

**Framework Confidentiality Agreement cum Undertaking**

This Agreement made on this the \_\_\_\_\_ day of (month) \_\_\_\_\_ 20\_\_\_\_ (“Effective Date”) by and between  
M/s BHARAT HEAVY ELECTRICALS LIMITED, having registered office at “BHEL House”, Siri Fort, New Delhi – 110049 (India), acting through its \_\_\_\_\_ Unit (hereinafter may be referred to as “BHEL” or “the Company”).

And

M/s \_\_\_\_\_ (address) \_\_\_\_\_  
represented by authorized representative Sri \_\_\_\_\_ (herein after referred to as the “Supplier”).

The Supplier and the Company may, unless the context otherwise requires, hereinafter be collectively referred to as “Parties” or singly as the “Party”.

**RECITALS**

Whereas, BHEL is engaged in the design, engineering, manufacturing, construction, testing, commissioning and servicing of a wide range of products, systems and services for the core sectors of the economy, viz. Power, Transmission, Industry, Transportation, Renewable energy, Oil & Gas and Defence and providing associated services to varied customers in relation to which BHEL/its affiliates own valuable information of a secret and confidential nature.

Whereas the Company may, in connection with Contract(s) (as defined hereunder) placed or to be placed upon the Supplier, or otherwise, from time to time, make available, Technical Information as is defined hereunder.

And Whereas BHEL is willing to provide such Technical Information to the Supplier from time to time and the Supplier understands and acknowledges that such Technical Information is valuable for the Company and as such is willing to protect confidentiality of such information, subject to the terms and conditions set out hereunder.

Now therefore, in view of the foregoing premises and in consideration of the mutual covenants and agreements hereinafter set forth, the Parties agree as under:

**1. Definitions:**

Unless the context so requires, in this Agreement, the following terms will bear the meaning ascribed to the said term in this clause.

- A. **“Contract”** means the Contract entered into with a Supplier and includes a Purchase Order, or a Work Order for procurement of any goods or for provision of any services.
- B. **“Effective Date”** means the date of this Agreement as mentioned in the preamble of this Agreement.

- C. **“Supplier”** includes a Contractor or a Vendor of the Company whether for supplying of goods or for providing any services under a Contract or both.
  - D. **“Technical Information”** includes Drawings, and/or Product Standards and/or Specifications and/or Corporate / Plant Specifications and/or Technological Process Sheets and/or Technical Data Sheets and/or Jigs & Fixtures and/or Pattern & Dies and/or Special Gauges and/or Tools etc. belonging to or wherein the Company has acquired from a third party a right of user and includes any improvement thereto from time to time whether carried out by the Company or by the Supplier.
  - E. **“Intended Purpose”** means the purpose for which the Technical Information is provided to the Supplier under or in connection with a Contract.
  - F. **“Improvement”** includes any modification made to, or adaptation of, the Technical Information which enhances or is calculated to enhance the performance (whether in terms of effectiveness or in terms of efficiency or both) of the product and/or the service to be provided by the Supplier under a Contract.
2. This Agreement shall come into force/deemed to have come into force, as the case may be, on the Effective Date; or, on the first date when the Technical Information or any part thereof is provided by BHEL to the Supplier; whichever is earlier.
3. **Agreement deemed to be incorporated in each Contract:** Unless and to the extent otherwise stipulated in the Contract, the conditions of this Agreement are deemed to be incorporated in all Contracts which may be entered into between the Company and the Supplier. Further, unless otherwise stipulated, the obligations under this Agreement are and will be independent of the obligations under the Contracts and such obligations of the Supplier hereunder will remain of full effect and validity notwithstanding that the period of validity of the Contracts has expired by efflux of time stipulated therein; or, the contract has been discharged by performance or breach; or, the termination of the Contracts for any reason whatsoever.
4. **Ownership:**
- 4.1 The Company may, from time to time, make available to the Supplier, Technical Information on a non-exclusive basis by way of loan.
  - 4.2 The Supplier acknowledges and agrees that all Technical Information and copies thereof that are or may be provided by the Company to the Supplier, are and shall remain the property of BHEL or that of the concerned entity from whom BHEL has obtained the Technical Information and such Technical Information are and shall constitute trade secrets of the BHEL. Nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the Supplier any patent, copyright or design or any other intellectual property rights of whatsoever description that subsists or may hereinafter exist in the Technical Information. Furthermore, nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the Supplier any license or rights of use of such patent, copyright or design or any other

intellectual property rights of whatsoever description which may now or hereafter exist in the Technical Information except for use of the Technical Information strictly in accordance with this Agreement and the Contract and/or as directed in writing by the Company, solely for the Intended Purpose under the Contract.

- 4.3 Neither Party is obligated by or under this Agreement to purchase from or provide to the other Party any service or product and that any such purchase/sale of any product and/or service by one Party to the other Party will be governed by the Contract if any, that may be entered into by and between the Company and the Supplier.
- 4.4 The Supplier is/has been made well aware and acknowledges that the Technical Information being/which may be shared with it by the Company has been either generated by the Company by incurring huge investment and cost or obtained from foreign collaborators under Technical Collaboration Agreement (TCA) with stringent confidentiality conditions.
- 4.5 The Supplier agrees and undertakes to adhere to confidentiality requirements as applicable to BHEL under a TCA and also ensure that the confidentiality requirements are adhered to by all its concerned employees or sub-contractors/suppliers (where permitted to be engaged by BHEL). Any damages, losses, expenses of any description whatsoever, arising out of or in connection with a breach of the confidentiality requirements under a TCA owing to any act or omission on the part of the Supplier or its employees or sub-contractors/suppliers that is claimed by a foreign collaborator from the Company shall be wholly borne by the Supplier and it shall keep BHEL fully indemnified in this behalf. The demand by the Company shall be conclusive upon the Supplier who shall thereupon forthwith pay to the Company without demur, dispute or delay the amount as demanded without demanding any further proof thereof.
- 4.6 The Supplier agrees and undertakes that unless so decided and advised by the Company in writing all rights/title to any Improvement to the Technical Information shall vest in the Company. The Supplier undertakes and agrees to inform forthwith to the Company of any such Improvement made to the Technical Information and transfer all drawings/documents or other materials connected with such Improvement to the Company and also agrees to fully cooperate with the Company for protecting the Company's interests in such Improvement in the Technical Information including but not limited to obtaining necessary protection for the intellectual property rights in such improvement, if so desired by the Company. If a question arises whether a modification amounts to Improvement to the Technical Information, the same shall be decided by the Company and such decision shall be final and binding upon the Supplier.

**5. Use and Non-Disclosure:**

- 5.1 Unless otherwise stipulated by the Company, all Technical Information made available to the Supplier, by the Company shall be treated as Confidential irrespective of whether the same is marked or otherwise denoted to be Confidential or not.

- 5.2 The Supplier undertakes and agrees that the Technical Information in its possession shall be held in strict confidence and will be used strictly in accordance with this Agreement and solely for the Intended Purpose under the Contract. Use of the Technical Information for any other purpose other than Intended Purpose is prohibited.
- 5.3 In particular, the Supplier shall not use Technical Information or any Improvement in its possession for the manufacture or procurement of the Product(s) or components or parts thereof or use the Technical Information or any portion thereof or any modification or adaptation thereof in any form to provide any product and/or service to any third party, without the prior written consent of the Company.
- 5.4 The Supplier shall not disclose any of such Technical Information to any third party without the prior written consent of the Company. The Supplier agrees that without prior written consent of the Company, the Supplier shall not disclose to a third party about the existence of this Agreement, or of the fact that it is/was in possession of or has experience in the use of any Technical Information nor shall the Supplier share in any manner whatsoever, with a third party, the name or details of any Contract(s) awarded by the Company to it or performed by the Supplier or the scope of work thereof or share any document or correspondence by and between the Company and the Supplier in or in connection with this Agreement or such Contract(s). Notwithstanding what is stated elsewhere, the overall responsibility of any breach of the confidentiality provisions under this Agreement shall rest with the Supplier.
- 5.5 The Supplier undertakes and agrees not to make copies or extracts of and not to disclose to others any or all of the Technical Information in its possession, except as follows:
- (a) The Supplier may disclose the Technical Information to such of its officers and employees strictly to the extent as is necessary for such officer or employee for the Intended Purpose, provided that the Confidential Information (or copies thereof) disclosed shall be marked clearly as the confidential and proprietary information of Company and that such officers and employees shall similarly be bound by undertakings of confidence, restricted use and non-disclosure in respect of the Technical Information. The Supplier shall be responsible for any breach of such confidentiality provisions by such officers and employees.
  - (b) With the prior written consent of Company, the Supplier may disclose for the Intended Purpose such Technical Information as is provided for in such consent to such of its professional advisers: consultants, insurers and subcontractors who shall be similarly bound by undertakings of confidence, restricted use and non-disclosure in respect of such Technical Information.
  - (c) The Supplier shall not be prevented to make any disclosure required by (i) order of a court of competent jurisdiction or (ii) any competent regulatory authority or agency where such disclosure is required by law, provided that where the Supplier

intends to make such disclosure, it shall first consult Company and take all reasonable steps requested by it to minimize the extent of the Technical Information disclosed and to make such disclosure in confidence and also shall cooperate with the Company in seeking any protective order or any other remedy from proper authority in this matter.

**6. Exceptions:**

The obligations of the Supplier pursuant to the provisions of this agreement shall not apply to any Confidential Information that:

- a) was/is known to, or in the possession of the Supplier prior to disclosure thereof by the Company;
- b) is or becomes publicly known, otherwise than as a result of a breach of this agreement by the Supplier.
- c) is developed independently of the Disclosing Party by the Supplier in circumstances that do not amount to a breach of the provisions of this Agreement or the Contract;
- d) is received from a third party in circumstances that do not result in a breach of the provisions of this Agreement.

7. The obligation of maintaining confidentiality of the Technical Information on each occasion, shall subsist for the entire duration during which the Technical Information / equipment is in possession of the Supplier and shall thereafter subsist for a further period of --- years from the date when the complete Technical Information has been returned to the Company and if Technical Information has been returned in portions on different dates then, the period of ---- years will be reckoned from the date when the last portion of the Technical Information has been returned. Notwithstanding the expiry of the confidentiality obligation, the obligation of the Supplier under clause 5.4 shall continue to subsist for a further period of ----- years.

**8. Warranties & Undertakings:**

a) The Supplier undertakes to ensure the due observance of the undertakings of confidence, restricted use and non-disclosure by its persons to whom it discloses or releases copies or extracts of the Technical Information.

b) The Supplier shall keep the Technical Information or improvement made therein properly segregated and not mix up the same with any other material/documents belonging to him/it or to any other third party.

c) The Supplier further undertakes that he/it shall not hypothecate or give on lease or otherwise alienate or do away with any of the Technical Information and/or equipment of the Company, made available to him/it, and undertakes that he/it shall hold the same as a trustee, in capacity of custodian thereof and use/utilise the same solely for the purpose of executing the Contract awarded by the Company.

d) The Supplier further undertakes that he/it shall return all the equipment and/or Technical Information as far as practicable in the same condition in which the same was made available to him/it by the Company together with any Improvement thereon and the documents connected with such Improvement, to the Company forthwith upon completion of the scope

of work or Contract for which such Technical Information was provided by the Company to it or as directed by the Company together with a confirmation by way of an affidavit or in such manner as directed by the Company that it has not retained any equipment and/or Technical Information/Improvement thereof. In case any such equipment and/or Technical Information or Improvement thereof shall remain in his possession or is not capable of being returned, the retention and use of such Technical Information or Improvement thereto shall continue to be governed by this Agreement.

e) The Supplier undertakes to indemnify the Company for all the direct, indirect and/or consequential losses, damages, expenses whatsoever including any consequential loss of business, profits suffered by the Company owing to breach by the Supplier of its obligations under this Agreement and/or the confidentiality requirements, if any, contained in the Contract and that the Supplier hereby agrees that the decision of the Company in all such or any such matter/s shall be final and binding on the Supplier. On mere written demand of the Company, the Supplier shall forthwith and without demur or delay pay to the Company any such sum as determined by the Company as the amount of loss or damage or expense which has been suffered by the Company. The Supplier agrees that the Company shall be entitled to withhold and appropriate any amount payable to the Supplier under any Contract then existing between the Company and the Supplier, in case the Supplier fails to make payment, in terms of the written demand, within 7 days thereof. Without prejudice to the foregoing actions, in respect to any breach of this Agreement, the Company shall be entitled to take any other action against the Supplier as per applicable laws, the Contract, Company's applicable policies, guidelines rules, procedures, etc.

9. Without prejudice to any other mode of recovery as may be available to the Company for recovery of the amount determined as due as per Clause 8(e) hereinabove, the Company shall have a right to withhold, recover and appropriate the amount due towards such losses, damages, expenses, from any amount due to the Supplier in respect of any other Contract (s) placed on him/it by any department/office/Unit/Division of the said Company.

**10. Arbitration & Conciliation:**

a) In case amicable settlement is not reached between the Parties, in respect of any dispute  
or

difference or claim or controversy arising out of the formation, breach, termination, validity or execution of the Contract(or Agreement) or the respective rights and liabilities of the parties or in relation to interpretation of any provision of the Contract or in any manner touching upon the Contract, then, either Party may, by a notice in writing to the other Party refer such dispute or difference or controversy or claim, (except as to any matters, the decision of which is specifically provided for therein) to the sole arbitration by the arbitrator appointed by Head/In-Charge of the Unit/Division/Region.

b) The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the parties to the dispute.

c) Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India), or other statutory modifications or re enactments thereof and the rules made thereunder and for

the time being in force shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be at ----- **(Insert the name of the city/town of the concerned BHEL Unit/Division).**

d) In case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:

In the event of any dispute or difference relating to the interpretation and application of the provisions of the Contract, such dispute or difference shall be referred to by either party to the arbitration of one of the arbitrators in the department of public enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law and Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary or Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the parties hereto finally and conclusively.

e) Notwithstanding the existence or any dispute or differences and/or reference for the arbitration, the Supplier shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner.

**11. Governing Law & Jurisdiction:**

This Agreement shall be governed by and be construed as per applicable Indian Laws in force at the relevant time.

Subject to clauses 10(a) and 10(d) hereinabove, all matters in connection with the subject agreement shall be subject to exclusive jurisdiction of Courts situated at -----**(insert the name of the place where the BHEL Unit/Division is located)**

**SIGNATURE**

**WITNESSES**

1.

Name

Address:

2.

Name:

Address:

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SIGN & DATE



**Technical Delivery Condition for  
procurement of Bolted Steel Structure  
Assembly**

HXE/SK/2283  
Rev. No. 00

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of 11

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Bolted Steel Structure material shall be fabricated with vendor material and supplied in assembled condition along with its components as per drawing. Bolted Steel Structure shall be dispatched after being duly tested and securely packaged.

Following condition of delivery may be noted:

1. Bidder shall supply pre-fabricated (shop fabricated) bolted structural steel materials for ready to erect condition. Only bolted connection and final painting shall be performed at site.
2. Quantity of each assembly has been indicated in annexure-1.
3. During erection stage of the bolted steel structure, any manufacturing error shall be rectified by vendor at site without any cost implications.
5. All factory fabricated structures shall have bolted field connections.
6. Painting shall be done in each assembly as specified :  
Primer - Epoxy based Zinc phosphate – DFT 50 µm  
Intermediate - Epoxy intermediate coat – DFT 50 µm
7. Holes of the connecting plate on top of trusses with holes made in mating component of trusses are to be made with same template.
8. List of documents required to be submitted by bidder at the time of dispatch:
  - i. Test certificate of materials
  - ii. NDT certificate of welds
  - iii. Dimensional report
  - iv. As per customer approved QP

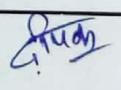
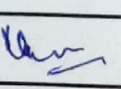
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			fuekZ.kdrkZ WORKED BY	DEEPAK KUMAR	<i>[Signature]</i> 20/11/21
			tkapdrkZ CHECKED BY	DEEPAK KUMAR	<i>[Signature]</i> 20/11/21
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**Code W97717001454 for ANNEXURE-I**

SL NO	Drg.No.	Qty Reqd	Weight (kg)	Total Weight (kg)		SL NO	Drg.No.	Qty. Reqd	Weight (kg)	Total Weight (kg)
1	2-AF-18	1	20.8	20.8		31	2-ET-FR-30	1	1428.3	1428.3
2	2-ET-FR-1	1	195.7	195.7		32	2-ET-FR-31	1	175	175
3	2-ET-FR-10	12	412	4944		33	2-ET-FR-32	1	418.6	418.6
4	2-ET-FR-101	1	1380.1	1380.1		34	2-ET-FR-33	12	94.2	1130.4
5	2-ET-FR-102	1	1422.7	1422.7		35	2-ET-FR-34	2	85.3	170.6
6	2-ET-FR-103	52	266.4	13852.8		36	2-ET-FR-35	2	100.8	201.6
7	2-ET-FR-104	1	123.4	123.4		37	2-ET-FR-36	2	83.1	166.2
8	2-ET-FR-105	1	199.4	199.4		38	2-ET-FR-37	8	27.9	223.2
9	2-ET-FR-106	2	215.1	430.2		39	2-ET-FR-38	1	24.6	24.6
10	2-ET-FR-11	1	123.4	123.4		40	2-ET-FR-4	1	217.7	217.7
11	2-ET-FR-12	2	123.4	246.8		41	2-ET-FR-45	7	147.1	1029.7
12	2-ET-FR-13	1	110.9	110.9		42	2-ET-FR-46	13	147.1	1912.3
13	2-ET-FR-14	1	110.9	110.9		43	2-ET-FR-47	1	143.9	143.9
14	2-ET-FR-15	1	309	309		44	2-ET-FR-48	1	143.9	143.9
15	2-ET-FR-16	1	215.1	215.1		45	2-ET-FR-5	2	225.4	450.8
16	2-ET-FR-17	5	1576	7880		46	2-ET-FR-50	1	212.5	212.5
17	2-ET-FR-18	5	1576	7880		47	2-ET-FR-51	7	215.1	1505.7
18	2-ET-FR-19	5	1592.8	7964		48	2-ET-FR-52	7	195.3	1367.1
19	2-ET-FR-2	1	415.7	415.7		49	2-ET-FR-53	13	218.5	2840.5
20	2-ET-FR-20	5	1592.8	7964		50	2-ET-FR-54	7	195.3	1367.1
21	2-ET-FR-21	1	1896.6	1896.6		51	2-ET-FR-55	1	212.5	212.5
22	2-ET-FR-22	1	1896.6	1896.6		52	2-ET-FR-56	7	195.3	1367.1
23	2-ET-FR-23	1	1965.1	1965.1		53	2-ET-FR-57	7	195.3	1367.1
24	2-ET-FR-24	1	1965.1	1965.1		54	2-ET-FR-58	1	208.9	208.9
25	2-ET-FR-25	1	1581.3	1581.3		55	2-ET-FR-59	8	214.3	1714.4
26	2-ET-FR-26	1	1576.7	1576.7		56	2-ET-FR-6	2	110.9	221.8
27	2-ET-FR-27	1	1441.2	1441.2		57	2-ET-FR-60	5	214.3	1071.5
28	2-ET-FR-28	1	1442.7	1442.7		58	2-ET-FR-61	14	212.1	2969.4
29	2-ET-FR-29	1	1385.7	1385.7		59	2-ET-FR-62	2	208.9	417.8
30	2-ET-FR-3	1	217.7	217.7		60	2-ET-FR-63	2	53	106

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		TkkapdrkZ CHECKED BY	NAVEEN PRAKASH	



## Technical Delivery Condition for procurement of Bolted Steel Structure Assembly

HXE/SK/2283  
Rev. No. 00

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SL NO	Drg.No.	Qty Reqd	Weight (kg)	Total Weight (kg)
61	2-ET-FR-64	1	60	60
62	2-ET-FR-65	1	60	60
63	2-ET-FR-66	1	108.5	108.5
64	2-ET-FR-67	1	207.5	207.5
65	2-ET-FR-68	1	7.4	7.4
66	2-ET-FR-69	1	258.7	258.7
67	2-ET-FR-7	1	550.1	550.1
68	2-ET-FR-70	1	171.3	171.3
69	2-ET-FR-71	4	241.6	966.4
70	2-ET-FR-72	6	16.4	98.4
71	2-ET-FR-73	14	4.2	58.8
72	2-ET-FR-74	1	7.4	7.4
73	2-ET-FR-75	14	30.5	427
74	2-ET-FR-76	4	186.4	745.6
75	2-ET-FR-77	1	583.8	583.8
76	2-ET-FR-78	1	2031.9	2031.9
77	2-ET-FR-79	1	2031.9	2031.9
78	2-ET-FR-8	1	550.1	550.1
79	2-ET-FR-80	2	1657.7	3315.4
80	2-ET-FR-81	3	1656.2	4968.6
81	2-ET-FR-82	5	1656.2	8281
82	2-ET-FR-83	14	30.5	427
83	2-ET-FR-84	1	1633.9	1633.9
84	2-ET-FR-85	1	1632.4	1632.4
85	2-ET-FR-86	33	172.1	5679.3
86	2-ET-FR-89	66	84	5544
87	2-ET-FR-9	12	544.8	6537.6
88	2-ET-FR-92	26	147.5	3835
89	2-ET-FR-93	12	129	1548
90	2-ET-FR-95	14	55.6	778.4

SL NO	Drg.No.	Qty. Reqd	Weight (kg)	Total Weight (kg)
91	2-ET-FR-98	6	223.7	1342.2
92	2-ET-FR-99	1	321.2	321.2
93	2-ET-FR-1	1	72.3	72.3
94	2-ET-FR-10	1	61.8	61.8
95	2-ET-FR-11	1	81	81
96	2-ET-FR-12	13	31.4	408.2
97	2-ET-FR-13	1	29.7	29.7
98	2-ET-FR-14	8	36.1	288.8
99	2-ET-FR-15	1	37.3	37.3
100	2-ET-FR-2	1	72.3	72.3
101	2-ET-FR-3	9	16.4	147.6
102	2-ET-FR-4	7	26.1	182.7
103	2-ET-FR-5	7	26.1	182.7
104	2-ET-FR-6	14	71.1	995.4
105	2-ET-FR-7	14	71.1	995.4
106	2-ET-FR-8	1	47.3	47.3
107	2-ET-FR-9	1	27.6	27.6
108	2-OB-6	1	30	30
109	2-ZP-10	10	46.8	468
110	2-ZP-11	10	28	280
111	2-ZP-12	9	35.2	316.8
112	2-ZP-13	1	35.2	35.2
113	2-ZP-14	6	549.4	3296.4
114	2-ZP-15	1	549.4	549.4
115	2-ZP-2	1	295.4	295.4
116	2-ZP-22	2	21	42
117	2-ZP-23	18	21	378
118	2-ZP-5	1	34.5	34.5
119	2-ZP-7	1	53.5	53.5
120	2-ZP-8	9	26.6	239.4

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WORKED BY

DEEPAK KUMAR

*Deepak*

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CHECKED BY

NAVEEN PRAKASH

*Naveen*



**Technical Delivery Condition for  
procurement of Bolted Steel Structure  
Assembly**

HXE/SK/2283  
Rev. No. 00

Page 4 of 11

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bl izysjk esa nh xbZ lwpuK Hkkjr gsoh bysDVªgyI dh  
IEIRr gS bldk izR; ,k ,oa  
vizR; ,k : ik is fdih Hkh jg iz;ksx] iks fd dluh ds fgr esa

SL NO	Drg.No.	Qty Reqd	Weight (kg)	Total Weight (kg)
121	2-ZP-9	1	26.6	26.6
122	2-CF-1	2	758.9	1517.8
123	2-CF-10	4	540	2160
124	2-CF-2	2	758.9	1517.8
125	2-CF-3	6	754.3	4525.8
126	2-CF-5	1	1445.6	1445.6
127	2-CF-6	2	1255.6	2511.2
128	2-CF-7	2	1323.9	2647.8
126	2-CF-8	4	1069	4276
130	2-CF-9	4	518.1	2072.4
131	2-PR-FR-1	1	470.4	470.4
132	2-PR-FR-10	1	621.6	621.6
133	2-PR-FR-104	1	28.3	28.3
134	2-PR-FR-11	1	139.9	139.9
135	2-PR-FR-115	2	254.7	509.4
136	2-PR-FR-116	1	130.7	130.7
137	2-PR-FR-117	1	139.4	139.4
138	2-PR-FR-118	1	141.9	141.9
139	2-PR-FR-119	1	364.9	364.9
140	2-PR-FR-12	1	617.3	617.3
141	2-PR-FR-120	1	364.9	364.9
142	2-PR-FR-121	1	365.9	365.9
143	2-PR-FR-122	1	368.6	368.6
144	2-PR-FR-123	1	368.5	368.5
145	2-PR-FR-124	1	368.5	368.5
146	2-PR-FR-125	1	368.5	368.5
147	2-PR-FR-126	1	368.5	368.5
148	2-PR-FR-127	1	364.9	364.9
149	2-PR-FR-128	1	364.9	364.9
150	2-PR-FR-129	3	326.2	978.6

SL NO	Drg.No.	Qty. Reqd	Weight (kg)	Total Weight (kg)
151	2-PR-FR-13	1	408.1	408.1
152	2-PR-FR-130	3	326.2	978.6
153	2-PR-FR-131	3	326.2	978.6
154	2-PR-FR-132	3	326.2	978.6
155	2-PR-FR-133	1	326.2	326.2
156	2-PR-FR-134	1	326.2	326.2
157	2-PR-FR-135	1	326.2	326.2
158	2-PR-FR-136	1	326.2	326.2
159	2-PR-FR-137	1	125.8	125.8
160	2-PR-FR-138	2	111.6	223.2
161	2-PR-FR-139	1	357	357
162	2-PR-FR-14	2	42.8	85.6
163	2-PR-FR-140	1	359.7	359.7
164	2-PR-FR-141	2	320.1	640.2
165	2-PR-FR-142	2	310.3	620.6
166	2-PR-FR-143	6	407.3	2443.8
167	2-PR-FR-144	8	160.7	1285.6
168	2-PR-FR-145	1	173.8	173.8
169	2-PR-FR-146	1	171.4	171.4
170	2-PR-FR-147	2	147.9	295.8
171	2-PR-FR-148	8	368.9	2951.2
172	2-PR-FR-149	8	384.3	3074.4
173	2-PR-FR-15	3	42.4	127.2
174	2-PR-FR-150	4	384.6	1538.4
175	2-PR-FR-151	1	185.1	185.1
176	2-PR-FR-152	1	185.1	185.1
177	2-PR-FR-153	1	176	176
178	2-PR-FR-154	1	122.3	122.3
179	2-PR-FR-155	1	143.8	143.8
180	2-PR-FR-156	1	143.8	143.8

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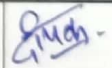
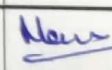
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 bl izysj(k esa nh xbz lwpuK HkKjr gsoh bysTDV^dYI dh  
 IEIfRr gS blOk izR;(k, oa  
 vizR;(k :lk is fdlh Hkh jg iz;ksx) tks fd dautl ds fgr esa

SL NO	Drg.No.	Qty Reqd	Weight (kg)	Total Weight (kg)
181	2-PR-FR-157	1	143.9	143.9
182	2-PR-FR-158	1	14.1	14.1
183	2-PR-FR-159	1	20.9	20.9
184	2-PR-FR-16	3	42.2	126.6
185	2-PR-FR-160	4	152.3	609.2
186	2-PR-FR-161	1	119	119
187	2-PR-FR-162	2	116.2	232.4
188	2-PR-FR-163	1	116.2	116.2
189	2-PR-FR-164	1	95.7	95.7
190	2-PR-FR-165	1	95.7	95.7
191	2-PR-FR-166	1	42.2	42.2
192	2-PR-FR-167	1	44.6	44.6
193	2-PR-FR-168	1	43.4	43.4
194	2-PR-FR-169	1	44.6	44.6
195	2-PR-FR-17	1	143	143
196	2-PR-FR-170	1	9.3	9.3
197	2-PR-FR-171	1	45.9	45.9
198	2-PR-FR-172	1	116.2	116.2
199	2-PR-FR-173	1	14.1	14.1
200	2-PR-FR-174	1	42.2	42.2
201	2-PR-FR-175	1	99.1	99.1
202	2-PR-FR-176	1	609.8	609.8
203	2-PR-FR-177	1	355.7	355.7
204	2-PR-FR-178	1	48.9	48.9
205	2-PR-FR-179	1	797.9	797.9
206	2-PR-FR-18	4	37.3	149.2
207	2-PR-FR-180	1	797.9	797.9
208	2-PR-FR-181	2	73.9	147.8
209	2-PR-FR-182	4	36	144
210	2-PR-FR-183	2	198.2	396.4

SL NO	Drg.No.	Qty. Reqd	Weight (kg)	Total Weight (kg)
211	2-PR-FR-184	2	183	366
212	2-PR-FR-185	1	470.2	470.2
213	2-PR-FR-186	2	495.7	991.4
214	2-PR-FR-187	1	471.1	471.1
215	2-PR-FR-188	1	185.1	185.1
216	2-PR-FR-189	1	190.9	190.9
217	2-PR-FR-19	4	37.4	149.6
218	2-PR-FR-2	1	806.4	806.4
219	2-PR-FR-20	1	189.5	189.5
220	2-PR-FR-21	1	170.6	170.6
221	2-PR-FR-22	3	88.7	266.1
222	2-PR-FR-23	3	50.7	152.1
223	2-PR-FR-24	1	182.9	182.9
224	2-PR-FR-25	3	162.8	488.4
225	2-PR-FR-26	3	145.4	436.2
226	2-PR-FR-27	3	87.4	262.2
227	2-PR-FR-28	1	20.9	20.9
228	2-PR-FR-29	1	190.9	190.9
229	2-PR-FR-3	2	349.6	699.2
230	2-PR-FR-30	1	185.1	185.1
231	2-PR-FR-31	3	37.5	112.5
232	2-PR-FR-32	1	37.7	37.7
233	2-PR-FR-33	4	83.4	333.6
234	2-PR-FR-34	2	83.2	166.4
235	2-PR-FR-35	4	39.7	158.8
236	2-PR-FR-36	1	143.8	143.8
237	2-PR-FR-37	2	262.7	525.4
238	2-PR-FR-38	3	118.7	356.1
239	2-PR-FR-39	3	113.8	341.4
240	2-PR-FR-4	1	609.8	609.8

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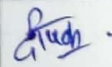
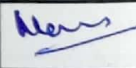
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 bl izyslk esa nh xbZ lwpuuk Hkkjr gsoh bystDvYdYI dh IEIIFR gS bluk izR{k ,oa vizR{k , ik is fdih Hkh rjg iz;ksx] tks rd daluuh ds fgr esa

SL NO	Drg.No.	Qty Reqd	Weight (kg)	Total Weight (kg)
241	2-PR-FR-40	1	131.4	131.4
242	2-PR-FR-41	1	143.8	143.8
243	2-PR-FR-42	1	128.9	128.9
244	2-PR-FR-43	12	126.5	1518
245	2-PR-FR-44	3	41.2	123.6
246	2-PR-FR-45	3	42.7	128.1
247	2-PR-FR-46	1	143.9	143.9
248	2-PR-FR-47	3	37.9	113.7
249	2-PR-FR-48	1	608.8	608.8
250	2-PR-FR-49	1	405.6	405.6
251	2-PR-FR-5	16	139.2	2227.2
252	2-PR-FR-50	2	251.1	502.2
253	2-PR-FR-500	1	83.5	83.5
254	2-PR-FR-501	1	83.5	83.5
255	2-PR-FR-502	1	83.5	83.5
256	2-PR-FR-503	1	167.7	167.7
257	2-PR-FR-504	2	18.2	36.4
258	2-PR-FR-51	1	129.9	129.9
259	2-PR-FR-52	1	141.3	141.3
260	2-PR-FR-53	1	121.5	121.5
261	2-PR-FR-54	1	409.5	409.5
262	2-PR-FR-55	1	282.2	282.2
263	2-PR-FR-56	1	137.9	137.9
264	2-PR-FR-57	1	404.6	404.6
265	2-PR-FR-58	3	329.5	988.5
266	2-PR-FR-59	1	598.4	598.4
267	2-PR-FR-6	2	171.2	342.4
268	2-PR-FR-60	6	317.7	1906.2
269	2-PR-FR-61	1	598.4	598.4
270	2-PR-FR-62	1	470.8	470.8

SL NO	Drg.No.	Qty. Reqd	Weight (kg)	Total Weight (kg)
271	2-PR-FR-63	1	621.6	621.6
272	2-PR-FR-64	4	511	2044
273	2-PR-FR-65	4	502.9	2011.6
274	2-PR-FR-66	1	176	176
275	2-PR-FR-67	1	119	119
276	2-PR-FR-68	4	123.3	493.2
277	2-PR-FR-69	2	94.3	188.6
278	2-PR-FR-7	2	173.4	346.8
279	2-PR-FR-70	1	122.3	122.3
280	2-PR-FR-71	8	1	8
281	2-PR-FR-72	1	149.3	149.3
282	2-PR-FR-73	1	146.9	146.9
283	2-PR-FR-74	1	144.8	144.8
284	2-PR-FR-75	2	409.8	819.6
285	2-PR-FR-76	1	635.7	635.7
286	2-PR-FR-77	1	626.8	626.8
287	2-PR-FR-78	1	613.2	613.2
288	2-PR-FR-79	1	613.2	613.2
289	2-PR-FR-8	1	806.4	806.4
290	2-PR-FR-80	1	636.6	636.6
291	2-PR-FR-81	1	462.4	462.4
292	2-PR-FR-82	1	462.4	462.4
293	2-PR-FR-83	1	538.3	538.3
294	2-PR-FR-84	1	538.3	538.3
295	2-PR-FR-85	1	627.6	627.6
296	2-PR-FR-9	2	521.1	1042.2
297	2-PR-FR-1	2	158.7	317.4
298	2-PR-FR-10	4	126.1	504.4
299	2-PR-FR-101	2	22.5	45
300	2-PR-FR-102	2	22.5	45

<b>REV.NO.</b> 00		fuekZ.kdrkZ WORKED BY DEEPAK KUMAR	
		TtkkapdrkZ CHECKED BY NAVEEN PRAKASH	



## Technical Delivery Condition for procurement of Bolted Steel Structure Assembly

HXE/SK/2283  
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 IEfRr gS bldk izR;f; ,oa  
 vizR;f; ik is fdlh Hkh ng iz;ksx] tks fd dluh ds fgr esa

SL NO	Drg.No.	Qty Reqd	Weight (kg)	Total Weight (kg)
301	2-PR-HR-103	1	34.9	34.9
302	2-PR-HR-104	1	34.9	34.9
303	2-PR-HR-105	1	17.8	17.8
304	2-PR-HR-106	1	15	15
305	2-PR-HR-11	1	129.6	129.6
306	2-PR-HR-12	1	111.2	111.2
307	2-PR-HR-13	1	117.8	117.8
308	2-PR-HR-14	1	107.9	107.9
309	2-PR-HR-15	1	111.7	111.7
310	2-PR-HR-16	1	116.9	116.9
311	2-PR-HR-17	1	116.9	116.9
312	2-PR-HR-18	2	97.1	194.2
313	2-PR-HR-19	4	100.9	403.6
314	2-PR-HR-2	1	161.4	161.4
315	2-PR-HR-20	1	99.8	99.8
316	2-PR-HR-21	1	95.8	95.8
317	2-PR-HR-22	1	95.6	95.6
318	2-PR-HR-23	1	107.1	107.1
319	2-PR-HR-24	2	80.7	161.4
320	2-PR-HR-25	1	145.3	145.3
321	2-PR-HR-26	2	56.5	113
322	2-PR-HR-3	1	173	173
323	2-PR-HR-4	1	150.1	150.1
324	2-PR-HR-5	1	145.3	145.3
325	2-PR-HR-6	1	138	138
326	2-PR-HR-7	1	139.4	139.4
327	2-PR-HR-8	1	141.2	141.2
328	2-PR-HR-9	1	146.3	146.3
329	2-TS-FR-1	1	371.3	371.3
330	2-TS-FR-10	1	1910.3	1910.3

SL NO	Drg.No.	Qty. Reqd	Weight (kg)	Total Weight (kg)
331	2-TS-FR-11	1	61.2	61.2
332	2-TS-FR-12	1	68.4	68.4
333	2-TS-FR-13	3	63.4	190.2
334	2-TS-FR-14	4	63.4	253.6
335	2-TS-FR-15	2	41.2	82.4
336	2-TS-FR-16	1	63.4	63.4
337	2-TS-FR-17	19	46.7	887.3
338	2-TS-FR-18	1	48.9	48.9
339	2-TS-FR-19	1	78.6	78.6
340	2-TS-FR-2	1	372	372
341	2-TS-FR-20	1	46.7	46.7
342	2-TS-FR-21	2	46.7	93.4
343	2-TS-FR-22	1	1910.3	1910.3
344	2-TS-FR-23	1	2027.4	2027.4
345	2-TS-FR-24	1	367.5	367.5
346	2-TS-FR-25	8	367.3	2938.4
347	2-TS-FR-26	1	311.2	311.2
348	2-TS-FR-27	1	311.2	311.2
349	2-TS-FR-28	1	430	430
350	2-TS-FR-29	1	354.2	354.2
351	2-TS-FR-3	2	372	744
352	2-TS-FR-30	1	356.3	356.3
353	2-TS-FR-31	5	406.6	2033
354	2-TS-FR-32	5	409.1	2045.5
355	2-TS-FR-33	2	291.2	582.4
356	2-TS-FR-34	2	292.8	585.6
357	2-TS-FR-35	1	348.6	348.6
358	2-TS-FR-36	1	350.7	350.7
359	2-TS-FR-37	1	2027.3	2027.3
360	2-TS-FR-38	1	3517.3	3517.3

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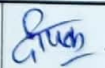
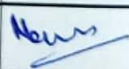
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IEIRr gS bidk izR;rk ,oa  
vizR;rk ik is fdth Hkh jg iz;ksx] tks fd daiuh ds fgr esa

SL NO	Drg.No.	Qty Reqd	Weight (kg)	Total Weight (kg)
361	2-TS-FR-39	1	3493.7	3493.7
362	2-TS-FR-4	1	372	372
363	2-TS-FR-40	1	3532	3532
364	2-TS-FR-41	1	2024.8	2024.8
365	2-TS-FR-42	1	2024.8	2024.8
366	2-TS-FR-43	1	1964.6	1964.6
367	2-TS-FR-44	1	1964.6	1964.6
368	2-TS-FR-45	1	1964.7	1964.7
369	2-TS-FR-46	1	615.4	615.4
370	2-TS-FR-47	1	615.4	615.4
371	2-TS-FR-48	1	614.2	614.2
372	2-TS-FR-49	1	1964.7	1964.7
373	2-TS-FR-5	1	372.2	372.2
374	2-TS-FR-53	1	251.8	251.8
375	2-TS-FR-54	1	285.4	285.4
376	2-TS-FR-55	2	373.8	747.6
377	2-TS-FR-56	1	373.8	373.8
378	2-TS-FR-57	1	285.4	285.4
379	2-TS-FR-58	1	250.5	250.5
380	2-TS-FR-6	1	436.3	436.3
31	2-TS-FR-61	1	405.1	405.1
382	2-TS-FR-62	6	337.7	2026.2
383	2-TS-FR-63	1	73.5	73.5
384	2-TS-FR-64	1	81.9	81.9
385	2-TS-FR-65	1	73.8	73.8
386	2-TS-FR-66	1	47.6	47.6
387	2-TS-FR-67	1	71.9	71.9
388	2-TS-FR-68	1	71.9	71.9
389	2-TS-FR-69	4	79.8	319.2
390	2-TS-FR-7	1	615.4	615.4

SL NO	Drg.No.	Qty. Reqd	Weight (kg)	Total Weight (kg)
391	2-TS-FR-70	3	79.8	239.4
392	2-TS-FR-71	1	69.2	69.2
393	2-TS-FR-72	1	69	69
394	2-TS-FR-73	1	71.9	71.9
395	2-TS-FR-74	1	72.1	72.1
396	2-TS-FR-75	2	30.4	60.8
397	2-TS-FR-76	4	32.6	130.4
398	2-TS-FR-77	4	34.7	138.8
399	2-TS-FR-78	2	42.6	85.2
400	2-TS-FR-79	1	42.7	42.7
401	2-TS-HR-1	1	123	123
402	2-TS-HR-10	1	31.7	31.7
403	2-TS-HR-11	1	26.5	26.5
404	2-TS-HR-12	2	28.8	57.6
405	2-TS-HR-13	1	34.7	34.7
406	2-TS-HR-14	1	34.7	34.7
407	2-TS-HR-15	2	14.8	29.6
408	2-TS-HR-16	1	29.1	29.1
409	2-TS-HR-17	1	76.2	76.2
410	2-TS-HR-18	1	75.4	75.4
411	2-TS-HR-19	1	75.4	75.4
412	2-TS-HR-2	1	101.2	101.2
413	2-TS-HR-20	1	78.6	78.6
414	2-TS-HR-21	1	78.6	78.6
415	2-TS-HR-22	1	76.2	76.2
416	2-TS-HR-23	1	26.5	26.5
417	2-TS-HR-3	1	106.2	106.2
418	2-TS-HR-4	3	106.2	318.6
419	2-TS-HR-5	1	97.3	97.3
420	2-TS-HR-6	1	80.7	80.7

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		TkkapdrkZ CHECKED BY	NAVEEN PRAKASH	

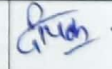
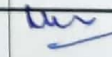
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SL NO	Drg.No.	Qty Reqd	Weight (kg)	Total Weight (kg)
421	2-TS-HR-7	1	80.7	80.7
422	2-TS-HR-8	1	64.3	64.3
423	2-TS-HR-9	1	48.4	48.4
424	2-TS-ST-1	1	235.2	235.2
425	2-TS-ST-2	1	235.6	235.6
426	2-TS-ST-3	1	238.3	238.3
427	2-TS-ST-4	1	238.3	238.3
428	2-TS-ST-6	5	24.8	124
429	2-TS-ST-7	1	214.1	214.1
430	2-TS-ST-8	1	214.5	214.5
431	2-AF-1	20	11.4	228
432	2-AF-6	9	33.4	300.6
433	2-AF-9	4	67.2	268.8
434	2-AF-25	154	206.9	31862.6
435	2-AF-26	154	206.8	31847.2
436	2-AF-37	154	150.6	23192.4
437	2-AF-38	130	318	41340
438	2-AF-39	120	443.1	53172
439	2-FB-2	100	366.1	36610
440	2-FB-6	294	257.5	75705
441	2-FB-8	170	118.2	20094
442	2-FB-9	3	613.4	1840.2
443	2-FD-3	18	88.4	1591.2
444	2-FD-4	18	88.1	1585.8
445	2-FD-5	2	88.3	176.6
446	2-FD-16	5	243.7	1218.5
447	2-FD-18	5	244	1220
448	2-FD-19	5	243.7	1218.5
449	2-FD-20	2	88.6	177.2
450	2-FD-21	45	97.1	4369.5

SL NO	Drg.No.	Qty. Reqd	Weight (kg)	Total Weight (kg)
451	2-FD-22	1	241.1	241.1
452	2-FD-23	1	121.2	121.2
453	2-FD-24	5	237.3	1186.5
454	2-FD-25	5	237.3	1186.5
455	2-FD-26	13	175.7	2284.1
456	2-FD-30	4	176.6	706.4
457	2-OB-3	57	35.9	2046.3
458	2-OB-4	2	86.6	173.2
459	2-OB-5	6	88.4	530.4
460	2-UD-16	1	635.7	635.7
461	2-UD-18	20	338	6760
462	2-UD-52	4	102.8	411.2
463	2-UD-53	4	199.7	798.8
464	2-UD-54	4	93.2	372.8
465	2-UD-59	2	228.7	457.4
466	2-UD-94	4	71.4	285.6
467	2-UD-95	4	71.9	287.6
468	2-UD-96	4	72.1	288.4
469	2-UD-97	2	78.3	156.6
470	2-UD-102	1	1498.2	1498.2
471	2-UD-106	1	1499	1499
472	2-UD-115	10	88.8	888
473	2-UD-125	4	224.2	896.8
474	2-UD-126	4	169.6	678.4
475	2-UD-127	86	103.4	8892.4
476	2-UD-143	2	104.4	208.8
477	2-UD-146	2	444.9	889.8
478	2-UD-149	2	535.5	1071
479	2-UD-151	1	102.3	102.3
480	2-UD-152	1	76.4	76.4

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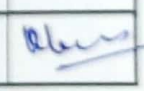


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RECORDS OF CHANGES					
SL. NO	PARA NO. / ANNEXURE NO.	DOC. NO. / REV. NO.	REISSUE/ REV. NO.	REVISION DATE	NATURE OF CHANGE

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Bolted Steel Structure material shall be fabricated with vendor material and supplied in assembled condition along with its components as per drawing. Bolted Steel Structure shall be dispatched after being duly tested and securely packaged.

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Following condition of delivery may be noted:

1. Bidder shall supply pre-fabricated (shop fabricated) bolted structural steel materials for ready to erect condition. Only bolted connection and final painting shall be performed at site.
2. Quantity of each assembly has been indicated in annexure-1.
3. During erection stage of the bolted steel structure, any manufacturing error shall be rectified by vendor at site without any cost implications.
5. All factory fabricated structures shall have bolted field connections.
6. Painting shall be done in each assembly as specified ;  
 Primer - Epoxy based Zinc phosphate – DFT 50 µm  
 Intermediate - Epoxy intermediate coat – DFT 50 µm
7. Holes of the connecting plate on top of trusses with holes made in mating component of trusses are to be made with same template.
8. List of documents required to be submitted by bidder at the time of dispatch:
  - i. Test certificate of materials
  - ii. NDT certificate of welds
  - iii. Dimensional report
  - iv. As per customer approved QP

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**Technical Delivery Condition for  
procurement of Bolted Steel Structure  
Assembly**

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Rev. No. 01**

**Page 2 of 6**

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**Code W97717001462 for ANNEXURE-I (TOTAL ASSLY. WT.=1995604 Kg)**

**TABLE-1: TOTAL WEIGHT= 1198964 Kg.**

SL. NO.	Drg. NO.	QTY.	Weight (kg)	Total Weight (kg)
1	3-UD-29	1	10821.9	10821.9
2	3-UD-164	9	9102.7	81924.3
3	3-UD-8	1	4335	4335
4	3-UD-3	1	4405.5	4405.5
5	3-UD-138	10	1956.1	19561
6	3-UD-116	10	1554.8	15548
7	3-UD-19	1	2621.9	2621.9
8	3-UD-64	1	3294.3	3294.3
9	3-UD-48	1	6125.2	6125.2
10	3-UD-46	1	1446	1446
11	3-UD-20	1	2669.1	2669.1
12	3-UD-21	1	2112.6	2112.6
13	3-UD-22	2	726.4	1452.8
14	3-UD-162	1	2775.9	2775.9
15	3-UD-66	4	3008.3	12033.2
16	3-UD-67	4	3008.3	12033.2
17	3-UD-165	15	3141.7	47125.5
18	3-UD-13	12	4157.5	49890
19	3-UD-136	18	4458.3	80249.4
20	3-UD-120	13	1133.6	14736.8
21	3-UD-119	13	1634.5	21248.5
22	3-UD-160	1	1980.9	1980.9
23	3-UD-171	1	3320.6	3320.6
24	3-UD-9	1	4404.8	4404.8
25	3-UD-117	1	1556.5	1556.5
26	3-UD-16	1	635.7	635.7
27	3-UD-148	1	538.6	538.6
28	3-UD-10	1	4298	4298
29	3-UD-6	1	4388	4388
30	3-UD-11	4	4369.8	17479.2

SL. NO.	Drg. NO.	QTY.	Weight (kg)	Total Weight (kg)
31	3-UD-15	2	886.4	1772.8
32	3-UD-18	8	338	2704
33	3-UD-24	2	1636.9	3273.8
34	3-UD-26	2	1066.7	2133.4
35	3-UD-37	16	1920	30720
36	3-UD-40	2	1926.5	3853
37	3-UD-43	18	2106.3	37913.4
38	3-UD-47	2	1981	3962
39	3-UD-50	5	2798.4	13992
40	3-UD-52	2	102.1	204.2
41	3-UD-55	4	1034.9	4139.6
42	3-UD-56	2	408.2	816.4
43	3-UD-57	2	1431.9	2863.8
44	3-UD-58	2	1432	2864
45	3-UD-59	2	228.7	457.4
46	3-UD-60	2	4223.5	8447
47	3-UD-65	2	804.9	1609.8
48	3-UD-68	8	1919.4	15355.2
49	3-UD-69	1	955.7	955.7
50	3-UD-70	8	1919.4	15355.2
51	3-FB-1	40	362.2	14488
52	3-FB-2	40	366.1	14644
53	3-FB-3	4	7520.9	30083.6
54	3-FB-4	36	343.6	12369.6
55	3-FB-5	28	7416.6	207664.8
56	3-FB-6	144	257.5	37080
57	3-FB-7	72	22.7	1634.4
58	3-FB-8	144	118.2	17020.8
59	3-FB-9	72	613.4	44164.8
60	3-FB-10	4	7542.3	30169.2

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**Technical Delivery Condition for  
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Assembly**

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SL. NO.	Drg. NO.	QTY.	Weight (kg)	Total Weight (kg)
61	3-OB-1	72	375.2	27014.4
62	3-OB-2	36	86.6	3117.6
63	3-OB-3	288	35.9	10339.2
64	3-OB-4	36	86.6	3117.6
65	3-OB-5	34	88.4	3005.6
66	3-OB-6	288	30	8640
67	3-OB-7	36	162.7	5857.2
68	3-OB-8	36	162.7	5857.2
69	3-OB-9	36	164.6	5925.6
70	3-OB-10	72	643.3	46317.6
71	3-OB-11	72	643.3	46317.6
72	3-OB-12	36	338.1	12171.6
73	3-OB-13	36	338.1	12171.6
74	3-OB-14	10	40.3	403
75	3-OB-15	20	41.6	832
76	3-OB-16	16	41.6	665.6
77	3-OB-17	16	40.3	644.8
78	3-OB-18	36	160.9	5792.4
79	3-OB-19	36	84.7	3049.2

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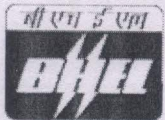
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## Technical Delivery Condition for procurement of Bolted Steel Structure Assembly

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Rev. No. 01

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lat\_rk\_dks**TABLE-2: TOTAL WEIGHT= 796640 Kg.**

SL. NO.	Drg. NO.	QTY.	Weight (kg)	Total Weight (kg)
1	3-UD-51	2	9700.4	19400.8
2	3-UD-163	3	9133.9	27401.7
3	3-UD-169	1	4425.2	4425.2
4	3-UD-63	2	3154.2	6308.4
5	3-UD-138	10	1956.1	19561
6	3-UD-120	13	1133.6	14736.8
7	3-UD-124	3	1129.4	3388.2
8	3-UD-116	10	1554.8	15548
9	3-UD-119	14	1634.5	22883
10	3-UD-121	2	1390.4	2780.8
11	3-UD-66	4	3008.3	12033.2
12	3-UD-67	4	3008.3	12033.2
13	3-UD-165	15	3141.7	47125.5
14	3-UD-166	1	4425.2	4425.2
15	3-UD-25	1	1661.1	1661.1
16	3-UD-27	1	4160.1	4160.1
17	3-UD-134	1	4696.8	4696.8
18	3-UD-12	1	4263.7	4263.7
19	3-UD-72	1	902.2	902.2
20	3-UD-74	11	2975.3	32728.3
21	3-UD-75	1	2975.2	2975.2
22	3-UD-76	5	939.6	4698
23	3-UD-78	18	938.3	16889.4
24	3-UD-79	20	1742.6	34852
25	3-UD-80	2	2027.9	4055.8
26	3-UD-81	6	1892.5	11355
27	3-UD-82	6	1893.2	11359.2
28	3-UD-85	1	1146.1	1146.1
29	3-UD-86	1	1146	1146
30	3-UD-87	46	797.4	36680.4

SL. NO.	Drg. NO.	QTY.	Weight (kg)	Total Weight (kg)
31	3-UD-88	4	800.3	3201.2
32	3-UD-89	2	823.6	1647.2
33	3-UD-90	2	2035.3	4070.6
34	3-UD-91	12	104.1	1249.2
35	3-UD-92	2	2029.1	4058.2
36	3-UD-96	2	72.1	144.2
37	3-UD-97	2	78.3	156.6
38	3-UD-98	18	928.8	16718.4
39	3-UD-99	6	951.2	5707.2
40	3-UD-100	6	951.1	5706.6
41	3-UD-107	1	1528.9	1528.9
42	3-UD-108	1	1528.9	1528.9
43	3-UD-113	1	493.9	493.9
44	3-UD-114	1	493.9	493.9
45	3-UD-115	4	88.8	355.2
46	3-UD-117	21	1556.5	32686.5
47	3-UD-118	27	1638.7	44244.9
48	3-UD-123	1	1497.4	1497.4
49	3-UD-125	4	224.2	896.8
50	3-UD-126	4	169.6	678.4
51	3-UD-127	12	103.4	1240.8
52	3-UD-129	48	886	42528
53	3-UD-130	2	3258.9	6517.8
54	3-UD-135	8	4577.5	36620
55	3-UD-139	4	3857.6	15430.4
56	3-UD-140	12	3824.5	45894
57	3-UD-141	1	1557.5	1557.5
58	3-UD-142	1	1557.5	1557.5
59	3-UD-143	2	104.4	208.8
60	3-UD-145	2	650.8	1301.6

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## Technical Delivery Condition for procurement of Bolted Steel Structure Assembly

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SL. NO.	Drg. NO.	QTY.	Weight (kg)	Total Weight (kg)
61	3-UD-146	2	444.9	889.8
62	3-UD-148	4	538.6	2154.4
63	3-UD-149	4	535.5	2142
64	3-UD-154	4	650.7	2602.8
65	3-UD-170	1	4425.2	4425.2
66	3-UD-173	2	3259	6518
67	3-UD-176	1	4425.4	4425.4
68	3-UD-177	1	4425.5	4425.5
69	3-UD-71	15	939.7	14095.5
70	3-UD-31	2	3761.8	7523.6
71	3-FD-10	72	200.2	14414.4
72	3-FD-11	144	5.3	763.2
73	3-FD-12	36	178.4	6422.4
74	3-FD-20	10	235.5	2355
75	3-FD-26	36	175.7	6325.2
76	3-FD-27	36	177.4	6386.4
77	3-FD-29	144	170.2	24508.8
78	3-FD-30	36	176.6	6357.6
79	3-FD-31	72	199.5	14364

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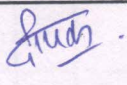
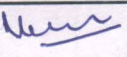
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RECORDS OF CHANGES					
SL. NO	PARA NO. / ANNEXURE NO.	DOC. NO. / REV. NO.	REISSUE/ REV. NO.	REVISION DATE	NATURE OF CHANGE
1.	Drawing nos. and Quantities are revised on page no. 02 to 05.	HXE/SK/ 2284 REV 01	REV. 01	03.02.2022	Minor (Trial assembly covered in table-1 and table-2.)

REV.NO. 01		fuekZ.kdrkZ WORKED BY	DEEPAK KUMAR	
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PRE QUALIFICATION REQUIREMENTS


1. (a) Bidder/Vendor shall have Successfully manufactured and supplied:


Bolted steel structure supplied for power plants/manufacturing plants etc.

Following conditions to be fulfilled for the above:

- i) One order for Minimum 300 Ton  
OR  
Two order for minimum 150 Ton. *each*
- ii) Date of supply for each order should not be earlier to 7 years from the enquiry date.
- (b) In support of the above Clause 1(a), Bidder/Vendor to submit following documents:
- i) Un-priced copy of Purchase Order.
- ii) Inspection documents or dispatch documents duly signed and stamped.
- iii) Any Drawing /Documents clearly stating the item details, weight and quantity.

  
(Ashish Gupta)

  
(Deepak Kumar)

  
(Naveen Prakash)

Mfg. Name & Address:-		MANUFACTURING QUALITY PLAN				DETAILS		PROJECT: North Karanpura 600 MW. PACKAGE: TG-ACC. CONTRACT NO: 4410-001-110. CONTRACTOR: BHEL Hardwar.	
SL. NO.	COMPONENT AND OPERATION	CHARACTERISTICS	Class	TYPE OF CHECK	Quantum	REFERENCE DOCUMENTS	ACCEPTANCE NORMS	TYPE OF RECORD	REMARKS
					Mfg.	AIA / BHEL		Agency	
								Mfg.	AIA / BHEL, NTPC
1.0	Raw Material*	The materials used shall be as per Drg. Raw material should be procured from NTPC approved source.							
1.1	Plates & Rolled Sections. (As per Drawing & Specifications )	Chemical & Mechanical Properties, Dimensions	A	T.C Verifications	100%	As per the Material Standards referred in NTPC Specification Annexure-1		P	V
2	INPROCESS CONTROLS :								
2.1	Preparation							Mfg. TC	P
2.2	Welding & Welder Qualifications	Procedure Qualification	B	Review of documents	100%	AWS D1.1 / ASME SEC-IX		P	V
2.3	Fitup of Chids Parts	Dimension, Orientation & Identification checks.	B	Visual Verification & Measurement	100%	As per vendor Approved Drawing		P	V
2.4	Welding Inspection	Visual, Size & Weld Quality	C	Visual and Measurement	100%	As per vendor Approved Drawing & AWS D1.1		P	RW
2.7	Finished Butt welds :( IF Applicable )								
2.8	Thickness >25 mm	Weld quality	B	RT/UT	100%	10% in Total Weld Joints.	AWS D1.1 / ASME SEC-IX	P	V
2.9	Thickness ≤ 25 mm	Weld quality	B	MPI / LPI	100 % MPI in Total Joints length	10% in Total Weld Joints Length	AWS D1.1 / ASME SEC-V	P	RW
2.10	Heat Treatment (SR). For Thickness > 50mm	Time & Temp	B	Review of HR Charts & Reports.	100%	AWS D1.1 ≤		P	V

Q.P NO:- QA/BI/QP/ACC/STEEL STRUCTURE  
Rev. 00 , Date:-07.12.2021

Drg. :- As per PO  
Spec:- HXE/SK/2283/ , Rev: 00

Annexure-1

Certification signature by  Manoj Kumar  
<samitmadhukar@ntpc.co.in>  
Date: 2018.04.04  
14:46:32 IST  
Reason: CAT IV

Supplier will submit the applicable WPS/PQR & WQR (already established & approved by BHEL) for final approval before welding.

Random Witness 10 % in Total Weld Joints will offered to BHEL/AIA.

Random witness 10 % in Total weld joints length offered to BHEL/AIA.

SR charts shall be submitted for Review & verification.

Digitally signed by Manindra Kumar  
Date: 2021.12.08 11:03:35 +05'30'

Prepared by

Mfg. Name & Address:-

## MANUFACTURING QUALITY PLAN

PROJECT: North Karanpura 600 MW.  
 PACKAGE: TC-ACC.  
 CONTRACT NO: 4410-001-110.  
 CONTRACTOR: BHEL Hardwar.

Qp no:- QA/BI/QP/ACC/STEEL STRUCTURE  
 Rev: 00 , Date:-07.12.2021

Drig. :- As per PO  
 Spec:- HXE/SK/2283/ ,Rev: 00

SL. NO.	COMPONENT AND OPERATION	CHARACTERISTICS	Class	TYPE OF CHECK	Quantum		REFERENCE DOCUMENTS	ACCEPTANCE NORMS	TYPE OF RECORD	Agency			REMARKS
					Mfg.	ALA / BHEL				Documents	Mfg.	ALA / BHEL	
3.0	<b>FINAL INSPECTION :</b>												
	<b>Individual Inspection:-</b>												
3.1	Welded Structures, Columns, Beams & Bracings	Size & Overall Dimension, Length Orientations	B	Visual, Verification & Measurement.	100%	10%	Drawing.		Dimensional Report	P	RW / W	V / RW	Build up will be witness W, Rolled will be Verification *NTPC V
3.2	Hand rails/Chequered Plates/Ladders/TSS	Size & Overall Dimension, Length Orientations	B	Visual, Verification & Measurement.	100%	10%	Drawing.		Dimensional Report	P	RW / W	V / RW	Build up will be witness W, Rolled will be Verification *NTPC V
3.3	Trial Assembly	Dimension, Alignment	<b>A</b>	Visual, Verification & Measurement.	10%	10%	As per Drig		Dimensional Report	P	W	W	10 % of main column/unit will assemble at horizontal level with connecting members of one plane, then column will get rotated to connect opposite axis members. One at a Time connecting members will be assembled/disassembled
3.4	Verification of completion.	Dimensions & Orientation	B	Visual & Verification	100%	Random	As per Drawing NDT reports, HT chart extracts and other Reports		R	P	V	R	
3.5	Painting, Preservation & Protection	Finish & Coat thickness	<b>B</b>	Visual & Measurement	100% & Random	—	As per Vendor Drig and NTPC approved Scheme.		--	P	V	R	Vendor scope-Primer Coat 60 Microns & Intermediate Coat 75 Microns. Total DFT=135 Microns
3.6	Identification	W.O.NO, DU NO, Project Details by Stenciling.	C	Visual	100%	Random	Drawing		R	P	V	R	

Note:- 1) Holes of the connecting plate on top of trusses with holes made in mating component of trusses are to be made with same template.

Note:- 2) Vendor to ensure compliance of attached checklist. Applicable clauses shall be endorsed by both i.e. TPIA and respective vendor during inspection activities at vendor works.

As applicable, for Main Column / Unit

Digitally signed by Manindra Kumar  
 Date: 2021.12.08 11:03:53 +05'30

Approved by

Prepared by

(22)

**EPC PACKAGE FOR NORTH KARANPURA SUPER THERMAL POWER PROJECT (3X660 MW)**

Annexure-1

**Amendment to Technical Specification**

Sl. No	REFERENCE		Instead of	Read as	
	Part	SUB-SECTION			PAGE NO.
181.	Technical Specification	Section-VI/ Part-B / Sub-Section D-01	178 of 234	10.04.01	<p>the height of the building is more than 12m, railing ht to be 1.2m</p> <p><b>Mild Steel</b>                      a) Rolled sections shall be of grade designation E250, Quality BR, Semi-killed/ killed conforming to IS 2062. All steel plates shall be of Grade designation E250, Quality BR (fully killed), conforming to IS 2062 and shall pass the impact test value at room temperature. Plates beyond 12mm thickness and up to 40mm thickness shall be vacuum degassed &amp; furnace normalised and shall also be 100% ultrasonically tested as per ASTM – A578 level B-S2.</p>
182.	Technical Specification	Section-VI/ Part-B / Sub-Section D-01	178 of 234	10.04.02	<p>platforms, steel stairs, etc., wherever the height of the building is more than 12m, railing ht to be 1.2m. However in boiler supporting structure height of railing shall be 1000 mm at all elevations.</p> <p><b>Mild Steel</b>                      a) Rolled sections shall be of grade designation E250, Quality A, Semi-killed/ killed conforming to IS 2062. All steel plates shall be of Grade designation E250, Quality BR (fully killed), conforming to IS 2062 and shall pass the impact test value at room temperature. Plates beyond 12mm thickness and up to 40mm thickness shall be normalized rolled. Plates beyond 40mm thickness shall be vacuum degassed &amp; furnace normalised and shall also be 100% ultrasonically tested as per ASTM –A578 level B-S2.</p> <p><b>Medium and High Tensile Steel</b>                      Rolled Sections and plates shall be of grade designation E350 or higher, Quality B0 (Fully killed), conforming to IS 2062. All steel plates beyond 12mm thickness and upto 40mm thickness shall be controlled rolling. Plates beyond 12mm thickness and up to 40mm thickness shall be normalized rolled. Plates beyond 40mm thickness shall be vacuum degassed &amp; furnace normalised and shall also be 100% ultrasonically tested as per ASTM –A578 level B-S2</p>

**CHECK LIST**

Name of item:

Drawing no.:

Name of vendor:

Date and Place of inspection:

Sl. No.	Characteristics / Checks (as applicable)	(Yes/No)		Remarks
		Vendor	TPIA	
1.	Are all dimensions of drawing checked?			
2.	Are technical requirements mentioned in drawing complied?			
3.	Is NDT performed and found OK?			
4.	Is soundness of weld seams (subjected to leakage test at site) ensured? <ul style="list-style-type: none"> <li>• Weld seam of ring with header pipe</li> <li>• Weld seam between tube bundle and tube sheet</li> </ul>			
5.	Is weld edge made as per drawing?			
6.	Are stiffeners / supports provided for maintaining shape of large diameters items?			
7.	Are sizes of different welding as per drawing?			
8.	Is any bulging seen in fan ring (FRP) material?			
9.	Are holes size and their spacing as per drawing?			
10.	Are profiles of segments as per drawing (e.g. coplanar or as per drawing)?			
11.	Is assembly complete as per drawing?			
12.	Is chequered plate bend as per drawing?			
13.	Are items identified?			

*(Handwritten Signature)*  
 21/12/2021  
 (BHEL, HWR)

*(Handwritten Signature)*  
 21/12/2021  
 (AKS)

(Signature of Vendor)

(Signature of TPIA)