extended period as may be agreed to between the parties on account of one or more events of Force Majeure during the currency of the Contract, the parties will attempt to develop a mutually satisfactory solution, failing which either party may terminate the Contract by giving a notice to the other.			
47.5.2	In the event of termination pursuant to GCC Sub-Clause 47.5.1, the rights and obligations of the Employer and the Contractor shall be as specified hereunder: (a) the Contractor shall be paid at contract rates for the work already executed by him (b) The Employer shall have an option to take over the Contractor’s facilities/materials or any part thereof brought to site by the Contractor’s facilities/materials or any part thereof brought to site by the Contractor, at such rates as are determined reasonable by the Engineer-in-Charge.			
47.5.3	In the event of any disagreement of the parties relating to matters at GCC 47.5.2, the dispute shall be settled in accordance with GCC Clause titled “Settlement of Disputes”.			
G. CHANGES IN CONTRACT ELEMENT				
48.	Changes in Constitution:			
48.1	Where the Contractor is a partnership firm, prior approval in writing of the Employer shall be obtained before any change is made in the constitution of the firm. Where the Contractor is an individual or a Hindu Undivided Family business concern such approval as aforesaid shall likewise be obtained before the Contractor enters into any partnership firm which would have the right to carry out the Work hereby undertaken by the Contractor. If prior approval as aforesaid is not obtained, the Contract shall be deemed to have been assigned in contravention of GCC Sub-Clause 51.3 hereof and the same action may be taken and the same consequences shall ensue as provided for in the said GCC Sub-Clause 51.3.			
49.	Powers of Engineer-in-Charge for alterations/ omissions/ additions /substitutions			
49.1	The Engineer-in-Charge shall have power (i) to make alterations in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the Works in case of non-availability of a portion of the Site or for any other reasons he may consider necessary and/or reasonable. Any such alterations, omissions, additions or substitutions shall be ordered by the Engineer-in-Charge as a deviation. The Contractor shall be bound to carry out the said deviation in accordance with instructions given to him in writing by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the Contract			
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	as if originally provided therein and shall be carried out by the Contractor on the same conditions in all respects on which he agreed to do the original Works, except as otherwise provided herein.			
49.2	Permissible deviation limit for variations in Contract Items (Shall be as mentioned in SCC)			
49.2.1	In case of items of Work above ground surface, as it exists at the time of commencement of Work, quantities of which may change due to Site Conditions or any other reasons, the permissible limit of deviations over the original value of each item will be (+)20%.			
49.2.2	In case of items of Work below ground surface, as it exists at the time of commencement of Work, quantities of which may change due to Site conditions or any other reasons, the permissible limit of deviations over the original value of each item will be (+)100% and (-30%).			
49.2.3	For the purposes of GCC Sub-Clause 49.2.1 above, all the quantities of any item actually executed from 0-120% of the Contract quantity will be payable at Contract rates while the rates for the quantities above 120% will be subject to review/revision. Similarly, for the purposes of GCC Sub-clause 49.2.2 above, all the quantities of any item actually executed from 70% to +200% of the Contract quantity will be payable at Contract Rates while the rates for the entire quantity executed from 0% to 69% (if the total quantity executed is in this range) and the entire quantity executed above 200% will be subject to review/revision as provisions herein.			
49.2.4	In case the Schedule of Quantities contains sub-items of Work under a Main Item, then the above permissible limits of deviation shall be applicable on the value of each such sub-item and not on the entire value of the Main Item.			
49.2.5	The deviations up to the above permissible limits shall be carried out by the Contractor at the same rates and terms as per the Contract.			
49.3	Methodology for Determination of Rates for variations of Contract Items beyond the permissible deviation limits			
49.3.1	For Contract Items which exceed the limits over the original value of that item as mentioned in GCC Sub-Clause 49.2.1 & 49.2.2 above, the Contractor may, within fourteen (14) days of the date of receipt of the order to carry out the said work, inform the Engineer-in-Charge under advice to the Employer of the rate which he proposes to claim for such item(s) of Work on Market Rate(s) basis, supported by analysis of the rate claimed and the relevant documents to substantiate the same. The Engineer-in-Charge shall, within seventy (70) days thereafter, after giving due consideration to the rate(s) claimed by the Contractor, determine the rate(s), in consultation with the Contractor, on Market Rate(s) basis. In the event of disagreement between the Engineer-in-Charge and Contractor, even after the said seventy (70) days from the date of submission of claims of			
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	the rate(s) by the Contractor, the Engineer-in-Charge within a further period of twenty-one (21) days thereafter, shall fix the rate(s)/price(s) as are, in his opinion appropriate. The rate(s)/price(s) so fixed shall be notified to the Contractor and shall be final and binding.
49.3.2	If the Engineer-in-Charge fails to determine and notify the rate(s)/price(s) even after expiry of the said twenty-one (21) days, then the Contractor will be at liberty to refer the matter for resolution to the Employer within a further period of fourteen (14) days after the above said twenty one (21) days. If the Employer does not determine and cause the Engineer-in-Charge to notify the rate(s)/price(s), then the matter would be determined in accordance with the provisions of GCC Clause entitled "Settlement of Disputes". However, in the meanwhile, the Engineer-in-Charge will pay for the items of Work executed beyond the permissible deviation limits, at 75% (seventy-five percent) of the rate(s)/price(s) claimed by the Contractor with satisfactory supporting documents or at Contract Rate, purely on adhoc and provisional basis subject to adjustment.
49.3.3	In the event of the Contractor failing to inform the Engineer-in-Charge, within the stipulated period of fourteen (14) days time, the rate(s) which he proposes to claim, supported by relevant documents to substantiate the same, the rate(s) for such item(s) shall then be determined by the Engineer-in-Charge in consultation with the Contractor (if he so desires) on the basis of Market Rate(s) within seventy (70) days thereafter. The rate(s) /price(s) so determined shall be notified to the Contractor and shall be final and binding.
49.3.4	The provisions of GCC Sub-Clauses 49.3.1, 49.3.2 and 49.3.3 above shall only be applicable to such individual Contract Item(s)/ sub-item(s) of Work whose original value is equal to or in excess of 1% of the total Contract Value (as awarded).
49.3.5	For individual Contracts Item(s)/ sub-item(s) of Work whose original value as per Letter of Award is less than 1% of the total Contract Value (as awarded) for each such item, there shall be no limit on the extent of deviations over the original value of the Item and shall be paid on the contracted rate(s)/price(s).
49.3.6	Rates of Items of Work derived on the basis as detailed in GCC Sub-Clause 49.3.1 or 49.3.2, or notified under GCC Sub-Clause 49.3.3 shall not be eligible for price adjustment, provided the period of execution of such items of Work beyond the permissible deviation limit as per the schedule to be finalised in line with GCC Sub-Clause 49.5, is less than or equal to six (6) months.
49.3.7	Further, in case the period of execution of such items of Work is more than six (6) months, such items shall be eligible for price adjustment as per clause entitled 'Contract Price Adjustment'. The base date in such a situation shall be the date as specified by the Engineer-in-Charge while determination of the Market Rate.
49.4	Methodology for Determination of Rates for Extra Items (Additional, Altered or Substituted Items) of Work

49.4.1	Rates for Extra Items of Work (comprising of Additional, Altered or Substituted items of Work), shall be determined by the Engineer-in-Charge in the following order: (i) If the rate(s)/price(s) for extra items occurring in a particular schedule of quantities are available in other schedule of quantities forming part of the Contract, the lowest of such rate(s)/price(s) will be used, subject to the nature of work being comparable. (ii) If the rate(s) cannot be derived as per (i) above, then (a) In case of contracts with only one Schedule of Quantities forming the part of the Contract, the rate(s)/price(s) for the extra item(s) shall be derived from the lowest of any similar item(s) in that Schedule. (b) In case of contracts with two or more Schedules of Quantities forming a part of the contract, the rates for the Extra Item(s) will be derived from the nearest similar item appearing in the Schedule in which the extra item is to be executed failing which from any other Schedule in which nearest similar item is available, the rate so derived being the lowest of such derived from nearest similar items in those other Schedules and used.
49.4.2	If the rate for any additional, altered or substituted item of work cannot be determined in the manner specified in GCC Sub-Clause 49.4.1 (i) & (ii) above, the Contractor shall, within fourteen (14) days of the date of receipt of the order to carry out the said Work, inform the Engineer-in-Charge under advice to the Employer of the rate which he proposes to claim for such item(s) of Work on Market Rate(s) basis, supported by analysis of the rate claimed and relevant documents to substantiate the same. The Engineer-in-Charge shall, within seventy (70) days thereafter, after giving due consideration to the rate(s) claimed by the Contractor, determine the rate(s), in consultation with the Contractor, on Market Rate(s) basis. In the event of disagreement between the Engineer-in-Charge and Contractor, even after the said seventy (70) days from the date of submission of claims of the rate(s) by the Contractor, the Engineer-in-Charge within a further period of twenty-one (21) days thereafter shall fix the rate(s)/price(s) as are, in his opinion appropriate. The rate(s) /price(s) so fixed shall be notified to the Contractor and shall be final and binding.
49.4.3	If the Engineer-in-Charge fails to determine and notify the rate(s)/price(s) even after expiry of the said twenty-one (21) days, then the Contractor will be at liberty to refer the matter for resolution to the Employer within a further period of fourteen (14) days after the above said twenty-one (21) days. If the Employer does not determine and cause the Engineer-in-Charge to notify the rate(s)/price(s), then the matter would be determined in accordance with the provisions of GCC Clause entitled "Settlement of Disputes". However, in the meanwhile, the Engineer-in-Charge will pay for the extra items of Work, at 75% (seventy-

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	five percent) of the rate(s)/price(s) claimed by the Contractor with supporting documents, purely on adhoc and provisional basis subject to adjustment.			
49.4.4	In the event of the Contractor failing to inform the Engineer-in-Charge within the stipulated period of fourteen (14) days time the rate(s) which he proposes to claim, supported by relevant documents to substantiate the same, the rate(s) for such item(s) shall then be determined by the Engineer-in-Charge in consultation with the Contractor (if he so desires) on the basis of Market Rate(s) within seventy (70) days thereafter. The rate(s) /price(s) so determined shall be notified to the Contractor and shall be final and binding.			
49.4.5	Rates of Extra Items of Work, derived from Schedule of Quantities as detailed in GCC Sub-Clause 49.4.1 (i) & (ii) above, shall be eligible for Price Adjustment as per GCC Clause entitled 'Contract Price Adjustment' including base date.			
49.4.6	Rates for Extra Items of Work, derived on the basis as detailed in GCC Sub-Clause 49.4.2 or 49.4.3, or notified under GCC Sub-Clause 49.4.4 above shall not be eligible for Price Adjustment, provided the period of execution of such Extra Items of Work beyond the permissible deviation limit as per the schedule to be finalised in line with GCC Sub-Clause 49.5, is less than or equal to six (6) months.			
49.4.7	Further, in case the period of execution of such items of Work is more than six(6) months, such items shall be eligible for price adjustment as per clause entitled 'Contract Price Adjustment'. The base date in such a situation shall be the date as specified by the Engineer-in-Charge while determination of the market rate.			
49.5	Work Schedules for variation beyond deviation limits & Extra Items			
49.5.1	The Engineer-in-Charge shall finalise a Work Schedule in consultation with the Contractor for items of Work beyond deviation limits and the Extra Items of Work to be executed and the date(s) specified in this agreed Work Schedule shall be considered as the date for working out the Price adjustment amount. The primary consideration by the Engineer-in-Charge while determining the time required for execution of the altered or substituted item(s) of Work, would be quantities of the altered or substituted and not the value of altered or substituted item(s) of Work. The Contractor shall not be eligible for Price Adjustment Payment for quantities of items executed beyond the schedule date(s), if execution of the items of the Work has been delayed for the reasons attributable to the Contractor.			
49.5.2	However, the Contractor would be eligible for claim or liable for refund for Price Adjustment(s) for quantities of items of the Work executed beyond the schedule dates based on the value of indices as applicable to the scheduled dates of execution, for such delayed work provided that if the indices during the extended period are lower than the indices during scheduled period of execution, then lower indices shall be applicable.			
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49.6	Provisional payments			
49.6.1	Pending approval of the Rates for Contract Item(s) of Work beyond the permissible deviation limits as well as for Extra Items (Additional, Altered or Substituted item) of Work, provisional payment at an interim rate (not exceeding 80% of the rate/price determined by the Engineer-in-Charge), shall be made to the Contractor in the interest of progress of Work, which shall be regularized after approval of Competent Authority.			
50.	Suspension of Works			
50.1	The Contractor shall, on receipt of the order in writing of the Engineer-in-Charge, suspend the progress of the Works or any part thereof for such time and in such manner as the Engineer-in-Charge may consider necessary for any of the following reasons: (i) On account of any default on part of the Contractor; or (ii) for proper execution of the Works or part thereof for reasons other than the default on the part of the Contractor; or (iii) for safety of the Works or part thereof, for reasons other than those attributable to the Contractor.			
50.2	The Contractor shall, during such suspension, properly protect and secure the Works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-Charge.			
50.3	If the suspension is ordered for reasons (ii) & (iii) in Sub-Clause 50.1 above, in so far as it concerns suspension of part of the Works or whole of the balance, the Contractor shall be entitled to an extension of time equivalent to the period of suspension plus 25% thereof. The Contractor shall not be eligible for any other compensation whatsoever for such suspension, except as otherwise provided herein under.			
50.4	If the suspension is ordered for reasons (ii) & (iii) in Sub-Clause 50.1 above, as far as it concerns the entire balance of Works on the date of suspension and if such period of suspension cumulatively exceeds twenty-eight (28) days, then in addition to extension of time as in Sub-Clause 50.2 above, the Contractor shall be eligible for compensation, as the Employer may consider reasonable, in respect of salaries and/ or wages paid by the Contractor to his employees and labour at site, remaining idle during the cumulative period of suspension, adding to the total thereof, a reasonable percentage as determined appropriate by the Engineer-in-Charge, to cover indirect expenses and incidentals of the Contractor, provided the Contractor submits his claim supported by details to establish the reasonableness of his claim to the Engineer-in-Charge under advice to the Employer within fourteen (14) days of the expiry of the said twenty-eight (28) days period.			
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50.5	If for any reason other than for reasons of Contractor's default as per GCC Sub-Clause 50.1(i) above, if the Contract remains suspended for a continuous period exceeding ninety (90) days, then the Employer and the Contractor shall mutually discuss and agree for a suitable course of action regarding the recommencement/ reinstatement of the suspended work or alternatively treat the suspension as termination / abandonment of the Works by the Employer as per GCC Sub-Clause 51.1 herein. If out of above discussion it is determined that the Contract has to be treated as terminated under the provisions of GCC Sub-Clause 51.1, then the Contractor shall be eligible for compensation as envisaged in GCC Sub-Clause 51.1.1 herein.
50.6	If the suspension is ordered for reasons (ii) & (iii) in Sub-Clause 50.1 above, in so far as it concerns suspension of part of the Works or whole of the balance, the Contractor shall be entitled to the following compensation: The Bank Guarantee Charges and Insurance Charges for the extended period, pursuant to GCC Clause 50.3, shall be reimbursed at actuals based on the written request of Contractor. The reimbursement of BG charges shall be made on the basis of documentary evidence submitted by the Contractor (such as debit advice of Bank) along with a Certificate from the issuing Bank as per the format enclosed in Section-VII (Forms & Procedures). Further, the reimbursement of Insurance charges shall also be made on the basis of documentary evidence submitted by the Contractor. In addition, the Contractor should obtain Insurance Policy directly from the Insurance Company and not through Brokers. The aforesaid reimbursement of Bank Guarantee Charges and Insurance Charges shall be inclusive of GST.
51.	Termination
51.1	Termination by the Employer If at any time after award of Contract, the Employer shall decide to abandon or reduce the scope of the Works for any reason whatsoever and hence not require the whole or any part of the Works to be carried out by the Contractor, the Engineer-in-Charge shall give notice in writing to that effect to the Contractor and the Contractor except as herein under provided, shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of
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51.1.1	the Works in full but which he did not derive in consequence of the said termination of the whole or part of the Works. The Contractor shall be paid at Contract rates full amount for works executed at Site and, in addition, a reasonable amount as certified by the Engineer-in-Charge for the items hereunder mentioned which could not be utilised on the Work to the full extent because of the said termination: (a) Any cost incurred on preliminary site work, e.g. access roads, labour huts, staff quarters and site offices; storage accommodation and water storage tanks, etc. (b) (i) The Employer shall have the option to take over Contractor's facilities/ materials or any part thereof either brought to Site or of which the Contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the Work), provided, however, the Employer shall be bound to take over the materials or such portions thereof as the Contractor does not desire to retain. For materials taken over or to be taken over by the Employer, cost of such materials shall, however, take into account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the Contractor. (ii) For Contractor's materials not retained by the Employer, reasonable cost of transporting such materials from Site to Contractor's permanent stores or to his other Works, whichever is less. If materials are not transported to either of the said places, no cost of transportation shall be payable. (c) If any materials issued by the Employer are rendered surplus, the same except normal wastage shall be returned by the Contractor to the Employer at rates not exceeding those at which these were originally issued less allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the Contractor. In addition, cost of transporting such materials from Site to the Employer's stores, if so required by the Employer. (d) Reasonable compensation for transfer of Contractor's T&P from Site to Contractor's permanent stores or to his other Works, whichever is less. If T&P are not transported to either of the said places, no cost of transportation shall be payable.
51.1.2	The Contractor shall, if required by the Engineer-in-Charge furnish to him wage books, time sheets and other relevant documents as may be reasonably necessary to enable him to certify the reasonableness of the amount payable under this Clause.
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51.2	Termination on Contractor’s Death
51.2.1	If the Contractor is an individual or a proprietary concern and the individual or the proprietor dies and if the Contractor is a partnership concern and one of the partners dies, then unless the Employer is satisfied that the legal representatives of the individual Contractor or of the proprietor of the proprietary concern and in the case of partnership, the surviving partners, are capable of carrying out and completing the Contract, the Employer shall be entitled to cancel the Contract as to its incomplete part without the Employer being liable in any way to payment of any compensation to the estate of the deceased Contractor and/or to the surviving partners of the Contractor's firm on account of the cancellation of the Contract. The decision of the Employer that the legal representatives of the deceased Contractor or the surviving partners of the Contractor's firm cannot carry out and complete the Contract shall be final and binding on the parties. In the event of such cancellation the Employer shall not hold the estate of the deceased Contractor and/or the surviving partners of the Contractor's firm liable for damages for not completing the Contract.
51.3	Termination for Contractor’s Default
51.3.1	If the Contractor: (a) at any time makes default in proceeding with the Works with due diligence and continues to do so after a notice of seven (7) days in writing from the Engineer-in-Charge; or (b) commits default in complying with any of the terms and conditions of Contract and does not remedy it or take effective steps to remedy it within seven (7) days after a notice in writing is given to him in that behalf by the Engineer-in-Charge; or (c) fails to complete the Works or items of Work with individual dates of completion, on or before the date(s) of completion, and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge; or (d) <i>has engaged in corrupt or fraudulent practices in competing for or in executing the Contract, in the judgement of the Employer.</i> <i>For the purpose of this Sub-Clause :</i> <i>"corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement/tendering process or in contract execution.</i>
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"fraudulent practice" means a misrepresentation of facts in order to influence a procurement/tendering process or the execution of a contract to the detriment of the Employer and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition; or

- (e) being an individual, or if a firm, any partner thereof, shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his affective or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force, for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors; or
- (f) being a company, shall pass a resolution or the Court shall make an order for the liquidation of its affairs, or a receiver or manager on behalf of the debenture holders shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manager; or
- (g) assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) attempts to assign, transfer or sublet the entire Works or any portion thereof without the prior written approval of the Employer; or
- (h) If the Contractor, sub-contracts any part of the works in violation of the provision of GCC Clause 30.3.

the Employer may, without prejudice to any other right to remedy which shall have accrued or shall accrue thereafter to the Employer by written notice, cancel the Contract as a whole or only such items of work in default, from the Contract.

51.3.2

The Employer shall on such cancellation have rights to:

- (a) take possession of the Works and any materials, construction plant, implements, stores, etc., thereon; and/or
- (b) carry out the incomplete Work by any means at the risk and cost of the Contractor.

51.3.3	On cancellation of the Contract in full or in part, the Employer shall determine what amount, if any, is recoverable from the Contractor for completion of Works or part of the Works or in case the Works or part of the Works is not completed, the loss or damage suffered by the Employer. In determining the amount, credit shall be given to the Contractor for the value of the work executed by him up to the time of cancellation, the value of Contractor's material taken over as well as incorporated in the work, and use of tools and plants belonging to the Contractor.			
51.3.4	Any excess expenditure incurred or to be incurred by the Employer in completing the Works or part of the Works or the excess loss or damages suffered or may be suffered by the Employer as aforesaid after allowing such credit shall be recovered from any money due to the Contractor on any account, and if such money is not sufficient the Contractor shall be called upon in writing to pay the same within twenty-eight (28) days.			
51.3.5	If the Contractor shall fail to pay the required sum within the aforesaid period of twenty-eight (28) days, the Engineer-in-Charge shall have the right to sell any or all of the Contractor's unused materials, construction plant, implements, temporary buildings etc. and apply the proceeds of sale thereof towards the satisfaction of any sums due from the Contractor under the Contract and if thereafter there be any balance outstanding from the Contractor, it shall be recovered from him.			
51.3.6	Any sums in excess of the amounts due to the Employer and unsold materials, construction plant etc., shall be returned to the Contractor, provided always that if cost or anticipated cost of completion by the Employer of the Works or part of the Works is less than the amount which the Contractor would have been paid had he completed the Works or part of the Works, such benefit shall not accrue to the Contractor.			
52.	Adherence to Fraud Prevention Policy The Contractor along with its Associate / Collaborator / Sub-Contractors / Sub-Vendors / Consultants / Service Providers shall strictly adhere to the Fraud Prevention Policy of Employer displayed on its website http://www.ntpctender.ntpc.co.in. The Contractor along with his associate/ collaborator/ subcontractor/ sub-vendor/ consultant/ service provider shall observe the highest standards of ethics and shall not indulge or allow anybody else working in their organization to indulge in fraudulent activities during execution of the contract. The Contractor shall immediately apprise the Employer about any fraud or suspected fraud as soon as it comes to his notice.			
53.	Debarment The Employer has in place a Policy for Debarment of Business Dealings (Rev-4) as uploaded in NTPC tender website https://ntpctender.ntpc.co.in/. Business dealings may be withheld or banned with the Contractor on account of any Default by the Contractor			
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54. 55.	under Clause 51.3.1 or any of the grounds as detailed in the said Debarment Policy. Contractor's Labour Information Management System (CLIMS): (a) The Contractor has to necessarily get itself registered in the Contractor's Labour Information Management System (CLIMS), which will be installed by the Employer. (b) The entry and exit of all contract labour to the plant premises will be through Gate Access Control System of above 'Contractor's Labour Information Management System'. (c) It will be the responsibility of the Contractor to ensure timely exit of all labours from the plant premises after completion of job of that day. (d) The contractor has to abide with all the statutory compliance applicable to its workers and employees and update the details of the same in the above System. Contractor Performance Feedback and Evaluation System The Employer has in place an established 'Contractor Performance and Feedback System' against which the Contractor's performance during the execution of Contract shall be evaluated on a continuous basis at regular intervals on the following seven parameters: • Engineering & Quality Assurance Capability • Finance • Supply • Construction/ Installation • Field Quality • Safety • Claims & Disputes The score-based feedback formats based on which Contractor's performance shall be evaluated is enclosed at Annexure-A. In case the performance of the Contractor is found unsatisfactory, the Contractor shall be considered ineligible for participating in future tenders for three years. On completion of the above ineligibility period, the Contractor would be required to submit a request to NTPC for participating in future tenders specifying the measures taken to improve their performance. The Contractor may also request for early revocation of suspension after completion of at least two (2) year of the suspension period. On receipt of such request, the performance of the Contractor shall be assessed/evaluated by NTPC and if the performance is found to be satisfactory, the Contractor shall be considered eligible for participation in future tenders.
Package name- Refer NIT Bidding Document no.-Refer NIT	Section-IV (GCC) PAGE 81 OF 87

56.	Limitation of Liability:
56.1	Except in cases of criminal negligence or willful misconduct, (a) neither Party shall be liable to the other Party, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, which may be suffered by the other Party in connection with the Contract, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Employer and (b) the aggregate liability of the Contractor to the Employer, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to any obligation of the Contractor to indemnify the Employer with respect to patent infringement. (c) the aggregate liability of the Employer to the Contractor, whether under the Contract, in tort or otherwise, at any point of time during the execution/performance of the Contract, shall not exceed the 'total Contract Price less payments already released to the Contractor'.
57.	No Claim for interest or damage
57.1.	Interest on money due to the contractor: Contractor shall not be entitled to any interest or damage in case of any delay on the part of the Employer to pay the amount due upon measurement or as per Contract or otherwise. Contractor shall also not be entitled to interest upon any guarantee/ security/ retention money or payments in arrears or upon any balance which may on the final settlement of his account be due to him.
57.2	No claim for interest or damage: No claim for interest or damage will be entertained or be payable by the Employer in respect of any amount or balance which may be lying with the Employer or may become due upon settlement/adjudication of any dispute, difference or misunderstanding between the parties by way of arbitration or court proceedings or otherwise or in respect of any delay or omission on the part of the Employer in making intermediate or final payment or in respect of any amount/damage which may be claimed through arbitration or court proceedings or in any other respect whatsoever.
58.0	Compliance to Carriage by Road Rules 2011 All the T&P and materials required for Works, whether bought by Contractor or issued by the Employer, if required to be transported by Road, must necessarily be transported through a registered common carrier as per Carriage by Road Rules 2011 of Central Government of India.

59.0

Procedure for Contract Closing

59.1

The closing of Contract shall be effected after completion of the defect liability period and return/refund of CPG/Security Deposit.

59.2

The following thirteen (13) certificates, as per the proforma enclosed in Section VIII (Forms and Procedures), shall be issued by the 'concerned departments of NTPC'/ 'Contractor', as applicable, and **submitted to the concerned authority designated in NTPC** for closing of Contracts:

CERTIFICATE NO.	CERTIFICATE DESCRIPTION	RESPONSIBILITY	LIMITING DATES FOR ISSUANCE OF CERTIFICATE@
CCP-01	Certificate of Final Amendment to the Contract	Employer	7 Months from last milestone to be executed/Completed
CCP-02	Drawing Receipt Certificate	Employer	2 Months from last milestone to be executed/Completed
CCP-03	QA Documents Receipt Certificate	Employer	2 Months from last milestone to be executed/Completed
CCP-04	O&M Manual Receipt Certificate	Employer	4 Months from last milestone to be executed/Completed
CCP-05	Scope Completion Certificate	Employer	8 Months from last milestone to be executed/Completed
CCP-06	Liquidated Damages for Delay Certificate		
(a)	For cases where LD for delay is settled by Corporate Contracts	Employer	7 Months from last milestone to be executed/Completed
(b)	For cases where LD for delay is settled by the Regions/ Site	Employer	7 Months from last milestone to be executed/Completed
CCP-07	Shortfall in Equipment Performance Certificate	Employer	5 Months from Performance and Guarantee (PG) Tests

CERTIFICATE NO.	CERTIFICATE DESCRIPTION	RESPONSIBILITY	LIMITING DATES FOR ISSUANCE OF CERTIFICATE@
CCP-08	"Material Reconciliation" Certificate	Employer	6 Months from last milestone to be executed/Completed
CCP-09	"Payment Reconciliation" Certificate : Indian Contractor	Employer	6 Months from last milestone to be executed/Completed
CCP-09A	Reconciliation Certificate for Payments by Site : Foreign Contractor	Employer	6 Months from last milestone to be executed/Completed
CCP-09B	Reconciliation Certificate for Payments by Corporate Finance: Foreign Contractor	Employer	6 Months from last milestone to be executed/Completed
CCP-09C	"Customs Reconciliation" Certificate : Foreign Contractor Contractor	Employer	6 Months from last milestone to be executed/Completed
CCP-10	Certificate regarding Labour Payments and Statutory Requirements to be furnished by Contractor.	Contractor	9 Months from last milestone to be executed/Completed
CCP-11	"No Demand Certificate" by Contractor	Contractor	6 Months from last milestone to be executed/Completed
CCP-12	Certificate for Completion of Warranty Period	Employer	14 Months from last milestone to be executed/Completed
CCP-13	Certificate for Return of BGs/ Indemnity Bonds etc.	Employer	All BGs except CPG: 5 Month from Trial Operation / Completion of Facilities CPG: 15 Months from Trial Operation/ Completion of Facilities
@ In case the Contract involves more than one unit of the project, the limiting dates shall be in respect of last unit.			

59.3	Both the Contractor and the Employer will make necessary efforts to complete the Contract Closing activities as per the timelines as mentioned at clause 59.2 above. It shall be the responsibility of the contractor to submit the drawings along with the reproducible, QA documents, O&M Manuals, List of Spares, As Built drawings, deliverables, etc., as applicable, in a timely and sequential manner so that the contract closing activities are not delayed/impeded. The Employer shall also use its best endeavors to expedite all activities leading to successful closure of the contract. The Employer will review and approve the documents submitted by the Contractor in a timely and expeditious manner and the approvals shall not be unreasonably withheld.
60	Independent External monitors The Nodal Officer for necessary coordination with Independent External Monitors shall be as under: i) Concerned Group Head in : if the issue pertains to awarding of CC&M Contract by CC&M ii) Concerned Group Head of : if the issue pertains to awarding of C&M under respective CPG Contract by USSC of USSC iii) Concerned Head of : if the issue pertains to other Department departments iv) Head of Project/ Station : if the issue pertains to post-award execution or award of Contract by Project/ Station
61	Disposal of Scrap The Contractor shall with the agreement of the Employer promptly remove from the site any 'Scrap' generated during performance of any activities at site in pursuance of the Contract. The term 'Scrap' shall refer to scrap/ waste/ remnants arising out of the fabrication of structural steel work and piping work at the project site in the course of execution of the contract and shall also include any wastage of cables during the termination process while installing the cables. The ownership of such Scrap shall vest with the Contractor except in cases where the materials for the items have been issued by the Employer from its stores for their

installation only without any adjustment to the Contract Price. The removal of scrap shall be subject to the Contractor producing the necessary clearance from the relevant authorities (Custom, Excise, GST etc.), if required by the law, in respect of disposal of the scrap. The liability for the payment of the applicable taxes/ duties shall be that of the Contractor. The Contractor shall also indemnify to keep the Employer harmless from any act of omission or negligence on the part of the Contractor in following the statutory requirements with regard to removal /disposal of scrap. The Indemnity Bond shall be furnished by Contractor as per proforma enclosed in Section-VIII. Further, in case the laws require the Employer to take prior permission of the relevant Authorities before handing over the scrap to the Contractor, the same shall be obtained by the Contractor on behalf of the Employer.

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Disposal of surplus material, Plant & Equipment

Ownership of any Plant and Equipment in excess of the requirements for the Facilities (i.e. surplus material) shall revert to the Contractor upon Completion of the Facilities and Guarantee Test or at such earlier time when the Employer and the Contractor agree that the Plant and Equipment in question are no longer required for the Facilities, provided quantity of any Plant and Equipment specifically stipulated in the Contract shall be the property of the Employer whether or not incorporated in the Facilities. The Contractor shall remove from the site such surplus material brought by him in pursuance of the Contract, subject to the Contractor producing the necessary clearance from the relevant authorities (Customs, Excise, GST etc.), if required by law, in respect of re- export or disposal of the surplus material locally. The liability for the payment of the applicable taxes/duties, if any, on the surplus material so re-exported and/or disposed locally shall be that of the Contractor.

The Contractor shall also indemnify to keep the Employer harmless from any act of omission or negligence on the part of the Contractor in following the statutory requirements with regard to removal /disposal of surplus material. The Indemnity Bond shall be furnished by Contractor as per proforma enclosed in Section-VIII. Further, in case the laws require the Employer to take prior permission of the relevant Authorities before handing over the surplus material to the Contractor, the same shall be obtained by the Contractor on behalf of the Employer.

63.

Packing Material

The Contractor shall ensure that all the plant and equipment are suitably packed and protected to prevent damage or deterioration during its transportation to site, handling and storage at site till the time of its installation. The ownership of all such packing material (except empty shipper's containers on which the customs duty has been paid by the Contractor) shall stand transferred to the Employer upon dispatch of the plant and equipment and endorsement of dispatch documents in favour of the Employer.

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Anti-Bribery and Anti-Corruption (ABAC) Policy:

The Contractor and its employees along with its Associate/ Collaborator/ Sub-Contractors / Sub-Vendors / Consultants / Service Providers and all other persons associated

with Employer in the performance of Contract shall strictly adhere to Employer's Anti-Bribery and Anti-Corruption (ABAC) Policy displayed on website <https://ntpctender.ntpc.co.in/> under section 'policy docs'. The Contractor and its employees along with its Associate/ Collaborator/ Sub-Contractors / Sub-Vendors / Consultants / Service Providers and all other persons associated with Employer in the performance of Contract shall comply with all applicable laws and regulations relating to anti-corruption and anti-bribery and the ABAC Policy of Employer.

PERFORMANCE REPORT OF CONTRACTOR

GUIDELINES FOR FILLING THE FORMAT

- 1.0 The feedback shall be based on records, evidences and documents (hindrance register, DPR, monthly PRT MoM, contractor's MPR, etc). Due diligence shall be taken to capture the actual progress, hindrances, if any from the monthly progress report to be submitted by the concerned agency. As Daily Progress Report / Weekly Progress Report / Monthly Progress Report are key documents / inputs for Vendor Performance measurement. Non-submission of the aforesaid documents may also be reckoned as poor performance.
- 2.0 For measurement of contractor performance in various activities in supply, site execution etc, the Contractor shall submit quantified L-2 schedule within 3 months after scheduled completion of Basic Engg or 180 days from date of award, whichever is earlier. Based on the progress of detailed Engg, quantified L-2 shall be updated as and when required.
- 3.0 This vendor performance rating system is applicable for a particular package being executed by the vendor. If the same vendor is executing multiple packages in a project or at number of NTPC projects, the performance report shall be prepared package wise and the screening committee may then take a final view for evaluating the overall performance of the vendor before initiating action for issuance of Notice for Withholding of business dealings with the concerned contractor, in case the performance is found unsatisfactory.

PROJECT	
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FORMAT FOR ENGG & QA SCORE

(TO BE FILLED IN BY ENGG.)

S.No.	Parameters	Max Score (A)	Act % age w.r.t. sch (B)	Marks obtained (C) = (A)x(B)
(i)	%age of “ Approval ” category drgs/ docs submitted within submission schedule.	30		
(ii)	%age of “ Information ” category drgs/ docs submitted within submission schedule.	20		
(iii)	%age of drgs/docs approved within approval schedule (in Cat-I/IV)*	20		
(iv)	%age of drgs/docs approved within approval schedule (in Cat-II/IVR)*	20		
(v)	%age of Sub-vendor proposal for items identified in “DR” category & submitted within agreed schedule (i.e. 3 months prior to schedule date of ordering identified in L2)**	10		
	TOTAL	100		

* For (iii) & (iv) above - If all drawings/documents due for approval are approved in Cat-I/IV within approval schedule, then marks allocated against (iii) & (iv) above shall be clubbed for calculation purpose.

** In case no “DR” proposal is submitted and orders are placed on already approved vendors, then full marks shall be given for calculation purpose against item (v).

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FORMAT FOR FINANCE SCORE

(TO BE FILLED IN BY PP&M PRT COORDINATOR ON MONTHLY BASIS DURING PRT MEETING, BASED ON DETAILS TO BE FURNISHED BY SITE P&S)

S. no	Parameters	Max Score (A)	% Rating (B)	Marks Obtained (C) = (A) *(B)
(i)	Number of instances NTPC has to issue Comfort letters to sub-vendors for getting supplies.	25		
(ii)	Number of instances vendor has requested for advance against BG from NTPC (beyond contractual provision)	25		
(iii)	Number of instances of supply delay beyond 1 month after issuance of MDCC.	25		
(iv)	Number of instances of direct supply / diversion of materials / consumables by NTPC.	25		
	TOTAL	100		

*Performance to be captured by PP&M PRT Coordinator on monthly basis during PRT Meeting, based on details to be furnished by site P&S.

*(No instances = 100%

Up to 1 instance = 50%

more than 1 instances = 0%).

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FORMAT FOR SUPPLY SCORE

(TO BE FILLED IN BY CONTRACTS)

S. no	Parameters	Max Score (A)	Actual w.r.t. schedule (B)	% L2	Marks Obtained (C) = (A) *(B)
(i)	Ordering of Bought out items as per approved L2 network*				
	Major Bought out items	20			
	Minor Bought out items	5			
	Number of instances of cancellation / changes of BoI orders (No instances = 100% Up to 1 instances = 50% more than 1 instances = 0%).	10			
(ii)	Supply of Main Equipment per approved L2 network	60			
(iii)	Supply of Mandatory spares as per approved L2 network	5			
	TOTAL	100			

*If Major & Minor Bought out items are not separately identified in L-2 network then both shall be clubbed into single line item with Max score of 25.

Note: Overall % of actual progress vis-à-vis L2 schedule in Col (B) shall be arrived in the following manner:

- (i) Let there be n type of Items/systems identified in L2/Quantified L2 schedule i.e. E1, E2, E3 En.
- (ii) Let % progress for each type of Item/system vis-à-vis L2 schedule be %E1, %E2, %E3.....%En.
- (iii) Overall % in Col (B) = (%E1+ %E2+ %E3.....+%En)/n

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FORMAT FOR CONSTRUCTION/INSTALLATION SCORE

(TO BE FILLED IN BY SITE)

S. no	Parameters	Max Score (A)	% of actual vis-à-vis L2 schedule (B)	Marks Obtained (C)=(A) *(B)
(i)	Physical progress i.e. Installation of equipment / item, Civil works (i.e. Excavation, RCC, Piling, etc), Structural Works (i.e. Structural Fabrication, Erection, etc) as per approved L2 network	95		
(ii)	Project Management Capability and resource Management by Vendor at site. (5 Negative marks per instance)			
	Number of instances of delay due to inadequate deployment of equipment and T&P, based on record maintained in hindrance register, monthly PRT MoM, contractor's MPR, etc.	(-)5		
	Number of instances of direct payment by NTPC to Contractor's sub-vendors to expedite supplies / services / the progress of work at site affected due to strike / delay in payments to labourers.	(-)5		
(iii)	Submission of Monthly Report in specified formats.	5		
	TOTAL	100		

Details of Area-wise performance is mentioned below:

Sr No.	Activities	Scope	L2 Finish Date	Actual Completed till L2 Finish	%age Comp
1	Excavation				
2	RCC				
3	Structural / Equipment Erection				
				Avg Comp %	

Note: For Physical Progress, overall % of actual progress vis-à-vis quantified L2 schedule in Col (B) shall be arrived in the following manner (Unit of measurement shall be as per approved BBU for respective activities):

- (i) Let there be n category of works identified in L-2/Quantified L2 schedule i.e. W1, W2, W3 Wn.**
- (ii) Let % progress for each category of work vis-à-vis L2 schedule be %W1, %W2, %W3.....%Wn.**
- (iii) Overall %in Col (B) = (%W1+ %W2+ %W3.....+%Wn)/n**

Note:

- All incidences shall be relevant to the current performance evaluation cycle.
- In case of delay in front (including construction drawings for civil packages and other inputs, if any) release by NTPC, measurement of delay in execution by the contractor shall be normalized proportionally.
- Contractor will have to submit monthly progress report capturing actual physical progress viv-a-vis L2 schedule and delay in hand over of front by NTPC, if any. In case of front delay the same has to be jointly signed by NTPC engineer & Vendor.

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FORMAT FOR QUALITY SCORE

(TO BE FILLED IN BY SITE)

S. no	Parameters	Max Score (A)	% Rating (B)	Marks Obtained (C)=(A) *(B)
(i)	Availability of Testing facilities (Available as per contractual requirement – 100% Not available – 0%)	25		
(ii)	Preventing recurrence of defects/complaints (up to 5 cases – 100%, Up to 10 cases – 40%, more than 10 cases – 0%)	25		
(iii)	Proper Storage & Preservation of Equipment/Material (Nil violation – 100%, Up to 1 case of violation – 40%, more than 1 cases of violation – 0%)	25		
(iv)	Deployment of Qualified Quality Officers/Manpower as per Contract (% deployment w.r.t. contractual requirement)	25		
	TOTAL	100		

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FORMAT FOR SAFETY SCORE

(TO BE FILLED IN BY SITE)

S. no	Parameters	Max Score (A)	% Rating (B)	Marks Obtained (C)=(A) *(B)
(i)	Having safety policy and approved Safety Assurance Plan (available as per requirement – 100%, Not-available – 0%)	10		
(ii)	Violation of safety requirement as per Safety Assurance Plan. (0 violation = 100% Upto 3 violations = 50% more than 3 = 0%)	20		
(iii)	No. of incidence of Fatal accidents due to contractor's negligence (0 incidence = 100% 1 incidence = 50% more than 1 cases, or multiple fatalities in one instance = 0%)	50		
(iv)	No. of incidence of Non-Fatal accidents due to contractor's negligence (0 incidence = 100% Up to 5 incidence = 50% more than 5 = 0%)	10		
(v)	Deployment of Qualified Safety Officers as per contract (% deployment w.r.t. contractual requirement)	10		
	TOTAL	100		

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FORMAT FOR CLAIMS & DISPUTE SCORE

(TO BE FILLED IN BY SITE)

S. no	Parameters	Max Score (A)	% Rating (B)	Marks Obtained (C)=(A) *(B)
(i)	No. of cases where Contractor stopped work on account of non-admittance/non settlement of claims (No case = 100% Upto 3 cases = 50% more than 3 cases = 0%)	70		
(ii)	No. of arbitration/legal cases resorted to by the Contractor (No case – 100%, otherwise 0%)	30		
	TOTAL	100		

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Overall Performance Evaluation

S.No.	Parameters	Max Score (A)	Score Obtained (B)	Weightage (C)	Max Weighted Score (D) = (A)*(C)	Weighted Score obtained (E) = (B)*(C)
(i)	Engineering & QA	100		0.20	20	
(ii)	Finance	100		0.20	20	
(iii)	Supply	100		0.20	20	
(iv)	Construction/Installation	100		0.20	20	
(v)	Quality	100		0.05	05	
(vi)	Safety	100		0.10	10	
	Claims & Disputes	100		0.05	05	
	Total			1.00	100	

Note: In case of Civil Contracts, score of Engineering & QA and Supply shall be NIL and weightage of Construction/Installation shall be 0.60.

Performance Rating

Total Weighted Score obtained	Performance Grade
Upto 50	Unsatisfactory
>50 to 70	Satisfactory
>70 to 80	Good
>80	Excellent

Annexure-B

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NTPC SAFETY RULES

FOR CONSTRUCTION AND ERECTION OF POWER PLANTS

INTRODUCTION:

NTPC Limited is a Maharatna organization taking lead in realizing the power dreams of the Nation with a vision “To be one of the World’s largest and best power utilities, Powering India’s growth”. Safety is one of the prime concerns of NTPC and it always strives towards accident free construction, erection, commissioning, operation and maintenance of its power projects. In this process, NTPC has already formulated Safety policy and guidelines for smooth execution of all its project activities.

In order to strengthen the existing Safety Rules for Construction and Erection and thereby curbing the chances of accidents in Construction & Erection works at various projects of NTPC, the existing safety rules have been revised for strict implementation. These Safety Rules lay down the safety requirements for safe execution of project activities, responsibilities of the contracting agencies, and all concerned involved in Construction and Erection.

A. RESPONSIBILITIES OF CONTRACTORS FOR IMPLEMENTATION OF SAFETY RULES:

The Safety Rules for Construction & Erection as outlined hereunder, while setting out a broad parameter of safety norms, are not exhaustive. The contractor and his agencies are advised to refer to the following statutory provisions as amended from time to time for details and strict compliance therewith.

FOR GREENFIELD PROJECTS:

- (a) Building and Other Construction Workers (regulation of employment and conditions of service) Act, 1996 (briefly referred to as BOCW Act),
- (b) Building and other construction workers (regulation of employment and conditions of service) Central Rules, 1998 (briefly referred to as BOCW Rules) as adopted by the various State Governments,

FOR EXPANSION, MODIFICATION, ALTERATION AND, OR CONSTRUCTION ACTIVITY WITHIN AN EXISTING PLANT OPERATING AS PER APPROVED SITE PLAN UNDER THE FACTORIES ACT;

- (a) Factories Act, 1948,
- (b) Factories Rules, as adopted by the various State Governments
- (c) BOCW Act
- (d) BOCW Rules

The contractor is also required to ensure compliance with all the relevant Acts/Rules in addition to above.

It shall be incumbent on the contractor to ensure that the requirements of safety, statutory or otherwise specified, are fully met. Thus the onus of implementation of the norms so prescribed shall squarely rest with the contractor concerned or, on his behalf, his sub-contractor or any other agency deployed by him, indemnifying NTPC from all the liabilities that may arise out of any failure to comply with the above mentioned Acts/Rules or any contravention thereof by the contractor or any other sub-agency on his behalf.

Safety cannot be ensured solely through Rules and Regulations or Codes. It is the responsibility of the Contracting Agency to ensure that basic safety principles are incorporated in the planning stage of their mobilization, execution, installation of machines, equipment, storage, etc., and initiate and maintain *safety programs*. It is desirable to have a planned programme and secure adequate cooperation of senior management, EICs, sub-contracting agencies, supervisory personnel and workers involved to ensure the implementation of the provisions of these Rules in true spirit so as to achieve the ultimate goal of *accident prevention*.

It shall also be the responsibility of the contracting agency to provide amenities and safety requirements on each construction job in order to reduce or to eliminate hazards of construction activities and also to provide necessary *first aid* facilities as well as Ambulance van (in case of major agencies) for prompt transportation of injured persons to a physician or hospital.

It is also mandated that the authorized representative of NTPC, namely, the Engineer-in-charge, may, at his convenience, exercise such superintendence, supervision and, or control as may be deemed necessary, but this shall not absolve the contractor of his basic responsibility for strict compliance with the norms, standards and, or legal provisions as applicable under the Factories Act/Rules and the Building and other construction (regulation of employment and conditions of service) Act/Rules.

Section wise checklist of provisions of BOCW Act/Rules is given hereunder for ready reference of the contractor. (This list has been prepared in chronological order with primary importance to Section of Act and secondary importance to Rules)

S - Refers relevant Sections in BOCWA

R - Refers relevant Rules in BOCWR

Sl. No.	ITEMS	RELEVANT SECTIONS / RULES IN BOCWA AND BOCWR AND RBOCWR
1	Registration of establishment	S – 7, R – 23 to 27
2.	Display of registration certification at workplace	R – 26 (5)
3.	Hours of work	S – 28 R – 234 to 237
4.	Register of overtime	S – 28; S – 29 R – 241(1) Form XXII
5.	Weekly rest and payment at rest	R – 235
6.	Night shift	R – 236
7.	Maintenance of workers registers and records	S – 30 R – 238
8.	Notice of commencement and completion	S – 46 R – 239
9.	Register of persons employed as building workers	R – 240
10.	Muster roll and wages register	R – 241(1) (a); Form XVI and XVII
11.	Payment of wages	R – 248
12.	Display of notice of wages regarding	R – 249
13.	Register of damage or loss	R – 241(1)(a); Form XIX, XX, XXI
14.	Issue of wages book	R – 241(2)(a); Form XXIII
15.	Service certificate for each workers	R – 241(2)(b); Form XXIV
16.	Display an abstract of BOCWA and BOCWR	R – 241(5)
17.	Annual return	R – 242; Form XXV
18.	Drinking water	S – 32
19.	Latrines and Urinals	S – 33 R - 243
20.	Accommodation	S – 34
21.	Creches	S – 35
22.	First-aid boxes	S – 36 R – 231 and Schedule III
23.	Canteens	S – 37 R – 244
24.	Food stuff and other items served in the canteens	R – 245
25.	Supply of tea and snacks in work place	R – 246
26.	Food charges on no loss no profit basis	R - 247
27.	Delhi BOCW welfare Board Rules	R – 250 to 296
28.	Safety committee	S – 38 R – 208

29.	Safety officer	S – 38 R – 209 and Schedule VII
30.	Reporting of accidents and dangerous occurrences	S – 39,R – 210
31.	Procedure for inquiry in to the causes of accidents	R – 211
32.	Responsibility of employer	S - 44 R – 5
33.	Responsibility of Architects, Project engineer and Designers	R – 6
34.	Responsibility of workmen	R – 8
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37.	Excessive noise, vibration etc.	R – 34
38.	Fire Protection	R – 35
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42.	Health, Safety and Environmental Policy	R – 39
43.	Dangerous and Harmful Environment	R – 40
44.	Overhead protection	R – 41
45.	Slipping, Tripping, Cutting, Drowning and Falling Hazards	R – 42
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47.	Corrosive substance	R – 49
48.	Eye Protection	R – 45
49.	Head Protection and other protection apparel	R – 46; R – 54
50.	Electrical Hazards	R – 47
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54.	Stacking of materials	R – 51
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65.	Construction, repair and maintenance of step roof	R – 169 to 171
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69.	Stacking and unstacking	R – 186 & 187
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71.	Cofferdams and Caissons	R – 206 to 211
72.	Explosives	R – 212 & 213
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75.	Medical examination for occupational health hazards	R – 233(a)(iv)
76.	Charging of workers for Medical Examination	R – 223(b)
77.	Occupational health centres and Medical officers	R – 225 and Schedule X & XI
78.	Ambulance van & room	R – 226 & 227 and Schedule IV & V
79.	Stretchers	R – 228
80.	Occupational health service for building workers	R – 229
81.	Medical examination for occupational health hazards	R – 223(a)(iv)
82.	Emergency care services and emergency treatment	R – 232
83.	Panel of experts and agencies	Central Rule 250
84.	Power of inspectors	Central rule 251

B. RESPONSIBILITIES AND DUTIES OF WORKERS

- (a) It shall be the responsibility of the worker to comply with the requirements of safety as laid down for him and the group of workers to which he belongs and fully cooperate in the discharge of the responsibility that has been assigned to the contractor.
- (b) If he discovers any defects in the lifting appliance, lifting gear, lifting device or those concerning any transport equipment or other construction equipment or tools as well as the physical work conditions, he will report such defects promptly to his employer or NTPC Engineer or other person in authority;
- (c) No building worker shall, unless duly authorized or in case of absolute necessity, remove or interfere with any fencing, guards, gangways, gear, ladder, hatch covering, life saving appliances, lighting or other things whatsoever required and provided for safety and health. If any of the aforesaid things is removed, the persons engaged in the work shall restore such thing at the end of the period during which its removal was necessary;
- (d) Every worker shall use only means of access provided in accordance with the approved norms and no person shall authorize or order another to use such means of access or method other than those approved;
- (e) Workers shall use such means of access and egress for going to and exiting from the workplace as provided.

SECTION - I

SAFETY MANAGEMENT

1.0 SAFETY MANUAL AND SAFETY POLICY:

- 1.1** The Safety policy of the contracting agency should reflect the commitment of the concerned agency towards safety and health of the workers specified for the particular site.
- 1.2** The Contractor shall have Safety Plan detailing the safety norms evolved through Safety Policy and Job Safety Analysis (JSA) or Hazard Identification & Risk Assessment (HIRA) of all package activities and constitute a Safety management program. Contracts shall also ensure POWRA (point of work risk assessment) before start of any activity.
- 1.3** The safety management programme in the form of Safety Manual shall give details of provisions proposed by the agency w.r.t. Job Safety Analysis (JSA) or Hazard Identification and Risk Assessment (HIRA) to ensure safety of the employees and elimination of health hazards. The Safety Manual including safety policy duly signed by the head/senior executive of the agency shall be submitted to the concerned Engineer-Incharge(EIC), NTPC before start of their project activities at site.
- 1.4** Each contracting agency shall have facilities for conducting the above safety management programme, commensurate with magnitude of the work under contract.

2.0 APPOINTMENT OF SAFETY OFFICER/SAFETY SUPERVISOR:

- 2.1** Each contracting Agency shall provide a sufficient number of qualified, suitable and experienced persons to manage all safety related matter on Site relating to the works. Irrespective of manpower employed by the agency whether temporary, casual, probationer, regular or permanent or on contract, Agency shall deploy a qualified Safety Officer/executive, responsible for carrying out the safety management programme before start of the work.
- 2.2** The safety officer shall create an organization, commensurate with the project activities, consisting of other staff as required for suitable deployment.
- 2.3** The schedule of requirement of safety personnel is given below.

No. of Workers	No. of Safety Supervisors	No. of Safety Officers
Up to 100	1	1
101 to 250	2	1
251 to 500	4	1
501 to 1000	6	2
1000 to 2000	6+ One additional supervisor up to every additional 250 workers	3
2000-3000	10+ One additional supervisor up to every additional 250 workers	4
3000-4000	14+ One additional supervisor up to every additional 250 workers	5
Above 4000	18 + One additional supervisor up to every additional 250 workers	5 + one safety officer up to addition 1000 workers

2.4 The qualification and experience of the safety personnel should meet the following criteria.

- a) Safety Supervisor: (i) Possesses recognized degree in any branch of Engineering. OR
(ii) Diploma in any branch of Engineering with at least one year construction experience.
- b) Safety Officer/Safety Executive: Qualification as given under BOCW Act/rules and minimum experience of three years.

2.5 In case contractor fails to employ the required safety professionals, the department may at the cost and risk of the contractor deploy additional/required safety professionals. The cost incurred towards this shall be deducted from contractor's bill at following the rates or actual whichever is higher.

- 1. Safety Engineer Rs. 1500/day.
- 2. Safety Supervisor Rs. 1000/day.

3.0 MEETING FOR SAFETY AFTER AWARD OF THE CONTRACT:

Representatives of contracting agency along with safety Officer/executive shall meet the concerned EIC of the particular activity prior to start of construction activities for the purpose of discussing safety standards and requirements applicable to the work under contract. The person representing the agency should be a responsible person for all their site activities.

4.0 PERSONAL PROTECTIVE EQUIPMENT:

4.1 The contracting agency should ensure sufficient inventory of personal protective equipment (PPEs) prior to initial mobilization as specified in the Bidding Documents. After identifying the need of the required PPEs for various activities performed at the site, an additional inventory of approx. 20% of required PPEs should be maintain during the execution of the work. A PPE plan shall be prepared which gives fair idea regarding issue of PPEs to various personnel as per the following 'PPE Selection Matrix'.

4.2 Mandatory PPEs: Wearing of Safety Helmet, Safety Shoes and reflective jacket is mandatory for all work at site and it should be ensured that all employees and project visiting personnel shall invariably wear safety helmet, safety shoes & reflective jacket.

PPE Matrix (apart from mandatory PPEs, i.e., Safety Helmet & Safety Shoes)

Activity	Type of Protection						Remarks, if any
	Hand	Eye	Ear	Body	Respiratory	Others	
Gas Welding & Cutting	LG	WG	-	LA	*SCBA/ OLBA	-	* for confined space
Electric Arc Welding	LG	HMWS	-	LA	*SCBA/ OLBA	-	* for confined space

Rigging	CG	SG	-				--
Working at Height	-	SG	-	DLFBH	-	*FAS	* for vertical columns
Grinding & Chipping	CG	FS / SG	-	LA	-	-	--
Working in High Noise	-	-	EP / EM	-	-	-	--
Handling of Cement Concrete	RG	SG	-	-	DM	-	
Blasting	CG	SG	EP*	-	-	-	* at noise area
Excavation	CG	SG	-	-	DM	-	*Gum boot in place of Safety shoe for foot
Chemical Handling	PVCG	CSG	-	PVCA	-	-	*Full body rubber suit with hood
Electrical and C&I	ERG*	SG	-	-	-	-	*For high voltages
Sand/shot blasting	CG	-	EP/EM	CA	SAMH	-	

ABBREVIATIONS: FS: Face Shield, CSG: Chemical splash goggles, HMWS: Helmet mounted welder's shield, GB: gum boot, DLFBH: Double lanyard full body harness, SG: Safety goggles, DM: Dust mask, SAMH L Supplied air mask/hood, EP/EM: Ear plug/Ear Muff, CG: Cotton hand gloves, LG: Leather hand gloves, LA: Leather apron, RG: Rubber gloves, PVCG: PVC Gloves, PVCA: PVC Apron, SCBA: Self-contained breathing apparatus, WG: Welding goggles, ERG: Electrical Rubber Gloves. OLBA : Online breathing apparatus

4.3 The above-mentioned PPEs should be made available with contractor at site and issued to the concerned workers on the day of employment. All PPEs shall comply with ISI standards with valid test certificates.

4.4 At least two breathing apparatus sets (complying requirement as per IS: 10245) shall be provided at each site where excavation/tunneling works and Welding/ Cutting operations in confined areas are being carried out, to rescue the victims under exposure to harmful gases/vapors, if any.

5.0 SAFETY COMMITTEE:

- 5.1** *Safety committee* shall be formed within each contracting agency comprising of worker representatives with equal no. of management representatives as per the provisions of BOCW Act/rules. This committee in each agency shall meet at least once in every month. The safety officer of the concerned agency shall coordinate these meetings. NTPC Safety officer shall be special invitee for Safety Committee meetings. The safety committee functioning shall be in line with the provisions of BOCW Act/Rules.
- 5.2** Apart from the above, each agency shall organize safety meetings every day before start of day's work to educate & motivate the workers about the necessity of safety. Case study of accident/ incident can be shared in these meetings.
- 5.3** The contractor shall also regularly organize safety meetings for all job supervisors/foremen.
- 5.4** Weekly meeting with agencies' Safety Officers to be organized by safety department of NTPC and minutes to be recorded, circulated and compliance status to be checked on regular basis.

6.0 SAFETY MESSAGE PROPAGATION:

- 6.1** Contracting agencies shall arrange for display of safety hoardings depicting suitable safety cartoons/messages/ cautionary notices at appropriate places of project site to remind the workers to perform their duties safely. Minimum one safety message board/hoarding of appropriate size for every 10 workers to be provided and maintained by the concerned agency.
- 6.2** Apart from safety hoardings, each agency should maintain a safety bulletin board at all their work locations. Such safety bulletin boards should depict the activities being planned for the day, good practices, permit details etc.
- 6.3** Safety suggestion boxes shall be kept at each contractor's office at site for obtaining safety suggestions from the workers. Best suggestions should be implemented and may be rewarded suitably to encourage the workers for safety.

7. COMPETENCY OF EMPLOYEES:

- 7.1** Throughout the course of the contract, persons employed by agency shall be physically fit, qualified/experienced to perform their assigned duties/ jobs.
- 7.2** Employees shall not, knowingly be permitted to work in a manner that their ability or alertness is so impaired because of fatigue, illness or any other reason, that it may expose them and or others to injury.
- 7.3** No worker, vehicle operator shall be less than 18 years of age. And the vehicle operator shall have a valid license as per requirements of Motor Vehicle Act.
- 7.4** Contractor shall comply with all applicable state/central laws and codes related to employment of operators for Hoist, Shovel, Crane, Tractor, Bull-dozer, any other howling heavy equipment/vehicle.

8.0 SAFETY INDUCTION AND TRAINING :

- 8.1** Each worker deployed by the agency shall be given 2-days induction training which shall include the medical examination and instructions related to particular job, fire fighting, first-aid and reporting of accidents. All employees shall be given safety training as per BOCW Act/Rules.
- 8.2** The contracting agency shall also impart job specific skill based safety training to all its employees (Minimum one day) on various related safety topics using internal/external safety professionals/consultants as per the matrix given below. Record of such trainings and attendance particulars shall be maintained in a register for ready reference to statutory authorities/engineer-in charge.

TRAINING MATRIX:

Name of topic	Executives	Super visors	Skilled Workmen	Other Workers
Safety Induction	Y	Y	Y	Y
Accident_ Causes, factors, cost	Y	Y	Y	-
Industrial hazards & Accident Prevention	Y	Y	Y	-
Investigating, reporting, records	Y	Y	-	-
Personal Protective Equipment	-	Y	Y	Y
Construction Safety & Role of Supervisory personnel	-	Y	-	-
Permit to Work (PTW)	-	Y	Y	y
Statutory Provisions (BOCW Act/Rules, Factories Act 1948 etc.)	Y	Y	y	y
Material handling	-	y	Y	Y
Emergency Management	Y	Y	Y	-
Electrical Safety	-	Y	Y	-
Fire safety	Y	Y	Y	Y
First Aid & CPR (cardio pulmonary resuscitation)	-	Y	Y	Y (Selected)
Safety in Welding & Cutting	-	-	Y	-
Safety Audit	Y	Y	-	-
Safety in Lifting Tools & Tackles	-	Y	Y	y
Safety in Working at height	-	Y	Y	Y
Safety in Confined space work	-	Y	Y	Y
Defensive Driving	-	Y*	Y*	Y*

*for construction vehicle operators, helpers & crane operators

Y=Yes

9.0 ID PASS

- 9.1** CLIMS (Contract Labor Information Management System) will be the criterion for entering or gate pass system if implemented at site.
- 9.2** The contractor shall ensure that all personnel working at site having a photo Identity card before they are engaged for any work and properly mentioned details like validity, Category/designation and work area etc. This ID card should be issued only after ensuring their screening test, medical fitness and safety induction training. Id card gate pass shall be indicated with 3 nos. of offence marks. With each offence the gate pass of concerned workmen/ supervisor will be punched giving on the spot indication of persons indulging in unsafe actions.
- 9.3** Drinking of Alcoholic beverages is strictly prohibited. Employees under the influence of any intoxicants, even to the slightest degree, shall not be permitted to remain at work. Each contractor should maintain 'breath analyzer' to determine the intoxicated workers at site.

10 SAFETY AUDIT

- 10.1** Internal Safety Audit once in every six months by the contracting agency and external safety audit as once in a year by third party shall be conducted, with prior intimation to EIC and NTPC Safety Deptt. The external auditing agency should be reputed safety institution or a certified Safety Auditor under any statutory legislation. The audit report along with time bound action plan should be submitted to Engineer-in-charge and NTPC Safety Dept.
- 10.2** Apart from above, Electrical Safety Audit shall be conducted quarterly by a team comprising of Electrical engineer, Safety representative of contractor and NTPC Electrical Erection representative covering the following and submit the report to EIC.
- i) Electrical incidents investigation findings and remedial measures implemented.
 - ii) Adequacy of power supply requirements
 - iii) Power distribution system in place
 - iv) Updated electrical single line diagram including the IP44 DBs arrangement.
 - v) Electrical protection devices – ELCBs, O/L protections etc.
 - vi) Earth or ground connection and earth pit maintenance details
 - vii) Education and training of electrical personnel undertaken
 - viii) Any other point appropriate to the site conditions.

11. SAFETY BUDGET

Every contracting agency should clearly estimate and allocate a separate budget head for safety requirements every year and make the safety activity plan for the year and submit to NTPC EIC & Head of Safety. Budget allocations should be practically adequate to the site safety requirements and the details shall be intimated to the concerned EIC and safety deptt. before start of the work under the contract and subsequently, every year by 15th of April. Engineer-in Charge in consultation with Head of Safety shall review and monitor the effective utilization of allocated budget for safety related activities by the Contractor.

12. REPORTING AND INVESTIGATION OF ACCIDENTS AND DANGEROUS OCCURRENCES:

- 12.1 Reporting of accidents:** Notice of any accident (the prescribed format is annexed to the manual) to a worker at the building or construction site that
- (a) Causes loss of life; or
 - (b) Disables a worker from working for a period of **48 hours** or more immediately following the accident;
- Shall forthwith be sent by Telegram, Telephone, Fax, Email or similar other means including special Messenger within **four hours** in case of **fatal accidents** and **72 hours** in case of **other accidents**, besides the Engineer-in-charge, to:
- I. The Regional Labour Commissioner (Central);
 - II. The Board with which the worker involved was registered as a beneficiary;
 - III. Director General of Building and other construction (regulation of employment and conditions of service) Act/Rules; and
 - IV. The next of kin or other relative of the worker involved in the accident;
- 12.2** Further, notice of accident shall be sent in respect of an accident which
- (a) Causes loss of life; or
 - (b) Disables the injured worker from work for more than 10 days to
 - (1) The Officer-in-charge of the nearest Police Station;
 - (2) The District Magistrate or, if the District Magistrate by order so desires, to
 - (3) The Sub-Divisional Magistrate;
- 12.3** Where any accident causing **disablement that subsequently results in death**, notice thereof in writing of such death, shall be sent the Authorities mentioned above within **72 hours** of such death.
- 12.4** In case of an accident causing minor injury, first-aid shall be administered and that resulting in disability of **48 hours or more**, the injured worker shall be given first-aid and immediately transferred to a Hospital or other place for medical treatment.
- 12.5** All near-miss accidents shall be reported to NTPC Engineer In-charge and Safety Officer as per prescribed format.
- 12.6 Reporting of dangerous occurrences:** The following classes of dangerous occurrences shall be reported to the Inspector having jurisdiction, whether or not any disablement or death caused to the worker, namely:
- (a) Collapse or failure of lifting appliances, or hoist, or conveyors, or similar equipment for handling of building or construction material or breakage or failure of rope, chain or loose gears; or overturning of cranes used in construction work;
 - (b) Falling of objects from height;
 - (c) Collapse or subsidence of soil, any wall, floor, gallery, roof or any other part of any structure, platform, staging, scaffolding or means of access including formwork;
 - (d) Contract work, excavation, collapse of transmission;
 - (e) Explosion of receiver or vessel used for storage at a pressure than atmospheric pressure, of any gases or any liquid or solid used as building material;

- (f) Fire and explosion causing damage to any place on construction site where building workers are employed;
- (g) Spillage or leakage of any hazardous substance and damage to their container;
- (h) Collapse, capsizing, toppling or collision of transport equipment;
- (i) Leakage or release of harmful toxic gases at the construction site;
- (j) In case of failure of a lifting appliance, loose gear, hoist or building and other construction work, machinery and transport equipment at a construction site, such appliances, gear, hoist, machinery or equipment and the site of such occurrence shall, as far as practicable, be kept undisturbed until inspected by the Authorities;

12.7 Every notice given for fatal accidents shall be followed by a written report to the concerned Statutory Authorities and the Engineer In-charge in the specified Form annexed as Schedule, under acknowledgement.

12.8 Incident / injury statistics shall be maintained by all agencies cause wise.

12.9 Investigation of accidents and dangerous occurrences

Besides reporting, it shall be the responsibility of the contractor to constitute a team (members as per the gravity of the incident) of responsible person to thoroughly investigate all incidents involving near-miss accidents, lost-time and reportable accidents and dangerous occurrences with a view to finding out the causative factor, taking remedial measures and fixing responsibility, and make a copy of the investigation report along with action-plan, specifying a definite time-frame for implementation of the findings, available to the Engineer in-charge forthwith.

13. MEDICAL AND FIRST AID AMENITIES:

13.1 It is the responsibility of each contracting agency to ensure the availability of suitable arrangements at their work site for rendering prompt and efficient First aid to injured persons.

13.2 Arrange one trained and certified first aid for every twenty workers in each shift.

13.3 Ambulance with proper equipment for prompt transportation of the injured persons to a physician or a hospital shall be provided before start of the work in cases where 500 or more than 500 workers are employed. For smaller contracts, where less than 500 workers are employed, Contractor shall have a tie-up with suitable Agency for providing Ambulance with proper equipment for prompt transportation of the injured persons to a physician or a hospital in case of an Accident / Emergency. Further, Contractor shall submit a proof of the same to EIC/Safety Officer of NTPC.

13.4 Deploy one full time construction medical officer (qualification as per Schedule XI of BOCW Central Rules -1998) for cases where 500 or more workers are employed (upto one thousand workers) and one additional construction medical officer for additional one thousand workers or part thereof. For smaller contracts, where less than 500 workers are employed, Contractor shall have a tie-up with suitable Hospital / Nursing home in the vicinity of the

Project/Site where work is being executed, for providing adequate medical treatment by qualified medical officers and nursing staff, as and when required. Further, Contractor shall submit a proof of the same to EIC/Safety Officer of NTPC.

Notwithstanding anything stated above, Contractor/Agency shall strictly comply with the requirements of relevant BOCW Act/ BOCW Rules/ Factory Act/Factory Rules/ any other statutory Act/Rules/Law with regards to providing suitable medical facilities to the workers.

In case contractor fails to employ the required construction medical officer alongwith Additional staff, corresponding payment for the same shall not be made and/or necessary action as per provisions of the Bidding documents shall be taken by NTPC.

- 13.5** Additional staff including one nurse, one dresser-cum compounder, one sweeper-cum-ward boy with each construction medical officer for full working hours
- 13.6** The Telephone nos. of Medical officer, Hospital(s) or ambulance shall also be conspicuously displayed at each work site.
- 13.7** First-aid kits as approved by medical officer shall be provided at accessible points in the ratio of at least one kit for every 50 employees.
- 13.8 Health Management:** The site manager shall implement health examinations for the working personnel on a regular basis.

Types of health examination	Target	Frequency
General health examination	All workers	Annual
Occupational health examination (Audiometric, PFT, Vision etc.)	Worker engaging in noise, dust, vibration, harmful light generating work	Annual
Occupational health examination (Vision)	Personnel involved in operation of Cranes, heavy vehicles	Annual
Occupational health examination (Vertigo/Height pass)	Workers engaged at Height Works	At the time of induction training and every year

14. TESTING & EXAMINATION OF LIFTING, TOOLS, TACKLES, PRESSURE VESSELS AND OTHER EQUIPMENT:

- 14.1** All the lifting equipment, tools, tackles, pressure vessels etc. shall be tested & examined as per BOCW or Factories Act and rules made there under.

- 14.2** The records & certificates of such testing & examination shall be maintained and readily available for reference to statutory authorities/engineer-in-charge.
- 14.3** Proper color coding system should be maintained and marking should be done accordingly on all lifting tackles.
- 14.4** Regular testing of ELCBs and RCCBs by competent electrician must be ensured by agencies and record should be maintained.

15. EMERGENCY MANAGEMENT PLAN

- 15.1** The contractor shall ensure that an Emergency Management Plan is prepared to deal with emergencies arising out of:
 - a. Fire and explosion;
 - b. Collapse of lifting appliances and transport equipment;
 - c. Collapse of building, sheds or structure etc.;
 - d. Gas leakage or spillage of dangerous goods or chemicals;
 - e. Drowning of workers, sinking vessels, and
 - f. Landslides getting workers buried; floods, storms and other natural calamities.
- 15.2** While arrangements shall be made for emergency medical treatment and evacuation of the victim in the event of an accident or dangerous incident occurring, the chain of command and the responsible persons of the contractor with their telephone numbers and addresses for quick communication shall be adequately publicized and conspicuously displayed in the workplace.
- 15.3** It is also required that there is a tie-up with the hospitals and fire stations located in the neighborhood for attending to the casualties promptly and emergency vehicle kept on standby duty during the working hours for the purpose.
- 15.4** It shall be the responsibility of the contractor to keep the Local Law & Order Authorities informed and seek urgent help, as the case may be, so as to mitigate the consequences of an emergency. Prompt communication to NTPC, telephonically initially and followed by a written report, shall be made by the contractor.

16. ENFORCEMENT OF SAFETY CODE, SAFETY RULES & REGULATIONS:

The Engineer-In charge shall ensure that the contractor is exercising at all times, reasonable and proper precautions for the safety of people at works and complying with the provisions of current safety rules and laws according to safety code and relevant statutes of state/central governments. In case of negligence or default, the agency shall be penalized suitably as per penal provisions of NTPC Safety Rules.

17. WORK PERMIT SYSTEM

- 17.1** The Contractor shall implement Work Permit system, which is a formal written system used to control certain types of work that are potentially hazardous. A work permit is a document, which specifies the work to be done, and the precautions to be taken. Work Permits form an essential part of safe systems of work for many construction activities. They start the work

only after safe procedures have been defined and clearance taken from respective NTPC EICs. Permits to Work are usually required in high-risk areas as identified by the Risk Assessments.

17.2 Examples of high-risk activities include but are not limited to:

- i) Entry into confined spaces
- ii) Cutting & welding
- iii) Working at Height along with checklist
- iv) Working on electrical equipment
- v) Heavy lifting operations
- vi) Removal of grating/ Handrail / floor opening
- vii) Material Shifting

The copies of recommended formats for reference is given in annexure-IV.

17.3 The permit-to-work system should be fully documented, laying down:

- i) How the system works
- ii) The jobs it is to be used for;
- iii) The responsibilities and training of those involved; and
- iv) How to check its operation;

17.4 A Work Permit authorization form shall be completed with the maximum duration period not exceeding 12 hours.

17.5 A copy of each Permit to Work (PTW) shall be displayed near to work are (on PTW Display board) in close proximity to the actual works location to which it applies.

18. ACCESS TO AND FROM THE WORKPLACE

18.1 Safe, clean, well lit, unencumbered access and egress to and from work areas shall be maintained at all times in normal operating conditions.

18.2 The number and location of accesses and egresses from and to the workplace shall be adapted to the number of people likely to be present at any time, and therefore to evacuate from the workplace in case of emergency.

18.3 If access and egress to work areas are restricted due to operational conditions (e.g. access restricted due to pressure testing, etc.), alternative access and egress ways must be implemented, so far as is reasonably practicable. If this is not reasonably practicable, all concerned organizations and persons must be informed of the access restrictions, and work scheduling must be adapted in consequence.

18.4 Temporary access to height or into ground openings shall be of purpose made material such as scaffolds, stair cases/towers and ramps, which incorporate guardrails .

19. INTERFERENCE WITH MOVING VEHICLES AND PEDESTRIANS

- 19.1** The circulation of vehicles and pedestrians must be segregated by establishing restricted areas, one way routes where possible, pedestrian crossing zones and designated parking areas.
- 19.2** The appropriate measures must be implemented in order to prevent collision between pedestrians and vehicles at pedestrian crossings. This may include, but shall not be limited to:
- Mirrors;
 - Lighting;
 - Speed bumps before the crossing point.
- 19.3** Vehicle and pedestrian ways shall be physically separated with Hard-barriers, so far as is reasonably practicable, and be indicated with signs.



- 19.4** When it is not reasonably practical to implement a physical segregation, pedestrians must maintain safety distance of at least 2 meters from moving/operating vehicles at all times.
- 19.5** Traffic rules must be made visible through signage and traffic stops, consistent with those used on public
- 19.6** Roads as per road safety requirement.
- 19.7** All pedestrians on Project sites must wear high-visibility garments.
- 19.8** Pedestrians (including banksmen) must wear high-visibility garments in all areas where trucks and other vehicles (forklifts, cranes, etc.) maneuver. These areas must be clearly signaled / marked (floor painting, Hard-barriers, signs, etc.). Additional points:
- 19.9** Competent banksmen must be used for operations involving reversing or maneuvering where space or view is restricted.
- 19.10** Drivers must only operate vehicles they are competent to drive and must follow the established traffic routes and comply with all site rules.
- 19.11** The maximum driving speed on site is 15 km per hour.
- 19.12** Drivers and passengers must not get on or off moving vehicles.
- 19.13** When driving a forklift, forks must be lowered, the mast tilted back.
- 19.14** Smoking, eating, drinking, using a mobile phone or using earbuds or headphones when driving a vehicle is strictly prohibited.
- 19.15** When the vehicle is not in use, it must be ensured that:
- The engine is stopped and prevented from unauthorized use (e.g.: starter key removed), brake applied (and with wheels chocked for heavy vehicles);
 - All raised parts are lowered to the ground or put in a safe position (cranes);
 - It does not obstruct emergency exits, other routes, fire equipment or electricity panels.

20. HOUSEKEEPING

The contractor shall ensure that their work area is kept clean, tidy and free from debris generated by their activities. All debris/scrap should be stored in separate bins. The work areas must be cleaned on a daily basis and a full cleaning session of each area shall be conducted on a weekly basis. All equipment, materials and vehicles shall be stored in an orderly manner. Access to emergency equipment, exits, telephones, safety showers, eye wash stations, fire extinguishers, pull boxes, fire hoses, etc. shall not be blocked or otherwise disturbed, restricted or delayed.

21. STACKING AND STORAGE PRACTICE

Contractor Agency shall ensure stacked material is bonded on a stable and level footing capable of carrying the mass of the stack. Adequate clearances shall be provided between the sides of the stack and top to facilitate unimpeded access to service equipment like overhead wiring, cranes, forklifts and firefighting equipment, and hoses. Circular items shall be sufficiently choked with wedges not with odd bits of materials. Free-standing stacks of gunny bags and sacks such as Cement bags shall be stacked to prescribe safe stacking heights with layers formed for stable bonding, preventing slippage causing accidents. Stacking against walls shall not be permissible.

Contractor shall maintain the premises and surrounding areas in clean and clear manner with safe access and egress. There shall be sufficient and adequate storage racks, shelving, bins and pallets and material handling equipment to stack his construction materials such as Pipes, Structural and his construction enabling materials. Unwanted materials shall be promptly moved away for efficient material movement.

Any temporary store shed will be built in conformity with fire safety requirements. The stores must be provided with adequate lighting arrangement (Flame proof / intrinsically safe depending upon the Zone category) and must be equipped with sufficient fire extinguishing arrangement. "No Smoking" and other relevant signage must be displayed conspicuously at strategic locations and safety precautions must be strictly enforced.

All material should be kept at least 150mm above from the ground by providing wooden packing below. Maximum height of material stacking should not be greater than 3 meter. All loose material must be kept in wooden box or in sharp edge protected drum and material identification details to be displayed. Materials inside store room should be kept on scaffold rack.

Gas cylinder storage area must be 30m away from the hot work zone and separate storage facility must be available for empty and full cylinder with proper shed. Storage area must be design in a way that 6 meter distance between LPG/DA and oxygen maintained

22. CONFINED SPACES

All Confined Spaces belonging to Subcontractor shall be identified and clearly signed posted as a confined space forbidden to unauthorized Personnel at every entrance. A method for preventing entry must be established and maintained for all Confined Spaces. Physical prevention system (such as locks) is preferred.

Before commencing work in a Confined Space, the Subcontractor must obtain a Permit to Work from the relevant authority.

The following requirements shall be met at any time:

- Only competent and trained workers can participate to work in confined spaces (as a minimum as per local Law). A Confined Space Entry Log (or equivalent) must be used to identify the person inside the Confined Space at any time;
- Air Analysis tests must be carried out to determine if the Confined Space is oxygen deficient and/or contains flammable substances, toxic agents, carbon monoxide and/or harmful physical agents. The air shall be analyzed before starting work, during work and after work. Adequate ventilation must be provided;
- Working in the confined space without a watcher is strictly forbidden. An adequate means of communication is required and shall enable easy and clear communication:
 - Between those inside the space,
 - Between those inside the space and those outside,
 - To summon help in case of emergency;
- Adequate emergency provisions must be in place. In particular, necessary rescue equipment must be ready, pre inspected and available. The arrangements need to be suitable and sufficient for the rescue of persons in the event of an emergency.

23. FIRE PROTECTION AND PREVENTION

Routine hot works should be described in the contractor Risk Control Plan .Non-routine hot works are submitted to daily hot works permits given by the relevant authority.

Full and unrestricted access to emergency exits, fire-fighting equipment, fire control and emergency vehicles shall be maintained at all times. The Subcontractor shall provide, install and maintain their own temporary fire protection against hazards they introduce to the Site (work areas, storage areas, and temporary facilities under their responsibilities).

Fire extinguishers shall be inspected at least annually by a certified person and visually inspected monthly and documented by the Contractor.

24. ELECTRICAL SAFETY

Personal authorization must be issued by Contractor Management (or formally designed delegates) likely to perform or supervise electrical works.

Without such an authorization validated by EIC, no Contractor's employee shall undertake electrical works.

No live work on high voltage or medium voltage is allowed. All high voltage and medium voltage electrical works must be performed on isolated equipment and only after verification of absence of voltage with suitable equipment. Low voltage and very low voltage live work is only allowed for measurement tests and checks of equipment. The below measures will be taken:

- Work practices must protect against direct or indirect body contact by means of tools or materials and be suitable for work conditions and the exposed voltage level
- A Lockout and Tagout procedure must be applied prior to commencing any electrical work. Prior to commencing works on isolated equipment, a verification of absence of voltage with suitable safety test equipment must be performed.
- Energized panels will remain locked with a specific key or tool whenever they are unattended and tagged with the signs and warnings indicating the presence of danger. If not reasonably practicable, a restricted area delimited with physical barriers and supported by warning signs must be implemented around the opened equipment.
- Only qualified electrical Contractor Personnel may enter substations and/or transformer vaults and only after being specifically authorized by NTPC EIC.
- All joints (Both terminal and intermediate) in cable should be made using lugs and joint area should be crimped using crimping tools.
- All temporary connection should be provided through 30mA ELCB/RCCB using 3 core double insulated cable and only 3 pin industrial plug top will be used for connection.
- Zero energy verification needs to be ensured before any electrical operation using only VAV before working on a live circuit which has been isolated
- Only industrial type DB to be used for connection and weather protection shed needs to be provided for every DB and shed height should not be less than man height.
- Double earthing protection must be provided for every electrical equipment and earthing value should be less than 1 Ohm
- Deployment of trained, experienced & licensed electrician as well as licensed electrical supervisor must be ensured at site as per Rule-45 of the Indian Electricity Rules, 1956 ;
- EIC May perform screening/ competency test for all contractor electrical professions i.e. electrical engineers and helpers. Selection/ rejection of the personnel who appear for the screening is sole discretion of EIC
- Electrical helper who will be engaged in helping the electrician/ engineer must have minimum ITI certificate to be eligible for working with him
- All PPE's used while being involved in electrical work must be as per IS Standards available for electrical work

25. COMPRESSED GAS CYLINDERS

Gas cylinders shall be securely stored and transported, and identified and used in line with the safety Requirements as per Gas Cylinder Rules -2106.

Hose lines shall be adequately protected, inspected and tested for leaks in line with the safety Requirements. Flash back arrestor /NRV must be used at both ends of the hoses and all hose should be free from damage and fixed properly preferably using crimping clamps. Leakage test must be done before every use by soap solution and physical inspection of hose must be carried out regularly. Only trolley attached with wheel will be used for cylinder transportation in which cylinders must be kept secured with chain. Only Industrial type regulator fitted with two stage double dial pressure gauge is allowed to be used.

26. LIFTING OPERATIONS

The Contractor shall prepare a lifting plan, checked and submit for authorization by contractor's competent authorized persons prior to any lifting operation and formally communicated to all persons undertaking the work.

All persons preparing, issuing lifting plans and all persons involved in lifting operations must be subject to formal competence checks by the contractor to ensure necessary training, experience and qualification prior to commencing work. The Subcontractor must ensure that their nominated Lifting Leader has appropriate qualifications.

Contractor lifting plans include:

The lifting methodology, step by step

The risk analysis of the operation including consideration for weather conditions and work environments (e.g.: proximity of hazards and obstructions to the load, consideration for overturning, load integrity) where appropriate and consideration for simultaneous operations and the measures taken to avoid conflicting tasks in the lifting area

The identification of the designated lifting area, the fall zone and the control measures to prevent access such as barriers, signs, etc.

The description of the type, weight, size, shape and center of gravity of the load and the method used for slinging, attaching and detaching the load with the availability of approved lifting points on load when necessary

The list of the certified and inspected equipment and lifting accessories to be used

The composition of the team required to perform the task (crane driver, rigger, etc.) with the needed qualifications and description of their roles and responsibilities including the intended communication method

Any Heavy equipment (crane, winch machine, etc.) manufactured less than 15 years from the current year shall be only allowed to be used at our project Site's. Pre-safety Inspection of the equipment by safety deptt. shall be done before mobilizing the equipment at our project site.

The contractor must ensure that a competent operational leader is formally appointed to supervise each lifting operation. All lifting plans must clearly define the specific roles and responsibilities for each person involved (e.g.: crane drivers, lifting coordinators and riggers) and must be checked and issued prior to lifting operation. Clear communication channels must be formally established and maintained between everyone involved in a lift with only authorized person giving instruction to the operator.

Special permission needs to be taken from NTPC EIC for tandem lifting and for any non-routine lifting operations must strictly adhere to the guidelines described in corresponding Standard / Procedures / Directive.

No employee of the contractor shall be positioned under a suspended load or between a suspended load and fixed objects.

All lifting equipment and accessories must have valid manufacturers certificates or thorough examination records and be uniquely identified, marked with the safe working load, listed in a register and subject to formal regular inspection as per EHS requirements and shall have valid certificates from a competent authority. Inspection before use by the operator is mandatory. All lifting hooks must have latch. All cranes shall be fitted with Automatic Safe Load Indicator (ASLI) and Anemo Meter.

The contractor shall operate and maintain cranes and hoisting equipment in accordance with manufacturers' specifications and limitations and the safety Requirements. All defective, non-inspected or unidentified (safe working load / identification number) lifting equipment or accessories must be either removed from site or physically prevented from use.

27. LOCKOUT TAGOUT (“LOTO”)

Prior to performing work on Machines or Equipment, the Subcontractor shall ensure that all energy sources are isolated and verify the absence of residual energy (e.g.: by using specific voltage detecting device for electricity).

At any time, the contractor shall follow the Site-specific LOTO and Permit to Work rules. The contractor must ensure that all of their affected Subcontractor Personnel receive the necessary training. Lockout/ Tagout must be implemented before servicing and maintenance is performed on Machines and Equipment, which could unexpectedly start-up, become energized, or release stored energy exposing persons to a risk of injury, unless the works undertaken are performed using alternative measures that provide effective protection.

Absence of residual energy must be verified using the suitable equipment or process adapted to the machine and the kind of energy to be checked before start of work. *The contractor must procure suitable VAV instrument for verification of absence of voltage before implementing LOTO all by themselves.*

When the contractor is in charge of LOTO, each authorized person must be issued with an individual lock with a unique key. The contractor shall secure areas where energy sources have been de energized, so as to prevent the access of unauthorized personnel and erect suitable signs. All affected Personnel shall be notified.

Once an item of electrical equipment has been energized, an item of mechanical plant and/or System has been erected and released for Commissioning, no work will be allowed on such item of Equipment or System unless a valid Permit to Work (PTW) has been obtained from the relevant authority.

28. MONTHLY SAFETY REPORT

Agency has to submit the monthly safety activity report in the form of Lead-Lag indicator to NTPC Safety Deptt. Sample format attached as annexure –IV.

- 29.** In case the Contractor doesn't adhere to any of the provisions of the NTPC Safety Rules for Construction and Erection of Power Plants, corresponding payment for the provisions not adhered, shall not be made and/or necessary action as per provisions of the Bidding documents shall be taken by NTPC.

SECTION-II

1. Safety at workplace and equipment

1.0 GENERAL PROVISIONS:

1.1. Housekeeping:

- a. The contractor shall be primarily responsible for maintaining Good housekeeping and safety standards in the workplace;
- b. Loose materials that are not required for use shall not be placed or left behind so dangerously as to obstruct workplaces or passageways;
- c. All projecting nails shall be removed or bent to prevent injury;
- d. Equipment, tools and small objects shall not be left lying unattended or unsecured from where they could fall or cause a person to trip;
- e. Scrap, waste or rubbish shall not be allowed to accumulate in the site as these combustibles can create serious fire hazards and affect safe working;
- f. Workplaces and passageways that become slippery owing to spillage of oil or other causes shall be cleaned up or strewn with sand, ash or the like;
- g. Portable equipment shall be returned after use to their designated storage place.

1.2. Means of access and egress shall consist of

- a. Adequate and safe means of access and egress shall be provided in all workplaces;
- b. The means of access and egress shall be maintained in a safe condition;

1.3 Lighting and ventilation

- a. All practical measures shall be taken to prevent smoke, fumes etc. from obscuring any workplace or equipment at which any worker is engaged;
- b. Adequate and suitable artificial lighting shall be provided where natural lighting is not sufficient as per IS 3646 (Part II). The artificial lighting so provided shall not cause any incidental any danger, including that of producing glare or disturbing shadows;
- c. To prevent danger to health from air contamination by dust generated during grinding, cleaning, spraying or manipulation of materials as also to provide protection against dangerous gases, fumes, vapours, mist, etc. effective arrangements shall be made for ventilation;
- d. Workers shall be provided with suitable respiratory protective equipment, if it is not technically possible to have uncontaminated air. To this end, a study by a competent person shall be made to decide on the due protection. Sufficient illumination at all times for maintaining safe working conditions shall be provided where building workers are required to work or pass, and for passageways, stairways and landings such illuminations shall not be less a than 0.5 foot candles at the floor level;
- e. Where natural lighting is not adequate to prevent danger, adequate and suitable lighting shall be provided as per IS: 3646 – Part II;
- f. Artificial lighting shall not cause any danger due to a brightness greater than 10 foot candles per square inch, except where the angle of inclination from the eye to the source or the part pf the fitting as the case may be exceeds 20⁰, including that of producing glare or disturbing shadows;
- g. Where necessary to prevent danger to health from air contamination by dust from the grinding, cleaning, spraying, or manipulating of materials or objects, arrangements shall be made to limit the concentration of the pollutants by thorough ventilation, and dust generated due to movement of earthmoving machinery and other construction equipment, by spray of water in the area from time to time;
- h. Adequate ventilation by the circulation of fresh air shall be maintained in such places where the concentration of pollutants is likely to affect the health of the workers;

- i. Special care shall be taken to ventilate the workplace where gas cutting, welding or other operations involving generation of dangerous fumes, vapours, mists, gases etc is likely;
- j. Where it is technically not possible to eliminate dust or noxious or harmful fumes or gases sufficiently to prevent injury to the health of the workers, the contractor shall provide suitable respiratory equipment like dust mask or gas/fume mask or breathing apparatus or other suitable respiratory equipment.

1.4. Dangerous and harmful environment:

- a. When an internal combustion engine exhausts into confined space or excavation or tunnel or any other workplace where neither natural ventilation nor artificial ventilation system is adequate to keep the carbon monoxide content of the atmosphere below fifty parts per million, adequate and suitable measures shall be taken at such workplace in order to avoid exposure of building workers to health hazards;
- b. No building worker shall be allowed to enter any confined space or tank or trench or excavation wherein there is given off any dust fumes or other impurities of such nature and to such extent as is likely to be injurious or offensive to the building worker or in which explosives, poisonous, noxious or gaseous material or other harmful articles have been carried or stored or in which dry ice has been used as a refrigerant, or which has been fumigated or in which there is a possibility of oxygen deficiency, unless all practical steps have been taken to remove such dust, fumes or other impurities and dangers which may be present and to prevent any further ingress thereof, from such workplace or tank or trench or excavation;
- c. No worker shall be allowed to enter any such space unless a responsible person has certified it safe and fit for the entry of such building workers.

1.5. Fumes/gases due to Welding and gas-cutting operations: When welding or cutting operations are carried out in a confined space:

- a. Adequate ventilation, by means of exhaust fans or forced draught, as the condition may require, shall be constantly provided; otherwise enough quantity of air shall be circulated by means of air compressors to dilute the contaminant within permissible limits;
- b. Workers shall take necessary precautions to prevent unburned combustible gas or oxygen from escaping inside a tank or vessel or other confined space;
- c. Welding or cutting operations on any container that has held explosives or where inflammable gases may have been generated, shall be undertaken after the container has been thoroughly cleaned by steam or other effective means; and
- d. Gas-test shall be carried out ensure that the confined space is completely free from combustible gases and vapours.

1.6. Dust, gases, fumes

- a. Concentration of dust, gases or fumes shall be prevented by providing suitable means to control their concentration within the permissible limit so that they may not cause injury or create health hazard to a building worker;

- b. For protection against such hazardous substances, besides efficient and effective means of control, personal protective equipment like dust masks, breathing apparatus, other respiratory appliances, goggles, as the case may be, shall be provided.

1.7. Excessive noise:

- a. Adequate measures shall be taken against the harmful effects of an excessive noise;
- b. Use of earplugs/muffs and anti-vibration gloves shall be ensured to protect the workers from the impact of exposure to such dangers;
- c. The noise level in no case shall exceed as prescribed in the concerned Rules and exposure in excess of 115 dBA over the period of a quarter of an hour cannot be permitted:

1.8. Corrosive substances:

- a. All corrosive substances, including alkalis and acids, shall be stored and used by a person dealing with such substances at a building or other construction work in such a manner that it does not endanger the building worker and suitable protective equipment shall be provided by the employer to a building worker during handling or use of such substances at a building or other construction work and in case of spillage of such substances on the building worker, immediate remedial measures shall be taken;
- b. While protection of the body could be ensured by use of corrosion resistant apparel/overalls, suitable goggles, gloves, apron, gum boots etc. shall be made available to all concerned personnel;
- c. To deal with an accidental spillage of a corrosive substance on the body of a worker, the facility of eyewash fountain or water shower, as the case may be, shall be installed, within the easy reach of the workplace.

1.9. Eye protection:

- a. Suitable personal protective equipment for the protection of eyes shall be provided and used by the building worker engaged in operations like welding, cutting, chipping, grinding or similar operations which may cause hazard to his eyes;
- b. Goggles or face shield or welding screen with suitable shade of glass/filters etc shall be provided for the protection of the eyes.

1.10. Overhead protection:

- a. It shall be ensured that at the building or other construction site, overhead protection is erected along the periphery of every building under construction that shall be of fifteen meters or more in height when completed;
- b. Overhead protection shall not be less than two meters wide and shall be erected at a height not more than five meters above the base of the building and the outer edge of such overhead protection shall be one hundred fifty millimeters higher than the inner edge thereof or shall be erected at an angle of not more than twenty degrees to its horizontal sloping into the building;

- c. It shall be also ensured that at the building and other construction work that any area exposed to risk of falling material, articles or objects is roped or cordoned off or otherwise suitably guarded from inadvertent entry of persons other than building workers at work in such area.

1.11. Lifting and carrying of excessive weight:

- a. No building worker lifts by hand or carries overhead or over his back or shoulders any materials, articles, tools or appliances exceeding in weight the maximum limits as set out in the following table unless aided by any other building worker or a mechanical device;
- b. No worker aided by other workers, lift by hand or carry overhead or over their back or shoulders any materials, articles, tools or other appliances exceeding in weight the sum total of the maximum limits as prescribed in the concerned Rules, unless aided by a mechanical devices:

1.12. Protections against fall of persons –

- a. All scaffolds/working platforms at height of two metres or more shall be fenced;
- b. All guard-rails for the fencing of floor openings, gangways, elevated workplaces shall be made of sound material, good construction and possess adequate strength and be between 1 m and 1.5 m above platform level, consist of two rails (two ropes or chains may be used if they are sufficiently taut) and supporting stanchions;
- c. Intermediate rails, ropes or chains shall be midway between the top and lower of edges of the top rail;
- d. Sufficient number of stanchions or standard poles or uprights shall be maintained to ensure the required stability and resistance;
- e. Guard-rails shall be free from sharp edges and be maintained in good repair;
- f. Floor openings through which persons could fall, shall be guarded by covering or fencing;
- g. If the means of protection is removed to allow the passage of persons or goods or other purpose, the same shall be replaced as soon as possible, while making temporary arrangements for reasonable degree of safety in the meanwhile;
- h. Covers for floor opening shall be safe to walk on and if vehicles operate thereon it shall be safe for the same. This will require the contractor to have prior assessment of expected loads;
- i. Cover for floor opening shall be secured by hinges, grooves, stops or other effective means against sliding, falling down or lifting out or any other inadvertent displacement;
- j. Covers for any openings shall not constitute any hindrance to traffic and, as far as practicable, be flush with the floor;
- k. If covers constitute as grids, the bars shall be spread not more than 5 cm apart;
- l. Elevated workplaces at more than 2 m above the floor or ground shall be protected on all open sides by guardrails. It is commonly observed that fragile barricade tapes are used as a substitute of a strong and dependable fencing. This practice is prohibited. The barricade tapes can be used as markers/route guide only;
- m. Elevated workplaces shall be provided with safe means of access and egress such as stairs, ramps or ladders according to suitability;
- n. Persons employed at elevated workplaces or other situations at more than 2m from which they may fall, shall be protected by means of adequate safety nets, or platforms, or be secured by

safety belts with the lanyard properly anchored above the head level of the user. All possible effort shall be made to have strong and dependable mechanical arrangement.

1.13. Protection against fall of objects and materials:

- a. Materials and objects such as scaffolding materials, waste materials or tools shall not be thrown up or down from heights, as they are liable to cause injury;
- b. If materials and other objects cannot be safely lowered from heights, adequate precautions such as the provision of fencing, lookout men or barriers shall be provided to protect any person from injury.

1.14. Protection against entry of unauthorized persons:

- a. Construction zones in the site and built up areas alongside main traffic routes shall be barricaded;
- b. Unauthorized persons shall not be allowed access to construction sites and visitors shall be provided with the required protective equipment and it be ensured that they use them effectively.

1.15. Head protection and other protection apparel:

Every building worker who is required to –

- a. Pass through or working within the areas where there is hazard of his being struck by falling objects or materials, shall be provided with safety helmets of the type approved and tested in accordance with the national standards;
- b. Work in water or in wet concrete or in other similar work, shall be provided with suitable waterproof;
- c. Work in rain or in similar wet condition, shall be provided with waterproof coat with hat;
- d. Workers using or handling of alkalis, acid or other similar corrosive substances shall be provided with appropriate protective equipment in accordance with the approved standards;
- e. Every building worker engaged in handling sharp objects or materials at a building or other construction work, which may cause hand injury, shall be provided with suitable hand gloves in accordance with the approved standards.

1.16. Stability of structures:

- a. No wall, chimney or other structure or part of a structure shall be left unsupported in such condition that it may fall, collapse or weaken due to wind pressure, vibration or due to any other reason. Entry of persons into such locations where tall structures are being built shall be regulated without a let up.

1.17. Safety of Structures and equipment and other safety concerns

- a. Safety of structures like scaffoldings, platforms, gangways/walkways, towers, stairs, ladders, ramps, safety in excavation, formwork, falsework, demolition work, storage, handling and use of explosives, inflammable substances and hazardous materials, gas cutting and welding, use of electricity etc.; and equipment viz. construction machinery, crushers and batching plant, boiler and other pressure vessels, transport and material handling equipment, lifting appliances, vehicles etc., shall be operated and maintained as per approved norms and –
 - i. They shall be made of sound material and of good construction, free from patent defects, provided with adequate safe guards, properly maintained, periodically inspected and strong enough to withstand safely the loads and stresses to which they may be subjected;
 - ii. They shall carry enough factor of safety bearing in mind that the possibility of their abuse, which otherwise shall be prevented by constant and adequate supervision, cannot be ruled out altogether;
 - iii. It is incumbent on the contractor to ensure that only competent and authorized persons operate the equipment or attend to electrical and mechanical systems and repair of faults or breakdowns etc.
- b. Working in the confined space may involve certain serious hazards. Strict adherence to the conditions of Permit-to-work issued for the purpose is required;
- c. Control of energy sources shall be ensured through Log-out/Tag-out practices.

1.18. Slipping, tripping, cutting, drowning and falling hazards:

- a. The contractor shall keep all passageways, platforms and other places free from accumulations of dust, debris or similar material and from other obstructions that may cause tripping;
- b. Any sharp projections or protruding nails or similar projections which may cause any cutting hazard to a building workers shall be removed or otherwise made safe by taking suitable measures;
- c. No contractor shall allow any building worker at construction work to use the passageway, or a scaffold, platform or any other elevated working surface which is in slippery and dangerous condition and shall ensure that water, grease, oil or other similar substances which may cause the surface slippery, be removed or sanded/saw-dusted or covered with suitable material to make it safe from slipping hazard;
- d. Wherever building workers are exposed to the hazard of falling into water, they shall be provided with rescuing arrangement from such hazard and if it is considered necessary, well equipped boat or launch manned with trained personnel shall be provided by the contractor at the site of such work;
- e. Every open side or opening into or through which a building worker, vehicle or lifting appliance or other equipments may fall at a building or other construction work shall be covered or guarded suitably to prevent such fall except where free access is necessary by reasons of their nature of the work;
- f. Wherever building workers are exposed to the hazards of falling from height while employed on such work they shall be provided by the employer with adequate equipment or means for

saving them from such hazards, Such equipments or means shall be in accordance with the standards as laid down;

- g. Whenever there is a possibility of falling of any martial, equipment or building worker at a construction site relating to a building or other construction work, adequate and suitable safety net shall be provided in accordance with the above stipulation;

2.0 SAFETY IN MATERIAL HANDLING AND WASTE DISPOSAL

2.1. GENERAL PROVISIONS:

- a. All building materials stored in tiers shall be stacked, racked, blocked, interlocked or otherwise secured safely to prevent sliding, falling or collapse and in an orderly manner to avoid obstruction of any passageway at the place of work. Piles of materials shall be stored or stacked in such a manner as to ensure their stability;
- b. Maximum safe load limits of floors within buildings and structures in kg/cm² shall be conspicuously posted in all storage areas, except for floor or slab on gradient. Maximum safe load shall not be exceeded. Material or equipment shall not be stored upon any floor or platform in such quantity as to exceed its safe carrying capacity;
- c. Ailes and passageways shall be kept clear to provide for the free and safe movement of material handling equipment or persons. Such areas shall be kept in good repair;
- d. When a difference in road or working levels exist, means such as ramps, blocking or grading shall be used to ensure the safe movement of vehicles between two levels;
- e. Material stored inside buildings under construction shall not be placed within 2 m of any hoist way or inside floor openings nor within 3.2 m of exterior wall which does not extend above the top of material stored;
- f. Persons employed required to work on stored material in silos, hoppers and similar storage areas shall be equipped with lifelines and safety belts;
- g. Non-compatible materials shall be segregated in storage;
- h. Bagged materials shall be stacked by stepping back the layers and cross-keeping the bags at least every 10 bags high;
- i. Materials shall not be stored on scaffolds or runways in excess of supplies needed for immediate operations;
- j. Bricks stacks shall not be more than 2.2 m in height. When a loose brick stack reaches a height of 1.3 m it shall be tapered back 5 cm in every foot of height above the 1.25 m level;
- k. When masonry blocks are stacked higher than 2 m, the stack shall be tapered back on half block per tier above the 2 m level;
- l. Material or equipment shall not be stored or placed so close to any edge of a floor or platform as to endanger the safety of persons below or working in the vicinity. Where stacking, unshackling, stowing or unstaring of construction material or article, or handling in connection therewith cannot be safely carried out unaided, reasonable measures to guard against accident or dangerous occurrences shall be taken by shoring or otherwise to prevent any danger likely to be caused by such handling;
- m. Stacking of material or article shall be made on firm foundation not liable to settle and such material or article and shall not overload the floor on which such stacking is made;

- n. The material or articles shall not be stacked against partition or walls of a warehouse or stores unless it is known that such partition or the wall is of sufficient strength to withstand the pressure of such materials or articles;
- o. The materials or articles shall not be stacked to such a height and in such a manner as would render the pile of such stack unstable and cause hazards to the building workers or the public in general;
- p. Where the building workers are on stack exceeding one point five meters in height, safe means of access to the stack shall be provided;
- q. All stacking or unstacking operations shall be performed under the supervision of a responsible person for such stacking or unstacking;
- r. The stacking of construction materials or articles shall not be made near the site of excavation, shaft, pit or any other such opening;
- s. Stacks that may lean heavily or become unstable or collapse are barricaded shall be avoided;
- t. Structural steel, poles, pipe, bar stock and other cylindrical materials, unless racked, shall be stacked and blocked so as to prevent sliding, spreading or tilting.

2.2. LUMBER:

- a. Used lumber shall have all nails withdrawn before stacking;
- b. Lumber shall be stacked on level and solidly supported sills;
- c. Lumber piles shall not exceed 6 m in height provided that lumber is handled manually, shall not be stacked more than 5 m height;
- d. Lumber shall be so stacked as to be stable and self-supporting.

2.3. STACKING OF CEMENT AND BAGS CONTAINING OTHER MATERIALS:

- a. The cement or other material in bags shall be stacked in a header and stature-wise in rows alternately in not more than 10 numbers and there will be circulation of space of at least 600 mm in between two such rows;
- b. While removing bags from the stack pile the stability of such stack pile shall be ensured;
- c. Bags containing cement or lime shall be stored on a firm ground;
- d. The materials like bricks, tiles or blocks shall also be stored on a firm ground;
- e. Reinforcing steel shall be stored according to its shape, size and length and stack of reinforcing steel kept as low as possible;
- f. No pipe shall be stored on rack or in stack where such pipe is likely to fall by rolling;
- g. The angle of repose shall be maintained where loose materials are stacked;
- h. When dust laden material is to be stored or handled, measures shall be taken to suppress the dust produced by such storing or handling and suitable personal protective equipment supplied to and used by the building workers working for such storing or handling.

2.4. DISPOSAL OF DEBRIS AND WASTE MATERIAL:

- a. It shall be ensured that debris is
 - i. Handled and disposed of by a method, which does not cause danger to the safety of a person and not allowed to accumulate so as to constitute a hazard;
 - ii. Kept sufficiently moist to bring down the dust under control;
 - iii. Not thrown inside or outside from any height of such building or other construction work;
- b. Brought down by suitable means/chutes provided for the purpose and on completion of work, leftover building material, article or other substance or debris shall be disposed off as soon as possible to avoid any hazard to any traffic or person;
- c. Whenever materials are dropped more than 6 m to any point lying outside the exterior walls of the building an enclosed chute of wood, or equivalent material shall be used;
- d. When debris is dropped through holes in the floor without the use of chutes, the area where the material is dropped shall be completely enclosed with barricades not less than 1.1 m high and not less than 1.9 m back from the edge of the opening above. Signs warning of the hazard of falling material shall be posted at each level;
- e. All scrap lumber, waste material and rubbish shall be removed from the immediate work area as the work progresses;
- f. Disposal of waste material or debris as per the guideline issued by CPCB in compliance of Rule 10 sub-rule 1(a) of C & D Waste Management Rules, 2016).
- g. All bio-degradable material shall be disposed off in the pit for making compost. Pellets can also be made from bio-degradable material
- h. All solvent wastes, oil rags and flammable liquids shall be kept in fire resistant covered containers until removed from the work site.

2.5. HANDLING GAS CYLINDERS:

- a. Gas cylinders shall not be lifted on bare slings. For lifting the cylinders, cage of suitable size shall be used and all cylinders shall be horizontally positioned in it. Such cage shall have fencing in such a way that there is no possibility of fall of cylinders from this cage.

2.6. RIGGING EQUIPMENT FOR MATERIAL HANDLING:

- a. Rigging equipment for material handling shall be inspected prior to use in each shift as necessary during its use to ensure that it is safe. Defective rigging equipment shall be removed from service;
- b. Rigging equipment shall not be loaded in excess of its recommended safe working load, as prescribed in the Indian standards;
- c. Rigging equipment, when not in use, shall be removed from the immediate work area so as not to present a hazard to persons engaged in the area;

- d. Special custom designed grabs, hooks, clamps, or other lifting accessories, for such units as modular panels, prefabricated structures and similar materials, shall be marked to indicate the safe working loads shall be proof tested prior to use 125% of their rated load;
- e. Welded alloy steel chain slings shall have permanently affixed-durable identification standing size, grade, rated capacity and manufacturer.

2.7. FENCING OF MOTORS ETC

- a. All motors, cogwheels, chains and friction gearings, flywheels, shafting and the other dangerous and moving parts of machinery (whether or not driven by mechanical power) and steam pipes shall be securely fenced and the fencing of dangerous parts of machinery not removed while such machinery is in motion or in use;
- b. No part of any machinery which is in motion and which is not securely fenced, shall be examined, lubricated, adjusted or repaired except by a person skilled and trained for such examination, lubrication, adjustment or repairs and machine parts cleaned only when such machine is stopped;
- c. When a machine is stopped for servicing or repairs, adequate measures shall be taken to ensure that such machine does not restart inadvertently and not only tag-out sign is required; it is also essential that an active system of isolating the power be applied.

2.8. PROTECTION AGAINST LIGHTNING

- a. Where necessary, installations shall be protected against lightning, provided further that;
- b. No bare conductors or bare current-carrying parts of equipment be permitted to be installed unless adequate precautions are taken to prevent direct or indirect contact;
- c. Only flame-proof equipment and conductors shall be installed at places where explosives or inflammable substances are stored, handled or used or where explosive atmosphere exists;
- d. Persons competent and authorized only shall attend to electrical breakdowns and other operational faults and give or restore power to an equipment and such persons shall be easily identifiable by their dress or special helmet worn;
- e. It will constitute a standard practice to switch off portable tools while shifting from one place to another or while leaving them behind unattended;
- f. The contractor shall ensure that a system is in place to always keep tools well maintained.

2.9. VEHICULAR TRAFFIC

- a. Whenever any building or other construction work is being carried on, or is located in close proximity to a road or any other place where any vehicular traffic may cause danger to building workers, it shall be ensured that such building or other construction work is barricaded and suitable warning signs and lights displayed or erected to prevent such danger and if necessary, a request in writing made to the concerned authorities to control such traffic;

- b. All vehicles used at construction site shall comply with the requirements of the Motor Vehicles Act, 1988 (59 of 1988) and the Rules made hereunder;
- c. The driver of a vehicle of any class or description operating at a construction site shall hold a valid driving license under the Motor Vehicles Act. 1988 (59 of 1988).

2.10. USE OF SAFETY BELT OR OTHER FALL ARREST SYSTEMS:

Wherever any work at a height of 3 m or more is carried out, use of a suitable fall arrest system is mandatory if the workplace has already not been provided with an otherwise reliable means of protection for preventing the fall of persons from that height, provided further that:

- a. Safety belt, lanyard, life lines and devices for the attachment of such life lines shall conform to the approved standards;
- b. Every building worker shall be supplied with safety belt and safety life lines for his protection and such building worker shall use such belts and life lines during the performance of his work;
- c. All building workers using safety belt and safety life lines shall have the knowledge of safe use and maintenance of such belts and life lines and shall be supplied with necessary instructions for its use;
- d. The responsible person for supervising the use of safety belts and safety lifelines shall inspect and ensure that such safety belts and lifelines are fit for use before taking them into use.

2.11. SAFETY NET AND ITS USE

- a. Every safety net shall be of adequate strength, made of sound material and suitable for use and conform to the approved standards;
- b. The responsible person for maintenance of safety nets and their use shall ensure safe fixing of such safety nets and provide such safety nets with suitable and sufficient anchorage so that the purposes for which such safety net is intended for use is served;
- c. Use of multi-layer safety net to be ensured to avoid fall of material/objects.

2.12. STORAGE OF SAFETY BELTS AND NETS, ETC:

- a. Proper arrangement shall be made for the safe storage of safety belts, safety lifelines and safety nets when they are not in use and are protected against mechanical damage, damages from chemicals and damages from biological agents.

2.13. SAFETY HELMETS AND SAFETY FOOTWEAR

- a. The Engineer in-charge may declare whole or part of a site as the hardhat area and in such an eventuality it shall be the responsibility of the contractor to provide safety helmet of the approved quality to all personnel engaged in construction and erection work, including the visitors to the site;
- b. Accordingly, wherever safety footwear is required for the safety of the personnel, the contractor shall provide the same of the approved type free of charge.

3.0 WELDING AND GAS CUTTING OPERATIONS

3.1 GAS WELDING:

3.1.1 GENERAL PROVISIONS:

- a. All welders shall be provided with fire resistant protective clothing and equipment, such as fire resistant gauntlets and aprons, helmets and goggles with suitable filter lenses and its usage shall be ensured;
- b. The welders shall not be allowed to wear clothing that is not free from grease, oil and other flammable material;
- c. Adequate precautions shall be taken to protect persons working or passing near welding operations from dangerous sparks and radiation;
- d. When welding or cutting is being done on materials containing toxic or harmful substances or liable to produce toxic or harmful fumes, adequate precautions shall be taken to protect workers from the fumes, either by
 - i) Exhaust ventilation, or
 - ii) Respiratory protective equipment;
 - iii) Arrangement shall be made so that welding sparks do not fall down on the persons working below or material, which are combustible in nature and may be damaged with such sparks.
- e. The oxygen pressure for welding shall always be high enough to prevent acetylene flowing back into the oxygen cylinder;
- f. Acetylene shall not be used for welding at a pressure exceeding 1 atmosphere gauge;
- g. Adequate precautions shall be taken to prevent:
 - i) Fire being started by sparks,
 - ii) Slag or hot metal; and
 - iii) Damage to fibre ropes from heat, sparks, slag or hot metal;
- h. Precautions shall be taken to prevent flammable vapours and substances from entering the working area;

3.2. WELDING AT PLACES WITH FIRE RISKS:

- a. Unless adequate precautions are taken, no welding or cutting operations shall be allowed near the place where combustible materials are stored, or near materials or plant where explosive or flammable dusts, gases or vapours are likely to be present or given off. If hot work permit system exists at the site, the same shall be followed;
- b. Combustible materials and structures that cannot be removed from the vicinity of welding operations shall be shielded by asbestos or protected by other suitable means.

3.3. WELDING IN CONFINED SPACE:

When welding or cutting operations are being carried out in a confined space;

- a. Adequate ventilation, by means of exhaust fans or forced draught as the condition may require, shall be constantly provided; otherwise enough quantity of air shall be blown in by means of compressors to dilute the pollutants;

- b. No blow pipe shall be left unattended inside a tank or vessel or other confined space during meal break or other interruption of the work;
- c. The worker shall take all necessary precautions to prevent unburned combustible gas or oxygen from escaping inside a tank or vessel or other confined space; and
- d. When necessary to prevent danger, an attendant shall watch the welders from outside.

3.4. WELDING ON CONTAINERS FOR EXPLOSIVE OR FLAMMABLE SUBSTANCES:

Welding or cutting operations on containers in which they are explosives or flammable substances shall not be allowed;

- i) Welding or cutting operations on any container that has held explosive or where flammable gases may have been generated, shall only be undertaken,
- ii) After the container has been thoroughly cleansed by steam or other effective means; and
- iii) Found by air tests to be completely free from combustible gases and vapours; or
- iv) After the combustible gas in the container has been completely replaced by an inert gas or by water;
- v) If an inert gas is used as laid down in clause 4.2.3, after the vessel has been filled with gas, the gas shall continue to flow slowly into it thorough out the welding or cutting operations;
- vi) Before starting any welding operations on, or otherwise applying heat to, closed or jacketed containers or other hollow parts, such containers or parts shall be adequately vented in suitable manner.

3.5. GAS CYLINDERS

- a. Gas cylinders shall be inspected, stored, handled and transported in conformity with the requirements of Gas Cylinders Rules, 1981;
- b. When in use, cylinders shall be held in upright positions by straps, collars or chains;
- c. Devices referred to in clause 6.2 shall be such that the cylinders can be rapidly removed in an emergency;
- d. Welders shall not temper with or attempt to repair safety devices and valves on gas cylinders;
- e. When acetylene cylinders are coupled, flash back arrestor shall be inserted between the cylinder and the coupler block, or between the coupler block and the regulator;
- f. Only acetylene cylinders or approximately equal pressure shall be coupled;
- g. No gas shall be taken from a cylinder unless a pressure reducing regulator has been attached to the valve;
- h. Only the right pressure reducing regulator shall be used for the gas in the cylinder;
- i. Cylinder valves shall be kept free from gases, grease, oil, dusts and dirt;
- j. Leaky cylinders charged with acetylene or liquefied fuel gas shall be taken into the open air at a safe distance from any open flame or sparks.

3.6 HOSE

- a. Only hose especially designed for welding and cutting operations shall be used to connect an oxy-acetylene torch to gas outlet;
- b. Hose lines for oxygen and for oxy-acetylene shall be of different colours and preferably of different size;
- c. Hose connections shall be sufficiently light to withstand without leakage a pressure twice the maximum delivery pressure of the pressure regulators in the system;

- d. Care shall be taken that hose does not become kinked or tangled, stepped on or run-over or otherwise damaged;
- e. Any length of hose in which a flashback has burned, shall be discarded;
- f. No hose with more than one gas passage shall be used;
- g. Only soapy water shall be used for testing hose for leaks.

3.7. TROCHES

- a. When torches are being changed, the gases shall be shut off at the pressure reducing regulators and not by crimping hose;
- b. Torches shall be lit with friction lighters or other safe source but not with matches.
- c. Electric welding equipment:
- d. Welding machines shall be controlled by a switch mounted on or near the machine framework that, when opened, immediately cuts off the power from all conductors supplying the machine;
- e. Welding circuit shall be so designed as to prevent the transmission of high potential from the source of supply to the welding electrodes;
- f. The maximum open circuit voltage shall be in accordance with Indian Standards;
- g. Electrode conductors or cables shall not be excessive in length and shall not be longer than necessary to perform the work;
- h. Return conductors shall be taken directly to work and securely connected mechanically and electrically to it or to the work bench, floor etc. and to an adjacent metallic object;
- i. Cable shall be supported so as not to create dangerous obstruction;
- j. Motors, generators, rectifiers and transformers in arc welding or cutting machines, and all current carrying parts, shall be protected against accidental contact with uninsulated live parts;
- k. Ventilating slots in transformer enclosures shall be so designed that no live part is accessible through any slot;
- l. Frames of arc welding machines shall be effectively earthed;
- m. In hand-operated arc welding machines, cables and cable connectors used in arc welding circuits shall be effectively insulated on the supply side;
- n. The outer surface electrode holders of hand-operated arc welding machines, including the jaw so far as practicable, shall be effectively insulated;
- o. Electrode holders of hand-operated arc-welding machines shall, if practicable, be provided with discs or shields to protect the operator's hands from the heat of the arcs;
- p. Only heavy-duty cable with unbroken insulation shall be used;
- q. Circuit connections shall be waterproof;
- r. When lengths of cable have to be joined, only insulated connectors shall be used on the earth line and the electrode holder line;
- s. Connections to welding terminals shall be made at distribution boxes, socket outlets, etc. by bolted joints;
- t. Welding terminals shall be adequately protected against accidental contact by enclosures, covers or other effective means;
- u. Electrode holder shall
 - i. Have adequate current capacity;
 - ii. Be adequately insulated to prevent shock, short-circuiting or flashovers.

3.8. OPERATIONS

- a. Arc welding and cutting operations that are carried on at places where persons other than the welders are working or passing shall be enclosed by means of suitable stationary or mobile screens;
- b. Walls and screens of both permanent and temporary protective enclosures shall be provided to absorb harmful rays from the welding equipment and prevent reflection, and if necessary, be painted or otherwise treated for the purpose;
- c. When arc welding is done in damp confined spaces;
 - i) Electrode holders shall be completely insulated; and
 - ii) The welding machines shall be outside the confined space;
- d. Welders shall take adequate precautions
 - i) To prevent any part of their body from completing an electric circuit
 - ii) To prevent contact between any part of the body and the exposed part of the electrode, or electrode when in contact with metal; and
 - iii) To prevent wet or damaged clothing, gloves and boots from touching any live part;
- e. Welding circuits shall be switched off when not in use;
- f. Electrodes shall only be inserted in the holder with insulating means such as insulating gloves;
- g. Electrode and return leads shall be adequately protected against damage;
- h. Live parts of electrode holders shall be inaccessible when they are not in use;
- i. Electric arc-welding equipment shall not be left unattended with current switched on.

4.0 SAFETY IN THE USE OF ELECTRICITY

4.1. GENERAL PROVISIONS

- a. Before commencement of any building or other construction work, adequate measures shall be taken to prevent any worker from coming into physical contact with any electrical equipment or apparatus, machines or live electrical circuit which may cause electrical hazard during the course of his employment and suitable warning signs shall be displayed and maintained at conspicuous places in Hindi and in local language understood by the majority of the building workers;
- b. In workplaces where the exact location of underground electric power line is not known, the building workers using jack hammers, crow bars or other hand tools which may come in contact with a live electrical line shall be provided with approved insulated protective gloves and footwear;
- c. As far as practicable, no wiring or cable, which may come in contact with water or which may be mechanically damaged or which may result in electric shock shall be left on ground or;
- d. All electrical appliances and current carrying equipment used shall be made of sound material and adequately earthed;
- e. All temporary electrical installations shall be provided with earth leakage circuit breakers;
- f. It is required that all portable power-driven hand tools are provided with double insulation to secure a high degree of protection from electrical hazards;
- g. Electrical installations shall comply with the requirements of any law for the time being in force, especially the Indian Electricity Act/Rules in particular with specific reference to the following:
 - i) All parts of installations shall be of standard construction not lower, from the safety point of view, than the national standards, as applicable. All parts of electrical installations shall be so constructed, installed and maintained so as to prevent electrical fires, explosion and shock;
 - ii) Earthing of metal work of electrical equipment, other than the parts which carry current, shall be provided and will conform to Electricity Act and IS: 3042 – 1966 (code of practice for earthing);
- h. All parts of electrical installation shall be adequate size and characteristics for the work they may be called upon to do and in particular they shall:
 - i) Be of adequate mechanical strength to withstand working conditions in construction operations; and
 - ii) Be not liable to damage by water, dust or electrical, thermal or chemical action to which they are subjected to in construction operations;
- i. All parts of electrical installations shall be so constructed, installed and maintained as to prevent the danger of electric shock; fire and external explosion;
- j. It shall be made impossible for circuit breakers to be opened or closed inadvertently, by gravity or by mechanical impact;

- k. Before operation of OCBs, oil level must be checked and the event of short, extra quantity must be filled;
- l. Use of rubber gloves and rubber gum boots of tested quality where electric shock is likely to occur shall be provided, but these shall not be considered as providing adequate protection against the risk of electric shock in lieu of inbuilt safety arrangement in the system;
- m. First-aid boxes, instruction for restoration of persons affected by electric shock shall be made;
- n. Arrangement shall be made for sufficient number of CO₂/chemical powder type fire extinguishers/sand buckets etc.;
- o. No electrical circuits shall ever be overloaded to the dangerous extent or beyond the rated capacity;
- p. In confined areas, only 24 volt supply shall be used for every equipment, including hand-held portable tools and hand lamps;
- q. All electrical appliances and outlets shall be clearly marked to indicate their purpose and voltage.

4.2. FUSES

- a. Fuses shall bear markings indicating their rated current, whether they are of the fast or slow-breaking type and, as far as practicable, and their rated breaking capacity. Fuses as per need and of correct rating shall be used in the circuit;
- b. Effective measures shall be taken to ensure that persons removing or inserting fuses will not be endangered, in particular by any adjacent live parts;
- c. In case of blow of fuses only after finding out and correcting of the fault, new fuses shall be provided in the circuit.

4.3. SWITCHES

- a. All switches shall be of enclosed type and so installed and earthed as to prevent danger in their operation;
- b. Use of switches, which may connect or disconnect circuit through gravity, shall not be used.

4.4. MOTORS

- a. All motors shall be equipped with a switch;
- b. When a motor can be cut off from more than one place, where practicable, a stopping device shall be installed in the immediate vicinity of the motor;
- c. Motors shall be so installed as to ensure that they can be adequately cooled;
- d. Motors shall be effectively protected against over current;
- e. Whenever the motors installed are in the open area where there is the possibility of fall of liquid corrosives or otherwise, it shall be suitably protected with covering;
- f. Earthing shall be connected to all motors, generators etc. as prescribed in the Indian Electricity Rules, amended from time to time.

4.5. CONNECTIONS

- a. At points where conductors are joined, branched or led into apparatus, they shall be:
 - i. Mechanically protected, and
 - ii. Properly maintained;

- b. Conductors shall be joined, branched or led into an apparatus through junction boxes, bushings, glands or equivalent connecting devices;
- c. Junction boxes or plug-out-socket couplings shall be used for joining cables wherever practicable;
- d. When parts of conductors are joined together, or conductors are joined to one another or to an apparatus, the attachment shall be made by screwing, clamping, soldering, riveting, brazing, crimping, or equivalent means. Loose connections shall not be provided in any case;
- e. Cable joints, junction boxes and connectors shall be protected as far as practicable, against traffic, fall of ground, water and other sources of damage;
- f. Whenever armoured cables are joined, the junction boxes shall be bridged by a suitably conductive bond between the armouring of the cables.

4.6. TRANSPORTABLE AND PORTABLE ELECTRICAL EQUIPMENT:

- a. The supply of electricity to portable apparatus shall not exceed 250v;
- b. Hand-held and portable machines shall be equipped with a built-in switch to switch off power in case of emergency;
- c. Hand-held electrically operated tools shall be provided with built-in switch to disconnect the circuit when the tool is not being used;
- d. Portable electrical tools, unless flameproof, shall not be used in flammable or explosive atmosphere;
- e. Only three-core cable shall be used for single-phase operated tools with the third core connected to earth

4.7. HAND LAMPS

- a. Hand lamps shall be equipped with strong cover of glass or other transparent material;
- b. Portable lamp holders shall have:
 - i) All current –carrying parts enclosed;
 - ii) Insulated handle; and
 - iii) They shall operate at 24 v;

4.8. INSPECTION, MAINTENANCE

- a. All electrical equipment shall be inspected before it is taken into use to ensure that it is suitable for its purpose of use;
- b. At the beginning of every shift every person using electrical equipment shall make a careful external examination of the equipment and conductors for which he is responsible, especially flexible cables;

- c. Periodic inspections, testing, maintenance of all electrical equipment is to be made and record of test of transformer oil and pit earthing shall be maintained;
- d. Electrical conductors and equipment shall be repaired by the electrician only as far as practicable, no work shall be done live conductors or equipment;
- e. Before any work is begun on conductors or equipment that does not have to remain live;
 - i) The current shall be switched off;
 - ii) Adequate precautions shall be taken to prevent the current from being switched on again;
 - iii) The conductors or the equipment shall be tested to ascertain that they are dead;
 - iv) The conductor and equipment shall be earthed and short-circuited; and
 - v) Neighbouring live parts shall be adequately protected against accidental contact;
- f. After work on conductors and equipment, the current shall only be switched on again on the orders of a competent person;
- g. Electricians shall be provided with adequate tools, and person protective equipment, such as rubber gloves, mats etc.;
- h. All conductors and equipment shall be considered to live unless there is certain proof to the contrary.

4.9. WORK IN THE VICINITY OF ELECTRICAL INSTALLATION

- a. When work is to be done in the neighborhood of electrical conductors or installations, the contractor shall ascertain the voltage carried and the works shall not be allowed to reach to unsafe distance from them;
- b. When any excavation is to be made or any bore-holed sunk, the contractor shall ascertain whether there are any underground conductors, in or in dangerous proximity to, the zone of operations;
- c. No work shall be done in dangerous proximity to a conductor or an installation until it has been made dead;
- d. Before work begins, work permit shall be obtained from the Engineer in-charge if live electricity lines/circuit are passing in close vicinity;
- e. Before the current is restored, the contractor shall ensure that no work remain on the work site;
- f. If conductor or an installation in the neighbourhood of which work is to be done can not be made dead, special precautions shall be taken and special instructions given to the workers so as to prevent danger by adequately enclosing or fencing;
- g. If mobile equipment has to be employed in the neighbourhood of conductors or installations that cannot be made dead, its movement shall be so controlled as to keep it at a safe distance from them.

5.0 SAFETY IN THE USE OF HAND TOOLS AND POWER-OPERATED TOOLS

5.1 GENERAL PROVISIONS

- a. All hands and power tools and similar equipment, shall be maintained in safe condition.
- b. When power operated tools are designed to accommodate guards, they shall be equipped with such guards, when in use;
- c. Belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains and other reciprocating, rotating or moving parts of the equipment shall be similarly guarded;
- d. Personnel using hand and power tools and exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dusts, fumes, mists, vapours, or gases shall be provided with the particular personal protective equipment necessary to protect them from the hazards;
- e. All hand-held powered platen sanders, grinders, grinders with wheels of 5 cm or less, routers, planers, laminate trimmers, nibblers, shears, scroll saws and jigsaws with blade shanks of 0.5 cm wide or less shall be equipped with only a positive **on-off control**.
- f. All hand-held powered drills, tappers, fastener drivers, horizontal, vertical or angle grinders with wheels greater than 5 cm in diameter, disc sanders, belt sanders, reciprocating saws, saber saws and other operating powered tools shall be equipped with a momentary contact on control provided that turnoff can be accomplished by a single motion of the same finger or fingers that turn it on.

5.2. HAND TOOLS

- a. The contractor shall not issue or permit the use of unsafe hand tools;
- b. Wrenches including adjustable pipe end and socket wrenches shall not be used when saws are sprung to the point that slippage occurs;
- c. Impact tools such as drift pins, wedges and chisels shall be kept free of mushroomed heads;
- d. The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight on the tools.

5.3. POWER OPERATED TOOLS

- a. Electric power operated tools shall be either of the approved double-insulated type or shall be grounded;
- b. The use of electric cords for hoisting or lowering loads shall not be permitted;
- c. Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tool from becoming accidentally disconnected;
- d. Safety clips or retainers shall be securely installed or maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled;
- e. All pneumatically riveting machine staplers and other similar equipment provided with automatic fastener feed, which operate at more than 7 kg/cm² pressure at the tool a safety device on the

muzzle to prevent the tool from ejecting the fasteners unless the muzzle is in contact with the work surface;

- f. Compressed air shall not be used for cleaning purposes except when the pressure is reduced to less than 2 kg/cm² and that too with effective chip guarding. The 2 kg/cm² pressure requirement does not apply to concrete form, mill scale and similar cleaning purposes;
- g. The manufacturer's safe operating for hoses, pipes, valves, filters and other fittings shall not be exceeded;
- h. Only personnel who has been trained in the operation of the particular tool shall be allowed to operate power-actuated tools;
- i. The tool shall be tested each day before loading to see that the safety devices are in proper working condition. The method of testing shall be accordance with the manufacturer's recommended procedure;
- j. Any tool found not in proper working order, or that which develops a defect during use, shall be immediately removed from service and not used until properly repaired;
- k. Tools shall not be loaded until just prior to the intended firing time. Neither loaded nor empty tools are to be pointed at any other person. Hands shall be kept clear of the open barrel end;
- l. Loaded tools shall not be left unattended;
- m. Fasteners shall not be driven into very hard or brittle materials including, but not limited to, cast iron, glazed tiles, surface hardened steel, glass block, live rock, face brick or hollow tiles;
- n. Driving into materials that can be easily penetrated shall be avoided unless backed by a substance that will prevent the pin or fastener from passing completely through and creating a flying missile hazard on the other side;
- o. No fastener shall be driven into a palled area caused by an unsatisfactory fastening;
- p. Only non-sparking tools shall be used in an explosive or flammable atmosphere;
- q. All tools shall be used with the correct shield, guard or attachment as recommended by thee manufacturer.

5.4. ABRASIVE WHEELS AND TOOLS

- a. All grinding machines shall be supplied with sufficient power to maintain the spindle speed at safe levels under all conditions of normal operation;
- b. Grinding machines shall be equipped with suitable safety guards;
- c. The maximum angular exposure of the grinding wheel periphery and sides shall not be more than 90⁰, except that when the work requires contact with the wheel below the horizontal plane of the spindle, the angular exposure shall not exceed 120⁰. In either case, the exposure shall begin not more than 65⁰ above the horizontal plane of the spindle. Safety guards shall be strong enough to withstand the bursting of the wheel;
- d. Floor and bench-mounted grinders shall be work-rests, which shall be rigidly supported and readily adjustable. Such work-rests shall be kept at a distance not to exceed 5 mm from the surface of the wheel;

- e. Cup type wheels used for external grinding shall be protected by either revolving cup guard or a band type guard;
- f. When safety guards are required, they shall be mounted as to maintain proper alignment with the wheel and the guard and the guard and its fastening shall be adequate strength to retain the fragments of the wheel in case of accidental breakage. The maximum angular exposure of the grinding wheel periphery and sides shall not exceed 180°;
- g. Portable abrasive wheel used for internal grinding shall be provided with suitable safety flanges;
- h. When safety flanges are required, they shall be used only with wheels designed to fit the flanges. Only safety flanges, of a type and design and properly assembled so as to ensure that the pieces of the wheel will be retained in case of accidental breakage, shall be used;
- i. All abrasive wheels shall be closely inspected and ring tested before mounting to ensure that they are free from cracks or defects;
- j. Grinding wheels shall fit freely on the spindle and shall not be forced on. The spindle nut shall be tightened only enough to hold the wheel in place;
- k. All employees using abrasive wheels shall be protected by suitable eye protection equipment.

5.5. WOODWORKING TOOLS

- a. All fixed power driven woodworking tools shall be provided with a disconnect switch that can either be locked or tagged in the **off-position**;
- b. The operating speed shall be attached or otherwise permanently marked on all circular saws over 0.5 m in diameter or operating at over 3000 peripheral rpm. Any saw so marked shall not be operated at a speed other than that marked on the blade. When a marked saw is retensioned for a different speed, the marking shall be corrected to show the new speed;
- c. Automatic feeding devices shall be installed on machines wherever the nature of the work will permit. Feeder attachments shall have the feed rolls or other moving parts covered or guarded so as to protect the operator from hazardous points;
- d. All portable power driven circular saws shall be equipped with guards above and below the base plate or shoe. The upper guard shall cover the saw to the depth of the teeth, except for the minimum arc required to permit the base to be tilted for bevel cuts. The lower guard shall cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work. When the tool is withdrawn from the work, the lower guard shall automatically and instantly return to the covering position.

6.0 SAFETY IN THE USE OF LADDERS AND STAIRS

6.1. GENERAL ASPECTS OF SAFETY RELATED TO USE OF LADDERS

- a. Every ladder or step-ladder used in building or other construction work shall be of good construction, made of sound material and of adequate strength for the purpose for which such ladder or step-ladder is used;
- b. When a ladder is used as a means of communication, such ladder shall be lashed to a fixed structure so that while working on such ladder it does not slip;
- c. A ladder or step ladder shall not stand on loose bricks or other loose packing and have a level and firm footing;
- d. No ladder shall be used which has a missing or defective rungs or rungs, which depend for support solely on nails, spikes or other similar fixing.

6.2. MATERIALS FOR LADDERS

- a. Shall be constructed with upright of adequate strength and are made of straight-grained wood, free from defects and having the grain of such wood running length wise;
- b. Shall have rungs made of straight-grained wood free for defects and mortised or securely notched into the upright, reinforcing metal ties, if wedges shall not secure the tenors of such ladders;
- c. Where it is required, in case of use of fixed ladders, sufficient foot-hold and hand-hold shall be provided for use by the building worker;
- d. Every ladder shall be -
 - i. Secured so as to prevent undue swaying;
 - ii. Equally and properly supported on each of its upright;
 - iii. So used as not to cause undue sagging; and
 - iv. Placed as nearly as possible at an inclination of four in one;
- e. The use of all ladders and stepladders shall conform to the approved standards;
- f. Wooden ladders shall be constructed with uprights of adequate strength as well as rungs made of wood free from visible defects and having the grains of the wood in the ladders running lengthwise and rungs mortised or rebuted into the uprights;
- g. Uprights and rungs of metal ladders shall have a cross-section adequate to prevent dangerous deflection, shall be equal and not less than 25 cm or more than 35 cm;
- h. Rungs of metal ladders shall be kept clean so as to prevent them from becoming slippery;
- i. Portable ladders shall not exceed 9 m in length;
- j. Every ladder or run of ladders rising to a height exceeding 9 m shall be provided with an intermediate landing, providing further that the intervals between landings shall not exceed 9 m. The landings shall be of suitable size and protected by railings;
- k. Defective ladders that cannot be satisfactorily repaired shall be tagged Not Fit For Use and destroyed;
- l. Wooden ladders shall not be painted, but oiled or covered with clean varnish or other transparent preservatives;
- m. Metal ladders shall be protected against corrosion by being coated with rust-proof paint or by other means unless they are made of non-corrosive metals;

- n. Every ladder shall rise at least 1 m above the highest point to be reached and have one of the uprights continued to that height to serve as a hand-rail at the top;
- o. Ladders shall not stand on loose bricks or other loose packing but have a level and firm footing so that they are equally supported on each upright;
- p. Every ladder shall be securely fixed so that it cannot move from its top and bottom points of rest and if it cannot be secured at the top, it shall be securely fastened at the base and if fastening at the top is also impracticable, it shall have a man stationed at the foot holding the end to prevent it from slipping;
- q. Where a run of two or more ladders connects different floors, the ladders shall be staggered and a protective landing with the smallest practicable opening shall be provided at each floor;
- r. A ladder having only one upright or a missing or dangerously defective rung shall not be used;
- s. When a ladder is placed in position, the distance between the foot of a ladder and the base of the structure against which it rests shall be about one-quarter of its length;
- t. Workers using ladders shall leave at least one hand free for climbing up and down, face the ladder, avoid wearing slippery footwear and avoid carrying heavy or bulky loads;
- u. A ladder shall not be placed in front of a door that opens towards it unless the door is fastened or locked or guarded;
- v. A ladder shall not be placed against a window frame unless the ladder is fitted with a board at the top so that the applied load is safely distributed over the frame;
- w. Metal ladders shall not be used in the vicinity of live electrical equipment;
- x. Adequate means shall be provided to prevent displacement of the ladder set up in public thoroughfare or where persons, vehicles etc. may accidentally collide with it.

6.3. PORTABLE STEPLADDERS

- a. The length of portable stepladders shall not exceed 6 m and their back legs shall be adequately braced;
- b. Stepladders exceeding 1.5 m in length shall have two or more cross-ties;
- c. The spread between the front and back legs shall be restricted by means of hinged metal flat bars or high-grade fibre or other effective means;
- d. When in the open position, treads of stepladders shall be horizontal.

6.4. PORTABLE TRESTLE LADDERS

- a. The height of the trestle ladders shall not exceed 5.5 m;
- b. The spread between the front and back legs shall be restricted by means of hinged metal flat bars or high-grade fibre or other effective means;
- c. The front and back legs shall be joined at the top by bolted steel hinges of adequate dimensions or other effective means;
- d. Both legs of trestle ladders shall be equipped with sufficient number of steel crossties.

6.5. EXTENSION LADDERS

- a. The length of extension ladders shall not exceed 15 m;
- b. Extension ladders shall be equipped with an effective lock and guide brackets by which the ladder can be extended, retracted or locked in any position;

- c. The rungs of overlapping sections shall coincide so as to form double treads and shall be equipped with one or more extension ropes;
- d. Extension ropes shall be securely anchored and run over suitable pulleys.

6.6 MECHANICAL LADDERS

- a. Mechanical ladder is that ladder, which is a mechanically extendable ladder, mounted on a wheeled frame;
- b. Mechanical ladder shall be equipped with guard-rails and toe-boards and a cage of heavy-gauge steel mesh;
- c. If mechanical ladder has no railed platform or cage, workers using it shall be secured by suitable safety belt;
- d. Mechanical ladders shall not be moved, while a person is on them, unless they have specially designed to ensure that perfect stability is maintained during movement.

6.7. FIXED LADDERS

- a. Uprights of fixed ladders shall be at least 40 cm and shall be set an angle of 15° to the vertical;
- b. Clearance at the back of the rungs shall be at least 15 cm and no obstruction within 75 cm of the face of the ladder;
- c. There shall be at least 7.5 cm clearance between the ladder and the nearest fixed object;
- d. When it is necessary for a ladder to pass closely through a hole in a platform or a floor, the edges of the hole shall be padded so as to prevent injury to the users;
- e. The length of the runs of fixed ladder shall not exceed 9 m;
- f. Landing platform shall be provided for each 9 m or fraction thereof;
- g. As far as practicable, runs shall be staggered;
- h. Runs from which a person could fall from more than 6 m shall be enclosed in a cage of heavy-gauge mesh or hoops;
- i. Fixed ladders shall be firmly bolted or welded in position.

6.8. STAIRS

- a. Stairs shall be of adequate strength to withstand safely the loads that they will have to carry;
- b. Stairs used for the purpose of construction work shall have a clear width of at least 60 cm;
- c. Stairs made of perforated material shall not have openings exceeding 1.2 cm in width;
- d. No step of a stairway shall depend for its support solely on nails, spikes, screws or other similar fixing;
- e. No stairway with missing or dangerously defective steps shall be used;
- f. Every stairway that is at an angle of less than 30° from the vertical shall be provided with a secure handhold at the top landing place, either by extending one upright for at least 1 m or by other effective means;
- g. Movable and removable stairs shall be adequately secured in the position of use;
- h. In all building structures permanent stairs shall be constructed as soon as practicable;
- i. When work on a building has progressed to a height of more than 18 m above the ground and it has not been practical to construct the permanent stairs, sufficient number of stairs shall be provided to ensure safe access to the working levels.

7.0 SAFETY IN THE USE OF LIFTING APPLIANCES & GEARS

7.1. CONSTRUCTION AND MAINTENANCE OF LIFTING APPLIANCES:

All lifting appliances, including their parts and working gear, whether fixed or movable, and any plant or gear used in anchoring or fixing of such appliances -

- a. Shall be of sound construction, sound material, and of adequate strength to serve the purpose for which these are to be used and all such appliances shall be free from patent defects, and
- b. Maintained in good repair and working condition;
- c. Every drum or pulley around which the rope of any lifting appliance is carried, shall be of adequate diameter and sound construction in relation to such rope;
 - i. Any rope that terminates at the winding drum of lifting appliance shall be securely attached to such drum and at least three dead turns of such rope remain on such drum in every operating position of such lifting appliance;
 - ii. The flange of a drum projects twice the rope diameter beyond the last layer of such rope and if such rope and if such projection is not available, other measures like anti-slackness guards shall be provided to prevent such rope from coming off such drum;
- d. Every lifting appliance shall be provided with adequate and efficient brakes which shall be:
 - i) Capable of preventing fall of suspended load (including any test load),
 - ii) Effectively controlling such load while it is being lowered, acting without shock and shall be attached with shoes that can be easily removed for running and which shall be simple and have easily accessible means of adjustment;
- e. Provided that nothing contained above shall apply to **steam-winch** that can be operated as safely as with brakes.

7.2. CONTROLS OF EVERY LIFTING APPLIANCE SHALL BE SO;

- a. Situated that the driver of such appliance at his stand or seat has ample room for operating and has an unrestricted view of building or other construction work, as far as practicable, and that he remains clear of the load and the ropes, and that no load passes over him;
- b. Positioned with due regard to ergonomic considerations for proper operation of such appliance;
- c. Located that the driver of such appliance remains above the appliance and shall have upon them or adjacent to them clear markings to indicate their purpose and mode of operations;
- d. Provided, where necessary, with a suitable locking device to prevent accidental movement or displacement and shall move, as far as practicable, in the direction of the resultant load movement;
- e. Wherever automatic brakes are provided, they shall automatically come to the neutral position in case of power failure.

7.3. TEST AND PERIODICAL EXAMINATION

7.3.1 Test: all lifting appliances including all parts and gears thereof, whether fixed or movable, shall be tested and examined by a competent person before being taken into use for the first time or after it

has undergone any alteration or repairs liable to affect its strength or stability or after erection on a site and also once at least in every five years, in the manner as specified;

7.3.2. Examination: all lifting appliances shall be thoroughly examined by a competent person at least in every twelve months and where the competent person making such examination forms the opinion that the lifting appliance cannot continue to function safely, he shall forthwith give notice in writing of his opinion to the contractor.

7.4. AUTOMATIC LOAD INDICATOR

- a. Cut-out shall be provided which automatically arrests the movement of the lifting parts of every crane if the load exceeds the safe working load, wherever possible;
- b. Wherever the above provisions cannot be applied and if it is not possible to install an automatic safe load indicator, in that case, provision of a table showing the safe working loads at the corresponding inclinations or radii of the jib on the crane shall be considered sufficient.

7.5. INSTALLATION:

Fixed lifting appliances shall be installed by a competent person in a manner that

- a. Such appliances cannot be displaced by the load, vibration or other influences;
- b. The operator of such appliance is not exposed to danger from loads, ropes or drums;
- c. The operator can either see over the zone of operation or communicate with all loading and unloading points by signal, or other communication system;
- d. Adequate clearance is provided between parts or loads of lifting appliances and between the fixed objects such as walls and posts, or electrical conductors;
- e. The lifting appliances; when exposed to wind loading, are given sufficient additional strength, stability and rigidity to withstand such loading safely;
- f. No structural alterations or repairs are made on any part of the lifting appliances that affect the safety of such appliances without obtaining the opinion of the competent person to this effect.

7.6. WINCHES

- a. Winches shall not be used if their control levers operate with excessive friction or play;
- b. Double gear winches shall not be used unless a positive means of locking the gearshift is provided;
- c. There shall be no load other than the fall and the hook assembly on the winch while changing gears on a two-gear winch;
- d. Adequate protection shall be provided to the winch operator against abnormal weather;

- e. Temporary seats or shelters for winch operators that may pose hazard to the winch operator or any other building workers shall not be allowed to be used;
- f. Control levers shall be secured in the neutral position and, whenever possible, the power shall shut off if the winch is left unattended.

7.7. IN USE OF EVERY STEAM-WINCH

- a. Measures shall be taken to prevent escaping steam from obscuring any part of the construction site or other workplace or from otherwise hindering or injuring any building worker;
- b. Extension control levers which tend to fall off their own weight shall be counter-balanced;
- c. Winch operators shall not be permitted to use the which control extension levers except for short handles on wheel type controls and that such levers shall be of adequate strength, secure and fastened with metal connections at the fulcrum and at the permanent control lever;
- d. In use of every electric winch, no building worker shall be permitted to transfer, alter or adjust electric control circuits in case of any defect in such winch;

7.8. ELECTRIC WINCHES SHALL NOT BE USED FOR BUILDING WORK WHERE

- a. The electromagnetic brake is unable to hold the load; or
- b. One or more control points either hoisting or lowering are not operating properly.

7.9. BUCKETS:

It shall be ensured that tip-up buckets are equipped with a device that effectively prevents accidental tipping.

7.10. IDENTIFICATION AND MARKING OF SAFE WORKING LOAD:

- a. Every lifting appliance and loose gear shall be clearly marked for its safe working load and identification by stamping or other suitable means;
- b. Every derrick (**other than derrick crane**) shall be clearly marked for its safe working load when such derrick is used either in single purchase with lower block or in union purchases in all possible block positions;
- c. The lowest angle to the horizontal, to which the derrick may be used, shall be legibly marked;
- d. Every lifting appliance having more than one working load shall be fitted with effective means to enable the operator to determine safe working load at each point under all conditions of use;
- e. Means to ascertain the safe working load for lifting gears under such conditions in which such gears may be used shall be provided to enable a worker using such gears and such means safely, which shall comprise:
 - i) Marking of the safe working load in plain figures or letters upon the sling or upon a tablet or ring of durable material attached securely thereto in case of chain slings; and

- ii) The means specified or notices so exhibited as can be easily read by any concerned building worker stating the safe working load for the various sizes of the wire rope slings used.

7.11 LOADING OF LIFTING APPLIANCES AND LIFTING GEARS

- a. No lifting appliance, lifting gear or wire rope shall be used in an unsafe way and in such a manner as to involve risk to life of building workers and they are not loaded beyond their safe working load except for testing purposes under the direction of a **competent person** in the manner as specified in schedule;
- b. No lifting appliance and lifting gear, or any other material-handling appliance shall be used if the Inspector having jurisdiction under the Building and Other construction (regulation of employment and conditions of service) Act/Rules is not satisfied with reference to a certificate of test or examination or to an authenticated record maintained as provided under the Rules or if in his view the lifting appliance, lifting gear or any other material handling appliance is not safe for use in building or other construction work;
- c. No pulley block shall be used unless the safe working load and its identification are clearly marked on such block.

7.12. OPERATOR'S CAB OR CABIN SHALL

- a. Be made of fire resistant material;
- b. Have a suitable seat, a foot rest and protection from vibration;
- c. Afford the operator an adequate view of the area of operation;
- d. Afford the necessary access to working parts in the cab;
- e. Afford the operator adequate protection against the weather;
- f. Be adequately ventilated; and
- g. Be provided with a suitable fire extinguisher.

7.13. OPERATION OF LIFTING APPLIANCES:

Operator of every crane or lifting appliance shall possess adequate skill and training in the operation of the particular lifting appliances, provided further that

- a. No person under eighteen years of age shall be in control of any lifting machine, scaffold winch, or give signals to the operator;
- b. Precaution shall be taken by the trained operator to prevent lifting appliance from being set in motion inadvertently;
- c. The operation of lifting appliances shall be governed by signals in conformity with the approved standards;
- d. The operator's attention shall not be distracted while he is working;
- e. No crane, hoist, winch or other lifting appliance or any part of such crane, hoist, winch or other lifting appliance shall, except for testing purposes, be loaded beyond the safe working load;
- f. During the hoisting operation, effective precaution shall be taken to prevent any person from standing or passing under the load in such operation;

- g. Operator shall not leave lifting appliance unattended while power is on or the load is suspended to such appliance;
- h. No person shall ride on a suspended load of any lifting appliance;
- i. Every part of a load in course of being hoisted or lowered shall be adequately suspended and supported to prevent danger;
- j. Every receptacle used for hoisting bricks, tiles, slates or other material shall be suitably enclosed as to prevent the fall of any such material;
- k. The hoisting platform shall be enclosed when loose material or loaded wheel barrows are placed directly on such platform or lowering such materials or wheel barrows;
- l. No material shall be raised, lowered or slewed with any lifting appliance in such a way as to cause sudden jerks to such appliance;
- m. In hoisting a barrow, any wheel of such barrow shall not be used as a means of support unless adequate steps have been taken to prevent the axle of such wheel from slipping out of its bearing;
- n. Long objects like planks or girders shall be provided with tag line to prevent any possibility of danger while raising or lowering such objects;
- o. During the process of landing or material, a building worker shall not be permitted to lean out into empty space for finding out the loading and unloading of such material;
- p. When hoisting of load is done in an enclosed space, neither the lifting material nor the boom shall project outside the enclosed space;
- q. Adequate steps shall be taken to prevent a load, in the course of being hoisted or lowered from coming into contact with any object to avoid any displacement of such load and appropriate appliances provided and used for guiding heavy loads when raising or lowering heavy loads to avoid crushing of hands of building workers during such raising or lowering of loads.

7.14. HOISTS

- a. Hoist towers shall be designed according to the relevant national standards;
- b. Hoist shafts shall be provided with rigid panels or other adequate fencing at the ground level on all sides of such shafts and at all other levels on all sides of the access to such shafts while the walls of hoist shafts, except at approaches, extend at least two meters above the floor or platform of access to such shafts;
- c. Approaches to hoist shall be adequately lit and provided with gates that shall be guarded to maintain visibility at least of two meters height; and equipped with a device, which requires such gate to be closed before the platform of such hoist can leave the landing, and prevents the gate from being opened unless such platform is at the landing;
- d. The guides of hoist platforms shall offer sufficient resistance to bending and to buckling in the case of jamming, by providing a safety catch;
- e. Overhead beams and their supports are capable of holding the total maximum live and dead loads that such beams and supports will be required to carry, with a safety factor of at least five;

- f. A clear space shall be provided –
- i. Above the highest stopping place of a cage or platform to allow sufficient unobstructed travel of such cage or platform in case of over-winding and
 - ii. Below the lowest stopping place of such cage or platform;
- g. Adequate covering shall be provided above the top of hoist shafts to prevent materials from falling into such shafts;
- h. Outdoor hoist towers shall be erected on adequately firm foundations and securely braced, guyed and anchored;
- i. A ladder way shall extend from the bottom to the top of every outdoor hoist tower in case no other ladder way exists within easy reach and such ladder way shall comply with the relevant national standards;
- j. The rated capacity of a hoisting engine shall at least be one and a half times the maximum load that such engine will be required to move;
- k. All gearing on a hoisting engine shall be securely enclosed;
- l. Steam piping of hoisting engine shall be adequately protected against accidental contact of such piping with a building worker;
- m. Electrical equipment of a hoisting engine shall be effectively earthed;
- n. A hoist shall be provided with suitable devices to stop a hoisting engine as soon as the platform of such hoist reaches its highest stopping place;
- o. A hoisting engine shall be protected by suitable cover against weather and falling objects;
- p. A hoisting engine set up in a public thoroughfare shall be completely enclosed;
- q. All exhaust steam pipes shall discharge steam in such a manner that the steam so discharged does not scald any person or obstruct the operator's view;
- r. The motion of a hoist shall not be reversed without first bringing it to rest to avoid any harm from such reverse motion;
- s. A hoist not designed for the conveyance of persons shall not be set in motion from the platform of such hoist;
- t. Pawls and ratchet wheels of a hoist, requiring disengagement of such pawls from such ratchet wheels, before the platform of such hoist is lowered, shall not be used;
- u. A platform of a hoist shall be capable of supporting such maximum load that such platform may carry with a safety factor of at least three;
- v. A platform of a hoist shall be equipped with suitable safety gear which can hold such platform with its maximum load in case its hoisting rope breaks;
- w. On platform of a hoist, the wheel barrows or truck shall be efficiently blocked in safe positions;

- x. A cage of a hoist or platform where the building workers are required to enter into such cage or to go on such platform at landing levels, shall be provided with a locking arrangement to prevent such cage or platform from moving during the time a worker enters or leaves such cage or platform;
- y. The sides of platform of a hoist which are not used for loading or unloading, shall be provided with toe-board and enclosures of a wire mesh or any other suitable means to prevent the fall of any part of a load from such platform, further provided that
 - i. The platform of a hoist, which has any probability of falling of any part of a load from it, shall be provided with an adequate covering to prevent such fall;
 - ii. The counter weights of a hoist consisting of an assemblage of several parts shall be so constructed that such parts shall be rigidly connected together;
 - iii. The counter weights of a hoist shall run between guides;
 - iv. At every level of work the building workers shall be provided with adequate platforms for performing such work;
 - v. A legible notice in Hindi as well as in a local language shall be displayed in a conspicuous place of the platform of a hoist and that such notice shall state the maximum carrying capacity of such hoist in kilograms on the hoisting engine;
 - vi. On a hoist authorized and certified for the conveyance of the persons on the platform or in the cage and such notice shall state the maximum number of persons to be carried on such hoist at one time;
 - vii. On a hoist carrying goods and other materials such notice shall state that such hoist is not meant for carriage of persons.

7.15. FENCING AND MEANS OF ACCESS TO LIFTING APPLIANCES

- a. Safe means of access shall be provided to every part of lifting appliances;
- b. The operator's platform on every crane or tip driven by mechanical power shall be securely fenced and provided with safe means of access and where access to such platform is by a ladder, the sides of such ladder shall extend to a height reasonable beyond such platform or some other suitable handhold shall be provided in the platform;
- c. The handling place on such platform shall be maintained free from obstruction and slipping; and
- d. In case the height of such ladder exceeds six meters, the resting platforms shall be provided on such ladder at every six meters of its height and where the distance between last platform so provided and the top end of such ladder is more than two meters then on such top end.

7.16. RIGGING OF DERRICKS:

Every derrick shall have current and relevant rigging plans and any other information necessary for the safe rigging of such derrick and its gear.

7.17. SECURING OF DERRICK FOOT:

Appropriate measures shall be taken to prevent the foot of a derrick from being lifted out of its socket or supports.

7.18. CONSTRUCTION AND MAINTENANCE OF LIFTING GEAR

- a. Every lifting gear shall be –
 - i. of good design and construction, sound material and adequate strength to perform the work for which it is used;
 - ii. free from patent defects; and
 - iii. properly maintained in good repair and working order;
- b. Components of the loose gear, at the time of its use, shall be renewed if one of its dimensions at any point has decreased by ten per cent or more;
- c. A chain shall be withdrawn from use when it is stretched and increased in length which exceeds five per cent of its length or when a link of such chain is deformed or is otherwise damaged or defects in the welds have appeared on it;
- d. Rings, hooks, swivels and end links attached to a chain shall be of the same materials as that of such chain;
- e. The voltage of electric supply to any magnetic lifting device shall not fluctuate by more than **plus** or **minus** 10%.

7.19. TEST AND PERIODICAL EXAMINATION OF LIFTING GEARS

- a. A lifting gear shall be initially tested for the manufacturer by a competent person in a manner specified as per schedule annexed before taking into use or after undergoing any substantive alterations which renders its any part liable to affect its safety and such gear after such test shall subsequently be retested for the use of its owner at least once in every five years;
- b. A lifting gear in use shall thoroughly examined once at least in every twelve months by a competent person;
- c. A chain in use shall be thoroughly examined at least once every month by a responsible person for its use;
- d. Certificates of initial and periodical test and examinations of loose gears shall be obtained in the form annexed.

7.20. ROPES

- a. No rope shall be used for building or other construction work unless -
 - i) It is of good quality and free from patent defects; and
 - ii) In the case of wire rope, it shall be tested and examined by a competent person in the manner annexed;
 - iii) Every wire rope of lifting appliance or lifting gear used for building or other construction work shall be inspected by a responsible person for such use, once at least in every three month;

- b. Provided that after if any such wire is broken in such rope, the responsible person shall thereafter inspect it once at least in every month and ensure that;
- c. No wire rope shall be used for building or other constructing work if in any length of eight diameters of such wires, the total number of visible broken wires exceed ten per cent of the total number of wires in such rope, or such rope shows signs of excessive wear, corrosion or other defects which in the opinion of the person who inspects it, is unfit for use;
- d. Eye splices and loops of ropes for the attachment of hooks, rings and other such parts to wire rope shall be made with suitable thimble;
- e. A thimble or loop splice made in any wire rope sling shall conform to the following standards, namely:
 - i) Wire rope sling shall have at least three tucks with full strand of rope and two tucks with one-half of the wires cut out of each of such strand in all cases, such strands shall be tucked against the lay of the rope;
 - ii) Protruding ends of such strands in any splice of wire rope slings shall be covered or treated so as to leave no sharp points;
 - iii) A fiber rope or a rope sling shall have at least four tucks, tail of such tuck being whipped in a suitable manner; and
 - iv) A synthetic fiber rope or rope sling shall have at least four tucks with full strands followed by further tuck with one-half filaments cut out of each of such strand and final tuck with one-half of the remaining filaments cut out from such strands. Any portion of the splices containing such tucks, with reduced number of filaments, shall be securely covered with suitable tape or other materials;
 - v) Provided further that nothing contained above shall apply where any other form of splice, which may be shown to be as efficient as the splice with above standards, shall be used.

7.21. HEAT TREATMENT OF LIFTING GEARS

- a. All chains other than bridle chains attached to derricks and all rings, hooks, shackles and swivels used in hoisting or lowering of such derricks shall be effectively annealed under supervision of a competent person and at the following intervals, namely:
 - i) Such chains, rings, hoods, shackles and swivels which are not more than twelve and a half millimeter of length annealed at least once in every six months; and
 - ii) All other such chains rings hooks shackles and swivels shall be so annealed at least once in every twelve months;
- b. Provided that the clause (a) above shall not apply to -
 - i) Pitched chins, working on sprocket or sprocket wheels;
 - ii) Rings, hooks and swivels permanently attached to pitched chains, pulley blocks or weighing machines, and
 - iii) Hooks and swivels having ball bearings or other case hardened parts;

- c. A chain or a loose gear made of high tensile steel or alloy steel shall be plainly marked with a mark indicating that it is so made;
- d. No chain or loose gear made of high tensile steel or alloy steel shall be subjected to any form of heat treatment except where such treatment is necessary for the purpose of repair of such chain or loose gear and that such repair shall be made under the direction of the competent person;
- e. That the wrought iron gear, the past history of which is not traceable, shall be suspected of being heat treated at incorrect temperature shall be normalized before using it on any building or other construction work.

7.22. CERTIFICATE TO BE ISSUED AFTER ACTUAL TESTING AND EXAMINATION ETC:

A competent person shall issue a certificate after actual testing or examination of the apparatus specified and record of such test or examination shall be maintained for inspection.

7.23. REGISTER OF PERIODICAL TEST, EXAMINATION AND CERTIFICATION THEREOF

- a. A register in the form annexed shall be maintained and particulars of such test and examination of lifting appliances, lifting gears and heat treatment as required shall be entered in such register;
- b. Certificate in respect of each of the following shall be obtained from a competent person:
 - i) In cases of initial and periodical test and examination of the lifting appliances such as Winches, Derricks and their accessory gears, Cranes or Hoists and their accessory gears;
 - (ii) In case of test, examination and re-examination of loose gears;
 - (iii) In case of test and examination of wire ropes;
 - (iv) In case of heat treatment and examination of loose gears;
 - (v) In case of annual thorough examination of the loose gears, except where required particulars of such exemption have been enclosed in the register referred to in Form annexed and such certificates are attached to the register referred to as above and certificates kept at such construction site in case such register and certificate relate to lifting appliances, loose gear and wire ropes and
- c. Produced on demand and retained for at least five years after the date of the last entry made in such register;
- d. No lifting appliance or lifting gear in respect of which an entry is required to be made in register referred to above and certificate of test and examination are required to be attached in such register in the manner as specified, shall be used for building or other construction work unless the required entries have been made in such register and certificates.

7.24. VACUUM AND MAGNETIC LIFTING GEAR

- a. No vacuum lifting gear, magnetic lifting gear or any other lifting gear where the load on it is held by adhesive power, shall be used while workers are performing operations beneath such gear;
- b. A magnetic lifting gear used in connection with building or other construction work shall be provided with an alternative supply of power, such as batteries, which may come into operation immediately in the event of failure of the main power supply;

- c. No building worker shall work within the swinging zone of the lifting gear or load or building or other construction material suspended to such lifting gear.

7.25. KNOTTING OF CHAINS AND WIRE ROPES:

No chain or wire rope with a knot in it shall be used in building or other construction work.

7.26. CARRYING OF PERSONS BY MEANS OF LIFTING APPLIANCES ETC.

- a. No building worker shall be raised, lowered or carried by a power driven lifting appliance, except
 - i. On the drive's platform in the cage of a crane; or
 - ii. On as hoist; or
 - iii. On an approved suspended scaffold;
- b. Provided that a building worker may be raised, lowered or carried by a power driven lifting appliance:
 - i. In circumstances where the use of a hoist or of a suspended scaffold shall not reasonably be practicable, or
 - ii. On an aerial cableway or aerial ropeway, provided further that the following requirements are met:
 - iii. That the appliance referred to above can be operated from one position only and that
 - iv. Any winch used in connection with the appliance shall also comply with the requirements as laid down above.
- c. The appliance referred to above shall not carry any person except:
 - i. In a chair or cage,
 - ii. In a skip or other receptacle at least three feet deep which shall be suitable for safe carriage of a person and any such chair, cage, skip or other receptacle shall be made of good construction, sound material, and adequate strength and properly maintained with suitable means to prevent any occupant therein from falling out of it and shall be free from any material or tools which may interfere with the handhold or foothold of such occupant or otherwise endanger him; and
 - iii. Those suitable measures shall be taken to prevent the chair, cage skip or other receptacle from spinning or tipping in a manner dangerous to any occupant therein.

7.27. HOISTS CARRYING PERSONS

- a. No building worker shall be carried with the help of a hoist unless it is provided with a cage which:
 - i) Is so constructed as to prevent, when its gates are shut, any building worker carried by such hoist from falling out of it or from being trapped between any part of such cage and any fixed structure or other moving part of such hoist or from being struck by articles or materials falling down the hoist way on which such hoist is moving; and
 - ii) Is fitted on each of its side from which access is provided to a landing place with a gate which has efficient interlocking or other devices to secure so that such gate cannot be opened except when such cage is at a landing place and that such cage cannot be moved away from any such place until such gate is closed;

- b. Every gate in the hoist way enclosure of such hoist used for carrying persons shall be fitted with efficient interlocking or other devices to secure so that such gate cannot be opened except when the cage of such gate is at the landing place and that such cage cannot be moved away from the landing place until such gate is closed;
- c. In every hoist used for carrying building workers there are provided with suitable and efficient automatic devices to ensure that the cage of such hoist comes to rest at a point above the lowest point to which such cage may travel.

7.28. ATTACHMENT OF LOADS

- a. When a sling is used to hoist long materials, a lifting beam shall be used to space the sling legs for proper balance and when a load is suspended at two or more points with slings, the eyes of the lifting legs of such slings shall be shackled together and such shackled eyes of the shackled slings shall be placed on the hook or the eyes of such lifting legs shall be shackled directly to the hoisting block, ball or balance beam, as the case may be;
- b. Every container or receptacle used for raising or lowering stone, bricks tiles, slates or other similar objects shall be so enclosed with the hoist as to prevent the fall of such objects;
- c. A loaded wheel barrows placed directly on a platform of a hoist for raising or lowering of such wheel barrows shall be so secured that such wheel barrows cannot move and such platform shall be enclosed to prevent the fall of the contents kept in such wheel barrows;
- d. Landings of hoists shall be so designed and arranged that building workers on such hoist be not required to lean out into empty space for loading and unloading on any material from such hoist

7.29. TOWER CRANES

- a. No person other than the operator trained and capable to work at heights shall be employed to operate tower cranes;
- b. The ground on which a tower crane stands shall have adequate bearing capacity;
- c. Bases for tower cranes and trucks for rail mounted tower cranes shall be firm and leveled and such cranes erected at a reasonably safe distance from excavations and operated within gradient limits as specified by the manufacturer of such cranes;
- d. Tower cranes shall be sited where there is a clear space available for erection, operation and dismantling of such cranes;
- e. Tower cranes shall be sited in such a way that the loads on such cranes shall not be handled over any occupied premises, public thoroughfares, railways or near power cables, other than construction works for which such cranes are used;
- f. Where two or more tower cranes are sited and operated, every care shall be taken to ensure positive and proper communication between operators of such cranes to avoid any danger or dangerous occurrences;
- g. Tower cranes shall not be used for loading magnet, or demolition ball service, piling operation or other similar operations which could impose excessive load stresses on the crane structure of such cranes;

- h. The instruction of the manufacturer of a tower crane and standard safe practices regarding such cranes shall be followed while operating or using such cranes.

7.30. QUALIFICATION OF OPERATOR OF LIFTING WINCHES AND OF SIGNALER ETC.

- a. No person shall be employed to drive or operate a lifting appliance whether driven by mechanical power or otherwise or to give signals to driver of operator of such lifting appliance or to work as an operator of a rigger or derricks unless he is
 - i) Sufficiently competent and reliable;
 - ii) Possesses the knowledge of the inherent risks involved in the operation of lifting appliance;
 - iii) Medically examined periodically as specified and
 - iv) Is above eighteen years of age.

8.0 SAFETY IN THE USE OF TRANSPORT, EARTHMOVING EQUIPMENT & OTHER CONSTRUCTION MACHINERY

8.1 EARTHMOVING EQUIPMENT AND VEHICLES

- a. All vehicles and earthmoving equipment shall be made of good material, proper design and sound constructional and be sufficiently strong for the purpose for which such equipment are properly used in accordance with standard safe operating practices;
- b. Provided that the truck or trailer employed for transporting freight containers shall be of the size sufficient to carry the containers, without over hanging and provided with twist locks conforming to approved standards, at all the four corners of each of such use by an authority under the relevant law for the time being in force and is inspected by a responsible person, at least once in a month and record of such inspection shall be maintained:
- c. All transport or earth moving equipment and vehicles shall be inspected at least once a week by a responsible person and in case any defect is noticed in such equipment or vehicle it shall be immediately taken out of use;
- d. Power trucks and tractors shall be equipped with effective brakes, headlights and tail lamps and maintained in good repair and working order;
- e. Side stanchions on power trucks and trailers for carrying heavy and long objects shall be
 - i. Of sound construction and free from defects;
 - ii. Provided with tie chains attached to the top across the loads for preventing such stanchions from spreading out; and
 - iii. Kept in position while loading and unloading;
 - iv. Safe gangways provided for to and fro movement of building workers engaged in loading and unloading of lorries, trucks, trailers and wagons;
 - v. Trucks and other equipment shall not be loaded beyond their safe capacity and carry workers engaged in loading and unloading of lorries, trucks trailers and wagons in an unsafe condition;
 - vi. Handles of trucks shall be so designed as to protect the hands of the building workers working on such trucks, or such handles provided with knuckle guards;
 - vii. No unauthorized person shall ride the transport equipment employed in such work;
 - viii. A driver of a transport equipment shall maneuver such equipment under the direction of a signaler;
 - ix. Adequate precaution such as isolating the electric supply or erecting overhead barriers of a safe height shall be taken when earth moving equipment or vehicles are required to operate in dangerous proximity to any live electric conductor;
 - x. Vehicles and earth moving equipment shall not be left on a slope with the engine of such vehicles or equipment running;

- xi. All earth moving equipment, vehicles or other transport equipment shall be operated only by such person who are adequately trained and possess such skills as required for safe operation of such equipment, vehicle or other transport equipment.

8.2. POWER SHOVELS AND EXCAVATOR

- a. A shovel or an excavator whether operated by steam or electric or by internal combustion, shall be constructed, installed, operated, tested and examined as per approved standards;
- b. Excavator equipped for use as a mobile crane shall be examined and tested in accordance with the requirements for such mobile cranes as laid down by the manufacturer; and
- c. Fitted with an automatic safe working load indicator;
- d. Buckets or grabs of power shovels shall be propped to restrict the movement of such buckets or grabs while being repaired or while the teeth of such buckets or grabs are being changed.

8.3. BULLDOZER

- a. Operator of every such bulldozer before leaving the dozer shall take the following steps:
 - i) Apply the brakes;
 - ii) Lower the blade and sipper and
 - iii) Put the shift lever into neutral;
 - iv) Dozer left on level ground at the close of the work for which such bulldozer is used;
 - v) The blade of a bulldozer kept low when such bulldozer is moving uphill;
 - vi) The bulldozer blades not used as brakes except in an emergency.

8.4. SCRAPERS

- a. A tractor and scraper shall be joined by safety line at the time of its operation;
- b. The scraper bowls shall be propped while blades of such scraper are being replaced;
- c. A scraper moving downhill shall not be left in gear.

8.5. MOBILE ASPHALT LAYERS & FINISHERS

- a. A mixture elevator shall be located within a wooden or sheet metal enclosure with a window for observation, lubrication and maintenance;
- b. Bitumen scoops shall have adequate covers;
- c. When asphalt plants are working on public road, adequate traffic control shall be established on such road and the building workers working with such plant provided with reflective jackets;
- d. A sufficient number of fire extinguishers shall be kept in readiness at such workplace where fire hazards may exist;
- e. The materials shall be loaded on the elevator after the drying drain has warmed up of such elevator;
- f. No open light shall be used for ascertaining the level of asphalt;

- g. Inspection opening shall not be opened till there is a pressure in the boiler, which may cause injury to building workers.

8.6. PAVERS:

Pavers shall be equipped with guards suitable to prevent building workers from walking under the skip of such pavers.

8.7. Road rollers: Before a road roller is used on the ground, such ground shall be examined for its bearing capacity and general safety, especially at the edges of slopes such as embankment on such grounds and shall not be moved downhill with the engine out of gear.

8.8. GENERAL SAFETY IN RESPECT OF POWERED CONSTRUCTION MACHINERY

- a. Every vehicle or earthmoving equipment shall be equipped with -
 - i) Silencers;
 - ii) Tail lights
 - iii) Power and hand brakes;
 - iv) Reversing alarm; and
 - v) Search light for forward and backward movement, which are required for safe operation of such vehicle or earthmoving equipment;
- b. The cab of vehicle or earthmoving equipment shall be kept at least one meter from the adjacent face of a ground being excavated;
- c. When cranes or shovel are traveling, the boom of such crane or shovel shall be in the direction of such travel and the bucket or scoop attached to such crane or shovel raised and without load except when such traveling is downhill.

9.0 SAFETY IN THE PROVISION OF RUNWAYS AND RAMP

9.1. USE OF RUNWAYS AND RAMPS:

- a. Runway or ramps shall not be less than 430 mm in width and constructed of not less than 25 mm thick planking or any other material of adequate strength to withstand the required load, supported substantially in relation to the span and braced with such runway or ramp, and design and construction of such runway or ramp shall be in accordance with the approved standards;
- b. Every runway or ramp located more than 3 m above the floor or ground shall be on open sides and provided with a guardrail of adequate strength and height of not less than 1 m.
- c. Use of runways and ramps by vehicles:
 - i. All runways and ramps shall be of sound construction, strength and securely braced and supported;
 - ii. Every runway or ramp for the use of transport equipment like trailers, trucks or heavier vehicles shall have a width of not less than 3.7 m and provide with timber curbs or any other material of adequate strength with not less than 200 mm by 200 mm in width placed parallel to, and secured to, the sided of such runway or ramp and such runways or ramps or ramps shall be designed in accordance with the approved standards.

9.2. SLOPE OF RAMPS:

Every ramp shall have a slope not exceeding one in four and the total rise of a continuous ramp used by building workers carrying material or using wheelbarrows shall not exceed 3.7 m, unless broken by horizontal landing of at least 1.2 m in length.

9.3. USE OF RUNWAYS OR RAMPS BY WHEELBARROWS, ETC.

- a. Every runway or ramp used for wheelbarrows and carts or hand trucks shall not be less than 1 m width and constructed of not less than 50 mm thick planking, and supported and braced suitably for such use;
- b. Every runway or ramp located more than 3 m above the floor or ground shall be provided on the open sides with suitable guardrails of adequate strength.

10. SAFETY IN HANDLING AND USE OF EXPLOSIVES

10.1 GENERAL PROVISIONS:

- a. The use of explosives shall be carried out in a safe manner to avoid injury to any person and under the direct supervision of a responsible person;
- b. No person other than authorized and competent one shall be allowed to handle and use explosives;
- c. Before using any explosive, necessary warning and danger signals shall be erected, at conspicuous places of such use to warn the building workers and the general public of the danger involved in such use.
- d. No person other than authorized and competent one shall be allowed to handle and use explosives.
- e. Smoke, open lamps, other type of hot or heat producing items and sparks shall be prohibited in or near explosives magazines or while explosives are being handled, transported or used.
- f. No person shall be allowed to handle or use explosives while under the influence of intoxicating liquors or dangerous drugs.
- g. The explosives shall be accounted for at all times. No explosives or blasting agents shall be abandoned.
- h. No fire shall be fought where the fire is in the imminent danger of contact with explosives. All employees shall be removed to a safe area and the fire area shall be guarded against intruders.
- i. Employees authorized to prepare explosive charges or conduct blasting operations shall use every reasonable precaution including but not limited to visual and audible warning signals, flags, or barricades to ensure employee safety.
- j. Due precautions shall be taken to prevent accidental discharge of electric blasting caps from current induced by induced voltage, lightning, adjacent power lines, dust storms, or other sources of extraneous electricity or otherwise. These precautions shall include:
- k. Short-circuiting of detonators in holes, which have been primed and shunted until wired into the blasting circuit.
- l. The suspension of all blasting operations and removal of persons from the blasting area during the approach and progress of an electric storm.
- m. The prominent display of adequate signs, warning against the use of radio transmitters, on all roads within 1000 ft of blasting operations. Whenever adherence to the 1000 ft distance would create an operational handicap, a competent and expert person shall be consulted to evaluate the particular situation, and an alternative provided, which are adequately designed to prevent any premature firing of electric blasting of caps. A description of any such blasting shall be reduced to writing and shall be certified as meeting the purposes of this subdivision by the competent person consulted. The description shall be maintained at the construction site during the duration of the work, and shall be available for inspection.

- n. Empty boxes and paper and fiber packing materials, which have previously contained high explosives, shall not be used again for any purpose, but shall be destroyed by burning at an approved location.
- o. Explosives, blasting agents and blasting supplies that are obviously deteriorated or damaged shall not be used.
- p. Delivery and issue of explosives shall only be made authorized persons into authorized magazines or approved temporary storage or handling areas.
- q. Blasting operations in the proximity of overhead power lines, communication lines, utility services, or other services and structures shall not be carried on until the operators and/or owners have been notified and measures for safe control have been taken. In such situations controlled blasting shall be restored to.
- r. All loading and firing shall be directed and supervised by competent persons thoroughly experienced in this field.
- s. Loaded boreholes shall not be left unattended after the end of the shift.
- t. Suitable and sufficient means of egress to ground level shall be provided in all cases of excavations, trenches, all other places where explosives are handled above or below ground level.
- u. At an appropriate time before the final blasting warnings, workers in the area shall be removed to a designated safe place.
- v. An unmistakable, audible, final warning shall be sounded one minute prior to the detonation of explosives; after completion, when the person in charge has established that safe conditions prevail, an "all clear" shall be sounded.
- w. To prevent persons entering any danger zone during blasting operations notices shall be given to all concerned.
- x. Notices referred above shall indicate:
 - i. that explosives are in use;
 - ii. the audible warning sound and the "all clear" and state when they will be sounded; and
 - iii. the warning flags in use, including an "all clear" flag.
- y. Precautions against lightning shall be provided in accordance with the Indian Electricity Act and Indian Explosives Act and Rules and regulations framed there under.
- z. Package containing explosives shall not be dragged, dropped or handled roughly.
 - aa. Non-sparking tools shall be used to open keys.
 - bb. The explosives shall not be carried in the box or otherwise on any individual.
 - cc. Nothing shall be inserted in the open end of the blasting cap except fuses.

- dd. Deteriorated or damaged explosives shall not be used but shall be disposed or destroyed strictly in accordance with the approved methods and in the doing so the manufacturers or the appropriate authority's instructions shall be followed.
- ee. lightning shall be in accordance with Indian Electricity Act/Rules

10.2. TRANSPORTATION OF EXPLOSIVES

- a. Keep safe distance and to use non-sparking tools while opening packages containing explosives;
- b. Stop the use of explosives and handling thereof while the weather conditions are not suitable for such use or handling;
- c. Due precautions shall be taken to prevent accidental discharge of electric blasting caps from current induced by induced voltage, lightning, adjacent power-lines, dust storms or other sources of extraneous electricity or otherwise. These precautions shall include –
 - i. Suspension of all blasting operations and evacuation of persons;
 - ii. All warning signs shall be displayed within 200 m of blasting operations and in case putting up a sign at 200 m is impractical, the contractor shall consult the Engineer-in-charge for alternatives;
 - iii. All loading and firing shall be directed and supervised by competent persons thoroughly experienced in the field;
 - iv. To prevent persons entering any danger zone during blasting operations, notices shall be given to all concerned;
- d. In addition to these provisions, all measures and precautions that are required to be observed for use, handling, storing or transportation of explosives under the Rules framed under the Explosives Act, 1884 (4 of 1884) shall be observed;
- e. All the relevant statutory provisions, local laws and rules and regulations shall be complied with.
- f. Where the magazine is located near the construction site and blasting operation continues daily, actual requirement of explosives shall be drawn from the magazine and transported to the site. Any leftovers shall be returned to the magazine each time after the blast. In case of work at scattered places and for a small duration, portable magazines shall be used and kept within a fence in safe place and properly guarded.
- g. For carrying higher quantity (more than 5 kg of explosives) specially designed insulated containers shall be used. These containers shall be constructed of finished wood not less than 5cm thick or plastic not less than 6mm thick or pressed fibre not less than 10mm thick. There shall be no metal parts (not even nails, bolts, screws etc.) and the containers shall be provided with suitable non-conductive carrying device, such as rubber, leather or canvas handle or strap.
- h. Vehicles to be used for transportation explosives shall be in good working condition and shall have a tight wooded or non-sparking metal (copper, brass and the like) floor with sides and

ends high enough to prevent the explosives from falling off the vehicle. In open bodied vehicles, the explosives shall be covered with a waterproof and fibre tarpaulin.

- i. Electrical wiring in vehicle shall be fully insulated so as to prevent the danger of short-circuiting and at least two fire extinguishers of carbon dioxide type shall be carried. The vehicle shall be properly marked indicating adequate warning to the public in regard to the nature of cargo.
- j. No metals except approved metal truck shall be allowed to come in contact with cases of explosives, metal, flammable, or corrosive substance shall not be transported with explosives. As far as possible, transportation of any material along with explosives shall be prohibited.
- k. Smoking shall be prohibited in the vehicle carrying explosives.
- l. No unauthorized person shall be allowed in the vehicle, carrying explosives.
- m. Loading and unloading of explosives shall be done carefully.
- n. Explosives and detonators or blasting caps shall not be permitted to be transported in the same vehicle.
- o. Detonators and other explosives for blasting shall be transported to the site of work in the original containers or in securely locked separate non-metallic containers and shall not be carried loose or mixed with other materials.

10.3. STORAGE OF EXPLOSIVES AND BLASTING AGENTS

- a. Explosives and related materials shall be stored in approved facilities.
- b. Blasting caps, electric blasting caps, detonating primers, and primed cartridges shall not be stored in the same magazine with other explosives or blasting agents.
- c. Smoking and open flames shall not be permitted within 50 feet of explosives and detonators storage magazine.
- d. No Explosives or blasting agents shall be permanently stored in any underground area until the area has been developed to the point where at least two modes of exit have been provided.
- e. Permanent underground storage magazine shall be at least 300 feet from any shaft or other active under ground working area.
- f. Permanent underground magazines containing detonators shall not be located closer than 50 feet to any magazine containing other explosives or blasting agents.

10.4. DRILLING AND LOADING

- a. Before planning out the drilling operations for blasting purposes, nature of stratum and the over burden shall necessarily be examined to avoid possibilities of landslides after blasting.
- b. The face or rock shall be carefully examined before drilling to determine the presence of unfired explosives. No attempt shall be made to drill at a site if un-detonated explosives are suspected. In such case the boreholes shall be thoroughly cleaned before a cartridge is

inserted. Wooden tamping rods (not pointed, but cylindrical throughout) shall be used in the charging the holes. The cartridge will be on the top.

- c. The borehole shall be carefully checked for length, presence of water dust, etc. with a wooden tamping pole or a measuring tape before loading.
- d. Surplus explosives shall not be stacked near working areas during loading/unloading.
- e. The line of detonating fuse extending into a borehole shall be cut from the spool before loading the remainder of the charge.
- f. A bore shall not be loaded with explosives after springing (enlarging the hole with explosives) or upon completion of drilling without making sure it is cool and it does not contain any hot smoldering material. Temperatures in excess of 65° C are dangerous.
- g. A bore near another hole loaded with explosives shall not be sprung.
- h. No force shall be used for inserting cartridges or any explosives into a bore hold or pass any obstruction in a borehole.
- i. No force shall be used for inserting a blasting cap or an electric blasting cap into explosive. The cap shall be inserted into a hole made with a pickers designed for the purpose. A hitch of the electric blasting cap leading wire shall be made on the primer cartridge so as to prevent pulling out the electric blasting cap from the explosive charge. In case of fuse, the fuse shall be tied to the explosive cartridge so that the blasting cap is not pulled out. Care shall be taken so that the blasting cap is not pulled out. Care shall be taken so that the electric blasting cap, leading wire or the length of the fuse does not get damaged during loading of the charge.
- j. No attempt shall be made to slit, drop, deform or abuse the primer.
- k. Blasting caps or electric blasting caps shall not be connected to detonating fuse except by methods recommended by the manufacturers of caps.
- l. Explosive cartridge shall not be cut, nor explosive removed from the cartridge for use.
- m. Metallic devices of any kind shall not be used in tamping. Wooden tamping tools with not exposed metal parts except non-sparking metal connectors for jointed poled shall be used. Violent tamping shall be avoided. Primer shall not be tamped.
- n. Care shall be taken to confine the explosives in the bore hold with sand, earth clay or other suitable combustible stemming material.
- o. Kinking or injuring of fuse or electric blasting cap wires shall be avoided when tamping.

10.5. ELECTRICAL SHOT-FIRING CIRCUIT

- a. In deciding the sizes of wires, fuses, circuits, blasting switches, etc., instructions issued by the manufacturers of these articles shall be followed, if they do not contradict with Indian Explosives Act or framed under it.
- b. No person shall attempt to uncoil the wires and open out the short-circuited bare leading wires of the electric blasting cap during approach of dust storm or near any source of large

charge of static electricity or near a radio transmitter. The manufacturer of the cap or the Inspectorate of Explosives shall be consulted regarding the distance from the transmitter beyond which electric short firing shall be conducted.

- c. Firing circuit shall be kept completely insulated from the ground of the other conductors, such as wires, rails, pipes or other paths or stray current.
- d. There shall not be any electric live wires or cables of any kind near electric blasting caps or other explosives except at the time and for the purpose of firing the blast.
- e. All electric blasting caps shall be tested singly and also when connected in a circuit in series using only an approved type of circuit continuity tester or ohmmeter.
- f. No attempt shall be made to use in the same circuit either electrical blasting caps made by more than one manufacturer or electric blasting caps of different design or function even if made by the same manufacturers unless such use is approved by the manufacturers.
- g. No attempt shall be made to fire a circuit of electric blasting caps with less than the minimum current specified by the manufacturer of that electric blasting cap.
- h. Care shall be taken to ensure that all wire ends to be connected are bright and clean.
- i. The electric cap wires or leading wires shall be kept short circuited until ready to fire.
- j. When energy for blasting is taken from power circuits the voltage shall not exceed 220v. The wiring controlling arrangements shall conform to the following:
- k. The blasting switch shall be strictly according to the specifications, externally operated double-throw switch, which when locked in the open position will short circuit and ground the leading wires. The switch shall be installed at the location where the firing is to be controlled.
- l. A 'safety' switch of the same type as the blasting switch shall be installed between the blasting switch and the firing circuit and lead lines, at a distance not to exceed 180cm from the blasting switch.
- m. Both the safety switch and the blasting switch shall be locked in the open position immediately after the shot and before any person is permitted to return to the blasting area. Key to the switches shall remain in the possession of the blaster at all times.
- n. Rubber covered or other adequately insulated copper wires in good condition shall be used for firing lines and shall have solid cores of appropriate gauge. Sufficient firing line shall be provided to permit the blaster to be located at a safe distance from the blast. Single conductor lead lines shall be used.
- o. Blasting operations in the proximity of overhead power lines, communication lines, utility lines, or other structures shall not be carried on until the operator or the owner, or both of such lines as been notified and precautionary measures deemed necessary, have been taken.
- p. All holes loaded on a shift shall be fired on the same shift.
- q. As far as possible, blasting shall be carried out using suitable exploder with 25 per cent excess capacity. Electric power from the mains shall be used only when it is absolutely necessary.

10.6. SHOT-FIRING WITH SAFETY FUSE

- a. The fuse shall be carefully handled to avoid damaging the covering. In very cold weather the fuse shall be slightly warmed before using so as to avoid cracking the waterproofing.
- b. Short fuse shall not be used. The length of a fuse shall not be less than 120cm. The rate of burning of the fuse shall be known and it would be necessary to make sure that it will take sufficient time in burning so as to enable all persons to reach a place of safety. The burning rate of the fuse shall not be more than 60 cm/min.
- c. The fuse shall not be cut until the operation to insert the fuse into a blasting cap is ready. The fuse shall be cut off about 2.5 to 5 cm to ensure a dry end. It shall be cut squarely across with a clean and sharp blade. The fuse shall be seated lightly against the cap charge and care shall be taken to avoid twisting after it has been placed in position.
- d. Blasting caps shall not be crimped by any means except by a cap crimper designed for the purpose. It shall be necessary to make sure that the cap is squarely crimped to the face.
- e. The fuse shall be lighted with a fuse lighter designed for the purpose. If a match is used, the fuse shall be slit at the end and the match head held in then slit against the power core and then the match head rubbed against an abrasive surface to light the fuse.
- f. The fuse shall not be lighted until sufficient stemming has been placed over the explosives to prevent sparks of live match heads from coming into contact with the explosives.
- g. The explosives shall not be held in hands when lighting the fuse.

10.7. UNDERGROUND WORK

- a. Only permissible explosives and in the manner as specified by the appropriate authority shall be used.
- b. Excessive quantities of explosives shall not be taken underground at any time. Black blasting powder or pellet powder shall not be used with any other explosive in the same borehole.

10.8. BEFORE AND AFTER FIRING

- a. Before firing, sufficient warning shall be given to enable the people working in the area to get off the danger zone. The danger zone shall be suitable cordoned off and flag men posted at important points.
- b. No loose materials, such as tools, drilling implements etc. Shall be left on the rock surfaces to be blasted.
- c. Blasting in the open shall be carried out during the fixed hours every day or on fixed days in the week. This information shall be amply publicized and the following precautions observed:
- d. On the project sites, where blasting operations are carried out, daily blasting hours shall be clearly printed on the sign-boards on all the roads approaching that area.
 - i. Road closing barriers should be provided to close the traffic on these roads, at least 400 meters away when the firing is to take place.

- ii. The beginning of the firing shall follow loud sirens and similarly loud sirens shall succeed the completion of the firing.
- e. The shot-firer shall not be allowed to return to the blasting site after firing, until at least 5 min have elapsed. In case of electric shot firing, the shot holes shall be examined after firing and in case of misfire no person shall be allowed to approach the blasting site for at least 5 min. In case of shot firing with safety fuse, utmost care shall be taken to count the number to ensure that all the shots have fired and in the event of misfire, no person shall be allowed to approach the blasting site for at least 30 min. In any case, a careful inspection for the remaining un-detonated explosive shall be made after firing the shots. All misfired shot holes shall be cross-marked. No other person than those duly authorized shall approach the holes until one of the following operations has been performed in respect of each of the misfired holes:
 - f. If the misfire is due to a faulty cable or faulty electrical connection the defect shall be remedied and the shot fired.
 - g. The stemming shall be floated out by use of water or air jet from hose until the hole has been opened to within 60 cm of the charge, whereupon water will be siphoned or pumped out, then a fresh new charge placed and duly detonated. Or
 - i. A careful search shall be made of unexploded material in the debris of the charge.
 - ii. If a shift charge is unavoidable, the person in-charge of one shift before leaving the work shall inform the person relieving him for the next shift of any cases misfired and shall point out their position duly cross marked and also state clearly what action has to be taken in the matter.

Note: The rules are made considering statutory provisions and other National/International standards. However, if any statutory provision overruling these laws is made, the statutory provisions shall overrule the NTPC Rules.

11.0 SAFETY IN EXCAVATION & TUNNELING WORK

SAFETY IN EXCAVATION

11.1 GENERAL PROVISIONS

- a. Before undertaking any activity, the soil shall be tested and in case of availability of any explosive gas, necessary arrangements must be made to remove/dilute such gases and in case they are found to be toxic or poisonous, the workplace must be purged and continuous ventilation maintaining the contamination below the permissible level ensured;
- b. The position of underground installations such as sewers, water pipes and electrical cables shall be verified and in case of their existence, they must be isolated;
- c. If they cannot be isolated or removed or shutdown, they shall be fenced, hung up or otherwise protected. On every part likely to be visited by persons or where transport vehicles ply, the area shall be suitably fenced, guarded or barricaded to prevent fall of persons, vehicles or livestock into the excavated area;
- d. Warning signs shall be erected and the in the night hours the area shall be illuminated to warn pedestrians and vehicular traffic;
- e. Arrangements shall be made to prevent external vibrations due to rail/road traffic;
- f. Blasting shall be carried out in accordance with the norms applicable in this regard. Special care shall be taken to control the impact of vibrations/tremor caused by blasting to protect excavations from cave-ins;
- g. Arrangements shall be made to save other buildings/structures in the affected zone or in the vicinity of the area of excavation, from collapse;

11.2 SHORING AND TIMBERING

- a. Site of excavations, where workers are exposed to danger from moving ground, shall be made safe by maintaining due slope not exceeding the angle of repose of different types of soil or otherwise by shoring, portable shields or other effective means;
- b. All trenches in the soil, other than rock or hard compact soil more than 1.5 m deep into which men enter, shall be securely shored and timbered under the supervision of a competent person and only the trained workers shall be allowed to substantially alter or dismantle the shoring or timbering;
- c. All struts, braces and walls in excavation shall be adequately secured so as to prevent their accidental displacement;
- d. In all excavations in soft or fissured rock or hard soil exceeding 2 m in depth, except those which are sloped to within 1.5 m of the bottom into which men enter, shall be securely shored and timbered;
- e. Where the sides of the excavations are sloped as outlined above, but not within the 1.5 m of the bottom, vertical sides shall be shored and the shoring shall extend at least 30 cm above the vertical sides. When open spaced sheathing is used, a toe-board shall be provided to prevent material rolling down the slope and falling into the excavated.

11.3. SHEATHING

- a. The sheathing should be placed against the side of the trench so that length of each piece of sheathing is vertical. It should be held securely in place against the wales by ensuring that sheathing is kept firmly pressed against the wall of the trench. Where the trench excavated is loose, sandy or soft soil or soil which has been previously excavated or soil which is under hydrostatic pressure, each piece of sheathing shall be driven into the bottom of the trench so as to firmly hold it in place;
- b. Where two or more pieces of sheathing are used one above another, the sheathing shall be so arranged that the lower pieces of sheathing shall overlap the lowest wales supporting the piece of sheathing next above it. These pieces of sheathing shall be firmly driven into the soil and securely supported by wales and struts, as the trench is made deeper.

11.4. WALES

- a. The wales shall be parallel to the bottom or the proposed bottom of the trench. Each wale shall be supported on cleats spiked to the sheathing or by posts set on the wales next below it and in the case of the lowest wale on the bottom of the trench itself. Where necessary, wedges may be provided between a wale and the sheathing it supports so that roughly uniformity is given to all individual pieces of sheathing.

11.5. STRUTS

- a. Struts shall be horizontal and at right angles to the wales or sheathing supported thereby. Struts shall be cut to the proper length required to fit in tightly between the wales. Where necessary, the struts shall be held securely in place by wedges, driven between the struts and the wales;
- b. Struts shall be placed on cleats spiked or bolted to the posts supporting the Wales.

11.6. LOOSE SITE MATERIALS:

No loose material shall be kept very close to the excavation creating possibility of its fall into the excavated area. A safe distance of at least 1 m shall be maintained.

11.7. PLANT & MACHINERY:

Movement of vehicles and heavy equipment shall be kept at a distance least equal to the depth of the excavation or at least 6 m for excavation deeper than 6 m and the workers shall be provided with proper tools.

11.8. MEANS OF ACCESS

- a. For trenches deeper than 1.5 m, safe means of access and egress shall be provided at intervals of every 15 m. Where it is not possible to provide safe means of access and egress as above, ladders shall extend from the bottom of the trench to at least 90 cm above the ground;
- b. Walkways, runways and sidewalks shall be kept clear of excavated materials or other obstructions and no side walls shall be undermined-undercut unless it is capable of carrying a minimum live load of 125 lbs per square feet;

- c. If planks are used for raising walkways, runways or sidewalks, they should be parallel to the length of the walk and fastened together against displacement;
- d. Lone worker shall not be allowed to work in the excavated area.

11.9. INSPECTIONS:

A competent person shall make inspections every day and necessary measures shall be taken to safeguard against possible cave-ins or slide or collapse of the excavations.

11.10. NOTIFICATION OF INTENTION TO CARRY OUT EXCAVATION AND TUNNELING WORK

- a. Within thirty days, prior to the commencement of such excavation or tunneling work, the contractor shall inform in writing the detailed layout plans, method of construction and schedule of such excavation or tunneling work to the Engineer in-charge of NTPC;
- b. In case compressed air is used in such excavation or tunneling work or any work incidental to or required for such excavation or tunneling work, the technical details and drawings of all man-locks and medical-locks together with names and addresses of all construction medical officers duly qualified and so appointed by such contractor for the purpose of such excavation or tunneling work shall be sent to the Engineer in-charge.

11.11. PROJECT ENGINEER

- a. The contractor undertaking any excavation or tunneling work shall appoint a Project Engineer for safe operation of such projects;
- b. Such Project Engineer shall exercise overall control of the operations and the activities at such project and be responsible for carrying out the activities safely.

11.12. RESPONSIBLE PERSON

- a. The contractor undertaking excavation or tunneling work at construction site of a building or other construction work shall appoint a responsible person for safe operation of such excavation or tunneling work;
- b. The name and addresses of such responsible persons shall be forwarded to the Engineer in-charge;
- c. Duties and responsibilities of the responsible person referred to above person shall include
 - i. To carry out smoothly such excavation or tunneling work;
 - ii. To inspect and rectify any hazardous situation relating to such excavation or tunneling work;
 - iii. To take remedial measures to avoid any unsafe practice or conditions relating to such excavation or tunneling work.

11.13. WARNING SIGNS AND NOTICES

- a. Suitable warning signs or notices, required for the safety of building workers carrying out the work of an excavation or tunneling, shall be displayed or erected at conspicuous places in Hindi

and in language understood by the majority of such building workers at such excavation or tunneling work;

- b. Such warning signs and notices with regard to compressed air working shall include:
 - i) The danger involved in such compressed air work;
 - ii) Fire and explosion hazards;
 - iii) The emergency procedures for rescue from such danger or hazards.

11.14. REGISTER OF EMPLOYMENT

- a. The contractor shall ensure that at a construction site of a building or other construction work where an excavation or tunneling work is being carried on, a register of employment of building workers carrying out such excavation or tunneling work is maintained and produced on demand;
- b. Periods of work of such excavation or tunneling work shall be maintained in a register on day-to-day basis and such register shall be produced on demand

11.15. ILLUMINATION

- a. All contractors carrying out excavation or tunneling work at a construction site of a building or other construction work shall provide for emergency generators on such construction site to ensure adequate illumination at all work places where such excavation or tunneling work is being carried out;
- b. In case of power failure, all workplaces where excavation or tunneling works are carried out shall be adequately illuminated

11.16. PNEUMATIC TOOLS:

Supply lines to pneumatic tools used within a tunnel are fitted with water trap or safety chain or safety wire, as the case may be.

11.17. STABILITY OF STRUCTURE DURING GENERAL EXCAVATION & TUNNELING:

The contractor shall ensure that where there is any doubt as to the stability of any structure adjoining the workplace or other areas to be excavated or where tunneling work is to be carried out –

- a. The Project Engineer shall arrange for measures like underpinning, sheet piling, shoring, bracing or other similar means to support such structure and to prevent injury to any building worker working adjacent to such structure or damage to property or equipment adjacent to such structure;
- b. Where any building worker engaged in excavation is exposed to hazard of falling or sliding material or article from any bank or side of such excavation which is more than 1.5 m above his footing, such worker shall be protected by adequate piling and bracing against such bank or side;

- c. The excavation and its vicinity shall be checked by a responsible person after every rain, storm or other occurrences carrying hazards and in case a hazard is noticed at such checking, adequate protection against slides and cave-in to prevent such hazard shall be provided;
- d. Temporary sheet piling installed for the construction of a retaining wall after excavation shall not be removed, except on the advice of the responsible person after an inspection carried out by such responsible person;
- e. Where banks of an excavation are undercut, adequate shoring shall be provided to support the material or article overhanging such bank;
- f. Excavated material shall not be stored at least 0.5 m from the edge of an open excavation or trench and the banks of such excavation or trench shall be stripped of loose rocks and other materials which may slide, roll or fall upon a building worker working below such bank;
- g. Adequate and suitable warning signs shall be put-up at conspicuous places at the excavation work to avoid any person falling into the excavations or trenches;
- h. The responsible person shall ensure at the excavation that no building worker is permitted to work where such building worker may be struck or endangered by the excavation machinery or material or article used in such excavation.

11.18. SAFE ACCESS AND EGRESS:

Ladders, staircases or ramps are provided, as the case may be, for safe access to and egress from excavation where the depth of such excavation exceeds one point 1.5 m and such ladders, staircases or ramps comply with the relevant national standards.

11.19. TRENCHES

- a. A trench or excavation shall be protected against falling of a person by suitable measures if the depth of such trench or excavation exceeds 1.5 m and such protection shall be an improved protection in accordance with the design and drawing of a Professional Engineer, where such depth exceeds 4 m;
- b. Where the depth of a trench requires two lengths of sheet piling, one above the other, the lower piling shall be set inside the bottom strings or wales of the upper piling and such sheet piling shall be driven down and braced as the excavation continues;
- c. All metal sheet piles used in excavation or a trench shall be welded end-to-end and secured by other similar means.

11.20. POSITIONING AND USE OF MACHINERY:

Any machinery used in excavation and tunneling work shall be positioned and operated in such a way that such machinery will not endanger the operator of such machinery or any other person in the vicinity.

11.21. BREATHING APPARATUS:

Suitable breathing apparatus shall be provided to a building worker while working in compressed air environment for his use at excavation or tunneling work and such breathing apparatus shall be maintained in good working condition at all times.

11.22. SAFETY MEASURES FOR TUNNELING OPERATIONS

- a. Where there is a danger of falling or sliding of material from the roof face or wall of a tunnel, adequate measures such as shoring, supporting by means of rock bolts, segments or steel sets shall be taken for the safety of building workers;
- b. The excavated areas shall be made safe by use of suitably designed and installed steel sets, rock bolts or similar other safe means;
- c. The responsible person shall examine and inspect the workplaces in a tunnel before the commencement of work in such tunnel and at regular intervals thereafter to ensure safety of the building workers in such tunnel;
- d. The portal areas of a tunnel with loose soil or rock, likely to cause injury to a person shall be adequately protected with supports.

11.23. SURROUNDINGS OF A SHAFT

- a. Surroundings of a shaft used in excavation or tunnel work shall be protected from being washed away by construction of sufficient height;
- b. Where a building worker is required to enter a shaft at an excavation or tunneling work, safe means of access shall be provided for such entry;
- c. Every shaft at excavation or tunneling work shall be provided with a steel casing, concrete piping, timber shoring or other materials of adequate strength for the safety of building workers working in such shaft;
- d. Such casing and bracing shall be provided to shafts at an excavation or tunneling work according to the appropriate design for such casing and bracing;
- e. A reinforced concrete raft and beam shall be provided around the opening of a shaft at an excavation or tunneling work if the ground surrounding such opening is unstable or unsafe.

11.24. LIFT FOR SHAFT:

Lift shall be provided for transport of building workers and materials or articles at an excavation or tunneling work required to descend more than 50 m in a shaft.

11.25. MEANS OF COMMUNICATION

Reliable and effective means of communication such as telephone or walkie-talkie shall be provided and maintained in working order for arranging better and effective communication at an excavation or tunneling work at the following locations, namely:

- i. Working chamber of an excavation;
- ii. Intervals of hundred meters along the tunnel;
- iii. Working chamber side of a man lock near the door of such man lock;
- iv. Interior or each chamber of a man lock;
- v. Location conspicuous lock attendant's situation;
- vi. A compressor plant;

- vii. A first-aid station, and
- viii. Outside the portal or the top of a shaft;
- ix. Such number of bells and whistles shall be made available at all times at the locations as are necessary for the safety of persons at such locations.

11.26. SIGNALS:

The standard audio or video signals shall be used in excavation or tunneling work and conspicuously located or displayed near entrance to the workplace and in such other locations as may be necessary to bring such signals to notice of all building workers employed in such excavation or tunneling work.

11.27. CLEARANCES

- a. The minimum lateral clearances of 0.5 m shall be maintained between any part of a vehicle and any fixture or any equipment used in an excavation or tunneling work after allowing the throw or swing of such fixture or equipment;
- b. The overhead clearance for a locomotive drive at excavation or tunneling work shall not be less than 1.20 m above the seat of such driver and not less than 2 m above the platform where such driver stands or of any other dimension in accordance with the approved standard.

11.28. SHELTERS:

The adequate number of shelters for the safeguard of the building workers are provided where, in the course of working, they are liable to be struck by a moving vehicle or other material handling equipment in a tunnel.

11.29. USE OF INTERNAL COMBUSTION ENGINE:

No internal combustion engine shall be used underground in excavation or tunneling work unless such engine is so constructed that the air entering the engine gets cleared before entry and the engine emits no fumes or sparks.

11.30. INFLAMMABLE OILS:

Inflammable oils with the flash point below the working temperature that is likely to be encountered in a tunnel shall not be used in excavation or tunneling work.

11.31. COUPLING AND HOSES:

All high-pressure hydraulic hoses and couplings shall be adequately protected against any possible damage in excavation or tunneling work.

11.32. HOSE INSTALLATION:

All hydraulic lines and plants working at a temperature exceeding 750 c shall be protected by adequate insulation or otherwise against accidental human contact in excavation or tunneling work.

11.33. FIRE RESISTANT HOSES:

No fire hydraulic hoses other than fire resistant hydraulic hoses are used when hydraulically activated machinery and equipment are employed in tunnels.

11.34. FLAMEPROOF EQUIPMENT:

Only flameproof equipment of appropriate type as per approved standards shall be used where there is a danger of flammable or explosive atmosphere being prevalent inside the tunnel.

11.35. STORING OF OIL AND FUEL UNDERGROUND:

All oils, greases or fuels stored underground in excavation or tunneling work shall be kept in tightly sealed containers and in fire resistant areas at safe distances away from explosive and other flammable chemical and appropriate flameproof installation shall be used in such storage areas.

11.36. USE OF GASES UNDERGROUND

- a. Petrol or liquefied petroleum gas or any other flammable substances shall not be used or stored inside the tunnel except with the prior approval of the Project Engineer;
- b. After the use of the petroleum or liquefied petroleum gas, or highly inflammable substances, all remaining petroleum or liquefied petroleum gas or highly inflammable substances shall be removed immediately from such tunnel;
- c. No oxy-acetylene gas shall be used in a compressed air environment in excavation or tunneling work.

11.37. WATER FOR FIRE FIGHTING

- a. Adequate number of water outlets shall be provided on excavation or tunneling work and readily made accessible throughout the tunnel for fire fighting purposes and such water outlets shall be maintained for effective fire fighting;
- b. All air locks shall be equipped with fire fighting facilities at excavation or tunneling work;
- c. An audible fire alarm shall be provided to warn the building workers whenever a fire breaks out on an excavation or tunneling work;
- d. Adequate number and types of fire extinguishers, in accordance with relevant national standards, shall be provided and made readily available to fight any outbreak of fire at an excavation or tunneling work;
- e. Fire extinguishers with vaporizing liquids and high pressure carbon dioxide shall not be used in tunnels or other confined spaces;
- f. The instructions regarding steps to be followed to fight outbreak of fire, at an excavation or tunneling work, written in Hindi or local language understood by the majority of the building workers employed on such excavation or tunneling work, shall be displayed at conspicuous and vulnerable places of such excavation or tunneling work.

11.38. FLOODING

- a. Water tight bulkhead doors shall be installed at the entrance of a tunnel to prevent flooding during a tunneling work where more than one tunnel is driven from a shaft;
- b. All necessary measures shall be taken to ensure that no building worker is trapped in any isolated section of a tunnel when any bulkhead door of such tunnel is closed;
- c. Where there is likelihood of flooding or water rushing into a tunnel during a tunneling work, arrangements shall be made for immediate starting of water pumps to take out water of such flooding or water rushing and for giving alert signals to the building workers and other persons to keep them away from danger.
- d. Airtight steel curtains shall be provided in areas liable to flooding at tunneling work and in case of descending tunnels, such curtains shall be provided in the top half of such tunnels to ensure the retention of pockets of air for rescue purpose.

11.39. REST SHELTERS

- a. Where building workers employed in a compressed air environment in a tunneling work are required to remain at the work site for one hour or more after de-compression from pressure exceeding one bar, adequate and suitable facilities shall be provided for such building workers to rest;
 - a. Every man-lock, medical-lock and any other facility inside these locks in a tunneling work shall be maintained in a clean state and in good repairs;
 - b. A first-aid room shall be provided and readily available at a construction site of a tunneling work;
 - c. Each man-lock attendant at the station shall be provided with a first-aid box.

11.40. PERMISSIBLE LIMIT OF EXPOSURE OF CHEMICALS

- a. The working environment in a tunnel or a shaft in which building workers are employed shall not contain any of the hazardous substances in concentrations beyond the permissible limits;
- b. The responsible person referred to shall conduct necessary test before the commencement of a tunneling work for the day and at suitable intervals as fixed by the Engineer in-charge, to ensure that the permissible limits of exposure are not exceeded and a record of such test shall be maintained and made available for inspection.

11.41. VENTILATION:

All working areas in a free air tunnel shall be provided with the approved ventilation system and the fresh air supplied in such tunnel shall not be less than 6 m³ per minute for each building worker employed underground in such tunnel and the free air-flow movement inside such tunnel not less than 9 m³ per minute.

11.42. AIR SUPPLY INTAKE POINT:

The air intake points for all air compression shall be located at places where such intake air does not get contaminated with dust, fumes, vapor and exhaust gases or other contaminants.

11.43. EMERGENCY GENERATORS

- a. Every compressed air system in a tunnel shall be provided with emergency power supply system for maintaining continued supply of compressed air in such compressed air system, which shall be capable of operating air compressor and ancillary systems of such compressed air system;
- b. The emergency power supply system shall be maintained and made readily available at all times.

11.45. AIR MAINS:

Every air-main supplying air to the working chamber, man-lock or medical-lock used at an excavation or tunneling work shall be protected against accidental damage and where it is not practicable to provide such protection, a stand-by air-main shall be provided.

11.46. BULKHEAD AND AIR LOCKS

- a. A bulk head or air tight diaphragms retaining compressed air, when used within a tunnel or a shaft, shall be constructed to withstand the maximum pressure at 1.25 the maximum working pressure of such bulk head or diaphragm and such bulk head or diaphragm shall be tested before its each use by a responsible person to ensure that such bulk head or diaphragm is in proper working order;
- b. Such responsible person shall keep the record of each test and such record shall be produced for inspection.
- c. The bulk head or diaphragm shall be made of sound material of adequate strength, which shall be able to withstand the maximum pressure on which they are subjected to at any time of their use;
- d. A bulkhead anchorage and air lock shall be tested at its work place at an excavation or tunneling work immediately after their installation at such place.

11.47. DIAPHRAGM:

All diaphragms, which are in the form of horizontal decks across a shaft used at excavation or tunneling work, shall be securely anchored

11.48. PORTABLE ELECTRICAL HAND TOOLS:

All portable electrical hand tools and inspection lamps used underground or in a confined space shall be operated at a voltage not exceeding 24 V.

11.49. CIRCUIT BREAKER

- a. Adequate numbers of differential ground fault circuit breakers shall be installed for every electrical distribution system and its sub-systems used at an excavation or tunneling;
- b. Work and the sensitivity of each of circuit breaker shall be adjusted in accordance with the requirement set out in accordance with the approved standards;
- c. No semi-enclosed fuse unit shall be used in underground place.

11.50. TRANSFORMER:

The contractor shall ensure no transformer is used in any section of a tunnel under compressed air unless such transformer is of the dry type and conforms to the approved standards.

11.51. LIVE WIRES:

There shall be no exposed live wire in working areas at an excavation or tunneling work which are accessible to building workers other than those authorized to work on such live lines.

11.52. WELDING SETS:

All welding sets used in a tunnel shall be of adequate capacity and of suitable type, duly approved.

11.53. QUALITY AND QUANTITY

- a. Every working chamber at an excavation or tunneling work where compressed air is used, the supply of such air shall be maintained at not less than 0.3 m³ per minute per person working therein;
- b. A reserve supply of compressed air shall be made available at all times for man-locks and medical locks used at a tunneling work;
- c. The air supplied in a compressed air environment at a tunneling work shall be, as far as practicable, free from contaminants, namely, dust, fumes and other toxic substances.

11.54. WORKING TEMPERATURE:

The temperature in any working chamber at an excavation or tunneling work where building workers are employed shall not exceed 29° c and the arrangement shall be maintained for kipping records in which the temperatures measured by dry bulb and wet bulb inside such working chamber once in every hour and for producing such records for inspection on demand.

11.55. MAN-LOCKS AND WORKING IN COMPRESSED AIR ENVIRONMENT

- a. Man-locks used at a tunneling work shall be of adequate strength, made of sound material and designed to withstand any pressure, internal or external, to which it may be subjected in the normal use or in an emergency;
- b. Doors of man-locks at an excavation or tunneling work shall be made of steel and used at a tunneling work for keeping the work airtight and devices shall be provided for sealing the doors when such locks are under pressure. The anchorage of a man-lock used at tunneling work shall have adequate strength to withstand the pressure exerted by air on the man-lock. There shall be adequate room available for the workers for working in the man-locks;
- c. Where work is carried out in any compressed air tunnel, a Man-lock in accordance with the approved standards shall be used;
- d. Where a man-lock is used, safety Instructions in Hindi and in local language understood by majority of building workers employed there, shall be displaced at conspicuous places;
- e. Except in an emergency, compression and de-compression operations shall be carried out in a man-lock and in an emergency any material-lock may be used;
- f. A record of compression and de-compression shall be kept in writing and produced for inspection on demand;
- g. Material lock shall be used with the permission of the Engineer in-charge where it is impracticable to install both the man-lock and the material-lock at;
- h. The man-lock at tunneling work shall not be used for any purpose

- i. other than compression or de-compression of building workers;
- j. No de-canting of building workers at tunneling work shall be carried
- k. out without prior approval of the Engineer in-charge except in an emergency;
- l. In case a building worker collapses or is taken ill during his de-compression in a man-lock, the lock attendant of such man-lock shall raise the pressure to a level equal to the maximum pressure which that building worker was exposed to in the working chamber prior to such de-compression and such lock attendant shall immediately report the matter relating to such collapse to the medical lock attendant and medical officer on duty;
- m. A building worker who had previously received training with a trained building worker to work in a compressed air environment at tunneling work shall be employed to work independently in such a compressed air environment;
- n. A building worker who had undergone three de-compressions from a pressure exceeding one bar in a period of eight hours at tunneling work shall not be allowed to enter a compressed air environment except for the purpose of carrying out rescue work;
- o. A building worker employed in a compressed air environment for a period of eight hours in a day at tunneling work shall not be employed again in such environment unless he has spent not less than twelve consecutive hours of rest at atmospheric pressure;
- p. No building worker shall be engaged in a compressed air environment at a pressure, which exceeds three bars at a tunneling work unless prior permission, in writing, has been obtained from the Engineer in-charge;
- q. No building worker shall be employed in a compressed air environment for more than fourteen consecutive days in a month;
- r. A register of employment of all building workers in compressed air environment shall be maintained;
- s. An identification badge shall be supplied to a building worker employed in compressed air environment;
- t. The badge of a building worker shall contain particulars of his name, location of the medical-lock allotted to him for work, the telephone number of the Construction Medical Officer concerned for his treatment and the instructions in case of his illness of unknown and doubtful causes;
- u. Record of all identification badges supplied to building shall be kept in a register;
- v. Every building worker whose name appears in the register shall wear the badge supplied to him at all times during his duty hours;
- w. Suitable warning signs shall be displayed in the compressed air for the prohibition of the following, namely:
 - i) Use of alcoholic drinks;
 - ii) Use and carrying of lighters, matches or other sources of ignition;
 - iii) Smoking; and

iv) No entry to person who has consumed alcoholic drink

11.56.SAFETY INSTRUCTION:

All building workers employed in compressed air environment at tunneling work shall follow the instructions issued for their safety in the course of such employment.

11.57.MEDICAL-LOCK

- a. A suitably constructed medical lock shall be maintained at tunneling work where building workers are employed in a working chamber at a pressure exceeding one bar;
- b. Where more than one hundred building workers are employed in a compressed air working environment exceeding one bar at tunneling work, one medical-lock is provided for every one hundred building workers or part thereof and such medical lock shall be situated as near as possible to the main-lock used at such tunneling work.

12.0. SAFETY IN PILING WORK

12.1. GENERAL PROVISIONS

- a. All pile driving equipment shall be of good design and sound construction, taking into account the ergonomic principles and properly maintained;
- b. A pile driver shall be firmly supported on a heavy timber sill, concrete bed or other secured foundation;
- c. In case a pile driver is required to be erected in dangerous proximity to an electrical conductor, all necessary precautions shall be taken to ensure safety;
- d. The hoses of steam and air hammer shall be securely lashed to such hammer so as to prevent them from whipping in case of connection or break;
- e. Adequate precaution shall be taken to prevent the pile driver from over turning and hammer from missing the pile;
- f. A responsible person for inspecting pile-driving equipment shall inspect such equipment before taking it into use and takes all appropriate measures as required for the safety of building workers before commencing piling work by such equipment;
- g. Where there is any question of stability of a structure for its adjoining areas to be piled, such structure shall be supported, where necessary, by underpinning, sheet piling, shoring, and bracing or by other means to ensure safety and stability of such structure and to prevent injury to any person.

12.2. PROTECTION OF OPERATOR:

The operator of every pile driving equipment shall be protected from falling objects, steam, cinders or water by substantially covering or otherwise or by other means.

12.3. INSTRUCTION TO AND SUPERVISION OF BUILDING WORKERS WORKING ON PILE-DRIVING EQUIPMENT:

Every building worker working on a pile driving equipment shall be given instructions regarding safe work procedure to be followed in piling operation and shall be supervised by a responsible person throughout such work.

12.4. ENTRY OF UNAUTHORIZED PERSON:

The contractor shall ensure at a construction site of a buildings or other construction work that all piling areas where pile-driving equipment is in use are effectively cordoned off to prevent entry of unauthorized persons.

12.5. INSPECTION AND MAINTENANCE OF PILE DRIVING EQUIPMENT

- a. Pile-driving equipment shall not be taken into use until it has been inspected by a responsible person and found to be safe for such use;
- b. A responsible person for such inspection at suitable intervals to ensure safety to the building worker working on such equipment shall inspect pile driving equipment in use;

- c. All pile lines and pulley blocks shall be inspected by a responsible person before the beginning of each shift of piling operations.

12.6. OPERATION OF PILE-DRIVING EQUIPMENT

- a. Only experienced and trained building worker shall operate pile driving so as to avoid any probable danger from such operation;
- b. Pile-driving operations shall be governed generally prevalent and accepted signals so as to prevent any probable danger from such operations;
- c. Every building worker employed in pile driving operation or in the vicinity of such pile driving operation shall wear ear protection and safety helmet or hardhat and safety shoes;
- d. Piles shall be prepared at a distance, at least equal to twice the length of the longest pile, from the place of pile-driving operations;
- e. When a pile driver is not in use, the hammer of such pile driver shall be blocked at the bottom of the heads of such pile driver.

12.7. WORKING PLATFORM ON PILING FRAMES:

Where a structural tower supports the lead of a pile driver, leads at which it is necessary for the building workers to work and such platforms except on the hammer of such pile driver or lead sides of such platform and where such platforms cannot be provided with such railing and toe boards, a safety belt shall be provided to each such building worker.

12.8. PILE TESTING

- a. The testing of pile shall be conducted under the supervision of a responsible person for such testing;
- b. All practicable measures like displaying of warning notices, barricading the area and other similar measures shall be taken to protect the area where the pile testing is carried out;
- c. Entry to a pile testing area shall be prohibited to general public to ensure safety.

12.9. PILING, SHORING AND BRACING

- a. Planks used for sheet piling in excavation or tunneling work shall be of sound material with adequate strength;
- b. Shores and braces used in excavation or tunneling work shall be of adequate dimensions and so placed as to be effective for their intended purposes;
- c. Earth supported shores or braces used in excavation or tunneling work shall bear against a footing of sufficient area and stability to prevent the shifting of such shores or braces.

13.0. SAFETY IN THE ERECTION, USE AND DISMANTLING OF SCAFFOLDS

13.1. SCAFFOLD CONSTRUCTION

- a. Every scaffold and every component thereof shall be of adequate construction, made of sound material and free from defects and safe for the purposes for which it is intended for use;
- b. In case bamboo is used for scaffolding, such bamboo shall be of suitable quality, good condition, free from protruding knots and stripped off to avoid any injury to building workers during handling such bamboo;
- c. All metal scaffolds used in building or other construction work shall conform to the approved standards;

13.2. SUPERVISION BY A RESPONSIBLE PERSON: No scaffold shall be erected, added, altered or dismantled except under the supervision of a responsible person.

13.3. Maintenance

- a. The scaffold used in building or other construction work shall be maintained in good repairs and the measures taken against its accidental displacement or any other hazard;
- b. No scaffold or part thereof shall be partly dismantled and allowed to remain in such a condition unless –
 - i) The stability or safety of the remaining portion of such scaffold has been ensured by a responsible person for the safety of such scaffolds;
 - ii) In case the remaining part of such scaffold cannot be used by the building workers, necessary warning notice written in Hindi and in a language understood by the majority of the building workers that such scaffold is unfit for use, shall be displayed at the place where such scaffold is erected.

13.4. STANDARDS, LEDGERS, PUTLOGS

- a. Standards of a scaffold shall be plumb, where practicable, fixed sufficiently close together to secure the stability of such scaffold having regard to all the possible working situations and conditions for the intended use of such scaffold, spaced, as close as practicable, to ensure safety and stability of such scaffold;
- b. Adequate measures are taken to, prevent displacement of a standard of a scaffold either by providing sole plate or a base plate, as necessary;
- c. Ledgers of metal scaffold are placed at vertical intervals with due regard to safety and stability of such scaffold;
- d. Bamboo ledgers are kept as nearly as possible and are placed and fastened to the standards of a scaffold with due regard to the stability of such scaffold.

13.5. WORKING PLATFORM

- a. Working platform shall be provided around the face or edge of a building adjoining at every upper most permanent floor of such building under construction and at any level where construction work of such building is carried out;
- b. A platform shall be designed to suit the number of building workers to be employed on each bay of a scaffold work on such platform and the materials or articles and tools to be carried with them in such bay;
- c. The safe working load and the number of building workers to be employed in each bay of a scaffold shall be displayed for the information of all the building workers employed at such construction site.

13.6. BOARD, PLANK AND DECKING

- a. Board, plank and decking used in the construction of a working platform shall be of uniform size and strength and shall be capable of supporting the load and number of building workers keeping in view the safety of such building workers;
- b. Metal decking, which forms part of a working platform, shall be provided with non-skid surface;
- c. No board or plank which forms the working platform shall be projected beyond its end support unless it is effectively prevented from tripping or lifting and board, plank or decking shall be fastened and secured;
- d. At any one time, not more than two working platforms per bay, shall be used to support building workers or materials or articles at such bay;
- e. Adequate measures shall be taken to prevent injury which may be caused by falling material and objects by using safety nets or other suitable means;
- f. Concrete, other debris or materials shall not be allowed to accumulate at any platform on a scaffold;
- g. Where a work is to be done at the end of a wall, working platform at such workplace shall be faced or, wherever practicable, at least 0.6 m beyond the end of such wall.

13.7. REPAIR OF DAMAGED SCAFFOLD

- a. No building worker shall be permitted to work on a scaffold that has been damaged or weakened unless adequate safety measures have been taken to ensure the safety of such building worker;
- b. Necessary warning signs shall be displayed at such places where repairs of scaffold are undertaken.

13.8. OPENING

- a. There shall be no opening in any working platform except for allowing access to such working platform;
- b. Wherever opening on a platform is unavoidable, necessary measures for protection against falling of objects or building workers from such platform shall be taken by providing suitable safety nets, belts or any other similar means;
- c. Access from one working platform to another platform on a scaffold, if required, shall be provided with suitable and safe ladder for the use of building workers working on such platforms;

- d. Every opening or shaft in the floor shall be provided with suitable means to protect the fall of a person or material by providing suitable fencing or railing of height not less than 900 mm.

13.9. GUARDRAILS: Every side of a working platform from which a person is liable to fall shall be provided with suitable and safe guardrails and toe board of adequate strength to prevent fall of any building worker, material or tools from such platform.

13.10. SCAFFOLD USED BY BUILDING WORKERS OF DIFFERENT EMPLOYERS

- a. Where a scaffold or a part of a scaffold is used, which has previously been used by another employer for his building workers, such scaffold or part thereof shall be used only after its inspection and examination by a responsible person for ensuring that such scaffold or part thereof is safe and fit for such use;
- b. If any rectification, alteration or modification in a scaffold or part thereof, needed to suit its use, shall be made in consultation with the responsible person.

13.11. PROTECTION AGAINST ELECTRIC POWER LINE:

The contractor shall ensure that all necessary and practical measures for protection are taken to prevent any building worker, working on a scaffold, from coming into contact with the electric wires or dangerous equipment.

13.12. SCREENING NET AND WIRE NETS:

Where a scaffold is erected in an area where the construction activities may pose hazards to pedestrians or vehicular traffic nearby from the falling of objects, wire nets or screening nets shall be used to envelope such scaffold.

13.13. TOWER SCAFFOLD

- a. The height of every tower scaffold used in building or other construction work shall not be more than eight times the lesser to the base dimension of such scaffold;
- b. A tower scaffold shall be lashed to a building or a fixed structure before being used by the building workers;
- c. Any tower scaffold which can be moved or castered shall be –
 - i) Constructed with due regard to the stability and, if necessary, adequately weighted at the base;
 - ii) Used only on plain and even surface; and
 - iii) Has casters provided with positive locking devices to hold such scaffold in position;
- d. No building worker shall remain on board scaffold or leave behind tools and material when it is being shifted from one position to another position.

13.14. GEAR FOR SUSPENSION OF SCAFFOLD

- a. Chains, ropes or lifting gears used for suspension of a scaffold shall be of adequate strength, made of sound material and suitable for the purpose of their use and maintained in good repairs;
- b. Chains, wires, ropes or metal tubes used for the suspension of a scaffold shall be:

- i) Properly and securely fastened to every anchorage point and to the scaffold ledgers of other main supporting members used for the support of such scaffold; and
- ii) So positioned as to ensure stability of the scaffold.

13.15. TRESTLE SCAFFOLD AND CANTILEVER SCAFFOLD

- a. No trestle scaffold shall be constructed with more than three tiers or if its working platform is more than 4.5 m above the ground or floor or other surface upon which such scaffold is erected;
- b. Trestle scaffold shall be designed by professional engineer and shall have the approval of the Engineer in-charge before being taken into use.
- c. No trestle scaffold shall be erected on a suspended scaffold;
- d. No cantilever or jib scaffold shall be used unless it is adequately supported, fixed and anchored on opposite side of its support and have out triggers of adequate length and, where necessary sufficiently, supported and braced to ensure safety and stability of such scaffold;
- e. No working platform resting on bearers let into a wall at one end and without other support shall be used unless such bearers are of adequate strength, braced through the wall and securely fastened on the other side.

13.16. SCAFFOLD SUPPORTED BY BUILDING

- a. No part of a building shall be used as support or part of a scaffold unless such part of the building is made of sufficient strength and made of sound material to afford safe support;
- b. Overhanging eaves gutters shall not be used for supporting scaffold;
- c. Suspended scaffold shall be made of in accordance with the approved standards before being used by the building workers.

13.17. USE OF WINCHES AND CLIMBERS FOR SUSPENDED SCAFFOLD

- a. No scaffold shall be raised or lowered by winches or climbers unless such scaffold is made of sound material, adequate strength and has been tested and certified safe for use of winches or climber by a competent person before being taken into use;
- b. All suspended scaffolds counter-balanced by counter weights shall be of approved types before being taken into use for building or other construction work;
- c. The working platform of a suspended scaffold shall be securely fastened to the building or structure as to be safe and to prevent such platform from swing;
- d. The safe working load that a suspended scaffold can carry, shall be displayed where such scaffold is being used

13.18. SAFETY DEVICES FOR SUSPENDED SCAFFOLD

- a. Every suspended scaffold, raised or lowered by the winches or climbers, shall be provided at each of its suspension point with a safety rope with automatic safety device mounted on each of such rope so that such safety rope with such automatic safety device support the platform of such

scaffold in the event of failure of the primary suspension wire ropes, winches, climbers or any part of the mechanism used for raising or lowering such suspended scaffold;

b. Provided that the clause (a) shall not apply -

- i) Where the platform of such scaffold is supported at two independent suspension wire rope at or near each end of such platform so that in the event of failure of one of such suspension wire rope, the other wire rope is capable of sustaining the weights of such platform and its load and prevent it from tilting; or
- ii) Where a system is incorporated which operates automatically to support the platform of such scaffold and its load in the event of failure of the primary suspension wire rope of such scaffold.

14.0. SAFETY IN THE ERECTION OF STRUCTURAL FRAME & FORMWORK

14.1. GENERAL PROVISION

- a. The trained building worker under the direct supervision of a person, responsible for structural frame and formwork, shall be employed for erection of such structural frame or formwork, dismantling of building and structure and performance of and engineering work formwork, false work and shoring work;
- b. Adequate measures shall be taken to guard against hazards arising from any temporary state of weakness or unsuitability of a structure.

14.2. FORMWORK, FALSE WORK AND SHORING

- a. Formwork and false work shall be so designed, constructed and maintained that such formwork and false work are able to support the load that may be imposed on them;
- b. Such formwork shall be so erected that working platform, means of access, bracings, means of handling and stabilizing could easily be fixed with such formwork.

14.3. ERECTION OR DISMANTLING OF STEEL AND PREFABRICATED

- a. Erection or dismantling of any pre-fabricated structure shall be made safe against danger by using appropriate means such as ladders, gangways or fixed platforms, buckets, boatswains chair or other appropriate means suspended from lifting appliances, safety harness, life lines, catch nets or catch platforms, power-operated mobile working platforms etc.;
- b. The work of erection or dismantling of buildings or structures or formwork or false work or shoring or any other civil engineering work shall be carried out by trained building workers under the supervision of a person responsible for such work;
- c. Steel or prefabricated structures shall be so designed and made that such structures can be safely transported or erected; and weight of each unit of such structures shall be clearly marked on such unit;
- d. The design of each such part shall maintain stability of each part of the structures referred to in clauses above when erected, and to prevent danger, the design shall explicitly take into account –
 - i) The relevant conditions and methods of attachment in the operations of stripping, transport, storing and temporary support during erection of such parts;
 - ii) Safeguards, such as provision of railings with working platforms, and for mounting such railings and platforms easily on the structural steel or prefabricated parts;
- e. The hooks and softer devices built in or provided on the structural steel or prefabricate parts that are required for lifting and transporting such parts shall be so shaped, dimensioned and positioned to withstand the stresses to which such hooks or other devices are subjected;

- f. Prefabricated parts made of concrete shall not be stripped or erected before such concrete has set and hardened sufficiently to the extent provided for in the plans, and such parts are examined by the responsible person for any sign of damage before their use;
- g. Store-places shall be so constructed that –
 - i) There shall be no risk of structural steel or prefabricated parts falling or overturning;
 - ii) Storage conditions shall generally ensure stability and avoid damage having regard to the method of storage and atmospheric conditions; and
 - iii) Racks shall be set on firm ground and designed so that units cannot move accidentally in such store-places;
- h. Structural steel or pre-fabricated parts shall not be subjected to stresses prejudicial to their stability while they are stored or transported or raised or set down;
- i. Tongs, clamps and other appliances for lifting structural steel and prefabricated part shall be:
 - i) In such shape and dimensions as to ensure a secure grip without damaging and marked with the maximum permissible load in the most unfavourable lifting conditions; and
 - ii) Structural steel or pre-fabricated parts shall be lifted by such methods and appliances that prevent them from spinning accidentally;
- j. Structural steel or pre-fabricated parts shall be provided with railings and working platforms before raising such parts to prevent any danger of falling of building workers, materials or articles at the time of any work with such parts;
- k. All reasonably practical measures shall be taken to avoid injury to building workers, building structure or equipment while structural steel or pre-fabricated parts are handled or stored or transported or raised or lowered;
- l. Structures shall not be worked on during violent storms or high winds or any other such hazardous situation;
- m. The risk of falling to which building workers, moving on high or sloping girders, may be exposed is limited by all means of adequate collective protection or by the use of a safety harness which shall be well secured to a sufficiently strong supports;
- n. Structural steel parts, which are to be erected at a great height, shall, as far as practicable, be assembled on the ground;
- o. When structural steel or pre-fabricated parts are being erected, a sufficiently extended area underneath the workplace shall be barricaded or guarded;
- p. Steel trusses, which are being erected, shall be adequately shored, braced or guyed until they are permanently secured in position;
- q. Structural members shall not be forced into place by the hoisting machine while any building worker is in such a position that he is likely to be injured by such operation.

14.4. FORMWORK

- a. All formwork shall be properly designed keeping in view the safety of building workers, buildings or structures;
- b. A responsible person for structural frame and formwork shall –
 - i. Inspect and examine the material, timber, structural steel and scaffolding for its strength and suitability before being taken into use;
 - ii. Lay-down procedures to cover all stages of such structural frame and formwork;
 - iii. Supervise such structural frame and formwork;
 - iv. Take all necessary steps or measure to correct any situation with a view to prevent accident or dangerous occurrence during performances of such structural frame and formwork.

14.5. DE-SHORING

- a. When shoring is removed, sufficient props shall be left in place of such shoring to prevent any possible hazard; and
- b. Deshoring shall be adequately braced and tied together with support to prevent any hazard.

15.0. SAFETY IN CONCRETE WORK

15.1. GENERAL PROVISIONS REGARDING USE OF CONCRETE

- a. All construction with the use of concrete or reinforced concrete shall be based on plans including specification of steel and concrete and other material to be used in such construction –
 - i. Giving technical details regarding methods for safe placing and handing of such materials and indicating the type, quality and arrangement of each part of a structure of such construction; and
 - ii. Explaining the sequence of steps to be taken for completion of such construction;
- b. Formwork and shores used for concrete work shall be structurally safe and properly braced or tied together so as to maintain position and shape of formwork or shores;
- c. Formwork structure used shall have sufficient catwalks and other secure access for inspection of such structure if such structure is in two or more tiers;
- d. No machinery or any object should fall below by using wire nets, screen nets etc.

15.2. PREPARATION AND POURING OF CONCRETE AND ERECTION OF CONCRETE STRUCTURE

- a. A building worker handling cement or concrete shall –
 - i) Wear close-fitting clothing, gloves, helmet or hardhat, safety goggles, proper footwear and respirator or mask to protect himself from danger in such handling;
 - ii) Keep as much of his body covered as is required to protect himself from danger in such handling;
 - iii) Take all necessary precautions to keep cement and concrete away from his skin in such handling;
- b. Lime pits shall be fenced or enclosed and filled and emptied by such devices, which do not require workers to go into the pit;
- c. Moving parts of the elevators, hoists screens bunkers, chutes, grouting equipment used for concrete work and of other equipment used for storing, transport and other handling ingredients of concrete shall be securely fenced to avoid contact of building workers with such moving parts;
- d. Screw conveyors used for cement, lime and other dusty materials shall be completely enclosed.

15.3. BUCKETS

- a. Concrete buckets used with cranes or aerial cableways shall be free from projections from which accumulations of concrete could fall;
- b. Movements of concrete buckets shall be governed by signals necessary to avoid any danger by such movements.

15.4. PIPES AND PUMPS

- a. A scaffolding carrying a pipe for pumped concrete shall be strong enough to support such pipe at a time when such pipe is filled with concrete or water or any other liquid and carry the combined load of the all the building workers who may be on such scaffold at such time, safely;
- b. Every pipe for carrying pumped concrete shall be –
 - i) Securely anchored at its end point and at each curve on it;
 - ii) Provided near the top of such pipe with an air release valve;
 - iii) Securely attached to a pump nozzle by a bolted collar or other adequate means;
- c. The operation of concrete pumps shall be governed by standard signals;
- d. Building workers employed around a concrete pump shall wear safety goggles;

15.5. MIXING AND POURING OF CONCRETE

- a. The concrete mixture shall not contain any material, which may unduly affect the setting of such concrete, weaken such concrete or corrode steel used with such concrete;
- b. When dry ingredients of concrete are being mixed in confined spaces such as silos –
 - i) The dust shall be exhausted at the time of such mixing and
 - ii) In case the dust the dust cannot be exhausted, as specified, the workers shall wear respirators at the time of such mixing;
- c. When concrete is being tipped from buckets, building workers shall be kept out of the range of any kickbacks of such buckets;
- d. Loads shall not be dumped or placed on settling concrete.

15.6. CONCRETE PANELS AND SLABS

- a. All parts of a concrete panel or concrete slab shall be hoisted uniformly;
- b. Concrete panels shall be adequately braced in their final positions and such bracings shall remain in such positions until such panels are adequately supported by other parts of the construction for which such panels are used;
- c. Temporary bracings of concrete panels shall be securely fastened to prevent any part of such panels from falling when such panels are being moved.

15.7. STRESSED AND TENSIONED ELEMENTS

- a. Building workers shall not stand directly over jacking equipment while stressing of concrete girders and beams is being done;
- b. A pre – stressed concrete unit shall not be handled except at points on such unit and by the devices specified for such work by the manufacture of such devices;
- c. During transport, pre-stressed concrete girders or concrete beams shall be kept upright by bracing or other effective means;

- d. Anchor fittings for pre-tensioned strands of pre-stressed concrete girders of concert beams are kept in a safe condition in accordance with the instruction of manufacturer of such anchor fittings;
- e. Building workers shall not stand behind jacks or in line with tensioning elements and jacking equipment during tensioning operations of pre-stressed concrete girders of concrete beams;
- f. Building workers do not cut wires of pre – stressed concrete girders or concrete beams under tension before such concrete used of such girder or beams is sufficiently hardened.

15.8. VIBRATORS

- a. A building worker, who is in good physical condition, shall operate vibrators used in concreting work;
- b. All practical measures shall be taken to reduce the amount of vibration transmitted to the operators working in concreting work and
- c. When electric vibrators are used in concreting work
 - i) Such vibrators shall be earthed;
 - ii) The leads of such vibrators shall be heavily insulated; and
 - iii) The current shall be switched off when such vibrators are not in use.

15.9. INSPECTION AND SUPERVISION

- a. A person responsible for a concreting work shall supervise the erection of the formwork, shores, braces and other supports used for such concreting work, make a through inspection of every formwork to ensure that such formwork is safe, regularly inspect the formwork, shores, braces, reshores and other supports during the placing of concrete, keep all records of inspections referred to above at the workplace relating to such inspection and produce them for inspection upon the demand.
- b. Any unsafe condition, which is discovered during the inspections, shall be remedied immediately.

15.10. BEAMS, FLOORS AND ROOFS

- a. Horizontal and diagonal bracings shall be provided in both longitudinal and transverse direction as may be necessary to provide structural stability to formwork used in concreting work and shores used in such concreting work shall be properly seated on top and bottom and secured in their places;
- b. Where shores used in concreting work rest upon the ground, base plates shall be provided for keeping such shores firm and in level;
- c. Where the floor to ceiling height of a concreting work exceeds 9 m or where the formwork deck used in such concreting work is supported by shores constructed in two or more tiers, or where the dead, live and impact loads on the formwork used in such concreting work exceed 700 kilogram per m², the structure of such formwork shall be designed by a professional engineer in the relevant field and the specifications and drawings of such formwork kept at such construction site and produced on demand.

- d. Where a professional engineer designs the structure of the formwork used in concreting work, such engineer shall be responsible for the supervision of construction and the stability of such structure.

15.11. STRIPPING

- a. Stripping of formwork used in concreting work shall not commence until the concrete on such formwork is fully set, examined and certified to this effect by the responsible person and record of such examination and certification is maintained;
- b. Stripped forms in concreting work shall be removed or stock piled promptly after stripping from all areas in which building workers are required to work or pass;
- c. Protruding nail, wire ties and other formwork accessories not required for subsequent concreting work shall be pulled, cut or otherwise made safe.

15.12. RE-SHORING

- a. Re-shoring used in concreting work shall be provided to a slab or beam for its safe support after its stripping or where such slab or beam is subjected to superimposed loads due to construction above such slab or beam;
- b. The provisions applicable to shoring in a concreting work shall also be applicable to reshoring in such work or pass.

16.0. SAFETY IN CONSTRUCTION, REPAIR & MAINTENANCE OF STEEP ROOFS

16.1.WORK ON STEEP ROOFS:

All practicable measures shall be provided to protect the building workers against sliding when carrying outwork on steep roofs.

16.2. CONSTRUCTION AND INSTALLATION OF ROOFING BRACKETS

- a. Roofing brackets shall be constructed to fit the pitch of steep roof and such brackets shall be used to provide level working platform;
- b. Roofing bracket shall be secured in its place by nailing pointed metal projections attached to the underside of such bracket and securely driven into a steep roof on which it is used or secured by a rope passed over the ridgepole and tie of such roof.

16.3. CRAWLING BOARDS

- a. All crawling boards used for work on steep roofs shall be of adequate strength, made of sound material and of the type approved for the purpose of their use;
- b. Crawling boards shall be kept in good repairs and inspected by a responsible person before being taken into use;
- c. Crawling boards shall be secured to a steep roof on which it is used by ridge hooks or other effective means;
- d. A firmly fastened lifeline of adequate strength shall be strung beside each crawling board throughout its length while using such crawling boards.

17.0. SAFETY IN CATCHES PLATFORMS, HOARDINGS & CHUTES

17.1. CATCH PLATFORM

- a. Catch platform shall not be used for storage of material or as a working platform;
- b. Catch platform shall at least be of 2 m wide and inclined so that the position of outer edge of such platform is 1500 mm higher than the inner edge;
- c. The open end of catch platform shall be properly fenced to the height not less than 1 m.

17.2. HOARDINGS:

Hoardings shall be constructed when the Registering Authority / Assistant Labour Commissioner considers it necessary for protection of building workers and directs such employer to construct such hoardings.

17.3. CHUTES, ITS CONSTRUCTION AND USE

- a. Wooden or metal chutes which are at an angle of more than 45° to the horizontal and used for the removal of materials shall be closed on all sides except at their openings used for receiving or discharging of materials or articles;
- b. All openings of chutes except their top openings shall be closed when not in use;
- c. Every chute –
 - i. Shall be constructed of sound material, adequate strength and suitable for the purpose it is intended for use;
 - ii. Exceeding 12 m in height shall be constructed in accordance with the design and drawings of professional engineer for such;
 - iii. A suitable warning notice shall be displayed at conspicuous locations, written in Hindi and in a local language, at the discharge end of every chute;
 - iv. Shall be cleared when debris has accumulated to a height, which can pose danger to building worker, but such clearance shall be done in no case less frequently than once a day.

18.0. SAFETY IN WORK ON OR ADJACENT TO WATER

18.1. TRANSPORT OF WORKERS BY WATER

- a. When any building worker has to proceed to or from any workplace by water for purposes of carrying on a building or other construction work, proper measures shall be taken to provide for his safe transportation and vessels used for such purpose shall be in charge of a responsible person, properly equipped for safe navigation and maintained in good condition;
- b. Maximum number of persons which can be safely carried in a vessel shall be marked plainly and conspicuously on such vessel and such number shall not be exceeded during use of such vessel for carrying persons;
- c. Adequate protecting shall be provided to the building workers in such vessel from inclement weather;
- d. Such vessel shall be manned by adequate and experienced crew;
- e. In case the bulwarks of such vessel are lower than 60 cm from the level of the deck of such vessel, the open edge of such bulwarks shall be fitted with suitable fencing to a height of at least 1 m above such deck and the post and stanchions and similar parts used in such fencing shall not be spaced more than 2 m;
- f. The number of life buoys on deck of such vessel shall at least be equal to the number of crew members of such vessel and shall not be less than two;
- g. All life buoys on deck of such vessel shall be kept in good state of maintenance and so placed that if such vessel sinks then they will remain afloat and one of such buoys shall be within the immediate reach of the Steersman of such vessel and another is situated after part of such vessel; and
- h. The position of the steersman of the vessel shall be such that he has a reasonably free view of all sides.

18.2. PREVENTION FROM DROWNING

- a. Where, on or adjacent to the workplace of any contraction site, there is water into which a building worker employed for work on such site, in the course of his employment, may fall and has the risk of drowning, suitable rescue equipment shall be provided and kept in an efficient state of ready use and measures shall be taken to arrange for the prompt rescue of such building worker from the danger of drowning and where there is a special risk of such fall from the edge of adjacent land or from a structure adjacent to or above the water, or from floating stage on such water, secure fencing shall be provided near the edge of such land, structure or floating stage, as the case may be, to prevent such fall, and such fencing may be removed or allowed to remain unerected for the time and to the extent necessary for the access of building workers to such work or the movement of material for such work;
- b. For handling rescue equipment, at least two persons knowing diving should be available at such sites.

19.0 SAFETY IN COFFERDAMS & CAISSONS

19.1 EVERY COFFERDAM AND CAISSON SHALL BE

- 19.1.1 Of good construction, sound material and of adequate strength, provided with adequate means for workers to reach safely at the top of such cofferdam or caisson in the event of an inrush of water and safe means of access to every place where workers shall be employed;
- 19.1.2 Work relating to construction, positioning, modification, dismantling of cofferdams or caissons shall be carried out under the supervision of a responsible person and inspected by the responsible person at the specified intervals;
- 19.1.3 A worker shall be allowed to work in a cofferdam or caisson after such cofferdam or caisson has been inspected and found safe by responsible person within such preceding period as approved and a record of such inspection maintained.

19.2 WORK IN COMPRESSED AIR IN A COFFERDAM OR CAISSON SHALL BE

- 19.2.1 Carried out in accordance with the procedure laid down;
- 19.2.2 Carried out by such building workers who have completed eighteen years of age and are medically examined and found fit for the work;
- 19.2.3 Carried out under the supervision of a responsible person;
- 19.2.4 If the work in cofferdam or caisson is carried out in shifts, a record of the time spent by each worker in each such shift for carrying out the work shall be maintained in a register with particulars or time taken for the compression of such building worker, if any;
- 19.2.5 At every work site or project in a cofferdam or caisson, where workers are employed to work in compressed air environment, a construction medical officer assisted by a nurse or trained first-aid attendant, shall be available at all times and there shall be one standby reserve compressor to meet the emergency.

19.3 PRESSURE PLANT AND EQUIPMENT

- 19.3.1 Pressure plant and equipment for which it is used shall be –
- 19.3.2 Properly maintained in good repairs and working condition and fitted with a suitable safety valve or other effective device to provide maximum safe discharge pressure from being exceeded at any time; a suitable pressure gauge with a dial range not less than 1.5 times and not exceeding twice the maximum working pressure, easily visible and designed to show at all times, the internal pressure in kilogram per square centimeter and marked with the maximum safe working pressure, a suitable stop valve or valves by which the pressure plant or the system of the pressure plant may be isolated from the source supply of pressure or otherwise;
- 19.3.3 Every pressure plant or equipment shall be thoroughly examined by the competent person, externally, once in every period of six months; internally, once in every period of twelve months; and by hydraulic test, once in a period of four years.

20. SAFETY IN DEMOLITION WORK

20.1 PREPARATION

- 20.1.1 All glass or similar material or article in exterior openings shall be removed before commencing any demolition work and all water, steam, electric, gas and other similar supply lines put off and suitably capped and the concerned department of the appropriate authority informed and permission obtained wherever required before commencing;
- 20.1.2 Wherever it is necessary to maintain water, gas or electric line or power during such demolition, such line shall be so located or protected with substantial coverings so as to protect it from damage and to afford safety to the building workers and the general public.

20.2 PROTECTION OF ADJACENT STRUCTURES

20.2.1 Examination of walls etc. of adjacent structures –

- i) During demolition process, the contractor shall examine the walls of all structures adjacent to the structure to be demolished to determine the thickness, method of support to such adjacent structures and;
- ii) In case, such employer has reason to believe that any of such adjacent structure is unsafe or may become unsafe during such demolition process, he shall not perform demolition activity unless stability to such unsafe adjacent structure from collapsing has been taken. All roads and open spaces adjacent to the site of demolition work shall be closed or suitably protected by bracketing.

20.3 DEMOLITION OF WALLS, PARTITIONS, ETC.

- 20.3.1 Any demolition of walls or partitions shall be proceeded in a systematic manner as per the standard safe operating practices approved and all work above each tier of any floor beams shall be completed before the safety of the supports of such beam is impaired;
- 20.3.2 Masonry shall be neither loosened nor permitted to fall in such masses or volume or weight as to endanger the structural stability of any floor or structural supports;
- 20.3.3 No wall chimney or other structure or part of a structure shall be left unguarded in such a condition that it may fall, collapse or weaken due to wind pressure or vibration;
- 20.3.4 In the case of demolition of exterior walls by hand, safe footing shall be provided for the workers employed in, such walls or partitions, which are to be demolished by hand shall be not left standing more than one storey high above the uppermost floor on which persons are working.

20.4 METHOD OF OPERATION: The contractor shall ensure that debris, bricks and other materials or articles are removed by means of chutes, buckets or hoists and through openings in the floors.

20.5 ACCESS TO FLOOR

- 20.5.1 Safe access to and egress from every building shall be provided at all times in the course of demolition by means of entrances hallways, stairways or ladder runs which shall be so protected as to safeguard the workers using such means from falling material or articles;

- 20.5.2 Demolition of structural steel etc. shall be demolished column by column and tier by tier and every structural member, which is being demolished, shall not be under any stress, and such structural member shall be suitably lashed to prevent it from any uncontrolled swinging, dropping or falling or falling;
- 20.5.3 Large structural members shall not be thrown or dropped from the building, but carefully lowered by adopting suitable safe method;
- 20.5.4 Where a lifting appliance like a derrick is used for demolition, the floor on which such lifting appliance rests shall be completely planked over or supported and such floor shall be of adequate strength to sustain bearing load for such lifting appliance and its operation.

20.6 STORAGE OF MATERIAL OR ARTICLE

- 20.6.1 No materials or articles shall be not stored or kept on platform, floor or stairways of a building being demolished, provided that this clause shall not apply to the floor of a building when such floor is of such strength as to support safely the load to be superimposed by storing such material or articles;
- 20.6.2 No access to any stairway or passageway shall be affected or blocked by storing any material or article;
- 20.6.3 Suitable barricades shall be provided so as to prevent materials or articles from sliding or rebounding into any space used by the workers.

20.7 FLOOR OPENINGS:

Every opening used for the removal of debris from every floor which is not closed to access, except the top or working floor, shall be provided with an enclosure from such floor to its ceiling, or such opening is so barricaded that no building worker shall access to within a horizontal distance of 6.0 m from such opening through which debris is being dropped.

20.8 INSPECTION:

A person responsible for demolition work shall make continuous inspections during demolition process so as to detect any hazard resulting from weakened or deteriorated floors or walls or loosened materials or articles, and that no building worker shall be permitted to work where such hazard exist unless remedial measures like shoring or bracing shall be taken to prevent such hazards.

20.9 WARNING SIGNS, BARRICADES, ETC.

- 20.9.1 Barricades and warning sign shall be erected along every side throughout the length and breadth of a building or other construction work to be demolished to prevent unauthorized persons from entering into the during demolition operations;
- 20.9.2 During the demolition of an exterior masonry wall or a roof from a point more than 12 m above the adjoining ground level of such wall or roof, if persons below such wall or roof are exposed to falling objects, suitable and safe catch platform shall be provided and maintained at a level not more than 6 m below the working level except where an exterior built-up scaffold is provided for safe and adequate protection of such persons;
- 20.9.3 Suitable and standard warning signs shall be displayed or erected at conspicuous places or position at the workplace;

20.10 MECHANICAL METHOD OF DEMOLITION

20.10.1 The following requirements shall be fulfilled in case the mechanical method of demolition like use of swinging weight, clamshell bucket, power shovel, bulldozer or other similar mechanical methods are used for the purpose of demolition namely –

- i) The building or structure or structure or remaining portion thereof shall be not more than 12 m in height;
- ii) Where a swinging weight is used for demolition, a zone of such demolition having a radius of at least 1.5 times the height of the structure of portion thereof being demolished shall be maintained around the points of impact of such swinging weight;
- iii) Where a clamshell bucket is being used for demolition, a zone of demolition shall be maintained within eight metres of the liner of travel of such bucket;
- iv) Where other mechanical methods are being used to affect total or partial collapse of a building or other construction work, there shall be maintained, in the area into which the affected portion of such building or other construction work may fall, a zone of demolition at least 1.5 times the height of such affected portion thereof; and
- v) No person other than building workers or other persons essential to the operation of demolition work shall be permitted to enter a zone of demolition, which shall be provided with substantial barricades.

21. FIRE EXTINGUISHERS & OTHER APPLIANCES OF FIRE FIGHTING

21.1 FIRE EXTINGUISHERS & OTHER MEANS OF PREVENTION AND PROTECTION

21.1.1 Every contractor shall have a fire protection and prevention plan developed and implemented keeping in view the following:

- i) The specific work practices requiring fire control measures;
- ii) Response measures to be taken in case of fire;
- iii) Equipment required;
- iv) Personnel requirements and responsibilities;
- v) Schedules of daily and weekly inspection;
- vi) Open flames and fires are prohibited in all underground construction;
- vii) Readily visible signs to be posted in the fire prone/inflammable/explosive areas prohibiting smoking use of open flames and other hot work.
- viii) A system of Permit-to-Work.

27.1.2 For the protection of the workers from the outbreak of fire, the contractor shall Provide, maintain and regularly inspect the Fire extinguishing equipment, which shall be sufficiently provided to extinguish any probable fire;

Suitability of portable fire extinguishers			
Class of fire	Type of extinguisher		
	Water	DCP	CO ₂
A	Yes	Yes	Yes
B	No	Yes	Yes
C	No	Yes	Yes
D	No	Yes	Yes
Electrical	No	Yes	Yes

27.1.3 Ensure availability of an adequate supply of water at ample pressure;

27.1.4 Make available

- i. Adequate number of trained persons required to operate the fire extinguishing equipment;

- ii. Properly maintain Fire extinguishing equipment and inspect them at regular intervals of not less than once in a year by the responsible person and a record of such inspections maintained;
- 27.1.5 Portable fire extinguishers provided in the operator's cabin of earthmoving machinery, material handling systems, construction equipment etc. shall be regularly inspected, maintained and replenished/refilled;
 - 27.1.6 The operators and the helpers of such equipment shall be trained in the methods operating the equipment and fighting the fire effectively;
 - 27.1.7 All combustion engine power equipment shall be so located that the exhausts are well away from combustible material;
 - 27.1.8 No smoking shall be allowed at or in the vicinity of operations, which constitute fire hazards and shall be conspicuously posted with No smoking or open flame **signs**;
 - 27.1.9 In the flammable environment as described in IS: 9570, the electrical fittings and equipment shall be of flame proof type conforming to IS: 2206 & IS: 2148;
 - 27.1.10 Arrangements shall be made to contain sparks generated during welding, cutting or other operations and spark shall not be allowed to fall down on combustible material kept below; All means of exit shall be kept free of obstruction at all times;
 - 27.1.11 Appropriate type of fire extinguishers according to IS: 5698 shall be kept in fully charged condition at the places which have potential risk of fire;
 - 27.1.12 The contractor shall educate his or his sub-contractors' men working in the vicinity of fire risk, on how to operate these equipment and know in particular circumstances which type of extinguishers is to be used;
 - 27.1.13 The contractor shall take full responsibility for the upkeep and replenishment/refilling of the fixed and portable fire extinguishers.

APPENDIX

Annexure I

IMPORTANT INDIAN STANDARDS RELATED TO SAFETY

Personal Protection

- IS: 1179-1967 Equipment for eye and face protection during welding
- IS: 4770-1991 Rubber gloves for electrical purposes
- IS: 8519-1977 Guide for selection of industrial safety equipment for body protection
- IS: 8520-1977 Guide for selection of industrial safety equipment for eye, face & ear protection
- IS: 8807-1978 Guide for selection of safety equipment for protection of arms and hands
- IS: 1224-1985 Safety shoes
- IS: 2925-1984 Safety helmets
- IS: 8940-1978 Code of practice for maintenance and care of industrial safety equipment eye and face protection
- IS: 8990-1978 Code of practice for maintenance and care of industrial safety clothing
- IS: 10667-1983 Guide for selection of industrial safety for protection of foot and leg
- IS: 816-1969 Code of practice for safety and health requirements in electric and gas welding and cutting operations
- IS: 818-1968 Code of practice for safety and health requirements in electric and gas welding and cutting operations
- IS: 7194-1994 Assessment of noise exposure during work for hearing conservation purposes

Civil Engineering Construction

- IS: 2750- 1967(Part II) Steel scaffolds
- IS: 875-1987 Structural safety of building: loading standards
- IS: 4014-1967 Code of practice for steel tubular scaffolding
- IS: 3696 Safety code of scaffolds and ladders
- IS: 4138-1977 Safety code for working in compressed air
- IS: 4912-1978 Safety requirements for floor and wall openings, railings and toe boards
- IS: 7293-1974 Safety code for working with construction machinery
- IS: 9944-1992 Recommendations on safe working load for natural and man-made rope slings
- BS: 1129 Portable timber ladders, steps, Trestles & lightweight staging
- BS: 1139 Metal scaffolds
- BS: 5973 Code of practice for access & working scaffolds
- BS: 5974 Code of practice for temporary installed scaffolds and access equipment
- BS: 5975 Code of practice for falsework

Fire Protection

- IS: 2190-1992 Code of practice for selection, installation and maintenance of portable first-aid fire extinguishers
- IS: 5896 Code of practice for selection, operation and maintenance of fire-fighting appliances

IS: 8433-1984 Code of practice for dissolved acetylene cylinders

Electrical

IS: 3043-1987 Code of practice for earthing

IS: 5424-1969 Rubber mats for electrical purposes

IS: 3646 (Part II) Artificial lightings

IS: 2148 & IS: 2206 Flame proof electrical fittings

Machinery

IS: 1860-1980 Code of practice for installation, operation and maintenance of electric passenger and goods lifts

IS: 1991-1987 Safety requirements for the use, care and protection of abrasive grinding wheels

IS: 5903-1970 Safety devices for gas cylinders

IS: 8216-1976 Guide for inspection of lift wire ropes

IS: 8964-978 Recommendations for safety conditions for woodworking machines

IS: 9474-1980 Principles of mechanical guarding of machinery

IS: 11461-1985 Code of practice for compressors safety

IS: 13367-1992 Code of practice for safe use of cranes

BASIC STRUCTURE OF SAFETY PLAN

- 01- Safety Policy
- 02- When was the Safety Policy last reviewed
- 03- Details of implementation procedure / methods to implement Safety Policy / Safety Rules
- 04- Qualification & Experience of Safety Officers
- 05- Review of Accidents analysis - Methods to ensure safety & health and steps identified for prevention of accidents
- 06- Unit/site Executive responsible for ensuring safety at various levels in the workplace
- 07- List of Employees trained in safety at the commencement of execution of the job; details of training – its module and contents
- 08- Safety Training Targets, Schedules, Methods to be adopted for providing safety training to all employees
- 09- Details of checklists for different jobs/ work & responsible persons to ensure Compliance
- 10- Regular Safety Inspection Methods and Periodicity and the list of members authorized
- 11- Risk Assessment, Safety Audit by professional agencies, their Periodicity
- 12- Implementation of recommendations of Audit / Inspections. - Procedures for implementation & follow-up
- 13- Provision for treatment of Injured persons at work site
- 14- Review of overall safety by top Management and Periodicity
- 15- System for implementation of statutory provisions.
- 16- Issue of PPE to employees, Periodicity / stock on hand, etc.

Signature

Head of Organization

With Date & Stamp

Annexure - III

CONFINED SPACE WORK PERMIT

Date of Work :		Initiator:		Permit No.:	
Description of work :					
Name of person supervising:			Dept./Function:		
Names of workmen involved in the job :					
1		2			
3		4			
Exact Location of Work:					
JSA Reference No.					
Job Instruction & Confirmation Sheet Ref. No					
Valid From : Time Date: To Time: Date:					
Other relevant information (if any)					
Initiated by Engineer / Supervisor of Agency			Checked by Agency Safety Representative		
Name		Name			
Signature		Signature			
Date		Date			
Check list for Authorization of Work Permit					
Minimum and Mandatory Precautions					Y/ N / NA
1	Permit form filled in completely?				
2	Have wind, atmospheric, and work area conditions (e.g. cold, hot, snow, poor lighting & Ventilation etc.) been considered throughout the job so that work can be done safely?				
3	All necessary Personnel Protective Equipment like Breathing Set, Waist Rope, Light Mounted Helmet etc. is put on by all the workmen?				
4	A lifeline, a rope tied on the safety belt of the person entering the confined space is provided?				
5	All practicable measures are taken to ensure that the atmosphere inside is not deficient in oxygen and does not contain flammable vapors and no hazardous gases like H ₂ S. (Open at least 2 manholes & keep for 2 hours)?				
6	One fully trained person is stationed at ground level/outside to assist the inside workers and emergency contact No's available?				
7	All the workers trained for emergency?				

8	Safe means of access and egress provided?		
9	Is the suitable fire extinguisher available at work location?		
10	Are they Using only 24V lamps & working tools inside the confined space?		
Following additional precautions need to be taken before the start of the work			
Permit Issued By:			
	Approved by Principal Agency work in charge		Endorsed by Principal Agency HSE Dept
Name			
Signature			
Date			
Permit Close Out by: Name & Signature (Principal Agency)			
Date :		Time :	
Note: All extra information on preparation and precautions to be provided on the reverse side of this PTW.			

HOT WORK PERMIT

Date of Work :		Initiator:		Permit No.:	
Description of work :					
Name of person supervising:			Dept./Function:		
Names of workmen involved in the job :					
1		2			
3		4			
Exact Location of Work:					
JSA Reference No.					
Job Instruction & Confirmation Sheet Ref. No					
Valid From : Time Date: To Time: Date:					
Other relevant information (if any)					
Initiated by Engineer / Supervisor of Agency			Checked by Agency Safety Representative		
Name		Name			
Signature		Signature			
Date		Date			
Exact location of work					
Relevant information					
Check list for Authorization of Work Permit					
Minimum and Mandatory Precautions					Y/ N / NA
1	Permit form filled in completely?				
2	Form filled in correctly and in full.				
3	Has the work area been inspected for any abnormalities - specify on wind, atmosphere, surroundings, etc.				
4	Are the necessary PPE provided and do the workmen know their use?				
5	Is the fitter, experienced and knowledgeable enough to carry out the job?				
6	Area has to be cleared of any flammables and combustible material.				
7	Electrical equipment to be protected and grounded.				
8	Are fire-fighting equipment - extinguishers, water, sand buckets etc, located nearby for ready in case of any mishap?				
9	Gas cylinders in upright state/ trolleys/ flash-back arrestors/ hose condition/ NRVs, etc.				
10	Is the area easily accessible?				

Additional precautions to be taken:		
This permit is valid only for one week. A fresh hot work permit has to be taken for continued works for the next week.		
Permit Issued By:		
	Approved by Principal Agency work in charge	Endorsed by Principal Agency HSE Dept
Name		
Signature		
Date		
Permit Close Out by: Name & Signature (Principal Agency)		
Date :		Time :
Note: All extra information on preparation and precautions to be provided on the reverse side of this PTW.		

PERMIT FOR LIFTING OF MATERIAL

Date of Work :	Initiator:	Permit No.:
Description of work:		
Name of person supervising:		Dept./Function:
Names of workmen involved in the job :		
Exact Location of Work:		
JSA Reference No.		
Job Instruction & Confirmation Sheet Ref. No		
Valid From : Time Date: To Time: Date:		
Other relevant information: (If any)		
Initiated by Engineer / Supervisor of agency		Checked by Agency Safety Representative
Name		Name
Signature		Signature
Date		Date
Check list for Authorization of Work Permit		
1	Details of type of crane(s) to be used?	
2	Name of Lift Co-ordinator, Rigger/Crane Operator?	
3	Adequate and suitable lifting gears available and in good condition	
4	Have soil, wind, atmospheric, and work area conditions (e.g. cold, hot , snow, poor lighting & Ventilation etc.) been considered throughout the job so that work can be done safely?	
5	Lifting Equipments, Lifting gears and Slings are tested and certified?	
6	Are all operators trained, competent and healthy (Having Licenses / Experience Certificate)?	
7	Are all the examinations and tests carried out on the equipment (Crane) and certified by competent persons?	
8	Is the safe working load (SWL) marked on all lifting tools & tackles?	
9	Lifting area cordoned off?	
10	Tag lines provided to control the swing of load?	
11	Load tied properly and secured against toppling and falling?	
12	Signalman/Rigger is provided and competent?	
13	Proper communication available between operator and rigger?	
14	Is the vehicle for transportation adequate for the load?	

Following additional precautions need to be taken before the start of the work:			
Permit Issue b By:			
Approved by Principal agency work incharge		Endorsed by main agency HSE Dept	
Name		Name	
Signature		Signature	
Date		Date	
Permit Close Out by: Name & Signature (Main agency)			
Date :		Time :	
Note: All extra information on preparation and precautions to be provided on the reverse side of this PTW.			

WORKING AT HEIGHT PERMIT

Date of Work :	Initiator:	Permit No.:	
Description of work :			
Name of person supervising:		Dept./Function:	
Names of workmen involved in the job :			
1	2		
3	4		
Exact Location of Work:			
JSA Reference No.			
Job Instruction & Confirmation Sheet Ref. No			
Valid From : Time Date: To Time: Date:			
Other relevant information			
Initiated by Engineer / Supervisor		Checked by Agency Safety Representative	
Name		Name	
Signature		Signature	
Date		Date	
Check list for Authorization of Work Permit			
Minimum and Mandatory Precautions			Y/ N / NA
1	Permit form filled in completely?		
2	Work area below is temporarily cordoned/barricaded		
3	The scaffold erected has pipes and clamps in good condition.		
4	Diagonal / lateral bracings pipes are provided to ensure stability		
5	Access ladder is provided to reach the work location		
6	Planks / sheet used in temporary platform are in good condition		
7	Planks / sheets are tied properly using binding wire		
8	Temporary platform is having temporary side railing		
9	Workers are wearing Helmet, Shoes & Safety belt in good condition.		
10	For Anchoring of safety belt at height rigid support / life rope line is provided		
11	Experienced workers are engaged for work		
12	Portable elect equip/fibre body checked for its healthiness including earthing		
13	The sling / pulley blocks / ropes are tested for fitness		

14	Workers are briefed on Safety Precautions to be taken	
	Power hand tools used at eight are connected through 30mA ELCB.	
Following additional precautions need to be taken before the start of the work		
Permit Issued By:		
	Approved by Principal Agency work in charge	Endorsed by Principal Agency HSE Dept
Name		
Signature		
Date		
Permit Close Out by: Name & Signature (Principal Agency)		
Date :		Time :
Note: All extra information on preparation and precautions to be provided on the reverse side of this PTW.		

DEFINITIONS

1. **Building or other construction work:** means the construction, alteration, repairs, maintenance or demolition, of or, in relation to, buildings, streets, roads, railways, tramways, airfields, generation, transmission and distribution of power, water works, oil and gas installations, electric lines, tunnels, bridges, viaducts, pipelines, towers, cooling towers and such other work as may be specified.
2. **Building worker:** means a person who is employed by a contractor to do any skilled, semi-skilled or manual, supervisory, technical or clerical work for hire or reward, whether the terms of employment be expressed or implied, in connection with any building or other construction work;
3. **Establishment:** means an establishment who or which employs building workers in any building or other construction work, and includes an establishment belonging to a contractor;
4. **Contractor:** means a person who undertakes to produce a given result for any establishment, other than a mere supply of goods or articles of manufacture by the employment of building workers or who supplies building workers for any work of the establishment, and includes a sub-contractor or any other agency engaged on his behalf;
5. **Employer:** in relation to an establishment, means the owner thereof that is the contractor himself.
6. **Competent Person:** means a person so approved by the Central Government who belongs to a testing establishment in India possessing adequate qualification, experience and skill for the purpose of testing, examination or annealing and certification of lifting appliances, lifting gears, wire ropes or pressure plant or equipment;
7. **Responsible Person:** means a person appointed by the employer to be responsible for the performance of specific duty or duties and who has sufficient knowledge and experience and the requisite authority for the proper performance of such duties;
8. **Danger:** means danger of accident or of injury or danger to health;
9. **Hazard:** means danger or potential danger;
10. **Hazardous substance:** means any substance, which due to its explosiveness, inflammability, radioactivity, toxic or corrosive properties and similar hazardous characteristics may Cause injury; or Affect adversely the human system; or Cause loss of life or damage to property or environment;
11. **Hazardous Process:** comprises roof work, steel erection, and work under and over water, demolition and work in confined space;

- 12. National Standard:** means standards as approved by the Bureau of Indian Standards (BIS) and in the absence of such standards, the standards approved by the Central Government for a specific purpose;
- 13. Lifting Appliance:** means a crane, hoist, derrick, winch, jack, pulley block or other equipment used for lifting materials, objects or building workers;
- 14. Lifting gear:** means ropes, chains, hooks, slings and other accessories of a lifting appliance;
- 15. Safe Operating Practice:** Means the practice followed in building and construction activities for the safety of workers and for safe operation of machinery and equipment used in such activities. Such practices shall conform to all or any of the following:
Relevant Standards approved by BIS;
National Building Codes;
Manufacturer's instruction on safe use of equipment and machinery;
Code of practice on safety in construction industry published by International Labour Organization .
- 16. Safe working load:** in relation to an article of lifting gear or lifting appliance, means the load which is the maximum load that may be imposed on such article or appliance with safety in the normal conditions as assessed and certified by a competent person;
- 17. Workplace:** means all places where building workers are required to be present or to go for work and which are under the control of an employer;
- 18. Personal Protective Equipment (PPE):** are the protective devices made available for individual or collective use of the workers likely to be affected by the hazards of the workplace or process;
- 19. Construction & Erection Manual (E&C) Rules:** all references to E&C Manual shall mean the Construction & Erection Rules that are detailed hereunder;
- 20. Engineer in-charge:** All references to the Engineer in-charge shall mean the person in-charge of a building and construction of the NTPC.
- 21. Interpretation of words not defined:** words and expressions not defined or used in this Manual shall have the same meaning as generally assigned in common engineering practices

SECTION – V

SPECIAL CONDITIONS OF CONTRACT (SCC)

Special Conditions (SCC No.)	GCC Clause Ref., if any	Special Conditions
SECTION - V SPECIAL CONDITIONS OF CONTRACT The following Special Conditions of Contract (SCC), Section-V, shall supplement/ amend the General Conditions of Contract (GCC) Section-IV. Wherever there is a conflict, the provisions in SCC shall prevail over those in the GCC. The corresponding clause number of the GCC is indicated in parentheses.		
1.	Definitions (GCC Clause 1)	Name and Address of Employer: DGM (CS) / AGM (CS) NTPC Limited, 6th Floor, Engineering Office Complex, Plot No. A-8A, Sector-24, NOIDA, Distt. Gautam Budh Nagar, (UP), INDIA, Pin-201301. E-mail: matamlathamma@ntpc.co.in/ shrishksingh@ntpc.co.in Registered Office Address: NTPC Limited, NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodi Road, New Delhi-110003. CIN: L40101DL1975GOI007966, Website: www.ntpc.co.in Engineer – in - Charge: DGM(Electrical-Erct) Nabinagar STPS
2.	Laws Governing the Contract (GCC Clause 6.1)	This Contract shall be governed by the Indian laws for the time being in force. The Courts at Delhi shall have jurisdiction, in all matters.
3.	Clause 7	Place of Arbitration: Delhi
4.	Resolution of Dispute through Independent Engineer (IE) (GCC Clause 7.2)	Not Applicable
5.	Appointment, Selection and Removal of IEs/Experts	<i>The Panel of Experts for appointment as Independent Engineer-Not applicable</i>

Special Conditions (SCC No.)	GCC Clause Ref., if any	Special Conditions
	(GCC Clause 7.2.I.)	
6.	Standard Operating Procedure (SOPs) for Independent Engineer (IE) (GCC Clause 7.2.II.(iii))	<i>Rs. 5,000/- per day shall be imposed on either party for failure to provide necessary information sought by IE during the course of investigation in time bound manner and the share of expenses of other party on IE shall be correspondingly reduced by above amount.</i>
7.	<i>Terms and Conditions for Payments to 'Independent Engineer'</i> (GCC Clause 7.2.III)	<i>Retainer fee shall be Rs. 1,00,000 per month fixed for FY 2025-26. Site Visit Fee shall be Rs 20,000 per day fixed for FY 2025-26. The aforesaid fees shall be subject to change as per guidelines issued by Ministry of Power regarding 'Terms and Conditions for Payments to Independent Engineer', from time to time.</i>
8.	<i>Mediation through Independent External Monitors (IEMs)</i> (GCC Clause 7.3)	Not Applicable The fees payable to each IEM for mediation proceedings shall be Rs. 25,000/- per sitting and same shall stand revised as and when revised by Central Vigilance Commission.
9.	Conciliation Committees of Independent Experts (GCC Clause 7.4.2.2.	The Panel of Conciliation Committees of Independent Experts (CCIE) is enclosed as Annexure-IV
10.	Human Resources (GCC Clause 10)	The number and other relevant details of key personnel required to be engaged/ employed by the Contractor in all areas shall be furnished at site by the successful bidder and discussed further, if required, with Engineer-in-charge (EIC).
11.	GCC Clause 10.4.9	Replace GCC Clause 10.4.9 as under Contractor shall Comply with All Safety Norms as per Technical Specifications / Instructions of EIC
12.	GCC Clause 23.3	Rate of interest for mobilization advance and equipment advance The rate of interest shall be "SBI 1-year MCLR as on 01st April of applicable year + 100 bps" per annum." *

Special Conditions (SCC No.)	GCC Clause Ref., if any	Special Conditions
		* Variable rate of Interest to be reset every year
13.	GCC Clause 24.11(IV)	Amount Linked to Safety Aspects for Installation, Erection & Commissioning : ‘Amount linked to Safety Aspects / compliance to Safety Rules for Installation, Erection & Commissioning’ shall not be less than 2% of total amount quoted for installation, erection & commissioning. Amount Linked to Safety Aspects for AMC: ‘Amount linked to Safety Aspects / compliance to Safety Rules for AMC shall not be less than 2% of total amount quoted for AMC. Release of Amount Linked to Safety Aspects- For Installation, Erection & commissioning- Amount linked to safety aspects/compliance shall be released in part or full based on safety compliance duly certified by EIC after completion of installation & commissioning work. For Annual Maintenance Contract- Proportionate amount linked to safety aspects/compliance shall be withheld from first and second monthly RA bill of the respective quarter and shall be released in part or full based on safety compliance duly certified by EIC on quarterly basis.
14.	Contract Price Adjustment (GCC Clause 25) GCC Sub-Clause 25.2 GCC Sub-Clause 25.4	The Contract shall be awarded on “ FIRM PRICE ” basis and Contract Price shall not be subject to adjustment for price escalation during the currency of contract.
15.	~~GCC Sub-Clause 25.5~~	
16.	GCC Sub-Clause 25.13.0	Except as otherwise specifically provided in the Contract, no other expenditure incurred by the Contractor, due to any reason whatsoever, shall be payable to the Contractor.

Special Conditions (SCC No.)	GCC Clause Ref., if any	Special Conditions
17.	Time for Completion (GCC Clause 29.2)	(a) For supply and installations: 16 weeks (b) For Warranty: 01 years (shall start after acceptance/handling over the complete system to NTPC). (c) For AMC: 03 years (Subsequent to completion of 01 years warranty). Work schedule As per 'Scope of Works' / Technical specification (Section-VI).
18.	Liquidated Damages for Delay (GCC Clause 29.6.1)	The Contractor shall ensure adequate progress during the execution of the work according to the bar chart/work schedule incorporated in the Contract so that following activities are completed in the period allowed in the bar chart/work schedule and as further shown below. The value of these items to be completed in identified periods is shown as a percentage of the total contract value for the purpose of calculation of Liquidated damages for Delay in case the Contractor fails to complete the work on or before scheduled or extended date of completion as per clause 29.2 & 29.5 of GCC. The liquidated damages shall be charged at the rate of 0.5% per every week of delay of the value of the Work shown above if there is delay for a particular stage or the entire value of Contract if the whole of the Work is delayed. The total amount of liquidated damages payable by the Contractor for delay in stage wise completion or completion of the whole Work shall not exceed 5% of the Contract Value as awarded as per As per 'Scope of Works' / Technical specification (Section-VI)
19.	Materials for the performance of the Contract (GCC Clause 34.(b).(i))	Nil
20.	Construction Power and Construction Water Supply and Staff/ Labour	As per 'Scope of Works' / Technical specification (Section-VI), if not mentioned, then as per GCC.

Special Conditions (SCC No.)	GCC Clause Ref., if any	Special Conditions
	Colony (GCC Clause 41)	
21.	Site Laboratory (GCC clause no. 42.0)	
22.	Defect Liability(GCC Clause 45)	
23.	Employer's and Contractor's Risks and Insurance (GCC Clause 46.5.2)	Insurance Cover: Amounts and Deductibles: ----- Insurance Amount insured Deductible Conditions ----- -AS PER GCC/SCOPE OF WORK/MINIMUM AS PER POLICY --- ----- As per 'Scope of Works' / Technical specification (Section-VI)'
24.	GCC 24.7.2	Modify existing GCC Clause 24.7.2 as under: 24.7.2 The Employer has established a Vendor Payment Portal where Contractor shall submit their digital Bill/Invoice and may track its status. The Contractor's bill, supported with measurements, as mentioned in clause 24.7 above, shall be digitally signed with Class-2/3 Digital Signature and shall be submitted by the Contractor in Employer's Vendor Payment Portal. No hard/physical copy of such documents will be accepted by the Employer unless otherwise asked for in the PO or instructed by Employer.
25.	Payment on Account (GCC Clause 24)	As per 'Scope of Works' / Technical specification (Section-VI)'
26.	GCC Clause 30.3 (Modified Clause in place of existing)	Add new Clause 30.3 under GCC Clause 30, as under: 30.3 The Contractor shall not be allowed to sub-contract works to any subcontractor/ sub-vendor from a country which shares a land border with India unless such sub-contractor is registered with the competent Authority. The Competent Authority for the purpose of registration shall be as mentioned in the relevant Annexure of SCC.

Special Conditions (SCC No.)	GCC Clause Ref., if any	Special Conditions
		However, the said requirement of registration will not apply to subcontractors from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects. The Contractor may apprise itself of the updated lists of such countries available in the website of the Ministry of External Affairs. Procurement of raw material, components, etc. does not constitute sub- contracting.
27.	Mobilisation Advance (GCC Clause 23.1)	Not applicable
28.	~~GCC Clause 26~~	
29.	GCC Cl. 22- Contract Performance Security	As per 'Scope of Works' / Technical specification (Section-VI) Add new Sub Clause Cl. No. 22.1.4 a) All Physical BGs except BG issued by a Bank outside India and all Insurance Surety Bonds except those issued by an Indian Insurance company outside India, shall be received from issuing Bank/Insurance company directly through post/ courier, by Unified Treasury, Dadri at below mentioned address: Unified Treasury (BG Group) Administrative Building, NCPS, Dadri NTPC Limited, PO. Vidyut Nagar Distt: Gautam Budh Nagar, Uttar Pradesh- 201008 The Bank Guarantee/ Insurance Surety Bond shall be issued on Non-Judicial stamp paper/e-stamp paper of appropriate value as per applicable Stamp Act(s). A physical BG issued by a Bank outside India and Insurance Surety Bond issued by an Indian Insurance company outside India need to be submitted by the Bidder directly to the employer as defined in BDS. The BG/ Insurance Surety Bond also needs to bear stamp duty of appropriate value as applicable. The BG/ Insurance Surety Bond may be got adjudicated by the employer from Collector of Stamps, within 3 months of arrival of BG/ Insurance Surety Bond in

Special Conditions (SCC No.)	GCC Clause Ref., if any	Special Conditions
		India. Expenses incurred in this regard shall be adjusted from the payment due to the contractor. b) A soft copy of the physical BG/ Insurance Surety Bond is mandatorily required to be mailed to Unified Treasury Group at ubg@ntpc.co.in by the issuing Bank/ Insurance company c) Confirmation of physical BGs through Structured Financial Messaging System (SFMS)/SWIFT (Not applicable for E-BGs through NESL platform) While issuing the physical BGs, the Bidder's Bank shall also send electronic message through secure SFMS (in case of BGs issued from within India) or SWIFT (in case of BGs issued from outside India) to Employer's Beneficiary Bank whose details are provided herein below: (i) Bank Name: ICICI Bank Limited (ii) Branch: CONNAUGHT PLACE BRANCH (iii) Bank Address: 9A, PHELPS BUILDING, INNER CIRCLE, NEW DELHI- 110001 (iv) IFSC Code: ICIC0000007 BG issuing/amending bank must send the BG advice in the form of message format via SFMS (Structured Financial Messaging System) as provided by RBI. The format of the message for confirmation of the BG shall be as below: BG advising message: IFN 760COV/ IFN 767COV via SFMS Field Number: Particulars (to be mentioned in Row 1) 7037: NTPCBG (unique identifier) d) All Bank Guarantees/ Insurance Surety Bond should be enforceable for minimum ninety (90 days) after expiry of its validity. e) Minimum extension of any BG/ Insurance Surety Bond should be three months along with 90 days of claim period from the revised date of expiry. f) Performance Security/Security Deposit amount up to Rs. 1,00,000/- (Rupees One Lac only), must be submitted through Electronic Fund Transfer (EFT) only. In such cases the provisions pertaining to submission of Bank Guarantee (BG)/e-BG/Insurance Surety Bond towards performance security will not be applicable. However, depositing of Performance Security/Security Deposit by deducting requisite percentage of amount from RA bills, if specified in the bidding documents, will be applicable.

Special Conditions (SCC No.)	GCC Clause Ref., if any	Special Conditions
		In addition, in case a contractor/its assignee/collaborator/associate/JV Partner (if applicable), chooses to submit BG against performance securities/Advance, such BG will be mandatorily submitted in the form of e-BG, and no physical BG will be accepted.
30.	GCC Clause No.46.0	The Bank Guarantee and Insurance Charges for the extended period on account of delays attributable to the Employer shall be reimbursed at the following rates: Rate applicable for BG Charges: As per actual, Rate applicable for Insurance Charges: The Insurance charges (including GST) for the extended period on account of delays attributable to the Employer, shall be reimbursed at actuals based on documentary evidence submitted by the Contractor. In such cases, the Contractor should obtain Insurance Policy directly from the Insurance Company and not through Brokers.
31.	Permissible deviation limit for variations in Contract Items (GCC Clause 49.2)	As per 'Scope of Works' / Technical specification (Section-VI),
32.		Version of "Policy for Debarment from Business Dealings" GCC Clause No. 53 The version of Policy for Debarment from Business Dealings presently followed by NTPC is Rev-4.
33.	Vendors' Grievances Redressal Mechanism	All post award communication/ grievance will be addressed to Engineer-In charge at email id:- *****@ntpc.co.in (*Email id of EIC to be shared along with Purchase Order)
34.	General	All terms and conditions of the 'Scope of Works / Technical specification (Section-VI) shall be applicable.

Policy & Procedure for
Debarment from Business Dealings
(Rev-4 dated 05.05.2023)

Policy & Procedure for Debarment from Business Dealings **(Rev-4 dated 05.05.2023)**

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Policy & Procedure for Debarment from Business Dealings

1. Introduction

- 1.1 NTPC Ltd. deals with Agencies, who are expected to adopt ethics of highest standards and a very high degree of integrity, transparency, commitments and sincerity towards the work undertaken. It is not in the interest of NTPC to deal with any Agency, which commits deception, fraud or other misconduct of whatsoever nature in the tendering process and/or execution. NTPC is committed for timely completion of the projects within the awarded value without compromising on quality.
- 1.2 Since banning of business dealings involves civil consequences for an Agency concerned, it is incumbent that adequate opportunity of hearing is provided and the explanation, if tendered, is considered before passing any order in this regard keeping in view the facts and circumstances of the case.

2. Scope

- 2.1 NTPC reserves its right to withhold or ban or suspend business dealings with any Agency, if such Agency is found to have committed misconduct or any of its action(s) fall into any such categories as laid down in this policy.
- 2.2 The procedure for (i) Withholding of Business Dealings, (ii) Banning of Business Dealings and (iii) Suspension of Business Dealings with any Agency, has been laid down in these guidelines. The terms 'withholding', 'suspension', 'banning' etc. convey the same meaning as that of debarment.
- 2.3 The provisions of this Policy supersede and will have overriding effect on all earlier guidelines, procedures & system circulars issued for the similar purpose.
- 2.4 This policy comes into force from the date of its issuance.
- 2.5 The provisions of this policy will be effective on investigations conducted or misconduct/irregularities noticed on the part of any Agency in all contracts awarded on or after the date of implementation of this policy and in the contracts under execution or contracts not yet closed, on the date of the implementation of this policy.
- 2.6 The provisions of this Policy shall be applicable for Subsidiaries of NTPC as well.

- 2.7 Joint Ventures (JVs) of NTPC may consider adopting this policy after approval from Concerned Authority in respective JV.
- 2.8 Withholding/Banning/Suspension of business dealings with any agency shall be done Company wide only (entire NTPC including Subsidiaries and JVs (if adopted)).

3. Definitions

In these Guidelines, unless the context otherwise requires:

- i) **Agency** shall mean Contractor / Supplier / Applicant/ Purchaser / Bidder/ Seller/ Consultant/ Buyer/ NTPC approved Sub-contractor of a Contractor' to whom work has been awarded. It shall include, but not limited to, a public limited company or a private limited company, a firm whether registered or not, any individual, a cooperative society or an association or a group of persons engaged in any commerce, trade industry, or constituents of an unincorporated Joint Venture Company, Proprietor, Individual, Artificial Juridical person etc.
- ii) **Competent Authority** shall mean the following :-

- a) **For Banning of Business Dealings pertaining to Contracts awarded/processed from Corporate Centre/ Site/ Region/ USSC/JVs/Subsidiaries of NTPC**

Functional Director of the concerned deptt. initiating the proposal for Banning shall be the 'Competent Authority' for the purpose of these guidelines.

For cases pertaining to JVs / Subsidiaries of NTPC, the Competent Authority shall be the Chairman of the Board of the JV / Subsidiary provided the Chairman is a Functional Director of NTPC. In case the Chairman of the Board of the JV / Subsidiary is not a Functional Director of NTPC, competent authority shall be Director-In-Charge of CC&M deptt. of NTPC.

CMD (NTPC) shall be the '**Appellate Authority**' for all cases.

- b) **For Withholding of Business Dealings pertaining to Contracts awarded/processed from:**

- (i) Corporate Centre – Concerned RED/Functional ED and ED(CC&M)
- (ii) Site/Region/USSC/JVs/Subsidiaries – Concerned RED and ED(USSC).

c) **For Suspension of Business Dealings including issuance of show cause notice for Banning pertaining to Contracts awarded/processed from:**

- (i) Corporate Centre – ED (CC&M)
- (ii) Site/Region/USSC/JVs/Subsidiaries – ED (USSC).
- iii) **‘Investigating Department’** shall mean any Department or Unit of NTPC, investigating into the conduct of the Agency and shall include the NTPC Vigilance Department, Central Bureau of Investigation, the State Police or any other department set up by the Central or State Government having powers to investigate.
- iv) **List of Enlisted Agencies** –shall mean and include list of Enlisted Parties / Contractors / Suppliers / Bidders etc.
- v) **State** – includes the Government and Parliament of India and the Government and the Legislature of each of the States and all local or other authorities within the territory of India or under the control of the Government of India.
- vi) **Fraud Prevention Policy** – shall mean the policy related to prevention of fraud displayed on NTPC tender website <https://ntpctender.ntpc.co.in>.
- vii) **Contractor Performance Feedback and Evaluation System** – The guidelines outlined in relevant NTPC circular for evaluating the Contractor's performance by the Screening Committee in respect of Contracts awarded by Corporate Contracts Services.
- viii) **Completion of Facilities** shall mean the term ‘Completion of Facilities’ as defined in the Contract.
- ix) **Standing Committee** shall mean the following :-

a) **For Contracts awarded/processed from Corporate Centre:**

A Committee constituted for the purpose of these guidelines and comprising members from CC&M (Convener), Finance and Engineering/Indenting department. Additional member(s) from any other Deptt./Site/Region as considered appropriate may also be co-opted on case to case basis. The level of the committee members shall be GM or above.

b) **For Contracts awarded/processed from Unified Shared Service Centre (USSC):**

A Committee constituted for the purpose of these guidelines and comprising members from USSC C&M (Convener), Finance and

PPG / Indenting department. Additional member(s) from any other deptt./site/region as considered appropriate may also be co-opted on case to case basis. The level of the committee members shall be GM or above.

c) For Contracts awarded / processed from individual Projects / Units / Regions / JVs / Subsidiaries of NTPC:

A Committee constituted for the purpose of these guidelines and comprising members from C&M (Convener), Finance and Indenting department. Additional member(s) from any other dept. as considered appropriate may also be co-opted on case to case basis. The level of the committee members shall be AGM and above.

In case of non-availability of Sr. Officials from Finance / C&M at individual Projects / Units / Regions, such member may be nominated from USSC.

ED(CC&M) / ED(USSC) / concerned RED / CEO of respective JV / Subsidiary Co. shall be the approving authority for constitution of the Standing Committee.

- x) **CC&M** shall mean “Corporate Contracts & Materials Deptt. of NTPC”
- xi) **Integrity Pact** – shall mean the pact as displayed on NTPC tender website <https://ntpctender.ntpc.co.in>.

4. Withholding of Business Dealings

4.1 Grounds

The business dealing with the Agency may be withheld, if they are found to be in breach of the terms & conditions of the Contract, on account of the reasons attributable to them, which shall include, but not be limited to the following:

If the Agency

- a) Either fails to commence work on the Facilities in terms of contract or suspends the progress of Contract performance;
- b) Fails to achieve the ‘Completion of Facilities’ or execute the contract milestones within time schedule stipulated in the contract;
- c) Suspends/stops work on any unfounded pretext including seeking higher compensation;
- d) Fails to conduct the Guarantee test in the time limit stipulated in the contract;

- e) Diverts funds advanced to the Contractor for purpose other than the Contract;
- f) Does not deploy or withdraws the technical staff or equipment considered necessary as per the terms & conditions of contract;
- g) Fails to furnish the required documents / information as required under the terms & conditions of contract;
- h) Does not fulfill the obligations as required under the Contract;
- i) Violates terms & conditions of the contract;
- j) Does not Supply material /supplies material of inferior quality with respect to Technical Specifications under the Contract;
- k) On prima-facie scrutiny, work executed found to be of poor quality beyond acceptable limits stipulated in the Technical Specifications under the Contract;
- l) If a disaster / major failure / accident / collapse of a structure/ system caused during erection or during defect liability period *prima facie* appears to be due to negligence of contractor or design deficiency or poor quality of execution;
- m) Assigns, transfers, sublets or attempts to assign, transfer or sublet the entire Works or any portion thereof without the prior written approval of the Employer;
- n) Misbehavior or physical manhandling by the Agency or his representative or any person acting on his behalf with any official of the company dealing with the concerned contract;
- o) If NTPC prima-facie is of the view that the Agency is guilty of an offence involving corrupt, fraudulent practices including misrepresentation of facts as per NTPC Fraud Prevention Policy, moral turpitude in relation to the business dealings with NTPC;
- p) If the Central Vigilance Commission, Central Bureau of Investigation or any other Central Government investigation Agency or any other Central Government Department recommends such a course in respect of a case under investigation;
- q) If the security consideration, including questions of loyalty of the Agency to the state, so warrants ;
- r) The finished work either prematurely fails or fails to give the desired output/service during the defect liability period and the Agency fails to rectify it;

- s) On any ground as per which doing business dealings with the Agency is not in the public interest in the opinion of Competent Authority;
- t) If the Agency fails to comply with any of the statutory laws and regulations in force, in totality, even after completion of work;

4.2 Procedure

- (a) The concerned department at Site/Region/USSC/Corporate Centre on noticing any non/under performance and/or irregularities and/or misconduct and/or unethical practice as mentioned above, shall refer the matter to Convener of the Standing Committee along with relevant details. The Standing Committee shall analyze the referred case and if considered appropriate, shall put up the proposal for issuing Notice of Default for the purpose of withholding of business dealings with the Agency for approval of the Competent Authority. The above draft Notice of Default to be issued to the Agency should clearly indicate the charges based on the facts as can be proved.

In case the Standing Committee recommends waiver of withholding of business dealings with the Agency, the proposal along with reasons thereof shall be put up for approval of the CMD (NTPC).

In case of performance related grounds pertaining to activities at Site, the Standing Committee shall act based on inputs provided by:-

- i) PM department for Corporate awarded packages on basis of records of PRTs, Exception reports, Weekly progress meetings, Hindrance Register etc.
- ii) TS department at Region/Site for packages awarded from Region/USSC/Site.

The action for withholding of business dealings shall be initiated in those cases where 30% or more shortfall in work progress is observed with respect to agreed work schedule for the reasons attributable to the Contractor.

Besides the Standing Committee, Vigilance Department of each Project / Unit / Corporate Vigilance may also be competent to initiate the proposal for withholding.

- (b) In cases processed by Vigilance Department, a separate file will be initiated enclosing therewith the relevant portion of order of the Competent Authority and the noting extracted from the concerned file and also bringing out in the file the relevant facts available against the Agency leading to provisional decision of the Competent

Authority. The case will then be sent to the concerned C&M department to issue a Notice of Default to the Agency concerned, and if any supplementary information is necessary, the same shall be obtained expeditiously by the Vigilance department directly, as found expedient.

All proposals arising out of cases which have been either processed by Vigilance deptt. or arising out of an investigation by Vigilance, CBI or any other investigation agency shall be routed through Vigilance department.

4.3 Notice of Default

Once the proposal for issuance of Notice of default is approved by the Competent Authority, a 'Notice of Default' duly vetted by legal dept. shall be issued by the Competent Authority himself or by a person authorized for the said purpose to the Agency giving them a period of twenty eight (28) days to remedy the default.

In cases where investigation has been carried out by Vigilance Department or CBI etc., the Notice of default will also be vetted by Vigilance Department before issuance.

If Agency fails to remedy or take adequate steps to remedy the default to the satisfaction of NTPC within the notice period mentioned above, then business dealings shall be withheld with the Agency after approval of the Competent Authority. The order of such withholding of business dealings (after vetting by legal dept.), shall be communicated by the Competent Authority himself or by a person authorized for the said purpose. The order of withholding of business dealings shall be communicated to the Agency, **immediately** on approval by Competent Authority.

The Notice of Default & Order of Withholding shall be issued by Competent Authority himself or by a person authorized for the said purpose, jointly with an executive from Legal Deptt.

4.4 Area of Operation

Withholding of business dealings with any agency shall be done **Company-wide only** [entire NTPC including Subsidiaries and JVs (if adopted)], for all cases including cases processed from NTPC, Subsidiaries and JVs (if adopted).

Circular regarding withholding of business dealings **shall be issued by CC&M and uploaded at intranet of CC&M.**

4.5 Effect of Withholding

The Agency, after issuance of the Order of Withholding of business dealings under this policy would not be allowed to participate in any future tender enquiry and if the Agency has already participated in another tender process and the price bids are not opened, its techno-commercial bid will be rejected and price bid will not be opened. Further, where the price bid of Agency has been opened prior to issuance of Withholding Order under this policy, the price bid of Agency shall be rejected. In case, such agency is the lowest evaluated bidder (L-1), next lowest evaluated bidder shall be considered as L-1.

Further, in case such agency is the lowest evaluated bidder (L-1) and award recommendation on such agency has been put up for approval, or the award recommendation is approved prior to issuance of Withholding Order under this policy but award is yet to be placed, then award recommendation on such agency shall stand cancelled and the price bid of Agency shall be rejected. A revised recommendation has to be put up for approval considering next lowest evaluated bidder as L-1.

No award shall be placed on any agency if Withholding Order for business dealings under this policy has been issued prior to award of contract.

Bid Security of such agency shall be returned after rejection of bids in these cases.

Note - Contracts concluded before the issue of the Withholding order shall, not be affected by the Withholding Order.

4.6 Duration of Withholding

Duration of withholding of business dealings with the Agency shall be **for a period of one year**. Within this period, if the Agency rectifies the reason / ground on which business dealings with the Agency has been withheld, to the satisfaction of the Competent Authority, then on written representation of the Agency, the Competent Authority can review and, if satisfied, may revoke the order of withholding of business dealing. Provided further that, even till completion of one year of withholding period, if the Agency does not rectify, then the Competent Authority after reviewing the situation may issue order extending the period of withholding for one more year or advise initiation of action for banning of business dealings with Agency in accordance with the procedure prescribed in Para 5.2 below.

4.7 Revocation of Orders

An order for withholding of business dealing passed for a certain

specified period, including extension thereof, shall not be revoked automatically. Such withholding shall be revoked only after order in this respect is issued with the approval of Competent Authority.

5. Banning of Business Dealings

5.1 Grounds

Banning of business dealings can be initiated against Agency, on following grounds:-

- a) If the Agency has abandoned or repudiated the Contract;
- b) If the Contractor is found to be non-performing in execution of contract by the Screening Committee (nominated as per NTPC established 'Contractor Performance Feedback and Evaluation System');
- c) If a disaster / major failure / accident / collapse of a structure / system is caused during erection or during defect liability period due to negligence of contractor or design deficiency or poor quality of execution under the contract;
- d) Misbehavior or physical manhandling by the Agency or his representative or any person acting on his behalf with any official of the Company dealing with the concerned contract is established;
- e) If the Director / Owner of the Agency, proprietor or partner of the Agency, is convicted by a court of law for offences involving corrupt and fraudulent practices including moral turpitude in relation to its business dealings with the government or NTPC or NTPC's group companies, during the last five years;
- f) If the proprietor of the Agency have been guilty of malpractices such as bribery, corruption, fraud, substitution of the tenders, interpolations, etc. in respect of participation in the bidding process for the contract and/or execution of the contract;
- g) If the Agency continuously refuses to return / refund the dues of NTPC or NTPC's group companies, without showing adequate reason and this is not due to any reasonable dispute which would attract proceedings in arbitration or court of Law;
- h) If the Agency employs a public servant dismissed / removed or employs a person convicted for an offence involving corruption or abetment of such offences ;
- i) If business dealings with the Agency have been banned by the Ministry of Power or Deptt. of Expenditure, Ministry of Finance and the ban is still in force;

- j) If it is established that Agency has resorted to corrupt, fraudulent practices including misrepresentation of facts in respect of participation in the bidding process for the contract and/or the execution of the contract;
- k) If the Agency uses intimidation/threatening or brings undue outside pressure on the NTPC or NTPC's group companies, or its official in acceptance / performance of the job under the contract;
- l) If the Agency indulges in repeated and / or deliberate use of delay tactics in complying with contractual stipulations;
- m) If the Agency is found to be involved in cartel formation during bidding for the tender;
- n) On willful indulgence by the Agency in supplying sub-standard material with respect to Technical Specifications under the Contract irrespective of whether pre-dispatch inspection was carried out by Company (NTPC) or not;
- o) Based on the findings of the investigation report of CBI/Police/or any other Central Government investigation Agency/Department against the Agency for mala-fide/unlawful acts or improper conduct on his part in matters relating to the Company (NTPC);
- p) If the Agency is declared bankrupt or insolvent or its financial position has become unsound, and in the case of a limited company, it is wound up or liquidated;
- q) Established litigant nature of the Agency to derive undue benefit;
- r) Continued poor performance of the Agency during execution under contracts pertaining to NTPC or its JV/Subsidiary companies;
- s) If the Agency violates Section-2 of the Integrity Pact provided in the bid/Contract;
- t) If the Agency commits fraud as defined under the Fraud Prevention Policy of NTPC;
- u) If the Agency has assigned or transferred the contract or engaged sub- contractor(s) without the prior approval of the Competent Authority in violation of the provisions of the contract;
- v) If the Agency misuses the premises or facilities of the NTPC forcefully occupies, tampers or damages the Company's properties including land, water resources, forests / trees, etc;
- w) If the security consideration, including questions of loyalty of the Agency to the state, so warrants;

Note: The examples given above are only illustrative and not exhaustive. The Competent Authority may decide to ban business dealing for any good and sufficient reason if it is established beyond any reasonable doubt.

5.2 Procedure

The concerned department on noticing any non/under performance and/or irregularities and/or misconduct and/or unethical practice as mentioned above, shall refer the matter to Convener of the Standing Committee along with relevant details. The Standing Committee shall analyze the referred case and if considered appropriate, shall put up the proposal for issuing Show Cause Notice for the purpose of banning of business dealings with the Agency for approval of the Competent Authority. All proposals arising out of cases which have been either processed by Vigilance deptt. or arising out of an investigation by Vigilance, CBI or any other investigation agency shall be routed through Vigilance department. The draft Show Cause Notice to be issued to the Agency should clearly indicate the charges based on the facts as can be proved.

Matters pertaining to Fraud shall initially be referred to the Nodal officer identified as per the Fraud Prevention Policy of NTPC for further investigation. Once a communication is received from Vigilance Department / Investigating Agency / Nodal Officer for considering action against such Agency in the matters of Fraud, further process of Banning of Business Dealings shall be carried out as per the Policy & Procedure for Debarment from Business Dealings.

In case the Standing Committee recommends waiver of banning of business dealings with the Agency, the proposal along with reasons thereof shall be put up for approval of CMD (NTPC).

Besides the Standing Committee, Vigilance Department / Screening Committee (under Contractor Performance Feedback and Evaluation System) may also be competent to initiate the proposal for banning.

In cases processed by Vigilance Department, a separate file will be initiated enclosing therewith the relevant portion of order of the Competent Authority and the noting extracted from the concerned file and also bringing out in the file the relevant facts available against the Agency leading to provisional decision of the Competent Authority. The case will then be sent to the Standing Committee to issue a Show Cause Notice to the Agency concerned, and if any supplementary information is necessary, the same shall be obtained expeditiously by the Vigilance department directly, as found expedient. A member from Vigilance department shall be co-opted on case-to-case basis in the Standing Committee.

In cases where the banning is arising out of an investigation by Vigilance or CBI etc., these details shall be furnished by the concerned office with minimum time gap.

5.3 Show Cause Notice

Once the proposal for issuance of Show Cause Notice is approved by the Competent Authority, a 'Show Cause Notice' duly vetted by legal department shall be issued to the delinquent Agency, by the Competent Authority himself or by a person authorized for the said purpose, jointly with an executive from Legal Deptt.

In cases where investigation has been carried out by Vigilance Department or CBI etc., the show cause notice will also be vetted by Vigilance Department before issuance. Statement containing the imputation of misconduct or misbehavior may be appended to the Show Cause Notice.

The Agency shall be asked to submit the reply of Show Cause Notice within 15 days of its issuance. Further, the Agency shall be given an opportunity for Oral hearing with Standing Committee to present its case in person, if it so desires, and the date for Oral Hearing shall be necessarily indicated in the Show Cause Notice.

The purpose of issuing the Show Cause Notice is only that the Agencies concerned shall be given an opportunity to explain their stand before any action is taken. All that is required in such cases is that the grounds on which action is proposed to be taken shall be disclosed to the Agency inviting representation and after considering that representation, orders may be passed. Such orders require only the subjective satisfaction of the authority that passed the final orders.

If the Agency requests for inspection of any relevant document in possession of NTPC, necessary facility for inspection of documents may be provided.

During the conductance of oral hearing, only the regular employees of Agency will be permitted to represent the Agency and no outsider shall be allowed to represent the Agency on its behalf.

Reply to the Show Cause Notice given by the Agency and their submissions in oral hearing, if any, will be processed by the Standing Committee for obtaining final decision of the Competent Authority in the matter.

In case, no reply to Show Cause Notice is received from the Agency within stipulated time, action for processing ex-parte against the concerned Agency shall be initiated.

5.4 Speaking Order

The proposal for issuance of speaking order for banning shall be put up for approval of Competent Authority through ED(CC&M). In cases where investigation has been carried out by Vigilance Department, CBI etc. the proposal for issuance of speaking order shall be routed through CVO also.

The speaking order (after vetting by legal dept.), shall be issued by the Competent Authority himself or by a person authorized for the said purpose, jointly with an executive from Legal Deptt. In cases where investigation has been carried out by Vigilance Department or CBI etc., the speaking order will also be vetted by Vigilance Department before issuance. The speaking order shall be communicated to the Agency, **immediately** on approval by Competent Authority.

5.5 Communication to Agencies

The decision regarding banning of business dealings taken after the issue of a Show Cause Notice and consideration of representation, if any, in reply thereto, shall be communicated to the Agency concerned along with a reasoned order. The fact that the representation has been considered shall invariably be mentioned in the communication. Also the fact that if no reply was received to the Show Cause Notice shall invariably be indicated in the final communication to the Agency.

5.6 Period of banning

The period for which the ban would be operative shall be mentioned in the order. The banning shall normally be for a period of six (6) months to two (02) years from the date of issuance of the speaking order. The period of banning shall be recommended by the standing committee on case to case basis depending upon the gravity of the default of the agency except in cases of bribery, corrupt, and fraudulent practices including misrepresentation of facts, where the banning period shall be for two (02) years.

However, in cases processed under provisions of Integrity pact or Contractor Performance Feedback and Evaluation System, the banning would be operative for a period as specified therein.

In case the information/documents submitted by Agency in competing for the tender is found to be false/forged then NTPC, without prejudice to any other rights or remedies it may possess, shall recover from Agency the cost incurred in carrying out physical assessment for establishing veracity of such information/documents. In case Agency refuses to reimburse such cost to NTPC then banning period of Agency shall be extended by another one year.

Notwithstanding para 5.1(a) above, in case an agency after having been issued the Notification of Award / Letter of Award within the bid validity period, either “does not sign the Contract Agreement” or “does not submit an acceptable Performance Security”, business dealings with the agency shall be suspended for a period of six (06) months from the date of issuance of suspension order, in accordance with the procedure for suspension of business dealings as specified at para 6 of this Policy. However, in case the agency commits aforesaid transgression/default again in another tender of NTPC within three (03) years from the date of issuance of suspension order, business dealings with the agency shall be banned for a period of two (02) years from the date of issuance of speaking order.

5.7 Area of Operation

Banning of business dealings with any agency shall be done **Company-wide only** (entire NTPC including Subsidiaries and JVs (if adopted)), for all cases including cases processed from NTPC, Subsidiaries and JVs (if adopted).

Circular for Banning of Business dealing shall be issued by **CC&M**. The Circular for Banning along with Speaking Order shall be **uploaded at intranet of CC&M**.

5.8 Effect of Banning

The Agency, after issuance of the Order of Banning of business dealings under this policy would not be allowed to participate in any future tender enquiry and if the Agency has already participated in another tender process and the price bids are not opened, its techno-commercial bid will be rejected and price bid will not be opened. Further, where the price bid of Agency has been opened prior to issuance of Banning Order under this policy, the price bid of Agency shall be rejected. In case, such agency is the lowest evaluated bidder (L-1), next lowest evaluated bidder shall be considered as L-1.

Further, in case such agency is the lowest evaluated bidder (L-1) and award recommendation on such agency has been put up for approval, or the award recommendation is approved prior to issuance of Banning Order under this policy but award is yet to be placed, then award recommendation on such agency shall stand cancelled and the price bid of Agency shall be rejected. A revised recommendation has to be put up for approval considering next lowest evaluated bidder as L-1.

No award shall be placed on any agency if Banning Order for business dealings under this policy has been issued prior to award of contract.

Bid Security of such agency shall be returned after rejection of bids in these cases.

Note- Contracts concluded before the issue of the Banning order shall, not be affected by the Banning Order.

5.9 Process of reply

The Agency shall be separately advised of the decision taken regarding banning of business dealings, in reply to their representation, if any. As regards any further representation from the Agency, business dealings with whom have been banned, the same shall be processed by the concerned C&M department in consultation with Vigilance department, wherever applicable. If any reply is considered necessary to be sent to the Agency, the same shall be sent by the concerned C&M department.

5.10 Hosting at NTPC website

- a) The names of the Agencies with whom Business Dealings have been banned shall be hosted at NTPC website by CC&M.
- b) If a Government Department or a Public Sector Enterprise request for more information about the Agency with whom business dealings have been banned, such additional information, as decided, may be given after due approval of the Competent Authority.

5.11 Dealing with court cases related to Banning

The Court cases arising out of the banning orders issued shall be processed by the C&M department of Project/USSC/Region/Corporate Centre, as the case may be, in consultation with the Vigilance and legal department as required.

5.12 Appeal against the Decision of the Competent Authority

The Agency may file an appeal against the order of the Competent Authority for banning of business dealings before Appellate Authority. Such an appeal shall be preferred within one month from the date of receipt of the order of banning of business dealing. Appellate Authority would consider the appeal and pass appropriate order which shall be communicated to the Agency as well as the Competent Authority.

5.13 Revocation of Orders

- a) The banning under 'Contractor Performance Feedback and Evaluation System' shall not be revoked automatically. Such banning shall be revoked only after re-evaluation of the performance of the Agency by the Screening Committee as detailed under the 'Contractor Performance Feedback and Evaluation System'.
- b) In all other cases, an order for banning issued for a certain specified period shall be deemed to have been automatically revoked on the expiry of that specified period and it will not be necessary to issue a specific formal orders of revocation, except that an order of banning passed on account of doubtful loyalty or security consideration shall continue to remain in force until it is specifically revoked.
- c) An order for banning issued for the reasons mentioned under para 5.1 above, may be revoked with the approval of the Appellate Authority, if, in respect of the same facts, the direction/order/judgement of a Court of Law envisages revocation of banning.

Further, an order for banning issued for the reasons mentioned at para 5.1 (e) above may be revoked with the approval of the Appellate Authority, if, in respect of the same facts, the accused has been wholly exonerated by a Court of Law.

6. Suspension of Business Dealings

6.1 Grounds

The suspension of business dealings can be initiated against Agency, on following grounds:-

- a) If fraud by agency has been established. The definition of fraud shall be as defined under the 'Fraud Prevention Policy' of NTPC / Bidding documents for a tender.
- b) If the agency has abandoned or repudiated the contract or fails to sign the Contract Agreement or fails to submit an acceptable Performance Security.

6.2 Initiation of Suspension

Action for suspension of business dealing with any Agency / (ies) shall be initiated by concerned C&M department based on inputs from EIC,

wherever applicable. For cases in which suspension is initiated on grounds of Fraud, concerned C&M department shall initiate the action of suspension when;

- (i) Vigilance Department based on the facts of the case gathered during investigation by them establishes that fraud has been committed by the Agency, and communicates the same directly or through Nodal Officer.
- (ii) Vigilance Department based on the input from investigating Agency like CBI etc., forwards for necessary action as per policy provision against the Agency.

6.3 Procedure

6.3.1 In cases of fraud

- a) The concerned C&M deptt. shall put up the proposal for “Suspension of business dealings” and “issuance of Show Cause Notice” for banning of business dealings with the Agency for approval of the Competent Authority. After approval of Competent Authority, Suspension Order and Show Cause Notice shall be issued which must include the following:

- i) the Agency is put on suspension list
- ii) why action should not be taken for banning the Agency for future business dealings.

The proposal for issuance of Suspension Order and Show Cause Notice shall be routed through Legal & Vigilance department.

The case shall be further processed for banning of business dealings with the Agency as per para 5 above.

- b) Suspension of business dealings with any agency shall be done Company-wide (entire NTPC including Subsidiaries and JVs (if adopted)), for all cases including cases processed from NTPC, Subsidiaries and JVs (if adopted).
- c) The Suspension Order would operate initially for a period of not more than six (06) months and is to be communicated to Agency, CC&M department of NTPC and Corporate Vigilance department. The recommendation for banning the Agency shall be concluded within the period of suspension. In exceptional circumstances, period of suspension can be further extended with the approval of the Competent Authority maximum up to three (03) months pending a conclusive decision to put the Agency on banning list. Also, a communication for extension of suspension period by three

months shall be communicated to the Agency during the subsistence of suspension order of Six (06) months, failing which the suspension order shall stand revoked.

- d) Show Cause Notice for banning & Suspension order shall be issued by Competent Authority himself or by a person authorized for the said purpose, jointly with an executive from Legal Deptt. The Suspension order along with show cause notice for banning shall be communicated to the Agency, **immediately** on approval by Competent Authority.
- e) The names of the Agencies with whom Business Dealings have been suspended shall be hosted at intranet of CC&M. During the period of suspension, no new business dealing shall be held with the Agency. The circular for suspension of business dealing with the Agency shall be issued by CC&M. Circular for Suspension along with Suspension Order shall be uploaded at intranet of CC&M.
- f) Period of suspension shall be accounted for in the final order passed for banning of business dealings with the Agency.
- g) If it is decided not to ban the Agency after due process, the name of the Agency shall be removed immediately from the suspension list.
- h) The process for putting the Agency on suspension list shall be completed within 30 days from the date of receipt of such intimation from Vigilance/Nodal officer.
- i) The suspension of Agency shall be automatically revoked on the expiry of the period of suspension.

6.3.2 In cases of abandonment or repudiation of contract (except failure to sign the Contract Agreement or submit an acceptable Performance Security)

- a) The concerned C&M deptt. shall put up the proposal for “Suspension of business dealings” and “issuance of Show Cause Notice” for banning of business dealings with the Agency for approval of the Competent Authority. After approval of Competent Authority, Suspension Order and Show Cause Notice shall be issued which must include the following:
 - i) the Agency is put on suspension list
 - ii) why action should not be taken for banning the Agency for future business dealings.

The proposal for issuance of Suspension Order and Show Cause Notice shall be routed through Legal deptt.

The case shall be further processed for banning of business dealings with the Agency as per para 5 above.

- b) Suspension of business dealings with any agency shall be done Company-wide (entire NTPC including Subsidiaries and JVs (if adopted)), for all cases including cases processed from NTPC, Subsidiaries and JVs (if adopted).
- c) The Suspension Order would operate initially for a period of not more than six (06) months and is to be communicated to Agency & CC&M department of NTPC. The recommendation for banning the Agency shall be concluded within the period of suspension. In exceptional circumstances, period of suspension can be further extended with the approval of the Competent Authority maximum up to three (03) months pending a conclusive decision to put the Agency on banning list. Also, a communication for extension of suspension period by three months shall be communicated to the Agency during the subsistence of suspension order of Six (06) months, failing which the suspension order shall stand revoked.
- d) Show Cause Notice for banning & Suspension order shall be issued by Competent Authority himself or by a person authorized for the said purpose, jointly with an executive from Legal Deptt. The Suspension order along with show cause notice for banning shall be communicated to the Agency, **immediately** on approval by Competent Authority.
- e) The names of the Agencies with whom Business Dealings have been suspended shall be hosted at intranet of CC&M. During the period of suspension, no new business dealing shall be held with the Agency. The circular for suspension of business dealing with the Agency shall be issued by CC&M. Circular for Suspension along with Suspension Order shall be uploaded at intranet of CC&M.
- f) Period of suspension shall be accounted for in the final order passed for banning of business dealings with the Agency.
- g) If it is decided not to ban the Agency after due process, the name of the Agency shall be removed immediately from the suspension list.
- h) The process for putting the Agency on suspension list shall be completed within 30 days from the date of receipt of such intimation from concerned Department.
- i) The suspension of Agency shall be automatically revoked on the expiry of the period of suspension.

6.3.3 In cases of failure to sign the Contract Agreement or failure to submit an acceptable Performance Security

- a) The concerned C&M dept. shall put up the proposal for “Suspension of business dealings” with the Agency for approval of the Competent Authority. After approval of Competent Authority, Suspension Order shall be issued which must include the following:
 - i) the Agency is put on suspension list
 - ii) in case the agency commits aforesaid transgression/default again in another tender of NTPC within three (03) years from the date of issuance of suspension order, business dealings with the agency shall be banned for a period of two (02) years from the date of issuance of speaking order for banning.

The proposal for issuance of Suspension Order shall be routed through Legal deptt.

In case the agency commits aforesaid transgression/default again in another tender of NTPC within three (03) years from the date of issuance of suspension order, process for banning of business dealings with the Agency shall be initiated as mentioned at para 5.6 above.

- b) Suspension of business dealings with any agency shall be done Company-wide (entire NTPC including Subsidiaries and JVs (if adopted)), for all cases including cases processed from NTPC, Subsidiaries and JVs (if adopted).
- c) The Suspension Order would operate for a period of six (06) months and is to be communicated to Agency & CC&M department of NTPC.
- d) Suspension order shall be issued by Competent Authority himself or by a person authorized for the said purpose, jointly with an executive from Legal Deptt. The Suspension order shall be communicated to the Agency, **immediately** on approval by Competent Authority.
- e) The names of the Agencies with whom Business Dealings have been suspended shall be hosted at intranet of CC&M. During the period of suspension, no new business dealing shall be held with the Agency. The circular for suspension of business dealing with the Agency shall be issued by CC&M. Circular for Suspension along with Suspension Order shall be uploaded at intranet of CC&M.

- f) The process for putting the Agency on suspension list shall be completed within 30 days of the due date of signing the Contract Agreement or submitting an acceptable Performance Security, whichever is later. However, in case the agency completes the aforesaid formalities before the issuance of suspension order, suspension process will not be pursued further.
- g) The suspension of Agency shall be automatically revoked on the expiry of the period of suspension.

6.4 Effect of Suspension:

The Agency, after issuance of the Order of Suspension of business dealings under this policy would not be allowed to participate in any future tender enquiry and if the Agency has already participated in another tender process and the price bids are not opened, its techno-commercial bid will be rejected and price bid will not be opened. Further, where the price bid of Agency has been opened prior to issuance of Suspension Order under this policy, the price bid of Agency shall be rejected. In case, such agency is the lowest evaluated bidder (L-1), next lowest evaluated bidder shall be considered as L-1.

Further, in case such agency is the lowest evaluated bidder (L-1) and award recommendation on such agency has been put up for approval, or the award recommendation is approved prior to issuance of Suspension Order under this policy but award is yet to be placed, then award recommendation on such agency shall stand cancelled and the price bid of Agency shall be rejected. A revised recommendation has to be put up for approval considering next lowest evaluated bidder as L-1.

No award shall be placed on any agency if Suspension Order for business dealings under this policy has been issued prior to award of contract.

Bid Security of such agency shall be returned after rejection of bids in these cases.

Note- Contracts concluded before the issue of the Suspension Order shall, not be affected by the Suspension Order.

- 7. During the banning/withholding/suspension period, if it is found at any stage that Agency has participated in tender enquiry under a different name then such Agency would immediately be debarred from the tender/contract and its Bid Security/Performance Security would be forfeited. Payment, if any, made shall also be recovered.
- 8. Further in case of banning/withholding/suspension following would also be applicable:

(i) Participation of Agency as an Associate/Collaborator of the Main Contractor

The Agency, after issuance of the Order of Withholding/Banning/Suspension of business dealings under this policy would not be allowed to participate as Associate/Collaborator of any bidders. In case the agency is proposed as Associate/Collaborator by any of the bidder and the price bids are not opened, its techno-commercial bid will be rejected and price bid will not be opened. Further, where the price bid of bidder has been opened prior to issuance of Withholding/Banning/Suspension Order under this policy, the price bid shall be rejected. In case, such bidder is the lowest evaluated bidder (L-1), next lowest evaluated bidder shall be considered as L-1.

Further, in case such bidder is the lowest evaluated bidder (L-1) and where award recommendation on such bidder has been put up for approval, or the award recommendation is approved prior to issuance of Withholding/Banning/ Suspension Order under this policy but award is yet to be placed, then award recommendation on such bidder shall stand cancelled and the price bid of bidder shall be rejected. A revised recommendation has to be put up for approval considering next lowest evaluated bidder as L-1.

Bid Security of such bidder shall be returned after rejection of bids in these cases.

(ii) Participation of Agency as an approved Sub-Vendor of the Main Contractor

After banning / withholding / suspension order, the banned / withheld / suspended Agency shall not be allowed to participate as Sub-Vendor in the tenders for supplying / manufacturing equipment(s) / component(s) / service if it has been banned on grounds of supplying sub-standard material / equipment / service.

Further, if the banned/withheld/suspended agency is an approved Sub- vendor under any Contract for such equipment / component / service, the Main Contractor shall not be permitted to place work order/Purchase order/Contract on the banned/withheld/suspended agency as a sub- vendor after the date of banning / withholding / suspension even though the name of the party has been approved as a sub-vendor earlier.

(iii) Procurement of spares/awarding of Contracts in operating stations

There would be no bar on procuring the spares and awarding Contracts towards Annual Maintenance (AMC) / O&M / Repair works on Agencies pertaining to the packages for which business dealings have been

withheld / banned / suspended with them provided the original Equipment has been supplied/manufactured by such Agency.

9. Treatment in Tender/ Contracts of JVs/Subsidiaries of NTPC

(i) Tenders/Contracts of JVs/Subsidiaries, whose Pre-award and/ or Post award activities are handled by NTPC Corporate Centre

The Tenders/Contracts of JVs/Subsidiaries, whose pre-award and/or post award activities are handled by NTPC Corporate Centre, the cases of non/under performance and/or irregularities and/or misconduct and/or unethical practice observed in such tenders/contracts may be processed in NTPC under the Policy and Procedure for Debarment from business dealings and/or Contractor Performance Feedback and Evaluation System. The Notice of Default or Order for Withholding of business dealings (under Para 4.3)/ Show Cause Notice or Speaking Order for banning of business dealings (under Para 5.3, 5.4)/ Suspension order for suspension of Business Dealings (Under para 6.3), after approval in NTPC, shall be forwarded to CEO of concerned JVs / Subsidiaries for issuance of such Notice or Order to the delinquent agency.

Further, the appeal of the Agency against the above Order (under Para 5.12) shall be reviewed by Appellate Authority in NTPC. Appellate Authority would consider the appeal and pass appropriate order which shall be communicated to the Agency as well as the Competent Authority and CEO of concerned JVs/Subsidiaries.

(ii) The Tenders/Contracts which are handled by JVs/Subsidiaries themselves

The procedure prescribed in the Policy shall appropriately be used by concerned JVs/Subsidiaries to deal with the cases of non/under performance and/or irregularities and/or misconduct and/or unethical practice observed in tenders/contracts handled by them.

Policy For
Debarment from Business Dealings

(Rev-4 dated 05.05.2023)

(To be uploaded on tendering portal)

Policy for Debarment from Business Dealings
(Rev-4 dated 05.05.2023)

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Policy for Debarment from Business Dealings

1. Introduction

- 1.1 NTPC Ltd. deals with Agencies, who are expected to adopt ethics of highest standards and a very high degree of integrity, transparency, commitments and sincerity towards the work undertaken. It is not in the interest of NTPC to deal with any Agency, which commits deception, fraud or other misconduct of whatsoever nature in the tendering process and/or execution. NTPC is committed for timely completion of the projects within the awarded value without compromising on quality.
- 1.2 Since banning of business dealings involves civil consequences for an Agency concerned, it is incumbent that adequate opportunity of hearing is provided and the explanation, if tendered, is considered before passing any order in this regard keeping in view the facts and circumstances of the case.

2. Scope

- 2.1 NTPC reserves its right to withhold or ban or suspend business dealings with any Agency, if such Agency is found to have committed misconduct or any of its action(s) fall into any such categories as laid down in this policy.
- 2.2 The procedure for (i) Withholding of Business Dealings, (ii) Banning of Business Dealings and (iii) Suspension of Business Dealings with any Agency, has been laid down in these guidelines. The terms 'withholding', 'suspension', 'banning' etc. convey the same meaning as that of debarment.
- 2.3 This policy comes into force from the date of its issuance.
- 2.4 The provisions of this policy will be effective on investigations conducted or misconduct/irregularities noticed on the part of any Agency in all contracts awarded on or after the date of implementation of this policy and in the contracts under execution or contracts not yet closed, on the date of the implementation of this policy.
- 2.5 The provisions of this Policy shall be applicable for Subsidiaries/JVs of NTPC as well.
- 2.6 Withholding / Banning / Suspension of business dealings with any agency shall be done Company wide only (entire NTPC including Subsidiaries and JVs).

3. Definitions

In these Guidelines, unless the context otherwise requires:

i) **Agency** shall mean Contractor / Supplier / Applicant/ Purchaser / Bidder/ Seller/ Consultant/ Buyer/ NTPC approved Sub-contractor of a Contractor' to whom work has been awarded. It shall include, but not limited to, a public limited company or a private limited company, a firm whether registered or not, any individual, a cooperative society or an association or a group of persons engaged in any commerce, trade industry, or constituents of an unincorporated Joint Venture Company, Proprietor, Individual, Artificial Juridical person etc.

ii) **Competent Authority** shall mean the following :-

a) **For Banning of Business Dealings pertaining to Contracts awarded/processed from Corporate Centre/ Site/ Region/ USSC/JVs/Subsidiaries of NTPC**

Functional Director of the concerned deptt. initiating the proposal for Banning shall be the '**Competent Authority**' for the purpose of these guidelines.

For cases pertaining to JVs / Subsidiaries of NTPC, the **Competent Authority** shall be the Chairman of the Board of the JV / Subsidiary provided the Chairman is a Functional Director of NTPC. In case the Chairman of the Board of the JV / Subsidiary is not a Functional Director of NTPC, competent authority shall be Director-In-Charge of CC&M dept. of NTPC.

CMD (NTPC) shall be the '**Appellate Authority**' for all cases.

b) **For Withholding of Business Dealings pertaining to Contracts awarded/processed from:**

- (i) Corporate Centre - Concerned RED/Functional ED and ED(CC&M)
- (ii) Site/Region/USSC/JVs/Subsidiaries - Concerned RED and ED(USSC).

c) **For Suspension of Business Dealings including issuance of show cause notice for Banning pertaining to Contracts awarded/processed from:**

- (i) Corporate Centre – ED (CC&M)
- (ii) Site/Region/USSC/JVs/Subsidiaries – ED (USSC).

- iii) **‘Investigating Department’** shall mean any Department or Unit of NTPC, investigating into the conduct of the Agency and shall include the NTPC Vigilance Department, Central Bureau of Investigation, the State Police or any other department set up by the Central or State Government having powers to investigate.
- iv) **List of Enlisted Agencies** –shall mean and include list of Enlisted Parties / Contractors / Suppliers / Bidders etc.
- v) **State** – includes the Government and Parliament of India and the Government and the Legislature of each of the States and all local or other authorities within the territory of India or under the control of the Government of India.
- vi) **Fraud Prevention Policy** – shall mean the policy related to prevention of fraud displayed on NTPC tender website <https://ntpctender.ntpc.co.in>.
- vii) **Contractor Performance Feedback and Evaluation System** – The guidelines outlined in relevant NTPC circular for evaluating the Contractor’s performance by the Screening Committee in respect of Contracts awarded by Corporate Contracts Services.
- viii) **Completion of Facilities** shall mean the term ‘Completion of Facilities’ as defined in the Contract.
- ix) **Standing Committee** shall mean a cross-functional Committee constituted for the purpose of these guidelines.
- x) **CC&M** shall mean “Corporate Contracts & Materials Deptt. of NTPC”.
- xi) **Integrity Pact-** shall mean the pact as displayed on NTPC tender website <https://ntpctender.ntpc.co.in> .

4. Withholding of Business Dealings

4.1 Grounds

The business dealing with the Agency may be withheld, if they are found to be in breach of the terms & conditions of the Contract, on account of the reasons attributable to them, which shall include, but not be limited to the following:

If the Agency

- a) Either fails to commence work on the Facilities in terms of contract or suspends the progress of Contract performance;
- b) Fails to achieve the ‘Completion of Facilities’ or execute the contract milestones within time schedule stipulated in the contract;

- c) Suspends/stops work on any unfounded pretext including seeking higher compensation;
- d) Fails to conduct the Guarantee test in the time limit stipulated in the contract;
- e) Diverts funds advanced to the Contractor for purpose other than the Contract;
- f) Does not deploy or withdraws the technical staff or equipment considered necessary as per the terms & conditions of contract;
- g) Fails to furnish the required documents / information as required under the terms & conditions of contract;
- h) Does not fulfill the obligations as required under the Contract ;
- i) Violates terms & conditions of the contract;
- j) Does not Supply material /supplies material of inferior quality with respect to Technical Specifications under the Contract;
- k) On prima-facie scrutiny, work executed found to be of poor quality beyond acceptable limits stipulated in the Technical Specifications under the Contract;
- l) If a disaster / major failure / accident / collapse of a structure/ system caused during erection or during defect liability period *prima facie* appears to be due to negligence of contractor or design deficiency or poor quality of execution;
- m) Assigns, transfers, sublets or attempts to assign, transfer or sublet the entire Works or any portion thereof without the prior written approval of the Employer;
- n) Misbehavior or physical manhandling by the Agency or his representative or any person acting on his behalf with any official of the company dealing with the concerned contract;
- o) If NTPC prima-facie is of the view that the Agency is guilty of an offence involving corrupt, fraudulent practices including misrepresentation of facts as per NTPC Fraud Prevention Policy, moral turpitude in relation to the business dealings with NTPC;
- p) If the Central Vigilance Commission, Central Bureau of Investigation or any other Central Government investigation Agency or any other Central Government Department recommends such a course in respect of a case under investigation;

- q) If the security consideration, including questions of loyalty of the Agency to the state, so warrants ;
- r) The finished work either prematurely fails or fails to give the desired output/service during the defect liability period and the Agency fails to rectify it;
- s) On any ground as per which doing business dealings with the Agency is not in the public interest in the opinion of Competent Authority;
- t) If the Agency fails to comply with any of the statutory laws and regulations in force, in totality, even after completion of work;

4.2 Procedure

The concerned department at Site/Region/USSC/Corporate Centre on noticing any non/under performance and/or irregularities and/or misconduct and/or unethical practice as mentioned above, shall refer the matter to Convener of the Standing Committee along with relevant details. The Standing Committee shall analyze the referred case and if considered appropriate, shall put up the proposal for issuing Notice of Default for the purpose of withholding of business dealings with the Agency for approval of the Competent Authority. The above draft Notice of Default to be issued to the Agency should clearly indicate the charges based on the facts as can be proved.

In case the Standing Committee recommends waiver of withholding of business dealings with the Agency, the proposal along with reasons thereof shall be put up for approval of the CMD (NTPC).

4.3 Notice of Default

Once the proposal for issuance of Notice of default is approved by the Competent Authority, a 'Notice of Default' duly vetted by legal dept. shall be issued by the Competent Authority himself or by a person authorized for the said purpose to the Agency giving them a period of twenty eight (28) days to remedy the default.

If Agency fails to remedy or take adequate steps to remedy the default to the satisfaction of NTPC within the notice period mentioned above, then business dealings shall be withheld with the Agency after approval of the Competent Authority. The order of such withholding of business dealings (after vetting by legal dept.), shall be communicated by the Competent Authority himself or by a person authorized for the said purpose.

4.4 Area of Operation

Withholding of business dealings with any agency shall be done **Company-wide only** (entire NTPC including Subsidiaries and JVs), for all cases including cases processed from NTPC, Subsidiaries and JVs.

4.5 Effect of Withholding

The Agency, after issuance of the Order of Withholding of business dealings under this policy would not be allowed to participate in any future tender enquiry and if the Agency has already participated in another tender process and the price bids are not opened, its techno-commercial bid will be rejected and price bid will not be opened. Further, where the price bid of Agency has been opened prior to issuance of Withholding Order under this policy, the price bid of Agency shall be rejected. In case, such agency is the lowest evaluated bidder (L-1), next lowest evaluated bidder shall be considered as L-1.

No award shall be placed on any agency if Withholding Order for business dealings under this policy has been issued prior to award of contract.

Bid Security of such agency shall be returned after rejection of bids in these cases.

Note- Contracts concluded before the issue of the Withholding order shall, not be affected by the Withholding Order.

4.6 Duration of Withholding

Duration of withholding of business dealings with the Agency shall be **for a period of one year**. Within this period, if the Agency rectifies the reason / ground on which business dealings with the Agency has been withheld, to the satisfaction of the Competent Authority, then on written representation of the Agency, the Competent Authority can review and, if satisfied, may revoke the order of withholding of business dealing. Provided further that, even till completion of one year of withholding period, if the Agency does not rectify, then the Competent Authority after reviewing the situation may issue order extending the period of withholding for one more year or advise initiation of action for banning of business dealings with Agency in accordance with the procedure prescribed in Para 5.2 below.

4.7 Revocation of Orders

An order for withholding of business dealing passed for a certain specified period, including extension thereof, shall not be revoked automatically. Such withholding shall be revoked only after order in this respect is issued with the approval of Competent Authority.

5. Banning of Business Dealings

5.1 Grounds

Banning of business dealings can be initiated against Agency, on following grounds:

- a) If the Agency has abandoned or repudiated the Contract;
- b) If the Contractor is found to be non-performing in execution of contract by the Screening Committee (nominated as per NTPC established 'Contractor Performance Feedback and Evaluation System');
- c) If a disaster / major failure / accident / collapse of a structure / system is caused during erection or during defect liability period due to negligence of contractor or design deficiency or poor quality of execution under the contract;
- d) Misbehavior or physical manhandling by the Agency or his representative or any person acting on his behalf with any official of the Company dealing with the concerned contract is established;
- e) If the Director / Owner of the Agency, proprietor or partner of the Agency, is convicted by a court of law for offences involving corrupt and fraudulent practices including moral turpitude in relation to its business dealings with the government or NTPC or NTPC's group companies, during the last five years;
- f) If the proprietor of the Agency have been guilty of malpractices such as bribery, corruption, fraud, substitution of the tenders, interpolations, etc. in respect of participation in the bidding process for the contract and/or execution of the contract;
- g) If the Agency continuously refuses to return / refund the dues of NTPC or NTPC's group companies, without showing adequate reason and this is not due to any reasonable dispute which would attract proceedings in arbitration or court of Law;
- h) If the Agency employs a public servant dismissed / removed or employs a person convicted for an offence involving corruption or abetment of such offences ;
- i) If business dealings with the Agency have been banned by the Ministry of Power or Deptt. of Expenditure, Ministry of Finance and the ban is still in force;
- j) If it is established that Agency has resorted to corrupt, fraudulent practices including misrepresentation of facts in respect of participation in the bidding process for the contract and/or the execution of the contract;

- k) If the Agency uses intimidation/threatening or brings undue outside pressure on the NTPC or NTPC's group companies, or its official in acceptance / performance of the job under the contract;
- l) If the Agency indulges in repeated and / or deliberate use of delay tactics in complying with contractual stipulations;
- m) If the Agency is found to be involved in cartel formation during bidding for the tender;
- n) On willful indulgence by the Agency in supplying sub-standard material with respect to Technical Specifications under the Contract irrespective of whether pre-dispatch inspection was carried out by Company (NTPC) or not;
- o) Based on the findings of the investigation report of CBI/Police/or any other Central Government investigation Agency/Department against the Agency for mala-fide/unlawful acts or improper conduct on his part in matters relating to the Company (NTPC);
- p) If the Agency is declared bankrupt or insolvent or its financial position has become unsound, and in the case of a limited company, it is wound up or liquidated;
- q) Established litigant nature of the Agency to derive undue benefit;
- r) Continued poor performance of the Agency during execution under contracts pertaining to NTPC or its JV/Subsidiary companies;
- s) If the Agency violates Section-2 of the Integrity Pact provided in the bid/Contract;
- t) If the Agency commits fraud as defined under the Fraud Prevention Policy of NTPC;
- u) If the Agency has assigned or transferred the contract or engaged sub- contractor(s) without the prior approval of the Competent Authority in violation of the provisions of the contract;
- v) If the Agency misuses the premises or facilities of the NTPC forcefully occupies, tampers or damages the Company's properties including land, water resources, forests / trees, etc;
- w) If the security consideration, including questions of loyalty of the Agency to the state, so warrants;

Note: The examples given above are only illustrative and not exhaustive. The Competent Authority may decide to ban business dealing for any good and sufficient reason if it is established beyond any reasonable doubt.

5.2 Procedure

The concerned department on noticing any non/under performance and/or irregularities and/or misconduct and/or unethical practice as mentioned above, shall refer the matter to Convener of the Standing Committee along with relevant details. The Standing Committee shall analyze the referred case and if considered appropriate, shall put up the proposal for issuing Show Cause Notice for the purpose of banning of business dealings with the Agency for approval of the Competent Authority.

In case the Standing Committee recommends waiver of banning of business dealings with the Agency, the proposal along with reasons thereof shall be put up for approval of CMD (NTPC).

Besides the Standing Committee, Vigilance Department / Screening Committee (under Contractor Performance Feedback and Evaluation System) may also be competent to initiate the proposal for banning.

5.3 Show Cause Notice

Once the proposal for issuance of Show Cause Notice is approved by the Competent Authority, a 'Show Cause Notice' duly vetted by legal department shall be issued to the delinquent Agency, by the Competent Authority himself or by a person authorized for the said purpose.

The Agency shall be asked to submit the reply of Show Cause Notice within 15 days of its issuance. Further, the Agency shall be given an opportunity for Oral hearing with Standing Committee to present its case in person, if it so desires, and the date for Oral Hearing shall be necessarily indicated in the Show Cause Notice.

The purpose of issuing the Show Cause Notice is only that the Agencies concerned shall be given an opportunity to explain their stand before any action is taken. All that is required in such cases is that the grounds on which action is proposed to be taken shall be disclosed to the Agency inviting representation and after considering that representation, orders may be passed. Such orders require only the subjective satisfaction of the authority that passed the final orders.

If the Agency requests for inspection of any relevant document in possession of NTPC, necessary facility for inspection of documents may be provided.

During the conductance of oral hearing, only the regular employees of Agency will be permitted to represent the Agency and no outsider shall be allowed to represent the Agency on its behalf.

Reply to the Show Cause Notice given by the Agency and their

submissions in oral hearing, if any, will be processed by the Standing Committee for obtaining final decision of the Competent Authority in the matter.

In case, no reply to Show Cause Notice is received from the Agency within stipulated time, action for processing ex-parte against the concerned Agency shall be initiated.

5.4 Speaking Order

The speaking order shall be issued by the Competent Authority himself or by a person authorized for the said purpose.

5.5 Communication to Agencies

The decision regarding banning of business dealings taken after the issue of a Show Cause Notice and consideration of representation, if any, in reply thereto, shall be communicated to the Agency concerned along with a reasoned order. The fact that the representation has been considered shall invariably be mentioned in the communication. Also the fact that if no reply was received to the Show Cause Notice shall invariably be indicated in the final communication to the Agency.

5.6 Period of banning

The period for which the ban would be operative shall be mentioned in the order. The banning shall normally be for a period of six (6) months to two (02) years from the date of issuance of the speaking order. The period of banning shall be recommended by the standing committee on case to case basis depending upon the gravity of the default of the agency except in cases of bribery, corrupt, and fraudulent practices including misrepresentation of facts, where the banning period shall be for two (02) years.

However, in cases processed under provisions of Integrity pact or Contractor Performance Feedback and Evaluation System, the banning would be operative for a period as specified therein.

In case the information/documents submitted by Agency in competing for the tender is found to be false/forged then NTPC, without prejudice to any other rights or remedies it may possess, shall recover from Agency the cost incurred in carrying out physical assessment for establishing veracity of such information/documents. In case Agency refuses to reimburse such cost to NTPC then banning period of Agency shall be extended by another one year.

Notwithstanding para 5.1(a) above, in case an agency after having

been issued the Notification of Award / Letter of Award within the bid validity period, either “does not sign the Contract Agreement” or “does not submit an acceptable Performance Security”, business dealings with the agency shall be suspended for a period of six (06) months from the date of issuance of suspension order, in accordance with the procedure for suspension of business dealings as specified at para 6 of this Policy. However, in case the agency commits aforesaid transgression/default again in another tender of NTPC within three (03) years from the date of issuance of suspension order, business dealings with the agency shall be banned for a period of two (02) years from the date of issuance of speaking order.

5.7 Area of Operation

Banning of business dealings with any agency shall be done **Company-wide only** (entire NTPC including Subsidiaries and JVs), for all cases including cases processed from NTPC, Subsidiaries and JVs).

5.8 Effect of Banning

The Agency, after issuance of the Order of Banning of business dealings under this policy would not be allowed to participate in any future tender enquiry and if the Agency has already participated in another tender process and the price bids are not opened, its techno-commercial bid will be rejected and price bid will not be opened. Further, where the price bid of Agency has been opened prior to issuance of Banning Order under this policy, the price bid of Agency shall be rejected. In case, such agency is the lowest evaluated bidder (L-1), next lowest evaluated bidder shall be considered as L-1.

No award shall be placed on any agency if Banning Order for business dealings under this policy has been issued prior to award of contract.

Bid Security of such agency shall be returned after rejection of bids in these cases.

Note- Contracts concluded before the issue of the Banning order shall, not be affected by the Banning Order.

5.9 Process of reply

The Agency shall be separately advised of the decision taken regarding banning of business dealings, in reply to their representation, if any. As regards any further representation from the Agency, business dealings with whom have been banned, the same shall be processed by the concerned C&M department in consultation with Vigilance department, wherever applicable. If any reply is considered necessary to be sent to the Agency, the same shall be sent by the concerned C&M department.

5.10 Hosting at NTPC website

The names of the Agencies with whom Business Dealings have been banned shall be hosted at NTPC website by CC&M.

5.11 Deleted

5.12 Appeal against the Decision of the Competent Authority.

The Agency may file an appeal against the order of the Competent Authority for banning of business dealings before Appellate Authority. Such an appeal shall be preferred within one month from the date of receipt of the order of banning of business dealing. Appellate Authority would consider the appeal and pass appropriate order which shall be communicated to the Agency as well as the Competent Authority.

5.13 Revocation of Orders

- a) The banning under 'Contractor Performance Feedback and Evaluation System' shall not be revoked automatically. Such banning shall be revoked only after re-evaluation of the performance of the Agency by the Screening Committee as detailed under the 'Contractor Performance Feedback and Evaluation System'.
- b) In all other cases, an order for banning issued for a certain specified period shall be deemed to have been automatically revoked on the expiry of that specified period and it will not be necessary to issue a specific formal orders of revocation, except that an order of banning passed on account of doubtful loyalty or security consideration shall continue to remain in force until it is specifically revoked.
- c) An order for banning issued for the reasons mentioned under para 5.1 above, may be revoked with the approval of the Appellate Authority, if, in respect of the same facts, the direction/order/judgement of a Court of Law envisages revocation of banning.

Further, an order for banning issued for the reasons mentioned at para 5.1 (e) above may be revoked with the approval of the Appellate Authority, if, in respect of the same facts, the accused has been wholly exonerated by a Court of Law.

6. Suspension of Business Dealings

6.1 Grounds

The suspension of business dealings can be initiated against Agency, on following grounds:

- a) If fraud by agency has been established. The definition of fraud shall be as defined under the 'Fraud Prevention Policy' of NTPC / Bidding documents for a tender.
- b) If the agency has abandoned or repudiated the contract or fails to sign the Contract Agreement or fails to submit an acceptable Performance Security.

6.2 Deleted

6.3 Procedure

6.3.1 In cases of fraud

- a) The concerned C&M deptt. shall put up the proposal for "Suspension of business dealings" and "issuance of Show Cause Notice" for banning of business dealings with the Agency for approval of the Competent Authority. After approval of Competent Authority, Suspension Order and Show Cause Notice shall be issued which must include the following:
 - i) the Agency is put on suspension list.
 - ii) why action should not be taken for banning the Agency for future business dealings.

The case shall be further processed for banning of business dealings with the Agency as per para 5 above.

- b) Suspension of business dealings with any agency shall be done Company-wide (entire NTPC including Subsidiaries and JVs), for all cases including cases processed from NTPC, Subsidiaries and JVs.
- c) The Suspension Order would operate initially for a period of not more than six (06) months. The recommendation for banning the Agency shall be concluded within the period of suspension. In exceptional circumstances, period of suspension can be further extended with the approval of the Competent Authority maximum up to three (03) months pending a conclusive decision to put the Agency on banning list. Also, a communication for extension of

suspension period by three months shall be communicated to the Agency during the subsistence of suspension order of Six (06) months, failing which the suspension order shall stand revoked.

- d) Show Cause Notice for banning & Suspension order shall be issued by Competent Authority himself or by a person authorized for the said purpose.
- e) The names of the Agencies with whom Business Dealings have been suspended shall be hosted at intranet of CC&M. During the period of suspension, no new business dealing shall be held with the Agency.
- f) Period of suspension shall be accounted for in the final order passed for banning of business dealings with the Agency.
- g) If it is decided not to ban the Agency after due process, the name of the Agency shall be removed immediately from the suspension list.
- h) The suspension of Agency shall be automatically revoked on the expiry of the period of suspension.

6.3.2 In cases of abandonment or repudiation of contract (except failure to sign the Contract Agreement or submit an acceptable Performance Security)

- a) The concerned C&M deptt. shall put up the proposal for “Suspension of business dealings” and “issuance of Show Cause Notice” for banning of business dealings with the Agency for approval of the Competent Authority. After approval of Competent Authority, Suspension Order and Show Cause Notice shall be issued which must include the following:
 - i) the Agency is put on suspension list
 - ii) why action should not be taken for banning the Agency for future business dealings.

The case shall be further processed for banning of business dealings with the Agency as per para 5 above.

- b) Suspension of business dealings with any agency shall be done Company-wide (entire NTPC including Subsidiaries and JVs), for all cases including cases processed from NTPC, Subsidiaries and JVs.
- c) The Suspension Order would operate initially for a period of not more than six (06) months. The recommendation for banning the Agency shall be concluded within the period of suspension. In

exceptional circumstances, period of suspension can be further extended with the approval of the Competent Authority maximum up to three (03) months pending a conclusive decision to put the Agency on banning list. Also, a communication for extension of suspension period by three months shall be communicated to the Agency during the subsistence of suspension order of Six (06) months, failing which the suspension order shall stand revoked.

- d) Show Cause Notice for banning & Suspension order shall be issued by Competent Authority himself or by a person authorized for the said purpose.
- e) The names of the Agencies with whom Business Dealings have been suspended shall be hosted at intranet of CC&M. During the period of suspension, no new business dealing shall be held with the Agency.
- f) Period of suspension shall be accounted for in the final order passed for banning of business dealings with the Agency.
- g) If it is decided not to ban the Agency after due process, the name of the Agency shall be removed immediately from the suspension list.
- h) The suspension of Agency shall be automatically revoked on the expiry of the period of suspension.

6.3.3 In cases of failure to sign the Contract Agreement or failure to submit an acceptable Performance Security

- a) The concerned C&M dept. shall put up the proposal for “Suspension of business dealings” with the Agency for approval of the Competent Authority. After approval of Competent Authority, Suspension Order shall be issued which must include the following:
 - i) the Agency is put on suspension list
 - ii) in case the agency commits aforesaid transgression/default again in another tender of NTPC within three (03) years from the date of issuance of suspension order, business dealings with the agency shall be banned for a period of two (02) years from the date of issuance of speaking order for banning.

In case the agency commits aforesaid transgression/default again in another tender of NTPC within three (03) years from the date of issuance of suspension order, process for banning of business dealings with the Agency shall be initiated as mentioned at para 5.6 above.

- b) Suspension of business dealings with any agency shall be done Company-wide (entire NTPC including Subsidiaries and JVs), for all cases including cases processed from NTPC, Subsidiaries and JVs.
- c) The Suspension Order would operate for a period of six (06) months and is to be communicated to Agency.
- d) Suspension order shall be issued by Competent Authority himself or by a person authorized for the said purpose.
- e) The names of the Agencies with whom Business Dealings have been suspended shall be hosted at intranet of CC&M. During the period of suspension, no new business dealing shall be held with the Agency.
- f) The suspension of Agency shall be automatically revoked on the expiry of the period of suspension.

6.4 Effect of Suspension:

The Agency, after issuance of the Order of Suspension of business dealings under this policy would not be allowed to participate in any future tender enquiry and if the Agency has already participated in another tender process and the price bids are not opened, its techno-commercial bid will be rejected and price bid will not be opened. Further, where the price bid of Agency has been opened prior to issuance of Suspension Order under this policy, the price bid of Agency shall be rejected. In case, such agency is the lowest evaluated bidder (L-1), next lowest evaluated bidder shall be considered as L-1.

Further, in case such agency is the lowest evaluated bidder (L-1) and award recommendation on such agency has been put up for approval, or the award recommendation is approved prior to issuance of Suspension Order under this policy but award is yet to be placed, then award recommendation on such agency shall stand cancelled and the price bid of Agency shall be rejected. A revised recommendation has to be put up for approval considering next lowest evaluated bidder as L-1.

No award shall be placed on any agency if Suspension Order for business dealings under this policy has been issued prior to award of contract.

Bid Security of such agency shall be returned after rejection of bids in these cases.

Note- Contracts concluded before the issue of the Suspension Order shall, not be affected by the Suspension Order.

7. During the banning / withholding / suspension period, if it is found at any stage that Agency has participated in tender enquiry under a different name then such Agency would immediately be debarred from the tender/contract and its Bid Security/Performance Security would be forfeited. Payment, if any, made shall also be recovered.
8. Further in case of banning / withholding / suspension following would also be applicable:

(i) Participation of Agency as an Associate/Collaborator of the Main Contractor

The Agency, after issuance of the Order of Withholding/Banning/ Suspension of business dealings under this policy would not be allowed to participate as Associate/Collaborator of any bidders. In case the agency is proposed as Associate/Collaborator by any of the bidder and the price bids are not opened, its techno-commercial bid will be rejected and price bid will not be opened. Further, where the price bid of bidder has been opened prior to issuance of Withholding/Banning/Suspension Order under this policy, the price bid shall be rejected. In case, such bidder is the lowest evaluated bidder (L-1), next lowest evaluated bidder shall be considered as L-1.

Further, in case such bidder is the lowest evaluated bidder (L-1) and where award recommendation on such bidder has been put up for approval, or the award recommendation is approved prior to issuance of Withholding/Banning/ Suspension Order under this policy but award is yet to be placed, then award recommendation on such bidder shall stand cancelled and the price bid of bidder shall be rejected. A revised recommendation has to be put up for approval considering next lowest evaluated bidder as L-1.

Bid Security of such bidder shall be returned after rejection of bids in these cases.

(ii) Participation of Agency as an approved Sub-Vendor of the Main Contractor

After banning/ withholding/ suspension order, the banned/ withheld/ suspended Agency shall not be allowed to participate as Sub-Vendor in the tenders for supplying/manufacturing equipment (s)/component (s)/service if it has been banned on grounds of supplying sub-standard material / equipment / service.

Further, if the banned/withheld/suspended agency is an approved Sub- vendor under any Contract for such equipment/component/service, the Main Contractor shall not be permitted to place work order/Purchase order/Contract on the banned/withheld/suspended agency as a sub- vendor after the date of banning/withholding/suspension even though the name of the party

has been approved as a sub-vendor earlier.

(iii) Procurement of spares/awarding of Contracts in operating stations

There would be no bar on procuring the spares and awarding Contracts towards Annual Maintenance (AMC)/ O&M/ Repair works on Agencies pertaining to the packages for which business dealings have been withheld/banned/suspended with them provided the original Equipment has been supplied/manufactured by such Agency.

9. Treatment in Tender/ Contracts of JVs/Subsidiaries of NTPC

(i) Tenders/Contracts of JVs/Subsidiaries, whose Pre-award and/ or Post award activities are handled by NTPC Corporate Centre

The Tenders/Contracts of JVs/Subsidiaries, whose pre-award and/or post award activities are handled by NTPC Corporate Centre, the cases of non/under performance and/or irregularities and/or misconduct and/or unethical practice observed in such tenders/contracts may be processed in NTPC under the Policy and Procedure for Debarment from business dealings and/or Contractor Performance Feedback and Evaluation System. The Notice of Default or Order for Withholding of business dealings (under Para 4.3) / Show Cause Notice or Speaking Order for banning of business dealings (under Para 5.3, 5.4) / Suspension order for suspension of Business Dealings (Under para 6.3), after approval in NTPC, shall be forwarded to CEO of concerned JVs / Subsidiaries for issuance of such Notice or Order to the delinquent agency.

Further, the appeal of the Agency against the above Order (under Para 5.12) shall be reviewed by Appellate Authority in NTPC. Appellate Authority would consider the appeal and pass appropriate order which shall be communicated to the Agency as well as the Competent Authority and CEO of concerned JVs/Subsidiaries.

(ii) The Tenders/Contracts which are handled by JVs/Subsidiaries themselves

The procedure prescribed in the Policy shall appropriately be used by concerned JVs/Subsidiaries to deal with the cases of non/under performance and/or irregularities and/or misconduct and/or unethical practice observed in tenders/contracts handled by them.

F.No.6/18/2019-PPD
Ministry of Finance
Department of Expenditure
Public Procurement Division

161, North Block,
New Delhi
23rd July, 2020

Order (Public Procurement No. 1)

Subject: Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017

Attention is invited to this office OM no. 6/18/2019-PPD dated 23rd July 2020 inserting Rule 144 (xi) in GFRs 2017. In this regard, the following is hereby ordered under Rule 144 (xi) on the grounds stated therein:

Requirement of registration

1. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority, specified in **Annex I**.
2. This Order shall not apply to (i) cases where orders have been placed or contract has been concluded or letter/notice of award/ acceptance (LoA) has been issued on or before the date of this order; and (ii) cases falling under **Annex II**.

Transitional cases

3. Tenders where no contract has been concluded or no LoA has been issued so far shall be handled in the following manner: -
 - a) *In tenders which are yet to be opened, or where evaluation of technical bid or the first exclusionary qualificatory stage (i.e. the first stage at which the qualifications of tenderers are evaluated and unqualified bidders are excluded) has not been completed:* No contracts shall be placed on bidders from such countries. Tenders received from bidders from such countries shall be dealt with as if they are non-compliant with the tender conditions and the tender shall be processed accordingly.
 - b) *If the tendering process has crossed the first exclusionary qualificatory stage:* If the qualified bidders include bidders from such countries, the

entire process shall be scrapped and initiated *de novo*. The *de novo* process shall adhere to the conditions prescribed in this Order.

- c) As far as practicable, and in cases of doubt about whether a bidder falls under paragraph 1, a certificate shall be obtained from the bidder whose bid is proposed to be considered or accepted, in terms of paras 8, 9 and 10 read with para 1 of this Order.

Incorporation in tender conditions

- 4. In tenders to be issued after the date of this order, the provisions of paragraph 1 and of other relevant provisions of this Order shall be incorporated in the tender conditions.

Applicability

- 5. Apart from Ministries / Departments, attached and subordinate bodies, notwithstanding anything contained in Rule 1 of the GFRs 2017, this Order shall also be applicable
 - a. to all Autonomous Bodies;
 - b. to public sector banks and public sector financial institutions; and
 - c. subject to any orders of the Department of Public Enterprises, to all Central Public Sector Enterprises; and
 - d. to procurement in Public Private Partnership projects receiving financial support from the Government or public sector enterprises/ undertakings.
 - e. Union Territories, National Capital Territory of Delhi and all agencies/ undertakings thereof

Definitions

- 6. "Bidder" for the purpose of this Order (including the term 'tenderer', 'consultant' 'vendor' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.
- 7. "Tender" for the purpose of this Order will include other forms of procurement, except where the context requires otherwise.
- 8. "Bidder from a country which shares a land border with India" for the purpose of this Order means

- a) An entity incorporated, established or registered in such a country; or
- b) A subsidiary of an entity incorporated, established or registered in such a country; or
- c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
- d) An entity whose *beneficial owner* is situated in such a country; or
- e) An Indian (or other) agent of such an entity; or
- f) A natural person who is a citizen of such a country; or
- g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

9. "Beneficial owner" for the purpose of paragraph 8 above will be as under:

- (i) In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means.

Explanation—

- a. "Controlling ownership interest" means ownership of, or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;
- b. "Control" shall include the right to appoint the majority of the directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

- (ii) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

- (iii) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

- (iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

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(v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

10. "Agent" for the purpose of this Order is a person employed to do any act for another, or to represent another in dealings with third persons.

Sub-contracting in works contracts

11. In works contracts, including turnkey contracts, contractors shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. The definition of "contractor from a country which shares a land border with India" shall be as in paragraph 8 above. This shall not apply to sub-contracts already awarded on or before the date of this Order.

Certificate regarding compliance

12. A certificate shall be taken from bidders in the tender documents regarding their compliance with this Order. If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for immediate termination and further legal action in accordance with law.

Validity of registration

13. In respect of tenders, registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.

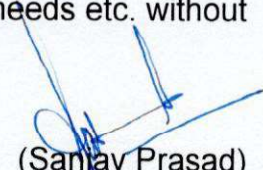
Government E-Marketplace

14. The Government E-Marketplace shall, as soon as possible, require all vendors/ bidders registered with GeM to give a certificate regarding compliance with this Order, and after the date fixed by it, shall remove non-compliant entities from GeM unless/ until they are registered in accordance with this Order.

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Model Clauses/ Certificates

15. Model Clauses and Model Certificates which may be inserted in tenders / obtained from Bidders are enclosed as **Annex III**. While adhering to the substance of the Order, procuring entities are free to appropriately modify the wording of these clauses based on their past experience, local needs etc. without making any reference to this Department.


(Sanjay Prasad)
Joint Secretary (PPD)
Email ID: js.pfc2.doe@gov.in
Telephone: 011-23093882

To

- (1) Secretaries of All Ministries/ Departments of Government of India for information and necessary action. They are also requested to inform these provisions to all procuring entities.
- (2) Secretary, Department of Public Enterprises with a request to immediately reiterate these orders in respect of Public Enterprises.
- (3) Secretary DPIIT with a request to initiate action as provided under Annex I
- (4) Chief Secretaries/ Administrators of Union Territories/ National Capital Territory of Delhi

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Annex I: Competent Authority and Procedure for Registration

- A. The Competent Authority for the purpose of registration under this Order shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)*.
- B. The Registration Committee shall have the following members*:
- i. An officer, not below the rank of Joint Secretary, designated for this purpose by DPIIT, who shall be the Chairman;
 - ii. Officers (ordinarily not below the rank of Joint Secretary) representing the Ministry of Home Affairs, Ministry of External Affairs, and of those Departments whose sectors are covered by applications under consideration;
 - iii. Any other officer whose presence is deemed necessary by the Chairman of the Committee.
- C. DPIIT shall lay down the method of application, format etc. for such bidders as stated in para 1 of this Order.
- D. On receipt of an application seeking registration from a bidder from a country covered by para 1 of this Order, the Competent Authority shall first seek political and security clearances from the Ministry of External Affairs and Ministry of Home Affairs, as per guidelines issued from time to time. Registration shall not be given unless political and security clearance have both been received.
- E. The Ministry of External Affairs and Ministry of Home Affairs may issue guidelines for internal use regarding the procedure for scrutiny of such applications by them.
- F. The decision of the Competent Authority, to register such bidder may be for all kinds of tenders or for a specified type(s) of goods or services, and may be for a specified or unspecified duration of time, as deemed fit. The decision of the Competent Authority shall be final.
- G. Registration shall not be granted unless the representatives of the Ministries of Home Affairs and External Affairs on the Committee concur*.
- H. Registration granted by the Competent Authority of the Government of India shall be valid not only for procurement by Central Government and its agencies/ public enterprises etc. but **also for procurement by State Governments and their agencies/ public enterprises etc. No fresh registration at the State level shall be required.**

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- I. The Competent Authority is empowered to cancel the registration already granted if it determines that there is sufficient cause. Such cancellation by itself, however, will not affect the execution of contracts already awarded. Pending cancellation, it may also suspend the registration of a bidder, and the bidder shall not be eligible to bid in any further tenders during the period of suspension.
- J. For national security reasons, the Competent Authority shall not be required to give reasons for rejection / cancellation of registration of a bidder.
- K. In transitional cases falling under para 3 of this Order, where it is felt that it will not be practicable to exclude bidders from a country which shares a land border with India, a reference seeking permission to consider such bidders shall be made by the procuring entity to the Competent Authority, giving full information and detailed reasons. The Competent Authority shall decide whether such bidders may be considered, and if so shall follow the procedure laid down in the above paras.
- L. Periodic reports on the acceptance/ refusal of registration during the preceding period may be required to be sent to the Cabinet Secretariat. Details will be issued separately in due course by DPIIT.

[*Note:

- i. In respect of application of this Order to procurement by/ under State Governments, all functions assigned to DPIIT shall be carried out by the State Government concerned through a specific department or authority designated by it. The composition of the Registration Committee shall be as decided by the State Government and paragraph G above shall not apply. However, the requirement of **political and security clearance as per para D shall remain and no registration shall be granted without such clearance.**
- ii. Registration granted by State Governments shall be valid only for procurement by the State Government and its agencies/ public enterprises etc. and shall not be valid for procurement in other states or by the Government of India and their agencies/ public enterprises etc.]

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Annex II: Special Cases

- A. Till 31st December 2020, procurement of medical supplies directly related to containment of the Covid-19 pandemic shall be exempt from the provisions of this Order.
- B. *Bona fide* procurements made through GeM without knowing the country of the bidder till the date fixed by GeM for this purpose, shall not be invalidated by this Order.
- C. *Bona fide* small procurements, made without knowing the country of the bidder, shall not be invalidated by this Order.
- D. In projects which receive international funding with the approval of the Department of Economic Affairs (DEA), Ministry of Finance, the procurement guidelines applicable to the project shall normally be followed, notwithstanding anything contained in this Order and without reference to the Competent Authority. Exceptions to this shall be decided in consultation with DEA.
- E. This Order shall not apply to procurement by Indian missions and by offices of government agencies/ undertakings located outside India.

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Annex III

Model Clause /Certificate to be inserted in tenders etc.

(While adhering to the substance of the Order, procuring entities and GeM are free to appropriately modify the wording of the clause/ certificate based on their past experience, local needs etc.)

Model Clauses for Tenders

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this Order means: -
 - a. An entity incorporated, established or registered in such a country; or
 - b. A subsidiary of an entity incorporated, established or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d. An entity whose *beneficial owner* is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- IV. The *beneficial owner* for the purpose of (iii) above will be as under:
 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation—

 - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;

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- b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
 3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
 4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
 5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VI. *[To be inserted in tenders for Works contracts, including Turnkey contracts]* The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

Model Certificate for Tenders (for transitional cases as stated in para 3 of this Order)

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I hereby certify that this bidder is not from such a country and is eligible to be considered."

Model Certificate for Tenders

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the

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Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]”

Model Certificate for Tenders for Works involving possibility of sub-contracting

“I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]”

Model Certificate for GeM:

“I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this vendor/ bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this vendor/ bidder fulfills all requirements in this regard and is eligible to be considered for procurement on GeM. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]”

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F.No.6/18/2019-PPD
Ministry of Finance
Department of Expenditure
Public Procurement Division

161, North Block
New Delhi
23rd July, 2020

Order (Public Procurement No. 2)

Subject: Exclusion from restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 –regarding.

In Order (Public Procurement No. 1) dated 23rd July 2020, orders have been issued requiring registration of bidders from a country sharing a land border with India in order to be eligible to bid in public procurement.

2. Notwithstanding anything contained therein, it is hereby clarified that the said Order will not apply to bidders from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects.

3. Updated lists of countries to which lines of credit have been extended or in which development projects are undertaken are given in the website of the Ministry of External Affairs.



(Sanjay Prasad)
Joint Secretary (PPD)
Email ID: js.pfc2.doe@gov.in
Telephone: 011-23093882

To,

- (1) Secretaries of All Ministries/ Departments of Government of India for information and necessary action. They are also requested to inform these provisions to all procuring entities.
- (2) Secretary, Department of Public Enterprises with a request to immediately reiterate these orders in respect of Public Enterprises.
- (3) Chief Secretaries/ Administrators of Union Territories/ National Capital Territory of Delhi

F. No. 11/22/2021-Th.II

Government of India

(Bharat Sarkar)

Ministry of Power

(Vidyut Mantralay)

Shram Shakti Bhawan, Rafi Marg

New Delhi, the 22nd March, 2022**OFFICE MEMORANDUM**

Subject: Constitution of Conciliation Committee of Independent Experts for resolution of contractual disputes in respect of the projects implemented by CPSUs / Statutory Bodies under administrative control of Ministry of Power – regarding.

With the approval of Hon'ble Minister of Power and New & Renewable Energy, Ministry of Power, vide OM of even number dated 29.12.2021 (**Annex-I**), introduced a conciliation mechanism for settlement of contractual disputes in contracts of CPSUs / Statutory Bodies under Ministry of Power executing power projects. For this purpose, it was decided to constitute three numbers of Conciliation Committees of Independent Experts (CCIEs).

2. Accordingly, a Notification of even number was issued on 07.01.2022 inviting Expression of Interest from the eligible candidates for empanelment as Independent Expert for constitution of the CCIEs. Consequently, with the approval of Hon'ble Minister of Power, a Search-cum-Selection Committee was also constituted for scrutiny of the EoIs as well as screening of the candidates.

3. Based on the recommendations of the Search-cum-Selection Committee, following three nos. of Conciliation Committee of Independent Experts are hereby constituted for settlement of contractual disputes in contracts of CPSUs / Statutory Bodies under Ministry of Power executing power projects:-

CCIE	Members of CCIE
CCIE-1	Shri Anup Wadhawan, Ex-Secretary (Commerce), GoI
	*Shri Ravinder Kumar Sharma, Ex-MD, HBSEBL
	Shri Mrinal Kanti Bhattacharya, Ex-Executive Director, Indian Bank
CCIE-2	Ms. Rashmi Verma, Ex-Secretary (Tourism), GoI
	*Shri Dharendra Veer Singh, Ex-CMD, THDC (India) Ltd.
	Shri Naveen Bhushan Gupta, Ex-Director (Finance), PFC Ltd.
CCIE-3	Shri P. S. Kharola, Ex-Secretary (Civil Aviation), GoI
	*Shri Anil Kumar Jha, Ex-Director (Technical), NTPC Ltd.
	Shri Chinmaya Gangopadhyaya, Ex-Director (Projects), PFC Ltd.

4. The aforementioned CCIEs shall function as per the Standard Operating Procedure enumerated in this Ministry's Office Memorandum of even number dated 29.12.2021. Moreover, the tenure, remuneration and other terms and conditions of the engagement of above Members of CCIEs shall also be governed by the aforesaid OM.

This issues with the approval of Hon'ble Minister of Power and New & Renewable Energy.

Encl: as above.

***Second member in the CCIE(s) shall stand substituted by coal-mining expert Member (presently, Shri Tapas Kumar Nag, Ex-CMD, NCL), as notified by Ministry of Power from time to time, in case of disputes relating to captive coal mines**

(Vikrant S. Dhillon)
Deputy Director

Email: hydro2-mop@gov.in

To

1. Chairperson, CEA
2. CMDs – PGCIL, REC, PFC, NTPC, NHPC, SJVN, THDC, NEEPCO, POSOCO
3. Chairman - BBMB, DVC
4. Director General – BEE, NPTI, CPRI

Copy to:

1. PS to Hon'ble Minister of Power & NRE
2. APS to Hon'ble MoS for Power
3. Sr. PPS to Secretary (Power)
4. Sr. PPS to AS(SKG) / Sr. PPS to AS&FA / Sr. PPS to AS(VKD)
5. All Joint Secretaries of Ministry of Power
6. All Directors / Deputy Secretaries of Ministry of Power.
7. Members of the CCIEs

Copy also to:

In-charge, NIC Cell, MoP with request to publish the OM on the website of Ministry of Power.



(Vikrant S. Dhillon)
Deputy Director

NTPC LIMITED
(A Government of India Enterprise)



Volume –VI

***Scope of Work, Technical Specifications
and Other Terms & Conditions***

FOR

***SITC of Project monitoring CCTV System for Nabinagar
Super Thermal Power Project, NSTPP Stage-II
(3x800 MW)***

BIDDING DOCUMENT NO: 9900325917

NTPC Limited

(A GOVT OF INDIA ENTERPRISES)



“SCOPE OF WORK

&

TECHNICAL SPECIFICATION

CCTV System for

Project Monitoring”

(This document is meant for the exclusive purpose of bidding against this Bidding Document / Specification and shall not be transferred, reproduced or otherwise used for purposes other than that for which it is specifically issued).

1. INTRODUCTION:

Nabinagar Super Thermal Power Station (NSTPS) Nabinagar is a power plant located near Nabinagar, PO- Aditi Nagar, Dist.- Aurangabad (Bihar), 824304. Stage-I of the project has an installed capacity of 1980 MW (3 X 660 MW each). Stage-II is currently under development, with an additional planned capacity of 2400 MW (3 X 800 MW each).

2. PROJECT OVERVIEW

To supply, install, configure, and commission CCTV system for Project Progress Monitoring of under construction stage-II units (3X800 MW) at NTPC NABINAGAR.

3. SCOPE OF WORK

This part covers scope of work, technical requirements and other terms & conditions pursuant to the contract and will form an integral part of the contract. The following provisions shall supplement all the detailed technical specifications and requirements brought out in accompanying technical specifications. The vendor's proposal shall be complying fully with the requirements specified herein.

The BOQ & detailed technical specifications of the equipment and materials to be supplied are provided in Annexure-I & Annexure-II of this document. All supplied items must meet the minimum specifications mentioned in Annexure-II. Supplied items can be of better specification as compared to their respective specifications at annexure-II

The scope of work includes, but not restricted to, packing and forwarding, design, supply, inland transportation, local delivery, handling, storage, insurance (transit and up to the date of handing over), cabling, installation, commissioning, testing and any other service explicitly specified or not, to complete this project, system integration, training, documentation, support services for 3 years which includes warranty for one year after acceptance and subsequent comprehensive maintenance services (CMS) for four years of the supplied system after expiry of warranty period, in totality, including civil jobs for equipment installation etc. & training of NTPC NABINAGAR's personnel of the system.

Equipment furnished shall be complete in every respect, unless included in the list of exclusions, with all mountings, fittings, fixtures, casing & capping/ other associated and standard accessories normally provided or not with such equipment but are needed for erection, completion and safe operation of the equipment, though these may not have been specifically detailed in the technical specification. All such items, used to complete the scope shall be of reputed make or ISI mark (as applicable).

The bidder's responsibility shall include but not limited to the following:

3.1 Supply, Installation, Integration and configuration of all the items of CCTV system as mentioned in BOQ.

3.2 Carrying out comprehensive health check and fine tuning of supplied system.

All tools, tackles & testing instruments etc. not explicitly defined but required to fulfil the intent of specification etc., as required for successful installation & commissioning of the scope of work as per this specification including all operations such as transport, installation, testing and commissioning etc., shall be provided by bidder at no extra cost to NTPC NABINAGAR.

3.3 The bidder's responsibility shall include but not limited to supply all the items mentioned in Bill of Quantities as per details given in Technical Specification and / or agreed upon, after final bid evaluation. Any item exclusively not mentioned in BOQ but required for successful completion of the contract are to be supplied at no extra cost. Bidder may include cost of such items in the corresponding equipment/ system.

3.4 All the supplied items must be warranted and must operate at or above the guaranteed values regarding availability.

3.5 Supply of system spares, as and when required and complete maintenance and support of the system shall be guaranteed for a period of not less than 4 years from date of successful handing over of the system by the bidder to owner.

3.6 Documentation and drawings of the supplied and configured system.

3.7 Successful bidder must adopt proper safety measures as per prevailing norms and other industrial norms and ensure safety of the equipment and his personnel during complete tenure of the contract. The bidder shall be solely responsible for any mishap due to noncompliance of any safety procedure.

3.8 The bidder shall also provide all equipment/services which may not be specifically stated herein but are required to meet the intent of the project to ensure completeness, maintainability and reliability of the total system covered under this specification, including integration and interoperability with the existing infrastructure.

3.9 Bidder is advised to visit site to ascertain prevailing site conditions and estimate the scope of work and bid accordingly for the project.

3.10 This includes fixing of camera using suitable camera mount (as per site requirement) complete with required civil and fabrication works.

3.11 Mounting & installation of display screen and connecting them with operator workstations.

3.12 Installation and configuration of switches and all active, passive components while integrating the whole system for optimum performance.

3.13 The proposed cameras will be installed on existing structures wherever available, and on dedicated poles where such structures are not available. Supply and erection of poles is under the scope of supplier.

3.14 Installation and configuration of Point-to-Point/Point-to-Multi Point devices for integrating all supplied cameras.

3.15 It will be the responsibility of the Bidder to submit the name of the person who will be solely responsible for execution of the job till the 'Handing Over' of the System. The Bidder representative will be available at NTPC site every day, till the handing over of the system,

free of cost. The bidder's representative's addresses, and contact telephone numbers shall also be indicated in the bid

4. SITE PREPARATION

Raw power supply will be provided by NTPC. It shall be the responsibility of the bidder to supervise and ensure that the site is well prepared as per the requirements such as environmental conditions, cabling, power requirements; etc The bidder shall ensure that the offered system operates properly under these conditions.

5.ERECTION WORK

5.1 Pole Erection: Installation of dedicated poles at pre-determined locations for mounting PTZ cameras. This includes excavation, foundation work (if required), pole erection ensuring the stability of each pole to withstand environmental factors and camera movement. After having mutual agreement b/w vendor and EIC, vendor shall submit pole erection drawing, work of pole erection shall start after approval of drawing by EIC. Grounding to earth of each pole shall be ensured by vendor by preparing earthing point/pit as per the Indian standards, required material to prepare the earth pit shall be in vendor scope.

5.2 Junction Box Erection: Junction box is to be fixed by the vendor on a separate concrete foundation or pole as mutually decided by EIC and vendor. Earthing to JB shall be ensured by the vendor by connecting to the nearest available earthing point or by preparing earthing point/pit as per the Indian standards (in case of non-availability), required material to prepare the earth pit shall be in vendor scope.

5.3 Camera Erection: The camera should be mounted on top of the pole and all the accessories required for installation of same shall be in scope of bidder. The power and ethernet cable from camera to junction box shall be done as per requirement.

5.4 Point-to-Point/Point-to-Multi Point Device Erection: Securely mounting the P-M-P devices using robust brackets and hardware, ensuring they are stable and can withstand wind loads and other environmental stresses. Performing preliminary tests to confirm the establishment of the wireless link and verify basic connectivity between the P-M-P devices before integrating them into the main network

5.5 NVR Installation: Installation & configuration of Network Video Recorders (NVRs network switches, and other associated equipment within a dedicated, secure rack or cabinet. This includes proper ventilation and cable management within the rack.

5.6 Power Connection: Connecting all CCTV system components (cameras, NVRs, switches, PTP/PMP devices) to stable and dedicated power sources as per electrical safety standards. Ensuring all equipment is properly grounded and appropriate surge protection devices are installed to safeguard against electrical surges and lightning strikes.

6. WARRANTY AND AMC

For trouble free operation of the complete system under the subject scope, bidder shall provide 01-year warranty and thereafter 03 years comprehensive onsite maintenance support.

On handing over of the commissioned CCTV system to NTPC Nabinagar, the bidder will furnish warranty certificates/documentary evidence in support of OEM's warranty of all active components, including Cameras, Switches, NVR, PTP/PMP devices, and Display Unit. In addition, the bidder must furnish a comprehensive warranty certificate covering the entire installed CCTV system.

6.1 Further during entire support period, it will be the responsibility of the bidder to maintain and support the system fully and ensure that the level of availability is 98%. The provision of all supplies, spares and services necessary for the maintenance shall be the bidder's responsibility. Cameras will be relocated by the bidder whenever required during the warranty period and AMC.

Scope of CCTV System Maintenance:

1. Preventive Maintenance: Preventive maintenance visits, once in a year, will be conducted to ensure optimal system performance, including cleaning, inspection, minor adjustments, and health checks of all components.
2. Maintenance Support: Onsite Comprehensive maintenance support will be provided for a period of three (3) years following the expiration of the one-year warranty period. Onsite comprehensive warranty includes troubleshooting, preventive maintenance, breakdown maintenance including repair / replacement of the faulty device in case the device is not repairable.

7. SAFETY

Successful bidder must adopt proper safety measures as per prevailing norms and other industrial norms and ensure safety of the equipment and his personnel during complete tenure of the contract. The bidder shall be solely responsible for due to noncompliance of any safety procedure.

During the execution of the work, agency shall strictly ensure & provide the following-

- Agency shall ensure compliance to NTPC Work Permit System
- Agency shall ensure that, all workers should be equipped with required PPEs. Minimum PPEs during the execution of the work shall be- Safety Helmet, Safety Shoes, Safety harness belt (during work at height) and others as per the safety requirement, provision of PPEs shall be in agency scope.
- Provision of First Aid Amenities/kit with the deployed team.
- Agency shall ensure Safety pep talk before starting the work.
- Insurance of the deployed workers will be in the scope of the agency.

Bidders are advised to price their bids in such a manner that the component for 'Annual linked to safety Aspects/compliance to Safety Rules' should be as follows-

S/N	Line Item	Remark
1	Amount Linked to Safety Aspects for Installation, Erection & Commissioning	Not less than 2% of total amount quoted for installation, erection & commissioning
2	Amount Linked to Safety Aspects for AMC	Not less than 2% of total amount quoted for AMC
Release of Amount Linked to Safety Aspects- - For Installation, Erection & commissioning- Amount linked to safety aspects/compliance shall be released in part or full based on safety compliance duly certified by EIC after completion of installation & commissioning work. - For Annual Maintenance Contract- Proportionate amount linked to safety aspects/compliance shall be withheld from first and second monthly RA bill of the respective quarter and shall be released in part or full based on safety compliance duly certified by EIC on quarterly basis.		

8.BID EVALUATION CRITERIA-

8.1 The bid will be evaluated in totality including Supply, Installation. SPLITTING OF TENDER IS NOT ALLOWED. The bidder must furnish complete information asked for in these specifications including completed technical specification compliance sheets. Incomplete information may lead to the rejection of the bid.

8.2 The bidders shall carefully examine and understand the technical specifications (Annexure-II) and seek clarifications, if required, to ensure that they have understood the specifications. The bidders' offer should not carry any sections like clarifications, interpretations and assumptions. Being a ZERO DEVIATION BID, any deviation from specified technical specifications, terms & conditions may lead to rejection of the bid. However, if the bidder feels that certain features/parameters offered are superior to what has been specified by NTPC Nabinagar, it shall be highlighted separately.

8.3 CCTV Camera Must comply to the following Meity Orders:

1. Notification dated 06 March 2024 on the amendments to Public Procurement Order (PPO)- 2017 for CCTV Surveillance Systems,
2. MeitY order Dated 09th April 2024¹ Amendment and Information Amendment to the "Electronics Technology Goods (Requirement of Compulsory Registration) Order, 2021"
3. MeitY OM dated 11/03/2024, Advisory on the Threat of Information Leakage through CCTV/ Video Surveillance system (VSS)/ Digital Video Recorders /Network Video Recorders- reg.

The Agency need to submit necessary documentary evidence in compliance to the above orders

8.4 Bidders are required to submit a Manufacturer's Authorization Form (MAF) from the OEM or its authorized representative for CCTV CAMERA along with their bid documents. Failure to provide the MAF will result in bid rejection.

8.5 Bidder also should submit undertaking in support to ensure that the active components offered (i.e. CCTV CAMERAS, SWITCHES, NVR, DISPLAY UNITS) are not discontinued products. Bidder has to make sure that any of the active components shall not discontinue in next 06 months from the date of handover to NTPC Nabinagar. In case of obsolesce during period mentioned, an equivalent product to the satisfaction of NTPC Nabinagar shall be supplied with no extra cost implication.

8.6 The bidder must clearly specify the Make and Model of each offered item in the respective technical specification's compliance sheets. OEM datasheets must also be submitted with the bid. Failure to comply with these requirements may result in the rejection of the bid.

8.7 NTPC NABINAGAR reserves the right to ask for Proof of Concept if deemed required for technical evaluation.

9. QUALITY

The successful bidder shall submit Quality Plan (QP) for installation, commissioning and testing of all the equipment. This QP shall set out practices, procedures, relevant standards and acceptance levels for all equipment. The QP shall be sub-mitted with detailed drawings on finalization after mutual discussion and approval by EIC.

10. OTHER TERMS AND CONDITIONS

The completion of the project and satisfactory demonstration of its functioning is in the scope of the bidder. For this, the bidder's responsibility shall specifically include, but not limited, to the following.

- (a) The complete system as agreed upon must operate at or above the guaranteed values regarding availability.
- (b) All tools & tackles required during project for completing the scope of work as per these specifications are to be provided by the bidder at no extra cost implication to NTPC NABINAGAR. The bidder shall undertake all activities for the project commissioning and shall provide further assistance during inspection and testing of the systems' functionality by NTPC NABINAGAR.
- (c) Bidder shall also provide all required equipment / services which may not be specifically stated herein but are required to meet the intent of project, ensuring completeness, maintainability and reliability of the total system covered under this specification, these materials, however, will be under the scope of bidder and shall have no cost implication on NTPC Ltd.
- (d) All Licenses/ Subscriptions/ Authorization to use, on all the devices/ equipment/ system software/OS and application quoted by the bidder in this tender must be perpetual and in name of NTPC NABINAGAR. Non-perpetual Licenses/ Subscriptions/

Authorization to use shall not be entertained and will lead to disqualification of the bidder.

- (e) Any software upgrades, updates / enhancements released for the integrated switches during the entire support period (warranty and CMS) of the system shall be supplied installed commissioned and licensed free of cost by the bidder along with the corresponding documentation within a period of one month from the date of release.
- (f) The offered hardware & software should be guaranteed by OEM for availability of system spares for a period not less than 4 years from the date of system handover.
- (g) Bidder shall make a provision of, and maintain, a stock register for the items pertaining to this project. The stock register shall be complete in all aspects w.r.t.. items received, issued, used and balance. This stock register shall be submitted to EIC on handing over or whenever asked.

11. LIQUIDATED DAMAGE & PENALTY CLAUSE-

- (a) For not meeting specifications
If the specifications of the system are not met by the bidder during various tests, the bidder shall rectify the system to comply with the specifications, failing which NTPC NABINAGAR has the sole right either to reject the system.
- (b) For delay in completion
If the bidder fails to complete the supply, installation, testing, and commissioning as per schedule, NTPC will deduct a sum of one half of one percent (0.5%) of the total contract price as liquidated damages for each calendar week of delay or part thereof in completion of different activities.
- (c) Both the above deductions are independent of each other and applicable separately and concurrently. The total amount of liquidated damages for delay shall however be limited to 5% of the contract price.
- (d) The Details of Penalty Applicable for various Unattended Defects and other service deficiencies are enumerated below (Note: Total penalty amount accumulated (if any) during warranty period shall be adjusted from first bill of AMC).

S/N	Description of Deficiency of Service	(Penalty Amount)
1	a) In case of faulty CCTV system items like CCTV/Switch / Fibre Module other active component etc; the vendor is required to replace the faulty item on NBD. b) The defective item shall be repaired / replaced within 30 days from the date of fault registration.	a. Rs 500/- per day per item beyond 30 days. b. Rs 500/- per day per item beyond 30 days.
2	Annual preventive maintenance not carried out.	(e) Rs 10,000/- penalty for not completing the each PM.

12. WORK SCHEDULE

Activity detail	Required time
Supply of Material.	12 weeks from date of LOI.
Installation, commissioning & handing over of ACTIVE components Documentation including Performance / Availability test.	16 weeks from date of LOI.

Contract period:

- (a) For supply and installations: **16 weeks**
- (b) For Warranty: **01 years** (*shall start after acceptance/handing over the complete system to NTPC*).
- (c) For AMC: **03 years** (*Subsequent to completion of 01 years warranty*).

13. PAYMENT SCHEDULE

Payment schedule, terms and conditions-

- (a) 80% of supply portion payment will be paid on receipt, inspection and acceptance of material at site and after submission and acceptance of CPG.
- (b) 20% of balance supply portion and 100% of installation & Commissioning shall be paid after successful installation testing and commissioning of equipment at site, 7 days trial operation, successful completion of availability tests, final acceptance & handing over of system to NTPC NABINAGAR along with submission of warranty/AMC certificate(s) and other relevant drawings/documents etc. with the certification of Engineer-in-Charge.

- (c) AMC payment shall be released on quarterly basis at the end of each quarterly in equal instalments during the entire AMC period of 03 years with the certification of Engineer-in-charge.

Minimum acceptable range for value for AMC for 03 years is 10% of total material supply portion value. In case amount is less than this value, difference amount will be retained from supply and commissioning PO value and shall be released on quarterly basis along with AMC payment. Further any penalty/LD amount accumulated during the warranty period shall be adjusted from 1st bill of AMC.

14. CONTRACT PERFORMANCE GUARANTEE/ SECURITY DEPOSIT

As per GCC, bidder is required to submit CPG for an amount equivalent to 10 % of total order value (supply + installation), excluding AMC value. CPG shall be valid for a period of three months beyond the expiry of warranty and AMC i.e. is 55 months (04 Month supply, installation+04 years warranty+ 3 months).

15. SITE INSPECTION, TESTING & HANDOVER

(a) Inspection of Equipment on Arrival – The Bidder’s representatives as required shall inspect all supplied equipment upon arrival on site. All observed damage to equipment shall be reported to NTPC.

(b) Preliminary on-site Check and Tests - After field installation and before equipment energization and connection of field inputs, the bidder as necessary shall carefully inspect all equipment and shall check all wiring and cable to assure correctness of connections and proper installation of equipment. After these checks the bidder’s representative shall power the system and perform standard tests to ensure that the system is working properly.

(c) System Documentation Check- Upon successful completion of the preliminary on-site checks and tests, NTPC’s and the bidder’s representative as necessary shall check that all required system documentation, in its final form has been delivered to the owner. The bidder shall correct all errors and insufficiencies in the system documentation (manual drawings) before the owner accepts the system.

(d) On Site Acceptance Test -On completion of installation of the equipment by the bidder and before commissioning each item of the equipment shall be thoroughly inspected jointly by the owner and the bidder for the correctness and the completeness of the installation and acceptability for start-up and the availability tests. It shall include all reasonable exercises which the combination of equipment and software can be expected to perform in actual usage. The bidder shall submit as-built drawings / as installed documentation in two sets for the complete system. The following tests are minimum to be followed, however, this does limit owner to include any other tests as deemed fit to the satisfaction of the EIC and as prescribed by the OEMs of the respective systems:

i) Commissioning tests of the entire system/subsystems:

Demonstration of the proper functioning of all CCTV/NVR/Switches/Hardware/other supplied materials.

ii) Performance & Availability Tests- The bidder shall conduct performance & availability tests for 7 days after successful installation and commissioning of the entire system. This test shall include testing all the subsystems, equipment's individually for the acceptance level of various parameters for system reliability, availability & maintainability.

The system shall be considered down if any portion of the system or subsystem H/W or S/W is not functioning satisfactorily. The owner shall have the right to reject the entire system subsystem and ask for replacement, if deemed necessary.

However, if the system does not meet the acceptability criteria laid down as above (a, b, c) within 20 working days of the installation the NTPC shall have the right to reject the system and ask for its replacement. If so deemed necessary, the bidder shall replace the system or subsystem as suggested by the owner, within 6 weeks to that effect from the notification date by the owner.

16. TRAINING & WORKSHOP

a) The bidder shall arrange training for NTPC personnel on installation, operation and maintenance of the equipment's to the extent that the personnel can fully maintain and troubleshoot the system.

b) The supplier shall organize a workshop for 1-2 technical personnel of NTPC free of charge at the OEM/bidder training centre, although boarding & lodging charges of NTPC personnel will be in the scope of NTPC. The commencement and duration of the workshop shall be as mutually agreed between owner and Bidder. The course shall include installation, configuration, operation, maintenance & hands-on experience on a similar type of equipment /system.

17. INSURANCE CHARGES

a) The successful bidder contracted shall arrange to take insurance in the name of NTPC NABINAGAR for full value of the system to protect from risks such as loss or damage in transit, theft, pilferage, riot, civil commotion, weather conditions of all kinds, fire, etc.

b) Any loss or damage to the equipment and materials during handling, transportation, storage, installation or otherwise at any stage, till the system is 'Taken Over' by NTPC NABINAGAR after successful Performance and Guarantee test, shall be the responsibility of the contracted bidder

i.e. Any damage to the material and system supplied through this contract till the handover of the system shall be the responsibility of the vendor and insurance (if any) required to mitigate the risk shall be borne by the vendor. The bidder shall be liable to replace the lost or damaged system/subsystem without any extra cost. No additional payment shall be made to contractor towards insurance premium, Insurance charges shall be inclusive in overall package cost.

18. FORCE MAJEURE

Force majeure is herein defined as any cause which is beyond the control of the bidder or NTPC NABINAGAR., as the case may be, which either of them could not foresee or could not have foreseen with a reasonable amount of diligence, such as:

- (a) Natural phenomena, including but not limited to floods, droughts, earthquakes, epidemics.
- (b) Acts of any Government, including but not limited to war, declared or not-declared,

priorities, quarantines, and embargoes.

Any such event shall be notified to NTPC NABINAGAR in writing within fifteen (15) days from its occurrence. NTPC NABINAGAR or the bidder shall not be liable for delays in performing his obligations resulting from any force majeure causes as defined above.

19. LOCAL CONTENT

Minimum local content (MLC) of the complete package shall be as mentioned below:

Minimum Local Content for class -I local supplier = 50%

Minimum Local Content Class -II local supplier = 20%.

During the bid submission, bidder should provide detail MLC calculation sheet and submit MII Self declaration certificate in standard format.

20. DEVIATION

The overall deviation (irrespective of individual item) should not exceed + 20% of PO Value (Supply Portion).

Annexure-I

BOQ

S/N	ITEM DESCRIPTION	UOM	QTY
10.10	PTZ IP CAMERA	NO	15
10.20	INDUSTRIAL POE POWER SUPPLY FOR CAMERAS	NO	17
10.30	32 CHANNEL NVR	SET	1
10.40	24 PORT L2 POE MANAGED SWITCH	NO	1
10.50	08 PORT L2 POE MANAGED SWITCH	NO	1
10.60	FIREWALL	NO	1
10.70	WIRELESS PTP/PTM DEVICE	NO	17
10.80	CLIENT PC WORKSTATION	NO	4
10.90	DISPLAY SCREEN (65") WITH STAND	NO	1
10.100	ONLINE UPS 5 KVA WITH BATTEY BANK	NO	1
10.110	CAT 6 STP CABLE (305M BOX)	NO	3
10.120	JUNCTION BOX WITH MINI UPS	NO	17
10.130	POLE-7M	NO	4
10.140	ARMOURED POWER CABLE (3C X 2.5 SQMM)	M	2000
10.150	HDPE PROTECTION PIPE (32MM/40MM)	M	1000
10.160	OFC CABLE (6 CORE SM ARMOURED)	M	3000
10.170	INSTALLATION AND COMMISSIONING	LOT	1
10.180	COMPREHENSIVE AMC	YRS	3

Annexure-II

TECHNICAL SPECIFICATION CUM COMPLIANCE SHEET

10.10 PTZ IP Camera- Technical Specification & Compliance Sheet			
S/N	Parameter	Requirements	Compliance (Yes/No)
1	Make & Model	To be provided by the bidder	
2	Form Factor	PTZ (HD IP) Outdoor Dome Camera	
3	Image Sensor	1/2.8" or better Progressive scan CMOS / MOS	
4	Focal Length	4.25 to 7mm – 170 to 280mm or better	
5	Optical Zoom	30X or better	
6	Digital Zoom	10X or better	
7	Video Encoding	The camera shall support the following encoding standards:	
		(1) H.264, HEVC H.265	
		(2) Motion JPEG/MPEG-4	
8	Multiple Streams	The camera shall provide at least three simultaneous video streams.	
		Stream compression should be as following:	
		(1) Primary Stream: H.264, H.265 @50/60 FPS	
		(2) Secondary Stream: HEVC H.265, H.264 or Motion-JPEG/MPEG-4 @25/30 FPS	
		(3) Third Stream: HEVC H.265 or H.264@ 25/30 FPS	
9	Effective resolution/ Number of Pixels	2 MP (1920 x 1080 Full HD) or better at 50/60 frame per second for primary stream.	
		1920x 1080 (2MP) at 25/30 frame per second for secondary or 3rd stream.	
10	Light Sensitivity	Colour mode: 0.05 lux or better	
		B/W mode: 0.005 lux or better, 0 Lux at IR on	
11	IR Range	200 mtr or better	
12	Focus	Auto Focus	
13	Iris Control	Auto IRIS Control	
14	White Balance	Automatic with mode selection options	

15	Electronic Shutter	1/10000 to 1/10 sec	
16	Wide Dynamic Range	120dB or better	
17	Day/Night selection	Automatic, Colour, Mono and should automatically switch to night vision by sensing illumination level	
18	Interface Type	10/100 baseT Ethernet with RJ45 interface	
19	Protocols	IPV4, IPV6, NTP, SNMP, HTTP, HTTPS, DHCP	
20	IPV6 functionality	IPV6 functionality should be available without any additional hardware/ software	
21	Network connectivity	Camera shall be directly connected to network without use of an external encoder	
22	Security	Password protection, HTTPS Encryption, 802.1x network access control, user access log, AES 256-bit Encryption/ equivalent. The cameras offered must be cyber security certified with ISA-62443-4-1 certificate /UL Cyber security certificate/Cyber Security hardware Chipset/ Any other cyber security audit certificate from Indian Government body (STQC or CERT-In empaneled Information Security Auditing Organization under MEITY) for mitigating cyber security risk”	
23	Pan	360 Deg Continuous	
24	Tilt	-10 to 90 deg	
25	Preset Positions	Minimum 250	
26	Pan & Tilt Speed	240°/s Pan Speed and 180°/s Tilt Speed	
27	Auto Resume after Power Failure	Required	
28	Operating Temperature	0°C to 50°C	
29	Other Features	Inbuilt heater and air circulation system to avoid icing, Electronic Image Stabilization, Defog	
30	Camera Housing & Mount	The camera housing should be parapet or pole mount type (as per the site requirement) and should be of the same make as that of camera.	
31	IP Rating	IP67/ NEMA4x Rated Outdoor Housing	
32	Power Supply	IEEE 802.3af/at compliant or better PoE power supply as per manufacturer's standard to be provided	

33	ONVIF compliant	The camera shall conform to ONVIF Profile S, G, T, M or latest (ONVIF approved certificate / ONVIF conformant devices listed on the ONVIF global website as on or before bid submission date). There should be no ONVIF membership restrictions on CCTV OEMs, this means that Camera OEMs can participate in ONVIF committees which include ONVIF new profile development and maintenance. Similarly, OEMs can use new ONVIF tools and software for camera testing. The bidder shall submit a declaration in this regard from the OEM.	
34	Camera certification	BIS & STQC	
35	Compliance on Video Compression	The CCTV OEM must possess official licensure from the High Efficiency Video Coding (HEVC) consortium to employ authentic, lawful H.265 compression. Documentary evidence verifying this licensure shall be submitted by the bidder as part of the bid.	
36	MAF	to be provided by the bidder	

10.20 Industrial PoE Power Supply for Cameras -Technical Specification & Compliance Sheet		
Parameter	Requirements	Compliance (Yes/No)
Standard make		

10.30 NVR 32 channels-Technical Specification & Compliance Sheet			
S/N	Parameter	Requirements	Compliance (Yes/No)
1	Make & Model	To be specified by the bidder	
2	Channels	32 or higher	
3	Recording	32 channels in 1920 * 1080 (1080P) @ 25fps (min)	
4	Processor & OS	Quad-core embedded processor, Linux Embedded	
5	Video Compressing	H.265/H.264/MJPEG/MPEG4	
6	Audio Support	Yes, 1 Channel Input/1 Channel Output, RCA	
7	Recording Modes	Manual, Motion/Alarm Triggered	
8	Search Mode Support	Time/Date; Alarm; Motion Detection (MD); Exact Search (accurate to a second); Smart Search	
9	On board Storage slots	04 with SATA interface	
10	On board Storage Capacity	32 TB or higher over SATA Capable of storing RAID-based recordings for a minimum of 90 days	
11	Bandwidth (Inbound)	Minimum 320 Mbps	
12	Bandwidth (Outbound)	Minimum 320 Mbps	
13	Event Triggers	Recording; PTZ; Tour; Alarm; Video Push; Email; FTP; Snapshot; Buzzer	
14	Event Notification	email, FTP, and/or HTTP, still image upload	
15	Network Protocol Support	IPv4, IPv6, TCP, UDP, HTTP, DHCP, DNS, DDNS, RTP, RTCP, RTSP, PPPoE, FTP, NTP, SNTP, VSIP, ICMP	
16	Network Interface	1x Gigabit Ethernet (RJ45) (10/100/1000)	
17	USB Ports	02 Ports	
18	HDMI out	2 or more (1080p @ 60Hz)	
19	VGA out	1 or more	
20	Display Split	1/4/8/9/16	
21	Form Factor	4U or less	

22	Operating Temperature range	-10C to 50C or wider range	
23	Operating Humidity range	10-90%	
24	Alarm Inputs	16 Potential Free I/P	
25	Alarm Outputs	4 Relay Output	
26	Certification	BIS	

10.40 24 Port L2 Ethernet Switch-Technical Specification & Compliance Sheet			
S/N	Parameter	Requirements	Compliance (Yes/No)
1	Make & Model	To be specified by the bidder	
2	Form Factor	19 Inch Rack mountable ethernet switch	
3	Physical Dimensions	To be specified by the vendor	
4	End of sale	OEM end-of-sale declaration shall not have been released for the quoted model at the time of the bid submission.	
5	Latest OS version	The switch shall be supplied with the latest OS version.	
6	Gigabit Copper ports with POE	The switch should have at least 24 10/100/1000 base T ports with RJ45 Connector, dedicated 1G SFP Uplinks POE Budget: 300W	
7	Transceivers	All the Transceivers/Modules used to connect the Switches should be from the same OEM/make of the switches only.	
		OR	
		All Transceivers / Modules should be MSA Compliance duly certified and warranted by Switch OEM for Full functionality	
8	Port status display	Each port must have a dedicated LED for status display.	
9	Switching Backplane Bandwidth	At least 88 Gbps or more (Excluding Stacking Bandwidth) 2 x (Aggregate Bandwidth of all Gbit Ethernet Ports)	
10	MAC Addresses	10 K or more	
11	L2 Loop Protection	IEEE 802.1d Spanning tree protocol	
12		802.1s MSTP (Multiple instances of STP)	
13		802.1w RSTP (Rapid spanning tree)	
14	Link Aggregation	802.3ad Link Aggregation	

15	QOS Support	Switch should support QOS.	
16	IP Multicast	IGMP Snooping.	
17	Network Login	MAC and 802.1 X based Login must be available	
18	AAA (authentication, authorization, and accounting)	AAA using RADIUS must be available	
19	In-band Management	Following in-band management methods shall be available:	
20		Web based management (On http or https)	
21		SSH based management (SSH v2).	
22	Remote Monitoring	RMON Support	
23	Log Management	Syslog shall be supported with multiple syslog destinations.	
24	Time synchronization	Time synchronization using Network time protocol must be available.	
25	Configuration backup & restore	The switch shall have the feature of backing up the configuration & restoring a backed-up configuration.	
26	Interface cables and connectors (to be supplied with each switch)	Console cable and power cable (As per Indian standards) to be provided. All Cables shall be factory-terminated.	
27	Environmental conditions	The offered equipment must be able to operate in the following environmental conditions - Operating temperature: 0 ° C to 75 ° C	
28	MAF	to be provided by the bidder	

10.50 08 Port L2 Ethernet Switch-Technical Specification & Compliance Sheet			
S/N	Parameter	Requirements	Compliance (Yes/No)
1	Make & Model	To be specified by the bidder	
2	Form Factor	08 Port Access POE Switch (IE)	
3	Physical Dimensions	To be specified by the vendor	
4	End of sale	OEM end-of-sale declaration shall not have been released for the quoted model at the time of the bid submission.	
5	Latest OS version	The switch shall be supplied with the latest OS version.	
6	Gigabit Copper ports with POE	The switch should have at least 8 10/100/1000 Mbps downlink ports, + 4nos of 1G SFP Uplinks POE Budget: 240W	
7	Transceivers	All the Transceivers/Modules used to connect the Switches should be from the same OEM/make of the switches only.	
		OR	
		All Transceivers / Modules should be MSA Compliance duly certified and warranted by Switch OEM for Full functionality	
8	Port status display	Each port must have a dedicated LED for status display.	
9	Switching Backplane Bandwidth	At least 25 Gbps or more	
10	MAC Addresses	8K or more	
11	L2 Loop Protection	IEEE 802.1d Spanning tree protocol	
12		802.1s MSTP (Multiple instances of STP)	
13		802.1w RSTP (Rapid spanning tree)	
14	Link Aggregation	802.3ad Link Aggregation	
15	QOS Support	Switch should support QOS.	
16	IP Multicast	IGMP Snooping.	
17	Network Login	MAC and 802.1 X based Login must be available	
18	AAA (authentication, authorization, and accounting)	AAA using RADIUS must be available	

19	In-band Management	Following in-band management methods shall be available:	
20		Web based management (On http or https)	
21		SSH based management (SSH v2).	
22	Remote Monitoring	RMON Support	
23	Log Management	Syslog shall be supported with multiple syslog destinations.	
24	Time synchronization	Time synchronization using Network time protocol must be available.	
25	Configuration backup & restore	The switch shall have the feature of backing up the configuration & restoring a backed-up configuration.	
26	Interface cables and connectors (to be supplied with each switch)	Console cable and power cable (As per Indian standards) to be provided. All Cables shall be factory-terminated.	
27	Environmental conditions	The offered equipment must be able to operate in the following environmental conditions - Operating temperature: 0 ° C to 75 ° C	
28	MAF	to be provided by the bidder	

10.60 Firewall-Technical Specification & Compliance Sheet			
S/ N	Parameter	Requirements	Compliance (Yes/No)
1	Architecture	The Firewall should be a purpose-built hardware appliance having zone based firewall using stateful inspection and Intrusion prevention functions.	
2	Common Criteria Certification	The offered product series or its operating system series must have achieved EAL (Evaluation Assurance Level) Certification of EAL3/NDPP1.1 or better in the Common Criteria for Information Technology Security Evaluation (ISO/IEC 15408) for computer security certification	
	Hardware Specifications & Performance Parameters		
3	Concurrent Sessions/con connections	At least 1,600,000 concurrent sessions/connections.	
4	New connections /second	At least 53K sessions/connections per second.	
5	Firewall Interfaces	Four gigabit 100/1000 baseT Ethernet ports and One gigabit SFP Slots	
6	Throughput	At Least 500 Mbps with all features enabled At Least 500 Mbps Real World:Prod Performance	
	Firewall Features:		
7	Granular Access control Support	Source/Destination IP/Port	
		Time and date access	
		Type of service/application	
		Customizable services	
		Combination of one or multiple of above-mentioned parameters	
8	Application Support for Inspection	Should support standard protocols	
		Internet-based applications like Telnet, FTP, SMTP, http, DNS, ICMP etc. should be supported for inspection	
9	Intelligent Network Integration	Should support IPv4 & IPv6, dual stack support from day 1.	
		Static Route, OSPF	

		VLAN Tagging (802.1q)	
10	NAT & PAT	Dynamic NAT as well as one-to-one NAT	
		Port / IP Address Forwarding	
		PAT	
	Management, Reporting & Logging		
11	Local Management Features	Console Access SSH and Web GUI for Configuration access Role based administration	
		IP/network restriction for the administrators	
12	Reporting Features Support	The solution shall allow generations of reports with following information Application Traffic Intrusions and attacks observed. Top Source and destinations Top Applications Traffic statistics.	
13	Log Storage	At least 50 GB SSD local storage shall be available for storing logs	
14	Geolocation based rules/policies	The firewall should be able to allow or deny network traffic based on the geolocation of source and destination.	
	Integrated Intrusion Prevention System		
15	General	The IPS should be capable of accurately detecting intrusion attempts and discern between the various types and risk levels, including unauthorized access attempts, pre-attack probes, suspicious activity etc.	
		The IPS should use stateful detection and prevention techniques and provide protection against worms, Trojans, spyware, key-loggers, and other malware from penetrating the network.	
	Other Miscellaneous requirements:		
16	Interface cables	Console cable and power cable (As per Indian standards) to be provided. All Cables shall be factory-terminated.	
17	Mounting	Necessary accessories to be provided by bidder for mounting the firewall on rack	
18	Power Supply	The equipment should be able to take normal Indian power supply as direct input. (Inbuilt Power Supply)	

19	Log forwarding	Log forwarding using Syslog shall be available.	
20	Licensing	All the licenses including subscription of IPS required to implement the features specified in this document shall be provided on Day1 for complete warranty/support duration	
21	Installation, Integration, testing and commissioning in the scope of Bidder	Yes	
22	All the necessary items viz console cables, LAN cables, configuration software is to be provided	Yes	
23	Certificates	OEM should have ISO 9001 and ISO 27001 certification. Proof for same shall be submitted Firewall OS family or Hardware should be IPv6 ready logo certified, MTCTE certification from TEC. Proof for same shall be submitted	
	Support		
24	Support Service	The Firewall should be supplied with OEM support for Five years. This support should cover device fault/failure.	

10.70 P2P/P2MP-Technical Specification & Compliance Sheet			
S/ N	Parameter	Requirements	Compliance (Yes/No)
1	WIRELESS FEATURES		
2	Wireless Standards	IEEE 802.11a/n	
3	Wireless Speeds	5GHz 800 Mbps	
4	Frequency	5.15~5.85GHz	
5	Transmission Power	Max. 25dBm (Adjustable power by 1dBm)	
6	Transmission Range	20 km	
8	Network Configuration	WAN: Static/Dynamic/PPPoE/L2TP/PPTP LAN: Static/Dynamic/DHCPForwarding: ALG/UPnP/Virtual Server/Port Trigger Security: SPI Firewall/ Ping Forbidden/DoS Protection Access Control Static Routing Bandwidth Control IP & MAC Binding	
9	Wireless Configurations	Selectable Channel Width: 5/10/20/40MHz Auto Channel Selection Transmit Power Control Dynamic Frequency Selection(DFS) WDS Enable/Disable Security: WPA/WPA2, WPA-PSK/WPA2-PSK (AES/TKIP) Encryption, 64/128/152-bit WEP Encryption SSID Broadcast Enable/Disable Multi- SSID with VLAN Tagging Distance/ACK Timeout Setting Wireless MAC Address Filter Wireless Advanced: Beacon Interval/RTS Threshold/Fragmentation Threshold/DTIM Interval/AP Isolation/Short GI/Wi-Fi Multimedia	
10	Management Features	HTTP/HTTPS Web-based management System log SNMP Agent(v2c) Ping Watch Dog Dynamic DDNS SSH Server	

11	System Tools	Indicators: Signal Strength/Noise/Transmit CCQ/CPU/Memory Monitors: Throughput/Stations/Interfaces/ARP/Routes/WAN/D HCP Spectrum Analyzer Speed Test Ping Traceroute	
12	System-level Optimization s	Optimized IGMP Snooping/Proxy for multicast applications Hardware watch dog	
13	Interfaces	1 AC Jack with Earth Ground 1 10/100Mbps Shielded Ethernet Port (Power + Data) 1 10/100Mbps Shielded Ethernet Port (Data)	
14	Power Supply	24V Passive PoE Adapter	
15	Weatherproof Enclosure	IP65	

10.80 Client Workstation -Technical Specification & Compliance Sheet			
S/ N	Parameter	Requirements	Compliance (Yes/No)
1	Processor	Intel Core i7 13th Gen, 12 Core, base 2.1GHz or better	
2	RAM	16 GB DDR5	
3	HDD	512 GB SSD	
4	Chipset	Intel W680	
5	Graphic Card	1x Nvidia 8GB Graphics	
6	Network	1G Ethernet	
7	Expansion Slots	1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3	
8	I/O Ports	1 – USB 3.2 Gen 2 Type C	
		4 – USB 3.2 Gen 1/2	
		1 – Universal Audio Port	
		1 – Audio Line OUT / IN	
9	PSU	300W, 92% efficient (80 Plus Platinum) PSU	
10	OS	Windows 11 Pro	
11	Monitor	Dual monitors should be supported	
12	Keyboard & Mouse	Wireless Keyboard & Mouse	
13	Form Factor	Small Form Factor	
14	Security Features	Trusted Platform Module (TPM 2.0), Chassis Intrusion switch, Setup/BIOS Password	
15	Certification	BIS, Energy Star	
16	Warranty	4 years On-site comprehensive warranty/AMC with 24x7x365 remote hardware support. Part Replacement on Next Business Day.	

10.90 Display 65 Inch with Stand - Technical Specification & Compliance Sheet			
S/N	Parameter	Requirements	Compliance (Yes/No)
1	Make & Model	To be provided by the bidder	
2	Display Size	65 inches or above	
3	Native Resolution	3840 x 2160 (UHD) 4K	
4	Brightness	Minimum 400 cd/m2 or above	
5	Contrast Ratio (Static/Dynamic)	Minimum 1200:1 /100000:1 or better as panel type	
6	Viewing Angle	178 * 178	
7	Input Ports	HDMI-3, USB 2.0 - 1, RS232C-1, RJ45/LAN-1, RF-1, or more	
8	Output Ports	Optical Digital Out-1, External Speaker Out-1, Headphone Out-1	
9	Depth	60mm or Less	
10	Important control features & Applications	Smart Share / Screen Share, Bluetooth sync for Speakers, WI-Fi	
11	HDR Support	HDR Pro/10/Plus	
12	Hotspot/Soft AP	Built in feature to create network for Tab/Mobiles	
13	Accessories	Mounting accessories with floor stand	

10.100 05 KVA ON-LINE UPS-Technical Specification & Compliance Sheet			
S/N	Parameter	Requirements	Compliance (Yes/No)
1	Type of UPS	Online UPS - Double conversion	
2	Rating In KVA	5.0 KVA	
3	Switching Technology	IGBT-PWM	
4	SNMP Card	Required with all software and connectors for monitoring of UPS in LAN	
5	Input Voltage	AC Single phase 160 V - 260V, Sinewave 50Hz	
6	Output Voltage	AC Single phase 230V +/-1%, Sinewave 50 Hz	
	Battery : Backup Bank to be Provided with Online UPS	Required Battery ≥ 100 Ah batteries	
8	Type Of Battery	SMF-VRLA, Each battery of 12V conforming to JISC:8702(Pt.I,II&III), Stationary Lead Acid Batteries (with tubular positive plates) in monobloc container conforming to IS:13369:1992 latest. Type test report from Govt Lab/NABL accredited lab	
9	Backup Time (Minutes)	60 MINUTES on full load	
10	Minimum guranteed VAH	16000 (1600 X Per KVA X Per hour of backup time)	
11	Isolation Transformer	Required. Isolation transformer to be supplied.	
12	Overall Efficiency (%)	$\geq 90\%$ with isolation transformer.	
13	Overload Limit	20% Overload for minimum 10 minute	
14	Protection features	Following protections feature required : a) Overvoltage b) Shortcircuit c) Overload at UPS output terminal d) Under Voltage at battery terminal	
15	Metering features	Following metering feature required (Digital metering) - i) Input Voltage ii) Output Voltage iii) Output Current, iv) Input and Output Frequency iv) Battery voltage and current	
16	Indicators features	Following Indictor features required - Mains presence, Battery charging and discharging, Low battery voltage, output overload	
17	BIS certification under CRS of MeitY	Required	

18	BIS number and its validity	To be provided by bidder	
19	Factory test report	Required	
20	Accessories	The UPS shall be complete with Trolley/Rack for batteries, Input and output cables, battery Cables and connectors	
21	Type Of Design : Construction	Floor Standing, Powder coated	
22	Alarms and indicators	Indicator for Low Battery Voltage with Audible Alarm, Indicator for mains presence, Alarm for Over Temperature, Indicator for Battery charging and discharging, Indicator for Output Overload with Audible Alarm	
23	Installation at Site	To be provided by bidder	
24	Degree of Protection	IP 21 or better	
25	Operational features	Mains ON/OFF MCB, Manual Bypass, Battery ON/OFF MCB, Inverter reset push button, Static bypass facility to be provided	
26	On-site OEM Warranty for UPS (Years)	3 Years on-site comprehensive warranty	
27	Warranty For Battery (Years) By Battery Manufacturer	2 Years	
28	Intended Use	LAN Network / Servers	
29	Make and model of UPS and its battery	To be provided by bidder	

10.110 CAT 6 Cable & Accessories-Technical Specification & Compliance Sheet			
S/N	Parameter	Requirements	Compliance (Yes/No)
1	General	Cat 6 Cable (Operational bandwidth up to 250 Mhz).	
2		This cable well exceeds the requirements of TIA/EIA-568-C.2 and ISO/IEC 11801	
3		Conductor 23 AWG Solid bare Copper and Outer jacket sheath FRPVC and CM rated cable. Jacket color: Grey, Cable Type: SF/UTP Insulation: High Density Polyethylene Solid Conductor Diameter: 0.55 mm (23 AWG) Wrapping: Overall Polyester tape HF-Screening: Overall AL-PET (Mylar) tape Braiding: Tinned copper conductor Jacket Average Thickness: 0.44 ± 0.01 mm Jacket Diameter: 7.5 ± 0.5 mm, Rip Cord: 1 no Drain Wire: 1 no (0.39 ± 0.01 mm)	
4		Construction: 4 twisted pairs separated by internal PE Cross Separator. Full separator. Half shall not be accepted. Rip Cord is required.	
5		Dielectric Strength of cable should be 2.5 KVDC for 2 SECS	
6		Bending Radius: $< 8X$ Cable Diameter at $-20^{\circ}\text{C} \pm 1^{\circ}\text{C}$ Pulling Force: 25.35 LBS	
7		Electrical Parameters Pair – to – pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR.	
8		Insertion Loss of 32.8 db/100m at 250 MHz	
9		Cable should support operating Temperature from -10° to $+70^{\circ}\text{C}$	
10		Cable support Conductor Resistance $< 9.38 \Omega / 100\text{m}$	
11		Mutual Capacitance of cable should be $< 5.6\text{nF}/100\text{m}$	

12		Max Resistance Unbalance of cable should be 5% Max	
13		Capacitance Unbalance of cable should max 330pF/100m	
14		Cable support Delay Skew: < 45ns/100m, Operating Voltage: 72V NVP: 69% and Current Rating: MAX 1.5A	
15		Printed sequential Length Counter of each meter on Outer Jacket	
16		Products should comply with RoHS directives.	
17	Others	Casing/Capping/Connecting accessories shall be in the bidder's scope.	

10.120 Junction Box (Outdoor)- Technical Specification & Compliance Sheet			
S/N	Parameter	Requirements	Compliance (Yes/No)
1	General	Robust steel sheet construction made from 1.25mm or 1.5 mm steel sheet, folded and welded from a single piece, with protection channel around the door opening, rear panel with outer sunk holes for wall mounting brackets. Enclosure base fitted with sheet steel gland plates. Size- 9U.	
2		The JB shall have an on/off switch to switch the power supply from UPS. For terminating all cables, the junction box should have suitable terminating block or connections	
3		The provision form outing the JB on the pole shall be made available in the junction box	
4		Suitable for housing of mini-UPS , LIU, din rail mount switch ,Power supply/all the equipment required at the camera site. It shall be weatherproof so as to withstand the outdoor dust and high temperature climate of the plant	
5		Lock inserts, wall mounting brackets, plastic gland plate, earthing straps, wiring plan pockets, door stay, panels, electronic accessories (for 600 mm wide enclosures only), 180° hinge Enclosure and door: Dip coat primed, powder-coated on the outside, textured paint RAL7035, Mounting plate: Zinc-plated	
6		Suitable for Outdoor installation, protected against weather influences	

10.130 Pole - 7 Mtr- Technical Specification & Compliance Sheet			
S/N	Parameter	Requirements	Compliance (Yes/No)
1	Material Type	ISI marked	
2	Pole Type	Fixed	
3	Length	7 Mtr (above the ground)	
4	Pole Drawing	Before supply of poles, vendor shall submit the pole drawing to EIC. Fabrication of poles shall be as per the approved pole drawing by EIC.	
5	Other provisions	-Proper cabling/ wiring provision.	

10.140 Armoured Power Cable (3C x 2.5 Sqmm) - Technical Specification & Compliance Sheet			
S/N	Parameter	Requirements	Compliance (Yes/No)
1	Type of cable	3 Core x 2.5 sq. mm armoured copper FRLS cable	
2	Voltage Rating	Up to and including 1100 volts	
3	Construction	2.5 sq. mm multi stranded annealed bare electrolytic grade, Conductor Resistance <7.5 Ohms/km	
4	Primary insulation	Extruded PVC compound as per IS 5831 type C	
5	Inner Sheath	Extruded PVC compound type ST2	
6	Outer Sheath	Extruded PVC compound, type ST2	
7	Armour over inner sheath	thickness>1.4mm, Galvanized steel wire for UAD less than 13 mm, Galvanised steel strip for UAD greater than 13mm Dimensions	
8	Colour	Red, Black, Green	
9	Insulation resistance	100M ohm / KM @500V DC	
10	Strands	7 nos. with each strand of at least 0.68 mm diameter	
11	Core Identification		
	3 Cores	Red, Yellow & Blue	
	Rip Chord	Shall be provided	

10.150 HDPE Protection Pipe (32mm/40mm) - Technical Specification & Compliance Sheet			
S/N	Parameter	Requirements	Compliance (Yes/No)
1	Material	HDPE (High-Density Polyethylene) conduit pipe	
2	Diameter	32mm / 40mm inner diameter options	
3	Purpose	Protection for underground Ethernet and power cables, resistant to UV, moisture, and impact	

10.160 OFC Cable (6 Core SM Armoured)- Technical Specification & Compliance Sheet			
S/N	Parameter	Requirements	Compliance (Yes/No)
1	Type	Optical Fiber Cable (OFC)	
2	Core	6 Core count, Single-Mode (SM) fiber type	
3	Protection	Armoured construction for outdoor/direct burial applications	

Annexure-III

Draft QP for SITC of Project Monitoring Camera

ANNEXURE-V (DRAFT -Quality Assurance Plan)

	Name of Agency:		Quality Assurance Plan for SITC of Project Monitoring Camera				
	Project: NABINAGAR		FQP NO: NTPC Ltd/NABINAGAR/CWN/				
	ITEM:		REV:		Package		
			DATE:		PR NO:		
			PAGE:1				
	DRG NO:		PO/PR NO:		Review		
		VALID UPTO					
INSTALLATION, TESTING & COMMISSIONING OF RELEVANT COMPONENTS, ACCESSORIES, INSTRUMENTS & EQUIPMENTS							
S/N	Component/Operation	Type of Check	Class	Quantum of Check	Ref. Doc/ Acceptance Norms	Format Record	Remark
1.	Bill of Quantity	Checking of BOQ quantity, make & model	A+B+C	100%	Technical Specification/ Technical datasheet	Site Register	Jointly checked by the Indenter, FES & vendor personnel.
2.	NVR, Camera, Switches, Poles, JB, Wireless AP	Checking of license details, h/w configuration	A+B	100%	Technical Specification/ Technical datasheet	Snapshot of Configuration	Jointly checked by the Indenter & vendor personnel.
3	System's Functionality	Checking of installed System's Functionality	A+B	100%	Technical Specification/ Technical datasheet	Snapshots of Function's demonstration	
4	Final Documentation Review & Preparation of Report	As Per quality plan	B+C	100%	Review & Approval of Report by NTPC	Report	

- A- Checking By C&I-E
 B- Checking by FES
 C- Checking By agency

Note: -

1. Document of all software and hardware shall be submitted before start of the work.
2. Experienced and skilled personnel/Engineers shall be deployed for installation

NTPC Limited

(A Govt. of India Enterprise)



SECTION – VIII

(FORMS AND PROCEDURES)

BIDDING DOCUMENT NO. : 9900325917

**TABLE OF FORMS AND PROCEDURES
SECTION-VIII**

SL.NO.	DESCRIPTION	
1	BID FORM	TECHNO-COMMERCIAL BID
2	ATTACHMENT - 1	BID SECURITY
~~2-A~~	~~ATTACHMENT 1A~~	~~TENDER FEE~~
~~2-B~~	~~ATTACHMENT 1B~~	~~NO DEVIATION CERTIFICATE/ CERTIFICATE OF COMPLIANCE TO ALL PROVISIONS OF BID DOCUMENTS~~
3	ATTACHMENT - 2	DOCUMENTS RELATED TO LEGAL STATUS OF BIDDER
~~4~~	~~ATTACHMENT - 3~~	~~EXPERIENCE DETAILS OF BIDDER, AND CERTIFICATE OF COMPLIANCE ON QUALIFYING REQUIREMENTS~~
~~—~~	~~ATTACHMENT - 3B~~	~~DETAILS OF AVAILABLE BID CAPACITY ALONG WITH ANNEXURE-I~~
	ATTACHMENT - 3C	DETAILS REGARDING ANTICIPATION OF CHANGE IN OWNERSHIP
	ATTACHMENT - 3D	DECLARATION REGARDING INSOLVENCY, BANKRUPTCY AND LIQUIDATION
~~5~~	~~ATTACHMENT - 4~~	~~LIST OF SIMILAR WORKS ON HAND & PERCENTAGE COMPLETED BY THE BIDDER~~
~~6~~	~~ATTACHMENT - 5~~	~~FORM FOR LIST OF CONTRACTS EXECUTED~~
7	ATTACHMENT - 6	FORM FOR EQUIPMENT/ MACHINERY DEPLOYMENT SCHEDULE
	~~ATTACHMENT - 6A~~	~~FORM FOR SAFETY EQUIPMENT & SAFETY PERSONAL PROTECTIVE EQUIPMENTS~~
8	ATTACHMENT - 7	FORM FOR SUBCONTRACTOR (TO BE SUBMITTED TO SITE AFTER AWARD OF WORK)
~~9~~	~~ATTACHMENT - 8~~	~~FORM FOR LIST OF FINANCIAL DOCUMENTS~~
10	ATTACHMENT - 9	FORM FOR GENERAL DECLARATION BY BIDDER
~~11~~	~~ATTACHMENT - 10~~	~~FORM FOR DETAILS OF FATAL ACCIDENTS~~
~~12~~	~~ATTACHMENT - 11~~	~~FORM FOR DECLARATION OF IMPORT CONTENT (TO BE SUBMITTED WITH PRICE BID)~~
~~13~~	~~ATTACHMENT - 12~~	~~FORM FOR DECLARATION REGARDING CUSTOMS DUTY BENEFITS FOR IMPORTS OF CONSTRUCTION EQUIPMENT (TO BE SUBMITTED WITH PRICE BID)~~
14	ATTACHMENT - 13	ELECTRONIC FUND TRANSFER
~~15~~	~~ATTACHMENT - 14~~	~~DELETED~~
~~16~~	~~ATTACHMENT - 15~~	~~DELETED~~
~~18~~	~~ATTACHMENT - 16~~	~~DELETED~~
~~19~~	~~ATTACHMENT - 17~~	~~ACCEPTANCE OF NTPC SAFETY RULES~~
20	ATTACHMENT - 18	INTEGRITY PACT

- 21 ~~ATTACHMENT 19~~ ~~UNDERTAKING TO REGISTER THE AWARDED WORK WITH SAFETY COUNCIL OF INDIA~~
- 22 ~~ATTACHMENT 20~~ ~~INFORMATION REGARDING SAFETY MANAGEMENT~~
- 23 ~~ATTACHMENT 21~~ ~~Taxes and Duties (To be submitted along with Price Bid)~~

**BIDDER MAY TAKE NOTE OF THE FOLLOWING POINTS
WHILE SUBMITTING ITS BID**

- **POWER OF ATTORNEY DULY NOTARIZED BY A NOTARY PUBLIC INDICATING THAT THE PERSON(S) SIGNING THE BID HAS/HAVE THE AUTHORITY TO SIGN THE BID AND THE BID IS BINDING UPON THE BIDDER DURING THE FULL PERIOD OF ITS VALIDITY BACKED BY A COPY OF BOARD RESOLUTION / OTHER RELEVANT DOCUMENT TO DEMONSTRATE THE AUTHORITY OF THE PERSON ISSUING THE POWER OF ATTORNEY. TO BE FURNISHED ALONG WITH THE BID.**
- **POWER OF ATTORNEY TO THE AUTHORIZED SIGNATORY OF THE BIDDER FOR SIGNING OF BID ~~AND JDU/JV AGREEMENT ETC., WHEREVER APPLICABLE~~, TO BE SUBMITTED ALONG WITH BID AND SHOULD BE DATED NOT LATER THAN THE DATE OF SIGNING THE BID.**
- **BIDDER TO ENSURE THAT BID SECURITY ~~/ JDU / JV AGREEMENT~~ TO BE SUBMITTED IN ORIGINAL STRICTLY AS PER SPECIFIED FORMATS DULY SIGNED IN ORIGINAL BY AUTHORIZED SIGNATORY AND STAMPED ON EACH PAGE. SCANNED / PHOTOCOPY OF THESE DOCUMENTS WITHOUT SIGNATURE IN ORIGINAL SHALL NOT BE ACCEPTABLE AND SHALL BE SUMMARILY REJECTED.**
- **DATE OF PURCHASE OF STAMP PAPER IN INSTRUMENTS LIKE BID SECURITY DECLARATION, JOINT DEED OF UNDERTAKING ETC SHOULD BE ON OR BEFORE THE DATE OF EXECUTION OF SUCH INSTRUMENTS.**

1. BID FORM

(TECHNO-COMMERCIAL BID)

BID FORM (TECHNO-COMMERCIAL & PRICE)**BID DOCUMENT NO. 9900325917**

Date :

To
**Corporate Contracts,
NTPC Limited**

Dear Sir,

1.0 Having examined the Bidding Documents including subsequent amendments and clarifications (if any), the receipt of which is hereby acknowledged, we the undersigned, submit our bid for the Works under the above-named Contract Package, in full conformity with the said Bidding Documents.

2.0 **COMPLIANCE TO THE PROVISIONS OF THE BIDDING DOCUMENTS**

2.1 We have read all the provisions of the Bidding Documents and confirm that notwithstanding anything stated elsewhere in our bid to the contrary, the provisions of the Bidding Documents, are acceptable to us and we further confirm that we have not taken any deviation to the provisions of the Bidding Documents anywhere in our bid.

Any deviation, variation or additional condition etc. or any mention, contrary to the provisions of Bidding Documents and its subsequent Amendment(s)/ Clarification(s)/Addenda/Errata (if any) found anywhere in our bid proposal, implicit or explicit shall stand unconditionally withdrawn, without any cost implication whatsoever to the Employer, failing which our bid shall be rejected.

2.2 We further declare that additional conditions, variations, deviations to the provisions of bidding documents and its subsequent Amendment(s)/ Clarification(s)/ Addenda/ Errata, if any, found in our proposal, shall not be given effect to.

3.0 **SCHEDULE OF QUANTITIES:**

3.1 In line with the requirements of the Bidding Documents, we are attaching, the Schedule of Quantities, at the 'Finance' cover of the e-tender portal, duly filled-in in your format.

3.2 We are aware that the Schedule of Quantities does not generally give a full description of the work to be performed under each item and we shall be deemed to have read the Technical Specifications, Drawings and other Sections of the Bidding Documents to ascertain the full scope of work included in each item while filling in the rates and amount/ prices. We agree that the entered rates and amount/ prices shall be deemed to include the full scope as aforesaid, including overheads and profit.

3.3 We declare that prices left blank in the Schedule of Quantities will be deemed to have been included in the prices of other items. The total for each Schedule and the total of grand summary

shall be deemed to be the total price for executing the subject package in complete accordance with the Contract, whether or not each individual item has been priced.

- 4.0 We hereby agree that we shall furnish all necessary justification to establish the reasonableness of the rates/ prices, if required by you.
- 5.0 We undertake, if our bid is accepted, to commence work immediately upon your Letter of Award to us and to achieve Completion of Work within the time specified in the Bidding Documents.
- 6.0 If our bid is accepted, we undertake to provide Advance Payment Security, Contract Performance Securities and securities for Deed(s) of Joint Undertaking (as applicable) in the form and amounts and within the times specified in the Bidding Documents.
- 7.0 We agree to abide by this bid for a period of Four (4) months from the date of opening of Techno-Commercial Bids as stipulated in the Bidding Documents, unless extended by us on your request, and it shall remain binding upon us and may be accepted by you at any time before the expiration of that period.
- 8.0 Until a formal Contract is prepared and executed between us, this bid, together with your written acceptance thereof in the form of your Letter of Award shall constitute a binding contract between us.
- 9.0 We understand that you are not bound to accept the lowest or any other bid you may receive. Further we understand that Employer reserves the right to reject any or all bids or cancel/withdraw the Invitation For Bids without assigning any reason whatsoever and in such case no bidder/intending bidder shall have any claim arising out of such situation.
- 10.0 We, hereby, declare that only the persons or firms interested in this proposal as principals are named here and that no other persons or firms other than those mentioned herein have any interest in this proposal or in the Contract to be entered into, if the award is made on us, and that this proposal is made without any connection with any other person, firm or party likewise submitting a proposal, is in all respects for and in good faith, without collusion or fraud.
- 11.0 We have read the ITB clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries. We certify that we/our Collaborator/JV Partner/Consortium member are/is not from such a country or, if from such a country, have/has been registered with the Competent Authority and we will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. We hereby certify that we fulfill all requirements in this regard and are eligible to be considered.

BID FORM

Page 3 of 4

***We further confirm that evidence of valid registration by the Competent Authority for us/our Collaborator/JV Partner/Consortium member, as applicable, is enclosed as Annexure... **...**

***Bidder to strike-off, if not applicable.**

****Bidder to mention the Annexure no.**

- 12.0 (i) We confirm that we fulfill the requirements of Local content for Class-I local supplier.

The details of the location(s) at which the local value addition are as under:

Sl. No.	Description of Goods & Services	Details of the location(s) at which the local value addition is made

(ii) We confirm that we fulfill the requirements of Local content for Class-I local supplier for Item(s) mentioned in Technical Specifications, as applicable. We further confirm that in case such item(s) are bought-out for us, we shall source the same from Class-I local supplier only.

We undertake that a certificate from the statutory auditor or cost auditor (in the case the bidder is a company) or from a practicing cost accountant or practicing chartered accountant (in respect of bidders other than companies) certifying the percentage of local content shall be submitted by us prior to submission of our last bill for payment.

##We further confirm that we are presently not debarred / banned by any other procuring entity for violation of 'Public Procurement (Preference to Make in India), Order 2017' (PPP-MII Order) dated 15.06.2017 and its subsequent revisions / amendments issued by Department for Promotion of Industry and Internal trade (DPIIT)."

In case a Bidder has been banned/debarred by any other procuring entity for violation of 'Public Procurement (Preference to Make In India), Order 2017' (PPP- MII Order) dated 15.06.2017 and its subsequent revisions / amendments issued by Department of Industrial Policy and Promotion (DIPP), the same may be declared by Bidder by striking off para above and declaring the details of banning using additional sheets.

BID FORM

Page 4 of 4

Bidder may also enclose additional sheets in similar format (if required), for providing details pertaining to local value addition.

Dated this day of 20 .

Thanking you, we remain,

Yours faithfully,

Date :

Name of Authorised Person

Place :

Designation.....

Business Address :

Fax No. : Phone No. :

- Note :
1. Bidders may note that no prescribed proforma has been enclosed for:
 - (a) Attachment 2 (Legal Documents)
 - ~~(b) Financial Documents to be submitted in Attachment 8.~~

BID DOCUMENT NO. 9900325917

Bid Security

BIDDER TO FURNISH BID SECURITY IN LINE
WITH ITB CLAUSE 14 & BDS CLAUSE 10
AND
AS PER FORMAT GIVEN AT SL. NO. 1 OF
SECTION VIII (FORMS & PROCEDURES)

BID DOCUMENT NO. 9900325917

DOCUMENTS RELATED TO LEGAL STATUS OF BIDDER

**BIDDER TO ATTACH THE LEGAL DOCUMENTS IN
ACCORDANCE WITH ITB SUB-CLAUSE 11.2(b)**

BID DOCUMENT NO. 9900325917

(Details regarding anticipation of change in ownership)

To
Corporate Contracts,
NTPC Limited

Dear Sirs,

We hereby confirm that we do not anticipate any change in ownership during proposed period of execution of work (if such a change is anticipated, the scope and effect thereof shall be defined). The relevant document for same is enclosed at Annexure to this Attachment-3C.

Date :.....

Name of Authorised Person

Place :.....

Designation

Attachment-3D

BIDDING DOCUMENT NO. : 9900325917

Declaration regarding Insolvency, Bankruptcy and Liquidation

**Bidder to submit Declaration regarding Insolvency, Bankruptcy and Liquidation
for themselves and their Parent/ Holding/ Subsidiary Company, Associate or
Collaborator/ Technology provider company (as applicable) as per
following attachments:**

Attachment-3D(i)/Attachment-3D(ii)/ Attachment-3D(iii)/ Attachment-3D (iv)

Attachment-3D (i)

1. Format for declaration by the Domestic Bidder

"Self-Declaration by the Bidder"

I/ We, M/s..... (Name of Bidder)
hereby certify that no proceedings for insolvency or liquidation under the Insolvency and Bankruptcy Code, 2016, or any other bankruptcy proceedings under any other applicable laws (in cases where IBC, 2016 is not applicable) have been admitted or is pending against us and/or our Parent/Holding/Subsidiary Company, Associate or Collaborator or Technology Provider.....

<Name of Parent/ Holding/ Subsidiary Company, Associate or Collaborator/ Technology provider company) from whom we have taken or intend to take technical and/ or financial support for qualification of bid.

It is understood that if any part of this declaration is found to be false, the Employer shall have the right to unconditionally, immediately and outrightly reject my/our bid and forfeit the Bid Security/ EMD.

Further, in case the bid has already culminated into a Contract, the Employer shall be entitled to terminate the Contract, without prejudice to any other rights or remedies available to the Employer.

(Seal & Signature of Bidder)

Note: 1. This 'Declaration' should be on the letterhead of Bidder

2. The declaration shall be submitted separately as per 3D(ii) by the Parent/Holding/Subsidiary Company, Associate, Collaborator and Technology provider from whom the Bidder has taken or intends to take technical and/or financial support for qualification of bid.

Attachment-3D (ii)

Format of declaration by Parent/Holding/Subsidiary Company, Associate or Collaborator/ Technology Provider from whom the Bidder has taken or intends to take technical and/ or financial support for qualification of bid

"Self-declaration by the Parent/Holding /Subsidiary Company, Associate or Collaborator/ Technology Provider"

I/ We, M/s..... (Name of Parent/Holding/Subsidiary Company, Associate or Collaborator/ Technology Provider) from whom the Bidder has taken or intends to take technical and/ or financial support for qualification of bid, hereby certify that no proceedings for insolvency or liquidation under the Insolvency and Bankruptcy Code, 2016, or any other bankruptcy proceedings under any other applicable laws (in cases where IBC, 2016 is not applicable) have been admitted or is pending against us.

It is understood that if any part of this declaration is found to be false, the Employer shall have the right to unconditionally, immediately and outrightly reject the bid and forfeit the Bid Security/ EMD.

Further, in case the bid has already culminated into a Contract, the Employer shall be entitled to terminate the Contract, without prejudice to any other rights or remedies available to the Employer.

(Seal & Signature of Parent/Holding/ Subsidiary Company, Associate or Collaborator, Technology provider)

Note: 1. The 'Declaration' shall be on the letterhead of Parent/Holding/Subsidiary Company, Associate or Collaborator/ Technology Provider

BID DOCUMENT NO. 9900325917**(EQUIPMENT/ MACHINERY DEPLOYMENT SCHEDULE)**

SI No	Equipment Type/ Capacity	Min Nos required	No. proposed to be deployed	No. already available for immediate deployment	Period by which balance equipment will be deployed	Place from where balance equipment will be bought	Number intended to be purchased	Period by which New T&P can be deployed	Quantum of work that can be achieved during peak period/shift
1.									

NOTES : As per requirements mentioned in the Technical Specs.

- a) These requirements and capacity of the equipment are indicative only and not exhaustive and deployment of the equipment, machinery and labour shall be suitably augmented to achieve the timely completion of the work as per the program and directions of the engineer, without any additional cost to Owner.
- b) Other materials like cables, sling, gloves goggles, safety belts, safety helmets, heating oven, pre-heating / post weld heat treatment arrangements, material for making platforms and platform supports etc. shall be mobilised as per requirement.
- c) Other equipment though required for the timely completion of the job and but not listed above shall be deployed by the contractor, as per the job requirements and as directed by the Engineer.
- d) The contractor shall make suitable provisions for repairs and maintenance of the equipment mobilised and always keep them in good working condition, as the repair facilities for such equipment are not available at the project site.
- e) All concreting shall be carried out using centralised batching plant, transit mixers, concrete pumps, boom placers. However individual mixers for localised concreting can be done for PCC work and small qty. of RCC work after the approval of Engineer-in-charge, if required.

BID DOCUMENT NO. 9900325917

SAFETY EQUIPMENT & SAFETY PERSONAL PROTECTIVE EQUIPMENTS

Sl No	Equipment Type/ Capacity	Min Nos required to be deployed at site	No. proposed to be deployed at site	No. already available for immediate deployment at site	Period by which balance equipment will be deployed at site	Place from where balance equipment will be bought at site	Number intended to be purchased	Period by which New T&P can be deployed
1	Suggested List of Safety Equipments and Safety Personal Protective Equipments to be deployed: Safety Helmet & safety Shoes: Industrial Safety Helmet (IS:2925-1984 marked) Industrial Safety/ Electrical Shoes (IS:15298-2002 marked)	50 Nos. each 50 Nos. each						

Note:-

- 1) These quantities of the equipment are minimum only and not exhaustive and deployment of the equipment, shall be suitably augmented as per the program and directions of the Engineer, without any additional cost to Owner.
- 2) Other equipments like cables, sling, gloves, goggles, safety belt, heating oven, pre-heating arrangement, material for making platform and platform support etc. shall be mobilised as per requirement.
- 3) Other equipment though required for the execution of the job and but not listed above shall be deployed by the contractor, as per the job requirements and as directed by the Engineer.

- 4) The contractor shall make suitable provisions for repairs and maintenance of the equipment mobilised and always keep them in good working conditions, as the repair facilities for such equipment are not available at the project site.

BID DOCUMENT NO. 9900325917

**(SUB-CONTRACTORS)
(TO BE SUBMITTED AT SITE AFTER AWARD OF WORK)**

Dear Sirs,

The following details in respect of each Sub-Contractor proposed by us in our bid are annexed to this Attachment.....

1. Name of the Sub-Contractor and the broad scope of work proposed to be sub-contracted to him.
2. The following details of the Sub-Contractor:
 - (i) Similar work executed in Industrial/ Infrastructure projects in the last seven (7) years including achievements. Details shall clearly indicate the name & address of the client, period of execution, the nature/ scope of work, major civil/ structural/ architectural quantities in his scope and physical progress achieved on monthly/ yearly basis.
 - (ii) List of plant & equipment proposed for deployment indicating whether the plant of equipment are lying idle and/or will be diverted from other works indicating likely date of release by client.
 - (iii) Technical manpower available for deployment.
 - (iv) Financial status for last three (3) years
 - (v) Letter of confirmation from the Sub-Contractor, signifying his confirmation to execute the Work.

Further, a letter from each of our proposed sub-contractor, conveying their willingness to work with us in case of award, is also enclosed.

- Note :**
1. The Bidder shall furnish the above details for each of the agencies/sub-contractors separately as per clause no.11.2 (g) of ITB.
 2. The format of the Letter of confirmation shall be as given at S. No. 13 of Forms and Procedures, Section VIII.

Date :

Name of Authorised Person

Place :

Designation

BID DOCUMENT NO. 9900325917

(GENERAL DECLARATION BY BIDDER)

Dear Sirs,

We hereby confirm that :

1. We have carefully read General Conditions of Contract, Special Conditions of Contract, Technical Specification and Bid Drawings (including amendments/ errata) and Schedule of Quantities and all other Bidding documents.
2. Our technical team/ technically competent officer visited the site to apprise our selves about availability of construction materials, unskilled labour, access to site and other infrastructure/enabling facilities (including availability of water/power) needed for the execution of the contract.

Date :

Name of Authorised Person

Place :

Designation

**BID DOCUMENT NO. 9900325917
(ELECTRONIC FUND TRANSFER FORM)**

Bidder's Name and Address:

To,
NTPC Limited, Contract Services

Dear Sirs,

We, hereby authorize the Employer to make all our payments through Electronic Fund Transfer System. The details for facilitating the payments are given below:

(TO BE FILLED IN CAPITAL LETTERS)

1. **NAME OF THE BENEFICIARY:** _____
2. **ADDRESS:** _____

3. **TELEPHONE NO. (WITH STD CODE):** _____
4. **BANK PARTICULARS**
 - A. Bank Name: _____
 - B. Bank Telephone NO. (with STD Code): _____
 - C. Branch Address: _____
 - D. Branch Code: _____
 - E. 9 Digit MICR Code of the Bank Branch (Enclose copy of a cancelled cheque): _____
 - F. IFSC CODE: _____
 - G. BANK ACCOUNT NUMBER: _____
 - H. BANK ACCOUNT TYPE (TICK ONE):

SAVING	CURRENT	LOAN	CASH CREDIT	OTHERS

IF OTHERS, SPECIFY: _____
5. **Permanent Account Number (PAN) (Enclose Copy):** _____
6. **E-mail address for intimation regarding release of payments:** _____

I/We hereby declare that the particulars given above are correct and complete. If the transaction is delayed or credit is not affected at all for reasons of incomplete or incorrect information, I/We would not hold the Employer responsible. We have enclosed document as mentioned at Sl. No. 4(E) and 5 above.

DATE:

SIGNATURE:

(AUTHORISED

SIGNATORY)

Name:

Official Stamp:

BANK CERTIFICATION:

It is certified that above mentioned beneficiary holds a bank account no. with our branch and the Bank particulars mentioned above are correct.

DATE:

SIGNATURE:

(AUTHORISED SIGNATORY)

Authorization No.:

Name:

Official Stamp:

DETAILS OF PF, ESI, PAN and GST REGN.
(To be uploaded in Pre-Qual/Technical Cover/Envelope)

To,

NTPC Ltd.

.....

.....

Dear Sir,

The details of our registration are as under:

(a) PF no. (If asked for in the tender)

The PF no. allotted by concerned RPFC under EPF scheme 1952 is as under:

PF Number	

Note: Copy of PF registration certificate issued by the concerned RPFC duly attested by the bidder under his seal and signature to be submitted.

(b) ESI registration number, if applicable (If asked for in the tender)

Our ESI registration number to cover our employees under the ESI Act:

ESI Registration Number	

Note: Copy of ESI registration duly attested by the bidder under his seal and signature to be submitted.

(c) PAN number

Our PAN number is as under:

Permanent Account Number	

Note: Copy of card indicating PAN number duly attested by the bidder under his seal and signature to be submitted.

(d) GSTIN, if applicable:

Our **GSTIN** is

GSTIN (location)	
GSTIN (location)	
GSTIN (location)	

Note : Copy of registration to be enclosed.

Date :

(Signature).....

Place :

(Name)

(Designation).....

(Company Seal)

BID DOCUMENT NO. 9900325917

(INTEGRITY PACT)

INTEGRITY PACT
..... **PACKAGE FOR**
.....
BIDDING DOCUMENT NO.

Between
NTPC Ltd., a Govt. of India Enterprise (hereinafter referred to as "The Employer") and

..... (hereinafter referred to as "The Bidder/Contractor")

and

..... (hereinafter referred to as "JV Partner/ Consortium
Members")

(if applicable)

Preamble

The Employer invites the bids from all eligible bidders and intends to enter into Contract for.....
..... with the successful bidder(s), as per organizational systems and procedures. The Employer values full compliance with all relevant laws and regulations, and the principles of economical use of resources, and of fairness and transparency in its relations with its Bidder(s) and/or Contractor(s).

This Integrity Pact is an agreement between the Employer and the bidder/Contractor/JV Partners/Consortium members, committing the persons/officials of the Parties not to resort to any corrupt practices in any aspect/stage of contract.

In order to achieve these goals, the Employer will appoint Independent External Monitor(s) (IEM), who will monitor the processes as stipulated in the SOP for implementation of Integrity Pact issued by CVC from time to time

Section 1 Commitments of the Employer

1. The Employer Commits itself to take all measures necessary to prevent corruption and to observe the following principles in this regard:-
 - a) No employee of the Employer, either in person or through family members including relatives, will in connection with the bidding for or the execution of a Contract, demand or accept a promise for or accept for him/herself or for a third person, any material or immaterial benefit to which he/she is not legally entitled to.

- b) The Employer shall, during the bidding process treat all Bidders with equity and reason. The Employer will, in particular, before and during the bidding process, provide to all Bidders the same information and will not provide to any Bidder confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the bidding process or the Contract execution.
 - c) The Employer will exclude from the process all known prejudiced persons.
2. If the Employer obtains information on the conduct of any of its employees which is a criminal offence under the Bharatiya Nyaya Sanhita (BNS) / The Prevention of Corruption Act (P C Act) or if there be a substantive suspicion in this regard, the Employer will inform the Chief Vigilance Officer.

Section 2 Commitments and Undertakings by the Bidder/Contractor

1. The Bidder/Contractor commits and undertakes to take all measures necessary to prevent malpractices & corruption. He commits himself to observe the following principles during his participation in the bidding process and during the execution of the contract:
- a) The Bidder/ Contractor undertakes not to, directly or through any other person or firm offer, promise or give or influence to any employee of the Employer associated with the bidding process or the execution of the contract or to any third person on their behalf any material or immaterial benefit which he/she is not legally entitled, in order to obtain in exchange any advantage of any kind whatsoever during the bidding process or during the execution of the contract.
 - b) The Bidder/ Contractor undertake not to enter into any undisclosed agreement or understanding, whether formal or informal with other Bidders. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other action to restrict competitiveness or to introduce cartelization in the bidding process.
 - c) The Bidder/Contractor undertakes not to commit any offence under the relevant Anti-corruption Laws of India; further the Bidder/Contractor will not use improperly, any information or document provided by the Employer as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically for purposes of competition or personal gain and will not pass the information so acquired on to others.
 - d) The Bidder/ Contractor, when presenting his bid, undertakes to disclose any and all payments made, or is committed to or intends to make to agents, brokers or any other intermediaries in connection with the bidding process and / or award of the contract.
 - e) The Foreign Bidder/ Contractor, when presenting his bid, undertakes to disclose the name and address of agents and representative in India. Further, Indian Bidder/ Contractor when presenting his bid, undertakes to disclose the name and address of its foreign principals or associates.
2. The Bidder/ Contractor will not instigate and allure third persons/parties to commit offences outlined above or be an accessory to such offences.

Section 3 Disqualification from Bidding Process and Exclusion from Future Contracts

1. If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of any provisions of Section 2 so as to put his reliability or credibility as Bidder into question, the Employer shall be entitled to disqualify the Bidder(s)/ Contractor(s) from the bidding process or to terminate the contract, if signed on that ground.
2. If the Bidder/ Contractor has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Employer shall be entitled to exclude including debarring the Bidder/ Contractor for any future tenders/contract award process. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the Employer taking into consideration the full facts and circumstances of each case particularly taking into account the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a period not exceeding two (02) years.
3. A transgression is considered to have occurred if the Employer after due consideration of the available evidence concludes that no reasonable doubt is possible.
4. The Bidder with its free consent and without any influence agrees and undertakes to respect and uphold the Employer's absolute rights to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.
5. Subject to full satisfaction of the Employer, the exclusion of Bidder/ Contractor could be revoked by the Employer if the Bidder/ Contractor can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption prevention system in his organization.

Section 4 Compensation for Damages including Forfeiture of Earnest Money Deposit/ Security Deposit/ Performance & Advance Bank Guarantees

1. If the Employer has disqualified the Bidder/ Contractor from the bidding process or has terminated the contract pursuant to Section 3, the Employer shall forfeit the Earnest Money Deposit/Bid Security, encash Contract Performance Bank Guarantees in addition to excluding the bidder from the future award process and terminating the contract.
2. In addition to 1 above, the Employer shall be entitled to take recourse to the relevant provisions of the contract related to Termination of Contract due to Contractor's Default.

Section 5 Previous Transgressions

1. The Bidder swears on oath that no previous transgression impinging on anti-corruption principles / any malpractice as mentioned in Section-2 has occurred in the last three years reckoned from the date of bid submission in any other Public/Government organization. The date of such transgression would be the date on which cognizance of the said transgression was taken by competent authority. The transgression(s), for which cognizance was taken even before the said period of three years, but are pending conclusion, shall also be considered to fall within last three years.

2. If the Bidder makes incorrect statement on previous transgression as mentioned above in para 1, Bidder can be disqualified from the bidding process or the contract, if already awarded, can be terminated on this ground

Section 6 Company Code of Conduct

Bidders are also advised to have a company code of conduct (clearly rejecting the use of bribes and other unethical behaviour) and a compliance program for the implementation of the code of conduct throughout the company.

Section 7 Independent External Monitors (IEM)

1. The Employer will appoint competent and credible Independent External Monitor for this Pact. The task of the IEMs is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The IEMs are not subject to instructions by the representatives of the parties and perform his functions neutrally and independently. He shall report to CMD of the Employer, or a person authorized by him.
3. The roles & responsibilities of the IEM shall be as per the SOPs issued by CVC from time to time and available in its website "<https://cvc.gov.in/>".
4. As soon as the IEMs notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Employer (CMD of the Employer or a person authorized by him) and request to discontinue or to take corrective action, or to take other relevant action. The IEMs can in this regard submit non-binding recommendations. Beyond this, the IEMs has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, Independent External Monitor shall give an opportunity to the bidder/contractor to present its case before making its recommendations to the Employer.
5. The IEMs will submit a written report to CMD of the Employer or a person authorized by him within 30 days from the date of reference or intimation to him by the Employer and, should the occasion arise, submit proposals for correcting problematic situations.
6. The Bidder / Contractor accepts that they shall not approach courts while the matter / complaint / dispute has been referred to the IEM in terms of this pact and they shall await IEM's decision before approaching any Court.
7. The word " IEM" will include Singular or Plural.

Section 8 Pact Duration

This Pact comes into force from the date of signing by all the parties. It shall expire for the Contractor 12 months after the final payment under the respective Contract, and for all other unsuccessful bidders 6 months after the Contract has been awarded.

Section 9 Miscellaneous Provisions

- 1. This Pact is subject to Indian Law. The place of performance and jurisdiction shall be New Delhi.

- 2. Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

- 3. The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

- 4. If the Contractor is a JV partnership / Consortium, this agreement must be signed by all the partners of JV / Consortium Partners as the case may be.

The Parties hereby sign this Integrity Pact at on this day of.....20....

Employer	Bidder/ Contractor	Joint Venture Partner(s)/ Consortium member(s) (As Applicable)

Witness	Witness	Witness
1.		1. 1.
2.	2.	2.

NTPC Limited

(A Govt. of India Enterprise)



SECTION – VIII

(FORMS AND PROCEDURES)

BIDDING DOCUMENT NO. : 9900325917

(This document is meant for the exclusive purpose of bidding against this Bidding Document / Specification and shall not be transferred, reproduced or otherwise used for purposes other than that for which it is specifically issued).

**ATTACHMENTS FOR
ENVELOPE-2 (PRICE)
Not Applicable**

**SITC OF PROJECT MONITORING CCTV SYSTEM FOR NABINAGAR SUPER THERMAL POWER
PROJECT, NSTPP STAGE-II (3X800 MW)**

BID DOCUMENT NO. 9900325917

(LIST OF FINANCIAL DOCUMENTS)

The following Document is annexed to this attachment.

6. Cash flow statement for execution of the subject package :- **TO BE SUBMITTED WITH PRICE PROPOSAL.**

Date :

Name of Authorised Person

Place :

Designation

**SITC OF PROJECT MONITORING CCTV SYSTEM FOR NABINAGAR SUPER THERMAL POWER
PROJECT, NSTPP STAGE-II (3X800 MW)**

BID DOCUMENT NO. 9900325917

Declaration of Import Content

Dear Sirs,

- 1.) We confirm the details of the Import Content included in our bid prices are as follows which essentially qualify as Goods under Chapter 98.01 of Custom Tariff Act and required for incorporation in the work under the Contract.
- 2.) These details are furnished for the purpose of issuance of the Certificate as referred at clause 11.2 of ITB.
- 3.) We further confirm that we are solely responsible for obtaining the customs duty benefits for import of Goods which we have considered in our bid and in case of failure to receive such benefits; Owner will not compensate us in any manner whatsoever.

Sl. No.	Description of Item	Value in Rs (CIF) (included in our bid price)
1		
2		
3		

Note: Continuation sheets of like size and format may be used as per Bidder's requirement and shall be annexed to this Attachment

**SITC OF PROJECT MONITORING CCTV SYSTEM FOR NABINAGAR SUPER THERMAL POWER
PROJECT, NSTPP STAGE-II (3X800 MW)**

**BID DOCUMENT NO. 9900325917
(DECLARATION REGARDING CUSTOMS DUTY BENEFITS FOR IMPORT OF CONSTRUCTION
EQUIPMENT)**

Dear Sir,

- 1 We confirm that we are solely responsible for obtaining the customs duty benefits for import of construction equipment which we have considered in our bid and in case of failure to receive such benefits; Employer will not compensate us in any manner whatsoever.
- 2 **We further confirm that we will not claim for adjustment in Contract Price on account of variation in or withdrawal of Customs Duty Benefits for Import of Construction Equipment.**
- 3 We are furnishing below the information required by the Owner for issue of relevant Certificates in terms of the Customs Act & Notifications of the Govt. of India.

(A) *CIF Value of the construction Equipment to be imported by the Bidder including sub-contractor(s) of the Bidder in bid currency.

We further confirm that aforesaid CIF value has not been included in Attachment 11 (i.e. regarding Declaration of Import Content as per provision specified in clause 11.2 of ITB).

(B) Description and quantities of the Construction Equipment to be imported by the Bidder/Subcontractors(s).

Sl. No.	Description of Construction Equipment	Quantity
	Bidder	
1		
2		
	Sub-Contractor(s)	
1		
2		

We confirm that the construction equipment being imported as above shall be deployed at the Project Site for the purpose of execution of package as per bidding document.

Note: Continuation sheets of like size and format may be used as per Bidder's requirement and shall be annexed to this Attachment.

NTPC Limited

(A Govt. of India Enterprise)



SECTION – VIII

(FORMS AND PROCEDURES)

BIDDING DOCUMENT NO. : 9900325917

(This document is meant for the exclusive purpose of bidding against this Bid Document No./ Specification and shall not be transferred, reproduced or otherwise used for purposes other than that for which it is specifically issued).

**TABLE OF FORMS AND PROCEDURES,
(SECTION-VIII)**

Sl. No.	Description
1.	Proforma for Bid Security
2.	Bank Guarantee / Insurance Surety Bond verification checklist
2A.	BG (other than Bid Security) forwarding letter from Bank to Unified Treasury in Bank's letterhead
3.	Form of Bank Guarantee / Insurance Surety Bond for Contract Performance Guarantee
4.	Proforma for extension of Bank Guarantee / Insurance Surety Bond
5.	Proforma of Bank Guarantee for Lumpsum Advance
6.	Proforma of Bank Guarantee/ Insurance Surety Bond to be furnished by Collaborator/Associate
7.	List of banks from which Bank Guarantees for Advance/ Security Deposit and Bank Guarantee to be furnished by Bidder/ Contractor can be accepted
8.	Form of Bank Guarantee for removal of Plant and Equipment from the Site
9.	Form of Hypothecation Deed
10.	Proforma of "Contract Agreement"
11.	Proforma of "Indemnity Bond" for "Employer Issue Materials"
12.	Letter of Undertaking to be given by Contractor while furnishing the Indemnity Bond" to Employer for "Employer Issue Materials"
13.	Proforma of Letter of Confirmation by The proposed Sub-Contractor
14.	Proforma for Material Accounting & Reconciliation
15.	Form of Indemnity Bond to be executed by the Contractor for the safe custody of equipments brought to site by the contractor
16.	Form of Indemnity Bond to be executed by the contractor for Removal/ Disposal of surplus material
17.	Proforma of Contract Closing Certificates

18. Forms of Absence of Conflict of Interest
19. Certificate from Bank regarding BG charges

**1. PPROFORMA FOR BANK GUARANTEE
FOR EARNEST MONEY DEPOSIT/ BID
SECURITY**

PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

(To be stamped in accordance with Stamp
Act of India)

Bank Guarantee No.

Date.....

To:

NTPC Limited,
NTPC Bhawan,
SCOPE Complex, Institutional area, Lodhi Road,
New Delhi-110003.

Dear Sirs,

In accordance with Invitation for Bids under your Bid Document No....., M/s..... [Bidder's Name]..... having its Registered/Head Office at.....(here-in-after called the 'Bidder') wish to participate in the said bid for *[Name of Contract Package]*

As an irrevocable bank guarantee against Bid Security for an amount of(*).....valid for.....days from.....(**)..... required to be submitted by the Bidder as a condition precedent for participation in the said bid which amount is liable to be forfeited on the happening of any contingencies mentioned in the Bidding Documents.

We, the*[Name & address of the Bank]*.....having our Head Office at.....(#).....guarantee and undertake to pay immediately on demand by.....*[Name of the Employer]* (hereinafter called the 'Employer')..... the amount of(*).....without any reservation, protest, demand and recourse. Any such demand made by the 'Employer' shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder.

This Guarantee shall be irrevocable and shall remain valid upto

.....(@)..... If any further extension of this guarantee is required, the same shall be extended to such required period (not exceeding one year) on receiving instructions from M/s [Bidder's Name]..... on whose behalf this guarantee is issued.

In witness where of the Bank, through its authorised officer, has set its hand and stamp on this.....day of.....20.....at.....

WITNESS :

..... (Signature)	 (Signature)
..... (Name)	 (Name)
..... (Official Address)	 (Designation with Bank Stamp)
	Attorney as per Power of Attorney No..... Date.....

- NOTE : 1. (*) The amount shall be as specified in the Bid Data sheets.
- (**) This shall be the date of opening of Techno-Commercial bids.
- (#) Complete mailing address of the Head Office of the Bank to be given.
- ((@) This date shall be forty five (45) days after the last date for which the bid is valid.
- The Bank Guarantee (BG) shall be from a Bank as per provisions of the bidding documents.
 - The BG shall be issued on Non-Judicial stamp paper/e-stamp paper of appropriate value as per applicable Stamp Act(s). The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Bank issuing the guarantee.
 - While getting the Bank Guarantee issued, Bidders are required to ensure

compliance to the points mentioned in Form 16-Form of Bank Guarantee Verification Check List enclosed in this Section of Bidding Documents. Further, Bidders are required to fill up this Form 16 and enclose the same with the Bank Guarantee.

5. The Bank guarantee shall be from a bank as specified in **Annexure-I to Bid Data Sheet (Section-III) of Bidding Documents**. Further, in case, Bank Guarantee is getting issued from State Bank of India, Bidder to take note of NTPC letter ref. NTPC/FC/CS/BG/01 dated 03.09.2014 and SBI letter ref. CAG-I/AMT-1/2014-15/370 dated 04.09.2014 (attached with Section-III of Bidding Documents).

**Form of Insurance Surety Bond towards Bid
Security/EMD**

(To be stamped in accordance with Stamp Act of India)

Insurance Surety Bond No.

Date.....

To:

NTPC Limited,
NTPC Bhawan,
SCOPE Complex, Institutional area, Lodhi Road,
New Delhi-110003.

Dear Sirs,

In accordance with Invitation for Bids under your Bid Document No....., M/s..... [Bidder's Name]..... having its Registered/Head Office at.....(here-in-after called the 'Bidder') wish to participate in the said bid for *[Name of Contract Package]*

As an irrevocable Insurance Surety Bond against Bid Security for an amount of(*).....valid for.....days from.....(**)..... required to be submitted by the Bidder as a condition precedent for participation in the said bid which amount is liable to be forfeited on the happening of any contingencies mentioned in the Bidding Documents.

We, the*[Name & address of the Insurer]*.....having our Head Office at.....(#).....guarantee and undertake to pay immediately on demand by.....*[Name of the Employer]*.... (hereinafter called the 'Employer') the amount of(*).....without any reservation, protest, demand and recourse. Any such demand made by the 'Employer' shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder and/or any right/remedy available to the bidder in terms thereof.

This Insurance Surety Bond shall be unconditional as well as irrevocable and shall remain valid upto(@)..... If any further extension of this Insurance Surety Bond is required, the same shall be extended to such

required period (not exceeding one year) on receiving instructions from M/s *[Bidder's Name]*..... on whose behalf this Insurance Surety Bond is issued.

In witness where of the Insurer, through its authorised officer, has set its hand and stamp on this day of.....20.....at.....

.....
(Signature)

.....
(Name)

.....
(Designation with Insurer Stamp)

Authorised vide
Power of Attorney No.....
Date.....

- NOTE : 1. (*) The amount shall be as specified in the Bid Data sheets.
- (**) This shall be the date of opening of Techno-Commercial bids.
- (#) Complete mailing address of the Head Office of the Insurer to be given.
- ((@) This date shall be forty five (45) days after the last date for which the bid is valid.
2. The Insurance Surety Bond shall be from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI) as amended from time to time.
 3. The Employer shall be the Creditor, the Bidder shall be the Principal debtor and the Insurance company/Insurer shall be the Surety in respect of the Insurance Surety Bond to be issued by the Insurer.
 4. The Insurance Surety Bond shall be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per applicable Stamp Act(s). The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Insurer issuing the guarantee.
 5. While getting the Insurance Surety Bond issued, Bidders are required to ensure compliance to the points mentioned in Form of Bank Guarantee/Insurance Surety Bond Verification Check List enclosed in this Section of Bidding Documents. Further, Bidders are required to fill up this Form and enclose the same with the Insurance Surety Bond.

BID SECURITY - LETTER OF CREDIT

L/C ISSUING BANK NAME & ADDRESS

IRREVOCABLE STANDBY CREDIT NUMBER & DATE:

Beneficiary:

To:

[Owner's Name and Address]

Gentlemen:

By the order of:

.....
(Name of Bidder) *.....

1. We hereby issue in favour of the Beneficiary our irrevocable credit for the account of..... (hereinafter called the Bidder) for an amount or amounts not to exceed in the aggregate US Dollars.....(Amount) (Amount written out) available by your drafts at sight and will be effective from..... (Bid Opening Date).....until its expiry date as specified below:
2. Your sight draft(s) in the format attached Exhibit 1 (i.e. enclosed at Ib of Annexure C1,) must mention our credit number as it appears above, and be accompanied by the Notification by the Owner to the Bidder in the format of attached Exhibit-II (i.e. enclosed Ia of Annexure C1) and be presented to our counters..... (Name and Address of the counters) before expiration of this credit.
3. Our counters.....(Name and Address of the counters)..... on verification of the documents mentioned in para 2 above shall send the amount to State Bank of India, 5th Floor, Redfort Capital, Parsvnath towers, Bhai Veer Singh Marg, Gole Market, New Delhi-110003, (SWIFT Code: SBININBB824) for credit of amount to Account Number: 10813608669 of NTPC Ltd.
4. This credit shall remain in force upto and including.....@.....and shall be extended from time to time for such period as may be desired by.....(Name of Bidder).....on whose behalf this letter of credit has been issued.
5. We are informed that this instrument is being issued in accordance with Invitation for Bids under your Bid Document No. Package
6. This credit is subject to the Uniform Customs and practice for Documentary Credits (1993 Revision), International Chamber of Commerce, Publication Number 500.

7. This is Operative instrument and no confirmation will be sent. We hereby engage with drawers and/or bonafide holders that sight draft drawn and negotiated in conformity with the terms of this credit will be duly honoured on presentation.
8. Any advising and/or confirmation charges and/or negotiating charges of the issuing bank for realisation of proceeds of this Letter of Credit shall be to the account of the bidder.

Very truly yours
ISSUING BANK

.....
AUTHORISED SIGNATURE(S)

@ This date shall be forty five days (45) beyond the validity of bid.

* Write the name and address of all the consortium Partners in case the bid is submitted by Consortium in terms of Qualifying Requirement.

**(a) FORM OF NOTIFICATION BY THE
EMPLOYER TO BIDDER**

(b) FORM OF SIGHT DRAFT

**a. FORM OF NOTIFICATION BY THE EMPLOYER TO THE
BIDDER**

M/s.....

Ref : Your proposal against our IFB No.....
Forfeiture of Bid Guarantee amount.

Dear Sirs,

Whereas you have furnished as a part of your proposal the Bid Guarantee in the form of irrevocable and confirmed Letter of Credit No..... dated..... for a sum of
(Bank's name)
.....payable to..... (Name of the Owner) on demand without any reservation, demur or protest, contest and recourse at.....
(Name and place of Bank)

In terms of the aforesaid Bid Guarantee, we do hereby forfeit the Guarantee amount.

For..... (Name of the Owner)

(AUTHORISED SIGNATORY)

N.B. The Letter of Credit should not stipulate any other proforma of notification different from this format. No change whatsoever in the said proforma is acceptable to the Owner.

b. FORM OF SIGHT DRAFT

Drawn under L.C. No.....dated.....

of
(Name of Bank that opened the L/C.)

At sight promptly pay to
(Name of the Bank at which L/C, is negotiable

.....or order sum of.....
for payment to the Owner) (Amount of L/C)

for value received.

For..... (Name of the Owner)

(AUTHORISED SIGNATORY)

To,

(Name and Address of the
Bank which opened L/C.)

**2. BANK GUARANTEE / INSURANCE SURETY
BOND
VERIFICATION CHECKLIST**

2. BANK GUARANTEE / INSURANCE SURETY BOND VERIFICATION CHECKLIST

Sl. No.	Details of Checks	Yes/ No
1	Is the BG/INSURANCE SURETY BOND on non-judicial stamp paper/e-stamp paper of appropriate value, as per Stamp Act?	
2	Whether date, purpose of purchase and name of the purchaser are indicated on the stamp paper? (The date of purchase of stamp paper should be of any date on or before the date of execution of BG/INSURANCE SURETY BOND and the stamp paper should be purchased either in the name of the executing Bank/Insurance Company or the party on whose behalf the BG/INSURANCE SURETY BOND has been issued. The stamp papers (other than e-stamp paper) should be duly signed by the stamp vendor.)	
3	In case of BG/INSURANCE SURETY BONDS from Bank/Insurance Company abroad, has the BG/INSURANCE SURETY BOND been executed on Letter Head of the Bank/Insurance Company?	
4	Has the executing Officer of BG/INSURANCE SURETY BOND indicated his name, designation and Power of Attorney No./ Signing Power no. etc., on the BG/INSURANCE SURETY BOND?	
5	Is each page of BG/INSURANCE SURETY BOND duly signed /initialed by executant and whether stamp of Bank/Insurance Company is affixed thereon? Whether the last page is signed with full particulars under seal of Bank/Insurance Company as required in the prescribed proforma?	
6	Does the Bank Guarantee/Insurance Surety Bond compare verbatim with the Proforma prescribed in the Bid Documents?	
7	Are the factual details such as Bidding Document No./Specification No., Amount of BG/INSURANCE SURETY BOND and Validity of BG/INSURANCE SURETY BOND correctly mentioned in the BG/INSURANCE SURETY BOND?	
8	Whether overwriting/cutting if any on the BG/INSURANCE SURETY BOND have been properly authenticated under signature & seal of executant?	
9	Whether the BG/INSURANCE SURETY BOND has been issued by a Bank/Insurance Company in line with the provisions of Bidding documents?	
10	In case BG/INSURANCE SURETY BOND has been issued by a Bank/Insurance Company other than those specified in Bidding Document, is the BG/INSURANCE SURETY BOND confirmed by a Bank/Insurance Company in India acceptable as per Bidding documents?	

(BG forwarding letter from Bank to Unified Treasury in Bank's letterhead)

To
Unified Treasury (BG Group)
Administrative Building, NCPS, Dadri
NTPC Limited,
PO. Vidyut Nagar
Distt: Gautam Budh Nagar,
Uttar Pradesh- 201008.

Sub: Submission of Bank Guarantee

Bank Guarantee No.	
Date of Issue	dd.mm.yyyy
Guarantee Amount	Currency Amount
Date of Expiry of BG	dd.mm.yyyy
Last date of lodgement of claim	dd.mm.yyyy
Name, Address and IFSC code of BG issuing Bank	Name: Address: IFSC code:
Contract/Letter of Award/PO No.	
Name & Address of the Applicant / Contractor	Name: Address:

We confirm that SFMS has been sent to your beneficiary bank as below:

ICICI Bank Limited, Connaught Place Branch,
9A, Phelps Building, Inner Circle, New Delhi - 110001
IFSC Code: ICIC0000007

We also confirm the genuineness of the signatures appearing on the said guarantee/extension and further also confirm that the same has been signed by the competent authority of the bank.

Signature with Seal

**3. FORMS OF BANK GUARANTEE / INSURANCE
SURETY BOND FOR CONTRACT PERFORMANCE
GUARANTEE/SECURITY DEPOSIT**

3. Form of Bank Guarantee towards Performance Security/Security Deposit

(To be stamped in accordance with Stamp Act of India)

Bank Guarantee No.....

Date.....

To

NTPC Limited,
 NTPC Bhawan,
 SCOPE Complex, Institutional area, Lodhi Road,
 New Delhi-110003.

Dear Sirs,

In consideration of the [Employer's Name] (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) having awarded to M/s..... [Contractor's Name]..... with its Registered /Head Office at (hereinafter referred to as the 'Contractor', which expression shall unless repugnant to the context or meaning thereof, include its successors administrators, executors and assigns), a Contract by issue of Employer's Notification of Award / Letter of Award No. dated..... and the same having been unequivocally accepted by the contractor, resulting into a Contract bearing No..... dated valued at for and the Contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to(*).....% (..... percent) of the said value of the Contract to the Employer.

We[Name & Address of the Bank].....having its Head Office at(hereinafter referred to as the 'Bank', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, on demand any and all monies payable by the Contractor to the extent of(*)..... as aforesaid at any time up to(@)..... [days/month/year] without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor. Any such demand made by the Employer on the Bank shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Employer and further agrees that the guarantee herein contained shall be enforceable till ninety (90) days after expiry of its validity.

The Employer shall have the fullest liberty, without affecting in any way the liability of the Bank under this guarantee, from time to time to extend the time for performance of the Contract by the Contractor. The Employer shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Employer and the Contractor or any other course or remedy or security available to the Employer. The Bank shall not be released of its obligations under these presents by any exercise by the Employer of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Bank.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and

notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

Notwithstanding anything contained hereinabove our liability under this guarantee is restricted to(*)..... and it shall remain in force upto and including(@)..... and shall be extended from time to time for such period (not exceeding one year), as may be desired by M/s[Contractor's Name}..... on whose behalf this guarantee has been given.

Dated this day of 20..... at.....

.....
(Signature)

.....
(Name)

.....
(Designation with Bank Stamp)

Authorised Vide Power of
Attorney No.....

Date.....

Note:

1. (*) This sum shall be ten percent (10%) of the Contract Price as per GCC 22.1.1 [or minimum of 2% of Contract Price in case Contractor opts to furnish Initial Contract Performance Guarantee as per GCC 22.1.2].

(@) This date will be ninety (90) days beyond the Defect liability period of the Contract.
2. The Bank Guarantee shall be from a Bank as per provisions of the bidding documents. [Please refer Form No. 7 to Section VIII (Part 3 of 3).
3. The BG shall be issued on Non-Judicial Stamp paper/ e-stamp paper of appropriate value as per applicable Stamp Act(s). The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/bank issuing the guarantee.
4. While getting the Bank Guarantee issued, Bidders are required to ensure compliance to the points mentioned in Bank Guarantee Verification Check List in the bidding documents Bidders are required to fill up this Check List and enclose the same along with the Bank Guarantee.
5. In case, Bank Guarantee is getting issued from State Bank of India, Bidder to take note of NTPC letter ref. NTPC/FC/CS/BG/01 dated 03.09.2014 and SBI letter ref. CAG-I/AMT-1/2014-15/370 dated 04.09.2014 (attached with Section-III of Bidding Documents).
6. BG against Performance Security will be mandatorily submitted in the form of e-BG, and no physical BG will be accepted.

3a. Form of Insurance Surety Bond towards Performance Security

(To be stamped in accordance with Stamp Act of India)

Insurance Surety Bond No.

Date.....

To,

NTPC Limited,
 NTPC Bhawan,
 SCOPE Complex, Institutional area, Lodhi Road,
 New Delhi-110003.

Dear Sirs,

In consideration of the [Employer's Name] (Hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) having awarded to M/s..... [Contractor's Name]..... with its Registered /Head Office at (Hereinafter referred to as the 'Contractor', which expression shall unless repugnant to the context or meaning thereof, include its successors administrators, executors and assigns), a Contract by issue of Employer's Notification of Award / Letter of Award No. dated..... and the same having been unequivocally accepted by the contractor, resulting into a Contract bearing No..... dated, valued at for and the Contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to(*).....% (..... percent) of the said value of the Contract to the Employer.

We[Name & Address of the Insurer].....having its Head Office at(hereinafter referred to as the 'Insurer', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, on demand any and all amount payable by the Contractor to the extent of(*)..... as aforesaid at any time up to(@)..... [days/month/year] without any condition, demur, reservation, contest, recourse or protest and/or without any reference to the Contractor. Any such demand made by the Employer on the Insurer shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Insurer undertakes not to revoke this Insurance Surety Bond during its currency and or any period extended under the contract, without prior consent of the Employer and further agrees that the guarantee herein contained shall be enforceable till ninety (90) days after expiry of its validity.

The Employer shall have the fullest liberty, without affecting in any way the liability of the Insurer under this Insurance Surety Bond, from time to time to extend the performance of the Contract by the Contractor for the purpose of which, the Insurer shall be liable to extend the validity of the present Insurance Surety Bond without any demur, condition, protest and the Insurer shall at no point in time have an option of revoking the same, The Employer shall have the fullest liberty, without affecting this Insurance Surety Bond, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Employer and the Contractor or any other course or remedy or security available to the Employer. The Insurer shall not be released of its obligations under these presents by any exercise by the Employer of its liberty with reference to the aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Insurer.

The Insurer also agrees and undertakes that the Employer at its option shall be entitled to enforce this Insurance Surety Bond against the Insurer as a Surety, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

Notwithstanding anything contained hereinabove our liability under this Insurance Surety Bond is restricted to(*)..... and it shall remain in force upto and including(@)..... and shall be extended from time to time for such period (not exceeding one year), as may be desired by M/s[Contractor's Name}..... on whose behalf this Insurance Surety Bond has been given.

Dated this day of 20..... at.....

WITNESS :

1.	
(Signature)	(Signature)
.....	
(Name)	(Name)
.....	
(Official Address)	(Designation with Insurer Stamp)

Authorised Vide Power of
Attorney No.....

Date.....

2.

(Signature)

.....

(Name)

.....

(Official Address)

Notes:

- (*) This sum shall be ten percent (10%) of the Contract Price as per GCC 22.1.1 [or minimum of 2% of Contract Price in case Contractor opts to furnish Initial Contract Performance Guarantee as per GCC 22.1.2].

(@) This date will be ninety (90) days beyond the Defect liability period of the Contract.
- The Insurance Surety Bond shall be from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI).
- The Employer shall be the Creditor, the Contractor shall be the Principal debtor and the Insurance company/Insurer shall be the Surety in respect of the Insurance Surety Bond to be issued by the Insurer.
- The Insurance Surety Bond shall be issued on Non-Judicial stamp paper/e-stamp paper of appropriate value as per applicable Stamp Act(s). The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Insurer issuing the guarantee.
- While getting the Insurance Surety Bond issued, the Contractor is required to ensure compliance to the points mentioned in Form of Bank Guarantee/ Insurance Surety Bond Verification Check List. Further, the Contractor is required to fill up this Form and enclose the same with the Insurance Surety Bond.

4. PROFORMA FOR EXTENSION OF BANK GUARANTEE / INSURANCE SURETY BOND

4. PROFORMA FOR EXTENSION OF BANK GUARANTEE / INSURANCE SURETY BOND

Ref. No. :

Dated :

To

[Employer's Name & Address]

Dear Sirs,

**Sub. : Extension of Bank Guarantee /Insurance Surety Bond No. dated
for[indicate value of Bank Guarantee /Insurance Surety Bond].....
favouring yourselves, expiring on..... on account of M/s(Name of
Bidder)..... in respect of Contract for (Insert Package Name)..... for
(Insert Project Name)..... Project, Contract No. dated
..... (hereinafter called original Bank Guarantee /Insurance Surety Bond)**

At the request of M/s, we Bank branch office at
..... and having its head office at do hereby extend our liability
under the above mentioned guarantee No. dated..... for a further period of
..... years/months from to expire on

Except as provided above, all other terms and conditions of the original Bank Guarantee /Insurance
Surety Bond No. dated shall remain unaltered and binding.

Please treat this as an integral part of the original guarantee to which it would be deemed to have been
attached.

(Signature).....

(Name).....

(Designation with)

Bank/Insurer Stamp)

Authorised vide

Power of Attorney No.....

Date.....

Dated

Seal of Bank/Insurance Company

- Note:**
1. The extension of the Bank Guarantee/Insurance Surety Bond should be forwarded to the Unit/ Project/Corporate Centre, from where the extension has been sought.
 2. The extension of BG/Insurance Surety Bond should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per applicable Stamp Act(s). The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Bank/Insurer issuing the guarantee.
 3. The Bank Guarantee (BG) shall be accompanied with the BG forwarding letter in the format attached as Form 2A in the bidding documents.

5. PROFORMA OF BANK GUARANTEE FOR LUMP SUM ADVANCE

5. PROFORMA OF BANK GUARANTEE FOR LUMP SUM ADVANCE

To,

NTPC Limited,
NTPC Bhawan,
SCOPE Complex, Institutional area, Lodhi Road,
New Delhi-110003.

In consideration of NTPC Limited, _____ having its registered office at NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodi Road, New Delhi-110 033 (hereinafter called "the Employer" which expression shall unless repugnant to the subject or context include its successors and assigns) having agreed under the terms and conditions of the Award Letter No. _____ dated _____ issued by the Employer which have been unequivocally accepted by _____ * _____ in connection with the work of "_____ " Specification No. _____ (hereinafter called "the said Contract") to make at the request of the Contractor a lumpsum advance of Rs. _____/- (Rupees _____ only) for utilizing it for the purpose of the Contract on his furnishing a guarantee acceptable to the Employer.

We, _____ Bank incorporated under _____ and having one of our branches at _____ (hereinafter referred to as "the said Bank") do hereby guarantee the due recovery by the Employer of this said advance with interest thereon as provided according to the terms and conditions of the Contract. If the said Contractor fails to utilize the said advance for the purpose of the Contract and/or the said advance together with Interest thereon as aforesaid is not fully recovered by the Employer, We, _____ Bank hereby unconditionally and irrevocably undertake to pay to the Employer on demand and without demur to the extent of the said sum of Rs. _____/- (Rupees _____ only), any claim made by the Employer on us for the loss or damage caused to or suffered by the Employer by reason of the Employer not being able to recover in full the said sum of Rs. _____/- (Rupees _____ only) with interest as aforesaid.

2. We, _____ Bank further agree that the Employer shall be the sole judge of and as to whether the said Contractor has not utilized the said advance or any part thereof for the purpose of the Contract and the extent of loss or damage caused to or suffered by the Employer on account of the said advance together with interest not being recovered in full and the decision of the Employer that the said Contractor has not utilized the said advance or any part thereof for the purpose of the Contract and as to the amount or amounts of loss or damage caused to or suffered by the Employer shall be final and binding on us.

3. We, the said Bank, further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and till the said advance with interest has been fully recovered and its claims satisfied or discharged and till Employer certifies that the said advance with interest has been fully recovered from the said Contractor, and accordingly shall have no claim under this Guarantee after 30 (thirty) days from the date of satisfactory completion of the said Contract (as per the mutually agreed Work schedule) i.e. upto and inclusive of _____(date) unless a notice of the claim under this Guarantee has been served on the Bank before the expiry of the said period i.e. _____(date) in which case the same shall be enforceable against the Bank notwithstanding the fact, that the same is enforced after the expiry of the said period.
4. The Employer shall have the fullest liberty without effecting any way the liability of the Bank under this Guarantee or Indemnity, from time to time, to vary any of the terms and conditions of the said Contract or the advance or to extend time of performance by the said Contractor or to postpone for any time and from time to time any of the powers exercise able by it against the said Contractor and either to enforce or forbear from enforcing any of the terms and conditions governing the said Contract or the advance available to the Employer and the said Bank shall not be released from its liability under these presents by any exercise by the Employer of the liberty with reference to the matters aforesaid or by reasons of time being given to the said Contractor or any other forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Contractor or of any other matter or thing whatsoever which under the law relating to sureties would, but for this provision, have the effect of so releasing the Bank from its such liability.
5. It shall not be necessary for the Employer to proceed against the Contractor before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank notwithstanding any security, which the Employer may have obtained or obtain from the Contractor shall at the time when proceedings are taken against the Bank hereunder, be outstanding or unrealised.
6. We, the said Bank, lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Employer in writing and agree that any change in the Constitution of the said Contractor or the said Bank shall not discharge our liability hereunder.

If any further extension of this Guarantee is required the same shall be extended to such required periods on receiving instructions from M/s. _____, on whose behalf this Guarantee is issued.

Notwithstanding anything contained herein before our liability under this Guarantee is restricted to Rs. _____/- (Rupees _____ only) together with interest. Our undertaking shall commence from the date of execution and shall remain in force upto _____

Dated this _____ day of _____ 20 _____

In presence of

For and on behalf of (the Bank)

Witness:

(Signature).....

.....
(Signature)

(Name).....

.....
(Name)

(Designation with
Bank Seal)

.....
(Official Address)

Power of Attorney No.....

Date.....

Stamp

The above guarantee is accepted by the Employer.

For an On behalf of NTPC Limited
(_____ Tapovan Vishnugadhydro Project)

NOTES :

***For Proprietary Concerns**

Shri _____ son of _____ resident of _____ carrying on business under the name and style of _____ at _____ (hereinafter called "the said Contractor" which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representatives).

*** For Partnership Concerns**

*M/s. _____ a partnership firm with its office _____ (hereinafter called "the said Contractor" which expression shall unless the context requires otherwise include their heirs, executors, administrators and legal representatives); the names of their partners being (i) Shri _____ S/o _____ (ii) Shri _____ S/o _____ etc.

*** For Companies**

*M/s _____ a company under the Companies Act, 1956 and having its registered office _____ in the State of _____ (hereinafter called "the said Contractor" which expression shall unless the context requires otherwise include its administrators, successors and assigns.)

-
1. (*) Write the name and addresses of all the Joint Venture partners, in case the bid is submitted by a Joint Venture in terms of Qualifying Requirements.
 2. The Bank Guarantee shall be from a Bank as per provisions of the bidding documents.
 3. The Stamp paper of appropriate value shall be purchased in the name of guarantee issuing Bank/Bidder. The BG shall be issued on Stamp paper of appropriate value as per applicable Stamp Act(s).
 4. While getting the Bank Guarantee issued, Bidders are required to ensure compliance to the points mentioned in Bank Guarantee Verification Check List in the bidding documents Bidders are required to fill up this Check List and enclose the same along with the Bank Guarantee.
 5. In case, Bank Guarantee is getting issued from State Bank of India, Bidder to take note of NTPC letter ref. NTPC/FC/CS/BG/01 dated 03.09.2014 and SBI letter ref. CAG-I/AMT-1/2014-15/370 dated 04.09.2014 (attached with Section-V of Bidding Documents).
 6. BG against Advance Payment will be mandatorily submitted in the form of e-BG, and no physical BG will be accepted.

**7. LIST OF BANKS FROM WHICH BANK
GUARANTEES FOR
ADVANCE/ SECURITY DEPOSIT TO BE
FURNISHED BY
BIDDER/ CONTRACTOR**

**LIST OF BANKS ACCEPTABLE FOR SUBMISSION OF BANK
GUARANTEES FOR ADVANCE PAYMENTS, PERFORMANCE SECURITIES AND SECURITIES
FOR DEED OF JOINT UNDERTAKING**

A. SCHEDULED PUBLIC SECTOR BANKS

1. Bank of Baroda
2. Bank of India
3. Bank of Maharashtra
4. Canara Bank
5. Central Bank of India
6. Indian Overseas Bank
7. Indian Bank
8. Punjab National Bank
9. Punjab & Sind Bank
10. State Bank of India
11. UCO Bank
12. Union Bank of India

B. SCHEDULED PRIVATE BANKS (INDIAN BANKS)

1. Axis Bank Limited
2. Bandhan Bank Limited
3. CSB Bank Limited
4. City Union Bank Limited
5. DCB Bank Limited
6. Dhanlaxmi Bank Limited
7. Federal Bank Limited
8. HDFC Bank Limited
9. ICICI Bank Limited
10. IndusInd Bank Limited
11. IDFC FIRST Bank Limited
12. Jammu & Kashmir Bank Limited
13. Karnataka Bank Limited
14. Karur Vysya Bank Limited
15. Kotak Mahindra Bank Limited
16. Nainital Bank Limited
17. RBL Bank Limited
18. South Indian Bank Limited
19. Tamilnad Mercantile Bank Limited
20. Yes Bank Limited
21. IDBI Bank Limited

C. SCHEDULED FOREIGN BANKS

1. AB Bank PLC
2. American Express Banking Corporation
3. Australia & Newzealand Banking Group Limited
4. Barclays Bank Plc
5. Bank of America
6. Bank of Bahrain & Kuwait B.S.C.
7. Bank of Ceylon
8. Bank of China Limited
9. Bank of Nova Scotia
10. BNP Paribas
11. Citi Bank NA
12. Cooperatieve Rabobank U.A./Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A.
13. Crédit Agricole Corporate and Investment Bank
14. CTBC Bank Co Ltd
15. DBS Bank India Limited (Subsidiary of DBS Bank Ltd.)
16. Deutsche Bank A.G.
17. Doha Bank Q.P.S.C
18. Emirates NBD Bank P.J.S.C.
19. First Abu Dhabi Bank PJSC
20. FirstRand Bank Ltd
21. Hong Kong and Shanghai Banking Corporation Limited
22. Industrial & Commercial Bank of China
23. Industrial Bank of Korea
24. J.P. Morgan Chase Bank N.A.
25. JSC VTB Bank
26. KEB Hana Bank
27. Kookmin Bank
28. Mashreqbank P.S.C.
29. Mizuho Bank Ltd
30. MUFG Bank, Ltd
31. NatWest Markets Plc
32. NongHyup Bank
33. PT Bank Maybank Indonesia TBK
34. Qatar National Bank (Q.P.S.C.)
35. Sberbank
36. SBM Bank (India) Limited (Subsidiary of SBM Group)
37. Shinhan Bank
38. Societe Generale
39. Sonali Bank PLC
40. Standard Chartered Bank
41. Sumitomo Mitsui Banking Corporation
42. United Overseas Bank Ltd
43. UBS AG
44. Woori Bank

D SMALL FINANCE BANKS

1. AU Small Finance Bank Limited
2. Capital Small Finance Bank Limited
3. Equitas Small Finance Bank Limited
4. ESAF Small Finance Bank Limited
5. Suryoday Small Finance Bank Limited
6. Ujjivan Small Finance Bank Limited
7. Utkarsh Small Finance Bank Limited
8. North East Small Finance Bank Limited
9. Jana Small finance Bank Limited
10. Shivalik Small Finance Bank Limited
11. Unity Small Finance Bank Limited,

*Note - Any Addition/ Deletion/ Modification in Bank list shall be as per changes in Second Schedule List by RBI from time to time

*In case, Bank Guarantee is getting issued from State Bank of India, Bidder to take note of NTPC letter ref. NTPC/FC/CS/BG/01 dated 03.09.2014 and SBI letter ref. CAG-I/AMT-1/2014- 15/370 dated 04 09 2014 attached herewith.



भारतीय स्टेट बैंक
State Bank of India

कॉरपोरेट लेखा समूह शाखा, जवाहर व्यापार भवन,
11-12 वां तल, 1, टॉलस्टोय मार्ग, नई दिल्ली-110 001
Corporate Accounts Group Branch, Jawahar Vyapar Bhawan,
11th & 12th Floor, 1, Tolstoy Marg, New Delhi-110 001

Tel. : 23374525, 23374505, 23374541 (AMT-1), 23353022 (DGM & COO), 23701043, 23359506 (A & A), 23352995 (CS), 23352968 (IB)
Fax : 23353101 (Sectt.), 23352793 (CS), 23353029 (IB)

Shri K.P. Gupta,
General Manager (Finance),
NTPC Limited
Scope Complex, 7, Institutional Area,
Lodhi Road,
New Delhi: 110 003.

CAG-I/AMT-1/2014-15/370

04.09.2014

Dear Sir,

Format of the Bank Guarantee (BG) issued by State Bank of India

We refer to your letter dated 3rd September 2014 wherein you have requested for excluding bidders/vendors of NTPC from insertion of additional Clause restraining assignment/transferability of BG.

Looking at our relationship with NTPC, as a very special case, we have since obtained waiver from our Authorities for excluding NTPC from insertion of the referred clause for BGs issued in your favour.

We are taking steps to issue suitable instructions to our offices for exclusion of this clause for BGs issued in favour of NTPC. In case any bidder or vendor submits to you a Bank Guarantee issued by any of our Branches containing the additional clause as mentioned above, request you to please bring it to our notice and advise us so that we can take-up with the concerned Branch for excluding it.

This is for your information and necessary action please.

Yours faithfully,


(Sandeep Mishra)

Deputy General Manager &
Relationship Manager, AMT-1

8. FORM OF BANK GUARANTEE FOR REMOVAL OF PLANT AND EQUIPMENT FROM THE SITE

**8. FORM OF BANK GUARANTEE FOR REMOVAL OF PLANT AND
EQUIPMENT FROM THE SITE**

To

NTPC Limited

(.....T.P.P.)

In consideration of the NTPC Ltd., (.....T.P.P.) (hereinafter called "the Employer" which expression shall unless repugnant to the subject or context include its successors and assigns) having agreed under the terms and conditions of Contract. No..... dated.....made between*..... and the Employer in connection with(hereinafter called "the said Contract") to permit the Contractor to remove the plant and equipment mentioned in the Schedule hereto hypothecated to the Employer as security against a loan of Rs..... with interest as provided in the Contract granted to the Contractor by the Employer from the site to any other works of the Contractor on his furnishing an acceptable Bank guarantee, we the..... Bank. (hereinafter referred to as "the said Bank") and having our registered office at..... do hereby undertake and that upon the Contractor failing to bring back to the site the said plant and equipment or any part thereof and to unconditionally pay the amount claimed by the Employer on demand and without demur to the extent of Rs (Rupees..... only)(to be specified by the Employer at the appropriate time).

We Bank further agree that the Owner shall be the sole judge of and as to whether the said contractor has failed to bring the said plant and equipment or any part thereof back to the site and the extent of loss, damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by the Owner on account thereof and the decision of the Owner that the said Contractor has so failed and as to the amounts of loss, damage, costs charges and expenses caused to or suffered by or that may be caused to or suffered by the Owner from time to time shall be final and binding on us.

We, the said bank further agree that the Guarantee herein contained shall remain in full force and effect till the Employer certifies that the said plant and equipment have been brought back to the site or the said loan of Rs. with interest has been repaid to the Employer in full, and accordingly discharges this Guarantee or till (to be specified by the Employer prior to the issue of this guarantee), whichever is later.

It shall not be necessary for the Employer to proceed against the Contractor before making a demand on the Bank and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any security which the Employer may have obtained from the Contractor and in force at the time of making such demand on the Bank.

We, the said Bank lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Employer, in writing and agree that any change in the Constitution of the said Contractor or the said Bank shall not discharge our liability hereunder.

Dated this day of 20.....

For and on behalf of the Bank.....
Common Seal of the Bank

Signature.....

Name.....

In presence of

Designation.....

Authorisation No.

Witness :

1.

2.

The above Guarantee is accepted by
(NTPC Limited)
(..... Tapovan Vishnugadhydro Project)

For and on behalf of the
(NTPC Limited)
(.....Tapovan Vishnugadhydro Project)

Date
(Name and Designation)

Note :

*** For Proprietary Concerns**

Shri.....son of resident of
carrying on business under the name and style of at.....
(hereinafter called. "the said Contractor" which expression shall unless the context requires otherwise
include his heirs, executors administrators and legal representatives).

*** For Partnership Concerns**

M/s.....a partnership firm with its office at.....
(hereinafter called "the said Contractor" which expression shall unless the context requires otherwise
include their respective heirs executors, administrators and legal representatives); the name of partners
being (i) Shri..... S/o
(ii) Shri..... S/o etc.

*** For Companies**

M/s a company registered under the Companies Act, 1956 and having its registered office at.....in the State of (hereinafter called "the said Contractor" which expression shall unless the context requires otherwise include its administrators, successors and assigns).

1. Bidder to fill up the check list as per the proforma enclosed for submitting the Bank Guarantees.
- 0
- 2 BG shall be on non judicial stamp paper of appropriate value as per stamp Act prevailing in the state(s) where the BG is submitted or is to be acted upon or the rate prevailing in the state where the BG is executed, whichever is higher.

Witness: (Signature).....

..... (Name).....

(Signature)

(Designation with
Bank Seal)

.....
(Name)

Power of Attorney No.....

.....
(Official Address)

Date.....

Stamp

- 1 (*) Write the name and addresses of all the Joint Venture partners, in case the bid is submitted by a Joint Venture in terms of Qualifying Requirements.
2. The Bank Guarantee shall be from a Bank as per provisions of the bidding documents.
3. The Stamp paper of appropriate value shall be purchased in the name of guarantee issuing Bank/Bidder.
4. While getting the Bank Guarantee issued, Bidders are required to ensure compliance to the points mentioned in Bank Guarantee Verification Check List in the bidding documents Bidders are required to fill up this Check List and enclose the same along with the Bank Guarantee.
5. The Bank Guarantee (BG) shall be accompanied with the BG forwarding letter in the format attached as **Form 2A** in the bidding documents.

9. FORM OF HYPOTHECATION DEED

**9. FORM OF HYPOTHECATION DEED
(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

To,

[Employer Name & Address]

Dear Sir,

In consideration of[Employer's Name]..... (hereinafter referred to as the 'Employer', which expression shall, unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s.....[Contractor's Name]*..... with its Registered/Head Office at (hereinafter referred to as the 'Contractor' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns), a Contract, by issue of Employer's Letter of Award No. dated and the same having been unequivocally accepted by the Contractor, resulting into a Contract bearing No. dated..... valued at for[Name of Contract](hereinafter called the .Contract.) and the Employer having agreed to make an interest bearing advance (said 'Advance') of Rs. (Rupees only) to the Contractor for plant and equipment described in the Schedule hereto specifically acquired by the Contractor for the Works and brought to Site against hypothecation of the said plant and equipment in the name of the Employer.

The Contractor hereby declares that he has paid in full the purchase price of each and every one of the Plant & Equipment described in the Schedule hereto and that the same are the absolute property of the Contractor and that the same have not been sold, pledged, mortgaged or transferred by him and the same is free from encumbrances.

The Contractor hereby hypothecates, assigns and transfers to the Employer, the plant and equipment described in the Schedule hereto in favour of the Employer as security for the due repayment of the said advance with interest thereof.

The Contractor hereby agrees that he shall repay to the Employer the said advance of Rs. (Rupees only) together with interest thereon as aforesaid and agrees that the said advance be recovered by the Employer by making deductions in the manner provided in Clause of the General Conditions of Contract and other conditions of the Award letter from the claims made by the Contractor against the Employer for on account payment.'

The Contractor further agrees that so long as any amount remains payable to the Employer by the Contractor in respect of the said advance of Rs. _____ only, he shall not sell, pledge, hypothecate, transfer, part with the Plant and Equipment described in the Schedule hereto.

The Contractor also agrees that if the said advance of Rs. _____ shall not be repaid by the Contractor or recovered in the manner described above by the said _____ day of _____ due to any reason whatsoever or the said Contract has been determined earlier or cancelled or if the Contractor shall sell, pledge, mortgage, transfer, part with and equipment or any part thereof or the Contractor or any of the partners is adjudged insolvent or the Contractor is to be wound up or makes any composition or arrangement with its creditors or the Contractor shall commit breach of any of the terms and conditions or covenants as herein contained or if any of the said plant and equipment or if any other property what-so-ever belonging to the Contractor has been sold or attached for a period of not less than twenty-one (21) days in execution of the decree of any court for payment of money, the whole of the said advance of Rs. _____ or such part thereof as may have remained unpaid or unrecovered together with interest thereon shall forthwith become due and payable. The Contractor also agrees that the Employer may on the happening of any of the aforesaid events or in the event of the said advance or any part thereof becoming due and payable and has not been paid or recovered or cannot be recovered as provided in the said conditions, seize and take possession of the said plant and equipment (and either remain in possession thereof without removing the same or else may remove and same) and sell the said plant and equipment or any of them either by public auction or private contract and may out of the sale proceeds retain the balance of the said advance and interest thereon remaining unpaid and unrecovered and all costs, charges and expenses and payments incurred or made in maintaining, defending or protecting the rights of the Employer hereunder and shall pay over the surplus, if any, to the Contractor.

The Contractor also agrees that he shall at all times during the continuance of the security and at the expense of the Contractor insure and keep insured the plant and equipment described in the Schedule hereto for the full value thereof in the joint names of the Contractor and the Employer with an insurance company to be approved by the Engineer-in-Charge against the risk of loss or damage from whatever cause arising other than the Excepted Risks. During the continuance of the security, the Contractor shall pay all premia and sums of money necessary for keeping such insurance on foot and the insurance policy and receipts in original for premia paid shall be deposited with the Engineer-in-Charge and the Contractor shall assign all his rights, title and interest in the policy to the Employer.

The Contractor also agrees that he shall not permit or suffer the said plant and equipment or any part thereof to be destroyed or damaged or used or to be used or to deteriorate in a greater degree than it would deteriorate by reasonable wear and tear thereof in the performance of the Contract.

In the event of any damage or loss happening to the said plant and equipment or any part thereof from whatever cause other than the Excepted Risks, the Contractor agrees that he shall forthwith have the same repaired or replaced as the case may be or arrange for payment of the entire amount recovered or to be recovered from the insurance company to the Employer towards the payment of the said advance of Rs. _____

Upon repayment or recovery in full of the amount secured on account of this hypothecation deed the said plant and equipment secured hereunder shall stand released from hypothecation but this is without prejudice to the right of the Employer under any other conditions of the Contract.

SCHEDULE ABOVE REFERRED TO

Sl. No.	Particulars of Plant and Equipment	Nos.	Purchase price/ price considered reasonable by Engineer-in-Charge	Total Price	Advance (75% of Col.5)
1	2	3	4	5	6

Dated this day of 20..... at

WITNESS

..... (Signature)

..... (Name)

..... Printed Name of Authorised person
(Official Address) having Power of attorney.....
Designation.....

Common Seal.....

NOTE :

*** For Proprietary Concerns**

Shri _____ son of _____ resident of _____ carrying on business under the name and style of _____ at _____ (hereinafter called "the said Contractor" which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representatives).

*** For Partnership Concerns**

M/s. _____ a partnership firm having its registered office at _____ (hereinafter called "the said Contractor" which expression shall unless the context requires otherwise include and their respective heirs, executors, administrators and legal representatives) the partners of the firm being (i) Shri _____ s/o _____ (ii) and Shri _____ s/o _____ etc

*** For Companies**

M/s _____ a company under the Companies Act, 1956, and having its registered office at _____ in the State of _____ (hereinafter called "The said Contractor" which expression shall unless the context requires otherwise include its successors and assigns).

10. PROFORMA OF “CONTRACT AGREEMENT”

10. PROFORMA OF "CONTRACT AGREEMENT"
(to be executed on proper non-judicial stamp paper)

This Contract Agreement made this day of
(month) two thousand and year
..... between NTPC Limited, a company incorporated under the
Companies Act, 1956, having its registered Office at NTPC Bhawan, Core 7, SCOPE Complex, 7,
Institutional Area, Lodhi Road, New Delhi-110 003 (hereinafter referred to as "Employer" as "NTPC"
which expression shall include its administrators, successors, executors and assigns) or the one part
: And a company incorporated under the Companies Act 1956
having its registered office at

(OR)

M/S(Partnership Firm) registered under the Indian
Partnership Act 1932 having its Head Office at and consisting of
.....Partners namely

(OR)

M/S a proprietary concern having its Principal Place of
Business at and owned and controlled by its Sole Proprietor
namely (hereinafter referred to as the "Contractor" which
expression shall include its administrators, successors, executors and permitted assigns) of the other
part.

WHEREAS NTPC Limited desirous of setting up its Power Project at District
..... with an ultimate capacity of)*
.....MW (hereinafter called the "Project") has invited bids for
..... (briefly describe scope of work as per LOA) for the
.....*..... stage of the Project with the capacity of
.....*..... MW as per its Bid Specification No

AND WHEREAS the Contractor had participated in the above referred bidding vide their proposal
No.....dt.....including its amendments, if any and Employer after
examining the said proposal accepted their aforesaid proposal and awarded the Contract to the
Contractor on terms and conditions more specifically contained in its Letter of Award No.
.....dt and the documents referred to therein, which have
been unequivocally accepted by the Contractor resulting into a concluding "Contract", hereinafter called
the "Contract".

NOW THEREFORE THIS DEED WITNESSETH AS UNDER:

1.0 AWARD OF CONTRACT

1.1 The Employer has already awarded the CONTRACT to the Contractor for the work of.....on the terms and conditions contained in its Letter of Award No dated the documents referred to therein and under these presents. The contract has taken effect from i.e. the date of issue of the aforesaid Letter of Award. The terms and expressions used in this Agreement shall have the same meaning as are assigned to them in the "Contract" referred to in the succeeding Article.

2.0 CONTRACT

The Contract shall be performed strictly as per the terms and conditions stipulated herein, in the Contract Documents and in the Letter of Award (hereinafter collectively referred to as "Contract").

2.1 Contract Documents shall mean:—

A. Invitation For Bids No. dated and Bidding documents in respect of Specification No. issued consisting of:

- i) General Conditions of Contract for Civil Works including all amendments issued vide its letter(s) No.(s) dated (Section - IV).
- ii) Special Conditions of Contract.....(Section - V).
- iii) Technical Specifications and Drawings including amendments issued vide its Letter No. dated (.....(Section – VI).

Sl. No.	Drawing	Title

The above drawings are tentative and are meant for bidding purpose only and are not the final drawings nor show the full range of the work under scope of work. Work has to be executed according to the Final drawings with latest additions, alterations and modifications if any from time to time as required or approved by the Engineer-in-Charge and also according to any other relevant drawing that would be supplied to the Contractor progressively during the execution of the Contract.

iv) Schedule of Quantities* (Section - VII).

v) Forms & Procedures

B. Contractor's Proposal No. dated including its amendments if any received and opened on

C. Agreed Minutes of Meeting held on between Employer/NTPC and the Contractor.*

2.2 LETTER OF AWARD: The Letter of Award shall mean the Employers letter no. dated together with its amendments if any.

All the aforesaid Contract Documents and Letter of Award above shall form an integral part of this Contract Agreement, in so far as the same or any part thereof is not in conflict with the Documents (Section I, II, III, IV, V, VI & VII, VIII in Para 2.1 and 2.2 above and what has been specifically agreed to by the Employer and brought out in its Letter of Award and subsequent amendment if any. Any matter in the Contractor's Proposal referred to in sub-clause B of Para 2.1 above inconsistent therewith, contrary or repugnant thereto or any deviations taken by the Contractor in its "Proposal" but not agreed to specifically by the Employer in its Letter of Award shall not be given effect to and shall be deemed to have been withdrawn by the Contractor without any cost implication to EMPLOYER., For the sake of brevity, this Contract Agreement alongwith its aforesaid Contract Documents and the Letter of Award shall be referred to as the "Contract".

3.0 CONDITIONS & COVENANTS

3.1 The scope of work under the Contract shall include

3.2 The scope of work under the Contract as specified above, consideration, terms of payment, loans and advances, price variation, security deposit, taxes wherever applicable, insurance, agreed time schedule, compensation for delay and all other terms and conditions are contained in the Contract and the Contract shall be duly performed by the Contractor strictly and faithfully in accordance with the terms of this Contract.

3.3 The scope of Works shall also include all such items which are not specifically mentioned in the Contract, but which are necessary for the satisfactory completion of the entire scope of works envisaged under this contract unless otherwise specifically excluded from the scope in the Contract.

- 3.4 The progress of work shall conform to the agreed work schedule.
- 3.5 This Contract Agreement constitutes full and complete understanding between the parties and terms of these presents. It shall supersede all prior correspondence to the extent of inconsistency or repugnancy to the terms and conditions contained in the Contract Agreement. Any modifications of the Contract Agreement shall be effected only by written instruments signed by the authorized representatives of both the parties.
- 3.6 Time is the essence of the Contract and it shall be strictly adhered to.
- **3.7** It is expressly understood and agreed by and between the Contractor and the Employer that the Employer is entering into this agreement solely on its own behalf and not on behalf of any other person or entity. In particular, it is expressly understood and agreed that the Govt. of India is not a party to this Agreement and has no liabilities, obligations or rights hereunder. It is expressly understood and agreed that the Employer is an independent legal entity with power and authority to enter into Contracts solely on its own behalf under the applicable laws of India and the general principles of Contract Law. The Contractor expressly agrees, acknowledges and understands that the Employer is not an agent, representative or delegate of the Govt. of India. It is further understood and agreed that the Govt. of India is not and shall not be liable for any acts, omissions, commissions, breaches or other wrongs arising out of the Contract. Accordingly, Contractor expressly waives, releases and foregoes any and all actions or claims, including cross claims, impeder claims, or counter claims against the Govt. of India arising out of this Contract and covenants not to sue the Govt. of India as to any manner, claim, cause of Action or thing whatsoever arising of or under this agreement.
- 4.0 The total contract price for the entire scope of this contract as detailed in Clause No. of Letter of Award is (.....)
- 5.0 The Terms of Payment is governed by Clause of GCC (Section - IV).
- 6.0 NO WAIVER OF RIGHTS:**
- 6.1 Neither the inspection by the Employer or the Engineer-in-Charge or any of the officials, employees or agents nor any order by the Employer or the Engineer-in- Charge for payment of money or any payment for or acceptance of, the whole or any part of the Works by the Employer or the Engineer-in-Charge nor any extension of time nor any possession taken by the Engineer-in-charge shall operate as Waiver of any provisions of the contract, or of any power herein reserved to the Employer, or any right to damages herein provided, nor shall any waiver of any breach in the contract be held to be a waiver of any other or subsequent breach.

7.0 SETTLEMENT OF DISPUTES

- 7.1 It is specifically agreed by and between the parties that all the differences or disputes arising out of the Contract or touching the subject matter of the Contract shall be decided by process of Settlement of Disputes as specified in Clause 7 of the General Conditions of the Contract as amended and the provisions of the Arbitration & Conciliation Act, 1996 including any statutory modifications or re-enactment thereof and the rules made thereunder shall apply and Delhi Courts alone shall have exclusive jurisdiction in all matters arising under this Contract. The arbitrator shall give reasoned/speaking award.

7.2 Governing Laws

The laws applicable to this contract shall be the laws in force in India.

7.3 Notice of Default

Notice of default given by either party to the other party under the Contract shall be in writing and shall be deemed to have been duly and properly served upon the parties hereto if delivered against acknowledgement or by telex or by registered mail with acknowledgement due addressed to the signatories at the addresses mentioned herein above.

IN WITNESS WHEREOF, the parties through their duly authorised representatives have executed these presents (execution there-of has been approved by the competent authorities of both the parties) on the day, month and year first above mentioned at #
.....

**FOR AND ON BEHALF OF
NTPC Limited**

WITNESSES :

1.	 (Signature)	:	 (Employer's Signature)
	 (Name)	:	 (Printed Name)
2.	 (Designation)	:	 (Designation)
			 (Company's Stamp)
		:	FOR AND ON BEHALF OF M/S.
			
			

1.	 (Signature)	:	 (Contractor's Signature)
	 (Name)	:	 (Printed Name)
	 (Designation)	:	 (Designation)
		:	 (Company's Stamp)

NOTE:

- * Strike whichever is not applicable.
- # Here mention the place where contract is signed.

11. PROFORMA OF “INDEMNITY BOND” FOR “EMPLOYER ISSUE MATERIALS”

11. PROFORMA OF INDEMNITY BOND” FOR “EMPLOYER ISSUE MATERIALS”

(On non-judicial paper of appropriate value and to be stamped in accordance with Stamp Act. The stamp paper to be in the name of Executing Contracting Firm/ Company)

This bond of indemnity made this day of by [Contractor's Name]*
....., a company registered under the Companies Act, 1956/ Partnership firm/ Proprietary concern
having with its Registered/ Head Office at (hereinafter referred to as the 'Contractor' which
expression shall unless repugnant to the context or meaning thereof, include its successors,
administrators, executors and assigns) in favour of[Employer's Name]..... (hereinafter
referred to as the 'Employer', which expression shall, unless repugnant to the context or meaning
thereof include its successors, administrators and assigns)

WHEREAS [Employer's Name]..... has awarded to the Contractor, a Contract by issue
of Employer's Letter of Award No. dated and in terms of the said Contract, the
Employer has agreed to issue from time to time to the Contractor according to the requirements for
incorporation in the Works under the said Contract, the 'Employer Issue Materials' viz. 'Cement' and/or
'Reinforcement Steel' and/or 'Structural steel' '**' (hereinafter called 'Employer Issue Materials')
necessarily required for performance of the aforesaid Contract.

AND WHEREAS one of the conditions for the issue of the 'Employer Issue Materials' is that the
Contractor shall furnish an Indemnity Bond in favour of the Employer covering the full value for the total
quantities of 'Employer Issue Materials' which shall remain in the safe custody of the Contractor during
the execution of the Contract.

NOW THIS Indemnity Bond witnesseth as follows:

- 1.0 THAT in consideration of the various Employer Issue Materials as aforesaid issued/ to be issued
free of cost by Employer to the Contractor from time to time as per requirements for the purpose
of the performance of the said Contract valued at Rs., the Contractor hereby
undertakes to indemnify and keep Employer indemnified, for the full Value of the said Employer
Issue Materials. The Contractor hereby acknowledges the receipt of the said Employer Issue
Materials as per details given in Schedule attached hereto. Further the Contractor agrees to
acknowledge the receipt of the subsequent Employer Issue Materials as will be issued by
Employer in the form of schedules consecutively numbered which shall be attached to this
Indemnity Bond so as to form integral part of this Bond.
- 2.0 That in terms of the said Contract, the maximum quantity of "Employer Issue Materials" at any
point of time during the currency of the Contract shall not exceed the quantity as is identified
herein below in column 'd' and its value for the purpose of Indemnity Bond as per clause
..... of are as given below :

Sl. No.	Name of Items of Employer Issue Materials	Total Qty. in Contract (M.T.)	Max. Qty. at any point of time (M.T.)	Rate @ Rs.	Total amount (Rs. in Millions) for total Qty. in the Contract
a.	b.	c.	d.	e.	f. (c x e)

1. ~~Cement (in bags or silos)~~

2. ~~Reinforcement Steel (in various sizes and lengths)~~

3. ~~Structural steel (in various sizes & lengths)~~

Σ = Total Value of this I.B. = Total Value in Rs. Millions

3.0 Notwithstanding the above maximum quantity (Column 'd' above) of 'Employer Issue Materials' that remain in the custody of the Contractor at any point of time, the actual issuance of materials with the aforesaid total limit shall be governed by the actual programme of execution of work as may be agreed to between the Contractor and the Employer from time to time. The issuance of lesser quantities and/or the availability of balance unused quantity at site of 'Employer Issue Materials' shall not in any way dilute the obligation of the Contractor under this Indemnity Bond except that its value in such case will stand reduced to the value of such materials actually with the Contractor computed at the same unit rate as mentioned in para 2.0 above.

4.0 That the value of Indemnity Bond as brought out in para 2.0 and 3.0 above are linked with the following unit rate of these materials.

- a) Cement @ Rs. i.e., Procurement Rate +25%.
- b) Reinforcement steel : @ Rs. i.e. Max. rate of nearest stockyard of SAIL for any section inclusive of all taxes + 25%.
- c) Structural steel : @ Rs. i.e. Average rates of nearest stockyard of SAIL for structural sections, pipes & plates inclusive of all taxes + 25%.

- 4.1 In the event of any upward revision of the aforesaid rate by the concerned authorities, the value of the Indemnity Bond shall be enhanced proportionately by executing fresh bond.
- 5.0 That the Contractor undertakes to keep these 'Employer Issue Materials' at the Employer's project site at a place duly notified by the Engineer-in-Charge and shall not take out these materials or allow the same to be taken out of the project site under any circumstances whatsoever.
- 6.0 That Contractor shall remain absolutely responsible for the safe custody and protection of the said 'Employer Issue Materials' against all risks whatsoever till these are duly incorporated in the Works as per terms of the contract and non utilised materials will be promptly returned to Employer in accordance with said Contract and as such the Contractor do hereby undertakes to indemnify and shall keep Employer indemnified against any loss or damage or conversion that may be caused or done to the said 'Employer Issue Materials' while in the Contractor's possession/custody. These materials shall however, at all times, be available for inspection by the Engineer-in-Charge from time to time.
- 7.0 Further, Employer shall have the absolute right at all times to take possession of the 'Employer Issue Materials' in whatever form the Employer Issue Materials may be, if in its opinion, the 'Employer Issue Materials' are likely to be endangered, misutilised or converted to uses other than those specified in the Contract, by any acts of omission on the part of the Contractor or any other person or on account of any reason whatsoever and the Contractor binds itself and undertakes to comply with the directions of Employer to promptly return the 'Employer Issue Materials' without any demur or reservation, protest or contest.
- 8.0 That the Contractor shall keep the 'Employer Issue Materials' as a 'Trustee' on the Employer's behalf and the ownership of these materials shall always vest in Employer.
- 9.0 That the 'Employer Issue Materials' shall exclusively be used by the Contractor for performing the Works under the Contract and for no other work or purpose whatsoever, otherwise it will be treated as criminal breach of trust. Should however, at any time, any loss/damage occur to the 'Employer Issue Materials' in part or in full or the same or any part thereof is misused or converted or used for any other purposes other than the contractual purpose by the Contractor or the surplus unused materials and the wastage/scrap are not returned to Employer in terms of the Contract, then Employer shall be entitled to recover from the Contractor, the compensation at the specified rates under the Contract for and in respect of such misuse, loss, damage, or conversion or any other unauthorised use not intended under the Contract, without prejudice to any other remedies which may be available to Employer including deduction from any payment/dues to or any sum which at any time hereinafter may become due to the Contractor under the Contract.

- 10.0 In the event of any misuse, loss or damage as aforesaid, the assessment for such misuse, loss or damage and the assessment of the compensation thereof would be made by Employer or its authorised representatives and the said assessment shall be final and binding on the Contractor.
- 11.0 This Indemnity Bond shall be valid till six (6) calendar months after the scheduled date of completion of work under the Contract and shall be extended from time to time till the entire work under the Contract is successfully completed or earlier upon determination of contract and all the surplus/wastage/ scrap materials are fully returned and the account for 'Employer Issue Materials' is finally settled between the Contractor and Employer, whichever event is later.
- 12.0 It is clearly understood and agreed to by the Contractor that non-observance of the obligations under this Indemnity Bond by the Contractor shall Inter-alia constitute a criminal breach of trust on the part of the Contractor and he shall be liable for all legal/penal consequences thereof.
- 13.0 Now the condition of this Bond is that the Contractor shall duly and punctually comply with all the terms and conditions of this bond to the satisfaction of Employer, then, the above bond shall be void, but otherwise, it shall remain in full force and virtue.
- 14.0 That this bond shall not be irrevocable during its validity period and the Contractor shall not revoke this bond till it is discharged by Employer in writing.

WITNESS

.....
(Signature)
.....
(Name)
.....
Address)

(Signature)

(Name of Contractor).....

Name of the Authorised person (Official
having Power of Attorney.....

Designation

Seal.....

Notes :

*** FOR PROPRIETARY CONCERNS**

Shri son of resident of carrying on business under the name and style of at (hereinafter called "the said Contractor" which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representatives).

*** FOR PARTNERSHIP CONCERNS**

M/s. a partnership firm with its office at (hereinafter called "the said Contractor" which expression shall unless the context requires otherwise include their heirs, executors, administrators and legal representatives), the names of their partners being (i) Sh. son of Sh.

(ii) Sh. son of Sh.

*** FOR COMPANIES**

M/s. a Company registered under the Companies Act, 1956 and having its registered office at in the State of and its head office at (hereinafter called "the said Contractor" which expression shall unless the context requires otherwise include its administrators, successors and assigns.)

**12. LETTER OF UNDERTAKING TO BE GIVEN BY
CONTRACTOR WHILE FURNISHING THE
“INDEMNITY BOND” TO EMPLOYER FOR
“EMPLOYER ISSUE MATERIALS”**

**12. LETTER OF UNDERTAKING TO BE GIVEN BY CONTRACTOR
WHILE FURNISHING THE "INDEMNITY BOND" TO
EMPLOYER FOR "EMPLOYER ISSUE MATERIALS"**

To :
The Engineer-in-Charge

(_____ project)

_____(State)

From :
M/s. _____
(Contractor)

(_____ Project)

Name of Contract _____

Dear Sir,

Sub : Undertaking to be Submitted alongwith INDEMNITY BOND for "EMPLOYER ISSUE MATERIALS" under Contract No. _____ dated _____ .

1.0 This is to inform you that as per Clause No. _____ of SCC forming integral part of the Contract No. _____ dated _____ relating to "Employer Issue Materials", we have to submit to you an irrevocable and unconditional INDEMNITY BOND equivalent to the total value of "Employer Issue Materials" required for incorporation in the Works of "_____" awarded to us vide your LOA No. _____ dated _____.

2.0 The amount of the aforesaid INDEMNITY BOND is dependent upon maximum quantity of Employer Issue Materials that will remain with us at any point of time during the execution of the Contract and is based on the prevailing market value of Employer Issue Materials, as given below :

a.	Cement	:	Procurement Rate plus 25%.
b.	Reinforcement Steel	:	Max. rate of nearest Stockyard of SAIL for any section inclusive of all taxes plus 25%.
c.	Structural Steel	:	Average rates of nearest stockyard of SAIL for structural sections, pipes and plates inclusive of all taxes plus 25%.

3.0 We agree that in the event of the aforesaid total quantity of "Employer Issue Materials" is to be increased during the execution of the contract for performance of the work or for the market value of the "Employer Issue Materials" increase for any reasons whatsoever, the amount of aforesaid INDEMNITY BOND shall be enhanced by us without any demur correspondingly, in accordance with the various provisions in clause _____ of the aforesaid conditions of Contract.

- 4.0 We further confirm and undertake to increase the value of the aforesaid INDEMNITY BOND in accordance with para 3.0 above within 30 days of the receipt of notice from Employer for enhancement of the value of the said Indemnity Bond failing which Employer shall have the absolute right to invoke the said Indemnity Bond which will be honoured by us without any demur, contest or protest. Further we undertake to extend the validity of the INDEMNITY BOND as required from time to time by Employer till the entire material is incorporated in the Works and the unutilised material including wastage, scrap etc. are returned to the Employer and the reconciliation of the total Employer Issue Materials is completed in all respects.
- 5.0 This undertaking is irrevocable and shall remain in force till the execution and performance of the entire contract and/or till it is discharged by Employer.

Thanking you,

Yours faithfully,

(Signature of Authorised Signatory.....)

Name & Designation.....

Name of Contractor.....

Name of the Work

Date :

Contract No.....

Place :

Date of Award.....

Seal of the Contractor.....

**13. LETTER OF CONFIRMATION BY THE
PROPOSED SUB-CONTRACTOR**

13. LETTER OF CONFIRMATION BY THE PROPOSED SUB-CONTRACTOR

Bidder's Name & Address

To,

NTPC Limited,
Engineering Office Complex,
Plot No. A-8, Sector-24,
NOIDA - 201 301
Distt. Gautam Budh Nagar (U.P.)

Dear Sirs,

I / We M/s@..... have been proposed by M/s. @@.....
as a sub-contractor for the portion of work relating to\$..... under
Package.

We agree to work as subcontractor to M/s. @@..... for the aforesaid
portion of the work relating to\$..... under Package subject to award of
Contract to @@..... and on being approved by NTPC.

Date :
Place :
Contractor having Power

Signature.....
Printed Name of Authorised person of Sub-
of attorney.....
Designation.....
Common Seal.....

@ Write Name of the sub-contractor as proposed by the main Bidder.

@@ Write Name of the main Bidder.

\$ Write Particulars of the portion of the work for which the Sub-Contractor has been proposed.

Note : To be filled by Sub-Contractor(s) individually.

14. PROFORMA FOR MATERIAL ACCOUNTING & RECONCILIATION

14. PROFORMA FOR MATERIAL ACCOUNTING & RECONCILIATION

Name of Materials

Reconciliation

1. Name of the Contractor :
2. Name of the Project :
3. Name of the Work :
4. Contract No. & Date :
5. Location of the Contractor's Stock/godown :
6. Total Estimated Requirement in the Contract :
7. Value of the Material Security :
8. Indemnity Bond furnished towards the value of Security towards other Materials :
9. Value of security towards Materials under this Performance :

Note : i. Full Separate proforma for

- a. Cement
- b. M.S. Reinforcement (Sectionwise/Diameterwise)
- c. Tor-steel Reinforcement (Sectionwise/Diameterwise)
- d. Structural Steel

- ii. Same proforma to be used till it is filled by succeeding reconciliation. Fresh Proforma for each reconciliation is prohibited.

Sl. No.	Date of Reconciliation	Cumulative Qty. issued till last reconciliation	Cumulative Qty. incorporated in the Works as certified by the Engr.	Qty. returned	Qty. available in stock of contractor	Unaccounted C-(D+E+F) of unaccounted matl. (Col. G) effected. If so; amount recovered and bill/ MB No.	Whether recovery	Outstanding recoveries (cumulative till date)	Remarks
A	B	C	D	E	F	G	H	I	J

Note: 1 Reconciliation shall be done at minimum frequency of three (3) months.
(Signature of Engineer-in-Charge)

(Signature of Contractor's

Authorised Site Representative)

Name & Designation

Seal

**15. Form of Indemnity Bond to be
Executed by the Contractor for
The Safe Custody of Equipments
Brought to site by the Contractor**

**15. FORM OF INDEMNITY BOND TO BE EXECUTED
BY THE CONTRACTOR FOR SAFE CUSTODY OF
THE EQUIPMENTS BROUGHT TO SITE BY THE CONTRACTOR
FOR PERFORMANCE OF ITS CONTRACT
AND AGAINST WHICH PAYMENT TO BE MADE ON RECEIPT
(Entire Equipment Consignment in one lot)
(On non-Judicial stamp paper of appropriate value)**

INDEMNITY BOND

THIS INDEMNITY BOND is made this day of.....
20..... by(Contractor's Name) a Company registered under the Companies
Act, 1956/Partnership firm/Proprietary concern having its Registered Office at
(hereinafter called as 'Contractor' or "Obligor" which expression shall include its successors and
permitted assigns) in favour of (Name of Employer), a Company
incorporated under the Companies Act, 1956 having its Registered Office at
..... and its project at (hereinafter called
"....." {Abbreviated name of the Employer}) which expression shall include its successors
and assigns) :

WHEREAS@..... has awarded to the Contractor a Contract for
.....vide its Notification of Award/Contract No.....dated and
its Amendment No. and Amendment No....., (applicable
when amendments have been issued) (hereinafter called the Contract") in terms of which
.....(contractor)..... is required to keep in his safe custody various Equipments required for execution
of the Contract.

And WHEREAS by virtue of Clause No..... of the said Contract, the Contractor is required
to execute an Indemnity Bond in favour of.....@..... for safe custody of the Equipments for the
purpose of performance of the Contract/Erection portion of the contract (hereinafter called the
"Equipments")

AND THEREFORE, This Indemnity Bond witnesseth as follows:

1. That in consideration of various Equipments as mentioned in the Contract, valued at
(Currency and amount in Figures)..... (Currency and
amount in words) for the purpose of safe
custody and performance of the Contract, the Contractor hereby undertakes to indemnify and
shall keep@..... indemnified, for the twice the value of the Equipments. The
Contractor hereby acknowledges actual receipt of the Equipment etc. as detailed in the
Schedule appended hereto.

@ Fill in abbreviated name of Employer

2. That the Contractor is obliged and shall remain absolutely responsible for the safe transit/protection and custody of the Equipment at@..... project site against all risks whatsoever till the Equipments are duly used/erected in accordance with the terms of the Contract and the plant/package duly erected and commissioned in accordance with the terms of the Contract is taken over by@..... . The Contractor undertakes to keep@..... harmless against any loss or damage that may be caused to the Equipments.
3. The Contractor undertakes that the Equipments shall be used exclusively for the performance/execution of the Contract strictly in accordance with its terms and conditions and no part of the equipment shall be utilized for any other work of purpose whatsoever. It is clearly understood by the Contractor that non-observance of the obligations under this Indemnity Bond by the Contractor shall inter-alia constitute a criminal breach of trust on the part of the Contractor for all intents and purpose including legal/penal consequences.
4. That@..... is and shall remain the exclusive owner of the equipments free from all encumbrances, charges or liens of any kind, whatsoever. The Equipments shall at all times be open to inspection and checking by the Engineer-in-Charge or other employees/agents authorized by him in this regard. Further, ...@..... shall always be free at all times to take possession of the Equipments in whatever form the Equipments may be, if in its opinion, the equipments are likely to be endangered, misutilized or converted to uses other than those specified in the Contract, by any acts of omission or commission on the part of the Contractor or any other person or on account of any reason whatsoever and the Contractor binds himself and undertakes to comply with the directions of demand of@..... to return the Equipments without any demur or reservation.
5. That this Indemnity Bond is irrevocable. If at any time any loss or damage occurs to the Equipments or the same or any part thereof is misutilized in any manner whatsoever, then the Contractor hereby agrees that the decision of the Project Manager of@..... as to assessment of loss or damage to the Equipment shall be final and binding on the Contractor. The Contractor binds itself and undertakes to replace the lost and/or damaged Equipments at its own cost and/or shall pay the amount of loss to@..... without any demur, reservation or protest. This is without prejudice to any other right or remedy that may be available to@..... against the Contractor under the Contract and under this Indemnity Bond.
6. NOW THE CONDITION of this Bond is that if the Contractor shall duly and punctually comply with the terms and conditions of this Bond to the satisfaction of@....., THEN, the above Bond shall be void, but otherwise, it shall remain in full force and virtue. @ Fill in abbreviated name of Employer

IN WITNESS WHEREOF, the Contractor has hereunto set its hand through its authorised representative under the common seal of the Company, the day, month and year first above mentioned.

SCHEDULE

Particulars of the Equipments	Quantity	Particulars of Despatch title Documents	Value of the Equipments	Signature of Attorney in token of receipt
		RR/GR/ Bill of lading Carrier No & Date		

For and on behalf of

.....
(Contractor's Name)

WITNESS :

1.	1. Signature	Signature
	2. Name	Name
	3. Address	Designation of Authorised representative *
2.	1. Signature	(Common Seal)
	2. Name	(In case of Company)
	3. Address	

* Indemnity Bond are to be executed by the authorized person and (i) in case of contracting Company under common seal of the Company or (ii) having the Power of Attorney issued under common seal of the company with authority to execute Indemnity Bond, (iii) In case of (ii), the original Power of Attorney if it is specifically for this Contract or a photostat copy of the Power of Attorney if it is General Power of Attorney and such documents should be attached to Indemnity Bond.

**FORM OF INDEMNITY BOND TO BE EXECUTED BY THE CONTRACTOR
FOR SAFE CUSTODY OF THE EQUIPMENTS BROUGHT TO SITE IN INSTALLMENTS BY THE
CONTRACTOR FOR
PERFORMANCE OF THE CONTRACT AND AGAINST WHICH PAYMENT
IS TO BE MADE ON RECEIPT AT SITE
(On Non-Judicial stamp paper of appropriate value)**

INDEMNITY BOND

THIS INDEMNITY BOND is made this day of..... 20
..... by(Contractor's Name) a Company registered under the Companies Act,
1956/Partnership firm/Proprietary concern having its Registered Office at
(hereinafter called as 'Contractor' or "Obligor" which expression shall include its successors and
permitted assigns) in favour of(Name of Employer), a Company incorporated under the
Companies Act, 1956 having its Registered Office at and its project at
..... (hereinafter called "....."{Abbreviated name of the Employer}" which
expression shall include its successors and assigns) :

WHEREAS@..... has awarded to the Contractor a Contract for vide its
Notification of Award/Contract No.....dated and its
Amendment No. and Amendment No....., (applicable
when amendments have been issued) (hereinafter called the Contract") in terms of which
.....(contractor)..... is required to keep in his safe custody various Equipmentsfor execution of the
Contract.

And WHEREAS by virtue of Clause No..... of the said Contract, the Contractor is required
to execute an Indemnity Bond in favour in@..... for the safe custody of Equipments for the
purpose of performance of the Contract/Erection portion of the contract (hereinafter called the
"Equipments")

NOW THEREFORE, This Indemnity Bond witnesseth as follows :

1. That in consideration of various Equipments as mentioned in the Contract, valued at
(Currency and amount in figures)..... (Currency and amount in words)
..... brought to site by the contractor in instalments from
time to time for the purpose of safe custody and performance of the Contract, the Contractor
hereby undertakes to indemnify and shall keep@..... indemnified, for the twice the
value of the Equipments. The Contractor hereby acknowledges actual receipt of the initial
instalment of the Equipment etc. at site as per details in the Schedule appended hereto.
Further, the Contractor agrees to acknowledge actual receipt of the subnsequent instalments
of the Equipments etc. as required by@..... in the form of Schedules consecutively
numbered which shall be attached to this Indemnity Bond so as to form integral parts of this
Bond.

@ Fill in abbreviated name of Employer

2. That the Contractor is obliged and shall remain absolutely responsible for the safe transit/protection and custody of the Equipment at@..... project site against all risks whatsoever till the Equipments are duly used/erected in accordance with the terms of the Contract and the plant/package duly erected and commissioned in accordance with the terms of the Contract, is taken over by@..... . The Contractor undertakes to keep@..... harmless against any loss or damage that may be caused to the Equipments.
3. The Contractor undertakes that the equipments shall be used exclusively for the performance/execution of the Contract strictly in accordance with its terms and conditions and no part of the equipment shall be utilised for any other work of purpose whatsoever. It is clearly understood by the Contractor that non-observance of the obligations under this Indemnity Bond by the Contractor shall inter-alia constitute a criminal breach of trust on the part of the Contractor for all intents and purpose including legal/penal consequences.
4. That@..... is and shall remain the exclusive owner of the Equipments free from all encumbrances, charges or liens of any kind, whatsoever. The Equipments shall at all times be open to inspection and checking by the Project Manager or other employees/agents authorized by him in this regard. Further, ...@..... shall always be free at all times to take possession of the Equipments in whatever form the Equipments may be, if in its opinion, the equipments are likely to be endangered, misutilised or converted to uses other than those specified in the Contract, by any acts of omission or commission on the part of the Contractor or any other person or on account of any reason whatsoever and the Contractor binds himself and undertakes to comply with the directions of demand of@..... to return the Equipments without any demur or reservation.
5. That this Indemnity Bond is irrevocable. If at any time any loss or damage occurs to the Equipments or the same or any part thereof is mis-utilised in any manner whatsoever, then the Contractor hereby agrees that the decision of the Project Manager of@..... as to assessment of loss or damage to the Equipment shall be final and binding on the Contractor. The Contractor binds itself and undertakes to replace the lost and/or damaged Equipments at its own cost and/or shall pay the amount of loss to@..... without any demur, reservation or protest. This is without prejudice to any other right or remedy that may be available to@..... against the Contractor under the Contract and under this Indemnity Bond.
6. NOW THE CONDITION of this Bond is that if the Contractor shall duly and punctually comply with the terms and conditions of this Bond to the satisfaction of@....., THEN, the above Bond shall be void, but otherwise, it shall remain in full force and virtue.

@ Fill in abbreviated name of Employer

IN WITNESS WHEREOF, the Contractor has hereunto set its hand through its authorised representative under the common seal of the Company, the day, month and year first above mentioned.

SCHEDULE No.1

Particulars of the Equipments	Quantity	Particulars of Despatch title Documents	Value of the Equipments	Signature of Attorney in token of receipt
		RR/GR/ Bill of lading Carrier No & Date		

(Please number subsequent schedules)

For and on behalf of

.....
(Contractor's Name)

WITNESS

1.	1. Signature	Signature
	2. Name	Name
	3. Address	Designation of Authorised representative *
2.	1. Signature	(Common Seal) (In case of Company)
	2. Name	
	3. Address	

* Indemnity Bond are to be executed by the authorised person and (i) in case of contracting Company under common seal of the Company or (ii) having the Power of Attorney issued under common seal of the company with authority to execute Indemnity Bond, (iii) In case of (ii), the original Power of Attorney if it is specifically for this Contract or a photostat copy of the Power of Attorney if it is General Power of Attorney and such documents should be attached to Indemnity Bond.

**16. FORM OF INDEMNITY BOND
FOR REMOVAL/ DISPOSAL
OF SURPLUS MATERIAL**

**16. FORM OF INDEMNITY BOND TO BE EXECUTED
BY THE CONTRACTOR WITH REGARD TO DISPOSAL OF
SURPLUS MATERIAL
(TO BE EXECUTED ON STAMP PAPER OF APPROPRIATE VALUE)**

INDEMNITY BOND

THIS INDEMNITY BOND executed this day of..... 20 by
.....(Name of Company) a Company registered under the
Companies Act, 1956/Partnership Firm/Proprietary concern having its Registered Office(s) at
..... (Office Address) hereinafter called the
Indemnifier(s)/Contractor(s) (which expression shall, unless excluded by or repugnant to the context,
be deemed to mean and include its successors, administrators, executors and permitted assigns).

IN FAVOUR OF

NTPC Limited, a Government of India Enterprise, having its registered office at NTPC Bhawan,
Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi-110 003 (hereinafter referred to as
"NTPC").

1. NTPC has awarded the Contractor(s), contract for execution of work ("Scope of Work") as mentioned in the contract agreement no. dated, entered into between NTPC and Contractor(s), relating to (Name & Address of Project/Station) (hereinafter called 'the Project').
2. The Indemnifier(s) for the purpose of execution of its Scope of Work had from time to time procured and stored (Details of Material) at the Project Site.
3. After completion of the Scope of Work by Indemnifier(s), it has been identified that scrap (Details of Scrap Material & its quantity) and/or surplus (Details of Surplus Material & its Quantity) belonging to Indemnifier(s) is lying at the said Project Site.
4. Now, the scrap (Details of Scrap Material & its Quantity) and/or surplus (Details of Surplus Material & its Quantity) belonging to the Indemnifier(s), requires to be removed by Indemnifier(s) from the Project Site.

NOW THEREFORE THIS INDEMNITY BOND WITNESSETH AS UNDER:

1. That Indemnifier(s) by way of this indemnity requests NTPC to issue necessary exit gate pass(es) in favour of Indemnifier(s) for removal of scrap..... (Details of Scrap Material & its Quantity) and/or surplus (Details of Surplus Material & its Quantity) belonging to Indemnifier(s), from the project.
2. That as per NTPC's procedure, Indemnifier(s) shall ensure loading of trucks for clearing of its scrap (Details of Scrap Material & its Quantity) and/or surplus (Details of Surplus Material & its Quantity) by itself, as aforesaid, under the supervision of CISF personnel.
3. That Indemnifier(s) in consideration of the premises above, for itself and its respective, executors, administrators and assigns, jointly and severally agree and undertake from time to time and at all times hereafter to indemnify NTPC and keep NTPC indemnified from and against all claims, demands, actions, liabilities and expenses which may be made or taken against or incurred by NTPC by reason of the issue of necessary gate pass(es) by NTPC and permitting Indemnifier(s) to remove scrap (Details of Scrap Material & its Quantity) and/or surplus (Details of Surplus Material & its Quantity) belonging to Indemnifier(s), from the project.
4. That Indemnifier(s) undertakes to indemnify and keep NTPC harmless from any act of omission or negligence on the part of the Contractor in following the statutory requirements with regard to removal/disposal of scrap and surplus belonging to Indemnifier(s), from the Project Site aforesaid, by the Indemnifier(s). Further, in case the laws require NTPC to take prior permission of the relevant Authorities before handing over the scrap and/or surplus to the Indemnifier, the same shall be obtained by the Indemnifier on behalf of NTPC.

IN WITNESS WHEREOF, the Indemnifier(s), through its authorized representative, has executed these presents on the Day, Month and Year first mentioned above at (Name of the Place)
.....

Witness:

Indemnifier

1.

.....

2.

.....

(Authorised Signatory)

17. PROFORMA OF CONTRACT CLOSING CERTIFICATES

PROFORMA OF CERTIFICATE OF FINAL AMENDMENT TO THE CONTRACT

(To BE ISSUED BY Site C&M/SSC C&M)

CERTIFICATE NO. CCP - 01

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO. :**

NAME OF CONTRACTOR

DATED:

This is to certify that amendments have been issued to the aforesaid contract as per the details mentioned below:

	Amendment No.	Date
1.		
2.		
3.		
4.		
5.		

This is to certify further that Amendment No.----- dated is the last amendment issued.

Signature

Date

Name... ..

Place.....

Designation

PROFORMA FOR DRAWING RECEIPT CERTIFICATE (TO
BE ISSUED BY ENGINEERING)

CERTIFICATE NO.CCP- 02

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO.:**

NAME OF CONTRACTOR

DATED:

Project:

This is to certify that we have received all the drawings which were to be submitted by the Contractor in requisite number along with the reproducibles as detailed in Annexure enclosed herewith, as per provisions stipulated in the above mentioned LOA/Contract.

Signature

Date

Name.....

Place.....

Designation

PROFORMA FOR QA DOCUMENTS RECEIPT CERTIFICATE (TO

BE ISSUED BY CQA&I)

CERTIFICATE NO. CCP-03

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO.:**

NAME OF CONTRACTOR:

DATED:

Project:

This is to certify that the QA documents as per the list enclosed, in respect of the above mentioned LOA/ Contract has been received in line with the provisions of the Contract.

Signature

Date

Name.....

Place.....

Designation

**PROFORMA FOR O&M MANUAL RECEIPT CERTIFICATE (TO
BE ISSUED BY ENGINEERING)**

CERTIFICATE NO. CCP - 04

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO. :**

NAME OF CONTRACTOR:

DATE:

Project :

This is to certify that we have received from the contractor all the necessary O&M Manuals in requisite number including the list of spare parts along with the names of vendors in respect of the above LOA/contract. The consolidated list of such manuals received is enclosed along with the distribution as marked on the list.

Signature

Date.....

Name... ..

Place.....

Designation.....

PROFORM FOR SCOPE COMPLETION CERTIFICATE

(TO BE ISSUED BY SITE ERECTION)

CERTIFICATE NO. CCP- 05

NAME OF PACKAGE:

**LETTER OF AWARD/
NOA/CONTRACT NO.:**

NAME OF CONTRACTOR:

DATED:

Project :

1. This is to certify that the scope of the above Contract has been completed in line with the contract read in conjunction with the following documents:

1. Final Amendment No. _____ (As per CCP -01)
2. Approved drawings including site run pipingschemes, if any. 3.
Approved Bill of Materials
4. Material Dispatch Clearance Certificate (s)
5. Measurement Book
6. As Built Drawings
7. Any other documents (specify)

2. It is further certified that the following have been supplied, as per the details given in the Contract Documents and the same have been taken over by NTPC.

1. Mandatory Spares
2. Recommended Spares
3. Special Tools & Tackles

Signature

Date

Name... ..

Place... ..

Designation

PROFORMA FOR LIQUIDATED DAMAGES FOR DELAY CERTIFICATE

**(TO BE ISSUED BY SITE ERECTION/ REGIONAL OFFICE/ CORPORATE
CONTRACT SERVICES)**

CERTIFICATE NO. CCP- 06

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO. :**

NAME OF CONTRACTOR:

DATED:

Project:

This is to certify that the issue regarding liquidated damages for delay as per the provisions of clause _____ of the above contract/ LOA has been resolved with the approval of the Competent authority vide reference _____ (copy enclosed).

Signature

Date

Name.....

Place.....

Designation

Note: In respect of cases where LD for delay is settled by Corporate Contract Services (CS), this certificate will be issued by CS and where LD for delay is settled by the Site / Region, the same will be issued by the concerned Site/Regional Offices.

PROFORMA OF SHORTFALL IN EQUIPMENT PERFORMANCE CERTIFICATE

**(TO BE ISSUED BY OS/SITE, AS APPLICABLE, FOR SITE PERFORMANCE TEST
AND BY CQA&I FOR SHOP TEST)**

CERTIFICATE NO. CCP - 07

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO. :**

NAME OF CONTRACTOR:

DATED:

PROJECT:

This is to certify that the following shortfall in equipment performance as compared to the guaranteed parameters have been assessed and agreed to with the contractor in respect of the above mentioned LOA/ Contract.

S.N o	Guaranteed Parameter	Guarante ed	Assessed Value	Shortfall, if	liquidated damages
1	2	3	4	5	6

Further, it is also confirmed that liquidated damages for shortfall in equipment performance in respect of above Items, have been recovered fully from the contractor and no other dues are outstanding for shortfall in equipment performance.

Signature

Date
Place.....

Name.....
Designation

To be counter signed by Site Accounts.

Signature

Date.....
Place.....

Name.....
Designation

PROFORMA OF "MATERIAL RECONCILIATION" CERTIFICATE (TO BE

**ISSUED BY SITE ERECTION AND COUNTERSIGNED BY SITE
MATERIALS MANAGEMENT)**

CERTIFICATE NO. CCP- 08

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO.:**

NAME OF CONTRACTOR:

DATED:

PROJECT:

This is to certify that the materials issued to the contractor in respect of the above mentioned LOA/Contract have been reconciled with the stipulations under the contract documents and no other recovery of material is pending with the contractor.

Signature

Date

Name... ..

Place.....

Designation

To be counter signed by materials management

Signature

Date

Name... ..

Place.....

Designation... ..

PROPORMA OF "PAYMENT RECONCILIATION" CERTIFICATE
(TO BE ISSUED BY SITE ACCOUNTS IN CASE OF INDIAN CONTRACTORS)

CERTIFICATE NO. CCP - 09

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO. :**

NAME OF CONTRACTOR:

DATED:

PROJECT:

This is to certify that all the payments released to the contractor in respect of the above mentioned LOA/Contract have been reconciled with the provisions of the contract documents and statement of Accounts and or other Certificates of Contractor. It is observed that there are no recoveries pending under any of the items listed overleaf.

Signature

Date.....

Name.....

Place.....

Designation.....

Enclosure to CCP-09

The list of recoveries and claims as advised by site Erection Department should include all recoveries and claims on any account whatsoever, including the following:

1. Liquidated damages for delay.
2. Liquidated damages for shortfall in Performance as observed during shop-testing (by inspection deptt.)
3. Liquidated damages for shortfall in performance as observed during performance guarantee tests conducted at site and other site tests.
4. All recoveries /claims on account of variations/deviations to scope of contract permitted or otherwise taken place during execution of the contract as listed in certificate No. CCP.05 for contract closing (Certificate by site Erection for contract closing).
5. Recoveries on account of reconciliation of payments made under the contract.
6. All the claims against the contractor regarding clearance of materials from site and vacation of the premises allotted for site office, stores.
7. All claims in respect of Training/Transportation/Accommodation/Services provided by site in respect of above LOA/Contract.
8. Recoveries on account of settlement of insurance claims
9. Recoveries on account of reconciliation of materials issued to the Contractor.
10. All recoveries on account of demurrage, transportation, insurance premiums etc. and other recoveries as informed by T&CC group on account of port clearance, transportation etc.
11. All recoveries on account of wastage and scrap.
12. All recoveries/claims (if any) on account of maintenance of equipments.
13. All recoveries/claims (if any) on account of price variation.
14. All recoveries/claims (if any) on account of statutory dues paid on behalf of the Contractor by NTPC.
15. Royalty charges.
16. All recoveries/ claims (if any) on account of hiring out of NTPC's plant and equipment.
17. All recoveries/claims (if any) on account of water and electricity charges (if applicable).
18. Any other recoveries/claims against specific instructions.

**PROFORMA OF RECONCILIATION CERTIFICATE FOR
PAYMENTS BY SITE**

**(TO BE ISSUED BY SITE ACCOUNTS/ REGIONAL OFFICE ACCOUNTS IN CASE OF
FOREIGN CONTRACTORS)**

CERTIFICATE CCP- 09A

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO.:**

NAME OF CONTRACTOR:

DATED:

PROJECT /REGIONAL OFFICE:

This is to certify that,

- 1) All the payments against the above mentioned LOA/ Contract have been reconciled with the provisions of the Contract Documents and Statement of Accounts and/ or other certificates of the Contractor.
- 2) No recoveries are pending from the Contractor under any of the items advised by Site Erection Department as listed overleaf.

Signature

Date

Name.....

Place.....

Designation

Enclosure to CCP - 09A

The list of recoveries and claims as advised by Site Erection Department should include all recoveries and claims on any account whatsoever including the following:

1. All the claims against the Contractor regarding clearance of material from site and vacation of premises allotted for site office, stores.
2. All claims in respect of Training/ Transportation/ Accommodation/ Services provided by Site in respect of the above mentioned LOA/ Contract.
3. Recoveries on account of settlement of insurance claims.
4. Recoveries on account of reconciliation of materials issued to the Contractor.
5. All recoveries on account of wastage and scrap.
6. All recoveries/ claims (if any) on account of statutory dues paid on behalf of the Contractor by NTPC.
7. All recoveries / Claims (if any) on account of hiring out of NTPC 's plant and equipment.
8. All recoveries / claims (if any) on account of water and electricity charges (if applicable)
9. Any other recoveries/ claims against specific instructions.

PROFORMA OF RECONCILIATION CERTIFICATE
FOR PAYMENTS BY CORPORATE FINANCE

**[TO BE ISSUED BY CORPORATE FINANCE (I.F. DEPTT.) FOR
LOA/CONTRACT ON FOREIGN CONTRACTOR]**

CERTIFICATE CCP- 09B

NAME OF PACKAGE:

**LETTER OF AWARD/ NON
CONTRACT NO. :**

NAME OF CONTRACTOR:

DATED:

PROJECT:

This is to certify that,

- 1) All the payments against the above mentioned LOA/ Contract released to the Contractor from Corporate Finance (I.F. Deptt.) have been reconciled with the provisions of the Contract Documents and Statement of Accounts and/or other certificates of the Contractor.
- 2) No recoveries are pending from the Contractor under any of the items advised by Site Erection Department as listed overleaf.

Signature

Date

Name... ..

Place.....

Designation

Enclosure to CCP- 09B

The list of recoveries and claims as advised by Site Erection Department should include all recoveries and claims on any account whatsoever, including the following:

1. Liquidated damages for delay.
2. Liquidated damages for shortfall in performance as observed during shop-testing (by Inspection Deptt.)
3. Liquidated damages for shortfall in performance as observed during performance guarantee tests conducted at site and other site tests.
4. All recoveries/claims on account of variation / deviations to scope of contract- permitted or otherwise taken place during execution of the Contract as listed in certificate No. CCP-05 for contract closing (certificate by Site Erection for Contract Closing)
5. Recoveries on account of reconciliation of payments made under the contract.
6. Reconciliation on account of settlement of insurance claims.
7. All recoveries / claims (if any) on account of price variation.
8. Royalty charges
9. Any other recoveries/ claims against specific instructions.

PROFORMA OF "CUSTOMS RECONCILIATION" CERTIFICATE
**[TO BE ISSUED BY ACCOUNTS DEPTT. OF T&CC OFFICE FOR LOA/CONTRACT ON
FOREIGN CONTRACTOR]**

CERTIFICATE NO-CCP09C

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO. :**

NAME OF CONTRACTOR:

DATED:

PROJECT/ REGION:

This is to certify that:

- 1) All the payments released by this**..... T&CC Office in respect of the above mentioned LOA/ Contract have been debited to the Project/ Region as per details (***) enclosed for reconciliation/ settlement/ recovery by them.
- 2) All the payments released towards the payment of Customs Duty have been completely reconciled with the Customs Authorities by the Contractor. No amount is due to the Customs Authorities and no recoveries are pending from the Contractor under any of the items noticed.

(This is applicable for vendor clearance)

- 3) All documents required from the Contractor for reconciliation of the Customs Duty Payment with the Customs Authorities have since been received and those are in order. No recoveries are pending from the Contractor under any of the items noticed.

(This is applicable where the clearance is done by NTPC)

Signature

Date
Place.....

Name... ..
Designation

** Name of T&CC Office from where payments have been released

*** The details will include amount, date when paid, reasons for payment and when debit was given to the concerned Project/Region together with reference thereof, if any.

Note : Strike out whichever is not applicable and initial.

**PROFORMA OF CERTIFICATE REGARDING LABOUR PAYMENTS AND
STATUTORY REQUIREMENTS TO BE FURNISHED BY CONTRACTOR.**

(TO BE ISSUED BY THE CONTRACTOR)

CERTIFICATE NO. CCP - 10

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO. :**

NAME OF CONTRACTOR:

DATED:

PROJECT:

This is to certify that we have made all labour payments including PF Liabilities in respect of the above mentioned LOA/ Contract and no other payments in this regard is pending from us.

Further we confirm that all Statutory requirements have been complied with by us and in case any default is reported against us, we shall be solely responsible for the same.

Date

Place.....

Signature

Name... ..

Designation

**PROFORMA OF "NO DEMAND CERTIFICATE" BY CONTRACTOR (TO
BE ISSUED BY THE CONTRACTOR)**

CERTIFICATE NO. CCP-11

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO.:**

NAME OF CONTRACTOR:

DATED:

PROJECT:

We, M/s..... (Contractor) do hereby acknowledge and confirm that we have received the full and final payment due and payable to us from NTPC Ltd. in respect of our aforesaid LOA/Contract No..... dated.....including amendments if any, issued by NTPC Ltd., to our entire satisfaction and we further confirm that we have no claim whatsoever pending with NTPC Ltd. under the said Contract.

Notwithstanding any protest recorded by us in any correspondence document, measurement books, and/or final bills etc., we waive all our rights to lodge any claim or protest in future under this contract.

We are issuing this "NO DEMAND CERTIFICATE" in favour of NTPC Ltd. with full knowledge and with our free consent without any undue influence, misrepresentation, coercion etc.

Signature

Date

Name... ..

Place.....

Designation

(Company Common Seal)

(This certificate shall be accompanied by the Power of attorney of the signatory)

**PROFORMA OF CERTIFICATE FOR COMPLETION OF WARRANTY PERIOD (TO
BE ISSUED BY SITE ERECTION)**

CERTIFICATE NO. CCP-12

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO.:**

NAME OF CONTRACTOR:

DATED:

PROJECT:

This is to certify that the warranty period for the above mentioned LOA/Contract has been completed in line with the provisions of the contract.

Signature

Date

Name... ..

Place.....

Designation

**PROFORMA OF "CERTIFICATE FOR RETURN OF BGs/ INDEMNITY BONDS ETC." (TO BE
ISSUED BY SITE ACCOUNTS)**

CERTIFICATE NO. CCP-13

NAME OF PACKAGE:

**LETTER OF AWARD/NOA/
CONTRACT NO.:**

NAME OF CONTRACTOR:

DATED:

PROJECT:

This is to certify that all the *Bank Guarantee/ Indemnity bonds/ Insurance policies/ Collaborator's or Associate's Guarantee received for the above mentioned LOA/ Contract have been returned in original to the contractor.

Signature

Date

Name.....

Place.....

Designation

****Delete whichever is not applicable***

18. FORMS OF ABSENCE OF CONFLICT OF INTEREST

**DECLARATION OF ABSENCE OF CONFLICT OF INTEREST WITH CONCILIATION
COMMITTEES OF INDEPENDENT EXPERTS (CCIE)**

To :

[Employer's Name and Address]

Dear Sirs,

1.0 We, M/s (Name of the Contractor) have been awarded the contract for
..... (Name of the package) vide Notification (s) of
Award No..... dated.....

2.0 As per the provisions of the contract, we hereby propose the following CCIEs, in priority order, as
per the list enclosed in the Special Conditions of Contract, as amended from time to time by Ministry
of Power, for finalization of CCIE by CEA:

- 1.....
- 2.....
- 3.....

3.0 We confirm that we do not have any conflict of interest with the aforesaid experts and they have
not been engaged for providing any services to us in the last five years.

4.0 We confirm that in case of any form of conflict of interest (possible or actual) which may
inadvertently emerge during the conciliation proceedings by CCIE, the same will be duly reported to
you.

5.0 We understand that NTPC may withdraw from the conciliation proceedings, if any conflict of
interest with us is found out which have been intentionally concealed, and the matter may be referred to
Ministry of Power. Further, action may be taken against us in respect of Fraud Prevention Policy of
NTPC.

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Date :

Place :

Signature

Printed Name

(Designation)

(Common Seal)

**UNDERTAKING REGARDING ABSENCE OF CONFLICT OF INTEREST WITH
EMPLOYER/CONTRACTOR**

To :

[Employer's Name and Address]*

Dear Sirs,

1.0 I, ...*.....(Name of the selected CCIE member), understand that conflict of interest refers to situations in which financial or other personal considerations may compromise my recommendations in relating to resolution of disputes between NTPC Limited and M/s*.....(Name of the Contractor).

2.0 I confirm that I do not have any conflict of interest with NTPC Limited and M/s*.....(Name of the Contractor) and I have not been engaged for providing any services to them in the last five years.

3.0 I confirm that in case of any form of conflict of interest (possible or actual) which may inadvertently emerge during my tenure as CCIE member, the same will be duly reported to NTPC/CEA/Ministry of Power.

4.0 I understand that NTPC may withdraw from the conciliation proceedings, if any conflict of interest with me is found out which have been intentionally concealed, and the matter may be referred to Ministry of Power.

-- Date :

Place :

Signature

Name

Format for declaration regarding compliance to “Conflict of Interest” provisions

We confirm that we have read and understood the **ITB 3.0** Clause regarding “Conflict of Interest” and our bid is in compliance to this clause.

In case it is established that we have provided any false information in pursuance of the aforesaid **ITB 3.0** Clause, while competing for this contract, then our bid shall be rejected and bid security shall be forfeited.

We also understand that in case we become successful bidder, if it is established that we have not complied with terms of aforesaid **ITB 3.0** Clause, during execution of contract, this would be considered as fraudulent practice as mentioned in para 5.1 (j) of “Policy for Debarment from Business Dealings” and shall be dealt accordingly.

TO WHOMSOEVER IT MAY CONCERN

This is to certify that we have issued/ extended/ amended Bank Guarantee (BG) Number..... amounting to (in number and words in Contract Currency) in favour of NTPC Limited on behalf of M/S (Contractor name) vide their request reference..... dated..... (DD/MM/YYYY) for the period (from)..... (to).....

We confirm that the bank commission (excluding Stamp paper, Out of Pocket Expenses (OPE) and GST on OPE) amounting to (amount and currency) for issuance/ extension/ amendment of the aforesaid BG have been recovered from M/s (Contractor name).

We further confirm that the commission charged on issuance/ extension/ amendment of the aforesaid BG is as per the prescribed rates of the Bank. Further the commission charged by the Bank as per card rates / sanctioned rates is customer/ borrower specific and is uniform for all BGs issued at the request of said customer/ borrower irrespective of beneficiary.

Chief Manager/Branch Manager

SS No: -

Bank Name:

Branch Name:

(With Seal of Bank Official)