

# VOLUME - IA

Technical Conditions of Contract (TCC) for Fireproofing  
works


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FOR

IOCL Paradip-Standby SRU (525TPD) Train  
project

BHARAT HEAVY ELECTRICALS LIMITED

# Technical Conditions of Contract (TCC) for Fireproofing works

 BHEL Maharaja Company	<b>Technical Conditions Of Contract (TCC)</b> <b>PROJECT ENGINEERING &amp; SYSTEMS DIVISION</b> <b>HYDERABAD</b>			Ref No: HY/PE&SD/Projects/TCC/2020-21/ Fireproofing/01			
Rev. No.		00					
<b>COPYRIGHT AND CONFIDENTIAL</b> The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED, It must not be used directly or indirectly in any way detrimental to the interest of the company.		<b>TECHNICAL CONDITIONS OF CONTRACT (TCC)</b>  <b>FOR</b>  <b>FIREPROOFING WORKS</b>  <b>FOR</b>  <b>IOCL PARADIP-STANDBY SRU (525TPD) TRAIN PROJECT</b>					
<b>Revisions:</b> Refer to record of revisions		Prepared By:	Checked By:	Approved By:	Date		
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**Volume IA**  
**Part I**  
**Contract specific details**

# Technical Conditions of Contract (TCC) for Fireproofing works

## Chapter I- Project Information

1.0 Project Details			
1	Customer	:	IOCL, Paradip, Odisha
2	Project Information	:	IOCL Paradip-Standby SRU (525TPD) Train project
3	Location	:	Paradip, Odisha
4	Address Detail	:	IOCL, Paradip, Jagatsinghpur District, Odisha, India
5	Nearest Railway Station	:	Paradip Railway Station
6	Road Approach	:	118KM from Bhubaneswar via Cuttack and NH 53
7	Nearest Air Port	:	Biju Patnaik Airport, Bhubaneswar, Odisha, 125KM
11	Ambient Air Temperature (Average)	:	a) Maximum : 39 <sup>0</sup> C b) Minimum : 16 <sup>0</sup> C
12	Average Relative Humidity	:	71 %
13	Climatic Condition	:	Tropical Climate

**Bidder is advised to visit the project site and appraise himself about the local conditions and infrastructure available in the area for fulfilling their commitments under the contract. BHEL will not admit any claims whatsoever on account of Contractor's non-familiarization of local conditions.**

## Chapter II- Scope of Work

Supply and laying of vermiculite based lightweight cementitious concrete coating and concrete based around structural steel members (viz. beams, columns, bracings etc.), on equipment/ vessel skirts, saddles and supports for fireproofing as per detail specification and standard provided in the contract documents.

Work shall be executed as per the instructions of BHEL site engineer. In case of any dispute, decision of BHEL site engineer shall be final and binding on contractor. For detailed scope of work, please refer chapter 1, part-II of this TCC

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## Chapter III- Facilities in the scope of BHEL/Contractor

S. No.	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
<b>3.1</b>	<b>ESTABLISHMENT</b>			
<b>3.1.1</b>	<b>FOR CONSTRUCTION PURPOSE:</b>			
a	Open space for office (as per availability)		Yes	
b	Open space for storage (as per availability)		Yes	
c	Construction of bidder's office, canteen and storage building including supply of materials and other services		Yes	
d	Bidder's all office equipment, office / store / canteen consumables		Yes	
e	Canteen facilities for the bidder's staff, supervisors and engineers etc.		Yes	
f	Firefighting equipment like buckets, extinguishers etc.		Yes	
g	Fencing of storage area, office, canteen etc. of the bidder		Yes	
<b>3.1.2</b>	<b>FOR LIVING PURPOSES OF THE BIDDER</b>			
a	Open space for labor colony (as per availability)		Yes	
b	Labor Colony with internal roads, sanitation, complying with statutory requirements		Yes	
<b>3.2.0</b>	<b>ELECTRICITY</b>			
<b>3.2.1</b>	Electricity For construction purposes		Yes	Electricity shall be provided by BHEL/IOCL at one point on chargeable basis. Further distribution shall be done by contractor.
3.2.2	Electricity for the office, stores, canteen etc. of the bidder		Yes	
<b>3.2.3</b>	Electricity for living accommodation of the bidder's staff, engineers, supervisors etc.		Yes	
<b>3.3.0</b>	<b>WATER SUPPLY</b>			

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S. No.	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.3.1	For construction purposes		Yes	Water shall be provided by IOCL at one point on chargeable basis. Further distribution shall be done by contractor.
3.3.2	<u>Water supply for bidder's office, stores, canteen etc.</u>		Yes	
3.3.3	<u>Water supply for Living Purpose</u>		Yes	
3.4.0	<b>LIGHTING</b>			
a	For construction work (supply of all the necessary materials) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	
b	For construction work (execution of the lighting work/ arrangements) 1. At office/storage area 2. At the preassembly area At the construction site /area		Yes	
c	Providing the necessary consumables like bulbs, switches, etc. during the course of project work		Yes	
d	Lighting for the living purposes of the bidder at the colony / quarters		Yes	
3.5.0	<b>COMMUNICATION FACILITIES FOR SITE OPERATIONS OF THE BIDDER</b>			
a	Téléphone, fax, internet, intranet, e-mail etc.		Yes	
3.6.0	<b>COMPRESSED AIR wherever required for the work</b>		Yes	
3.7.0	<b>Demobilization of all the above facilities</b>		Yes	
3.8.0	<b>TRANSPORTATION</b>			
a	For site personnel of the bidder		Yes	
b	For bidder's equipment and consumables (T&P, Consumables etc.)		Yes	



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Sl. No	Description  <b>PART II</b>  <b>3.9.0 CONSTRUCTION FACILITIES</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
<b>3.9.1</b>	<b>Engineering works for construction:</b>			
a	Providing the construction drawings for all the works covered under this scope	Yes		Drawing schedule shall be finalized at the time of kick off meeting
b	Drawings for construction methods			NA
c	As-built drawings – where ever deviations observed and executed and also based on the decisions taken at site- example – routing of small bore pipes		Yes	In consultation with BHEL
d	Shipping lists etc. for reference and planning the activities		Yes	In consultation with BHEL
e	Preparation of construction (Concreting B/W, etc.) schedules and other input requirements		Yes	In consultation with BHEL
f	Review of performance and revision of site construction schedules in order to achieve the end dates and other commitments	Yes	Yes	In consultation with BHEL
g	Weekly construction schedules based on S. No. e. hard copy to Construction manager, by email to HO.		Yes	In consultation with BHEL
h	Daily construction / work plan based on S. No. g. hard copy to Construction manager, by email to HO.		Yes	In consultation with BHEL
i	Periodic visit of senior official of the bidder to site to review the progress so that works are completed as per schedule. It is suggested this review by the senior official of the bidder should be done once in every two Weeks.		Yes	
j	Arranging the materials required for Work		Yes	
k	Coordination for inspection & checking and getting clearance from customer		Yes	

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Sl. No	Description  <b>PART II</b>  <b>3.9.0 CONSTRUCTION FACILITIES</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
1	Preparation of formats for completion of activities		Yes	
3.10	<b>Work Permits, gate pass etc. from customer for manpower, machinery and material</b>		Yes	
3.11	Ambulance Services for contractor's site staff		Yes	

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## Chapter IV- Tools & plants to be deployed by Contractor

### **LIST OF TOOLS AND PLANT:**

The following tools and equipment but not limited to, are required for the efficient execution of the civil works. The contractor shall make them available for construction purposes, including all consumables likely to be used at his own cost at the time of mobilization.

S.No.	Description	Quantity	Remarks
1.	Concrete batching plant (Stationary/Movable)	2 nos.	Need based
2.	Needle Vibrator ( Needle type 40mm )	4 nos.	Need based
3.	Needle Vibrator ( Needle type 25mm )	2 nos.	Need based
3.	Surface Vibrator	1 no.	Need based
4.	Concrete Pump	1 no.	Need based
5.	Dewatering Pump	2 nos.	Need based
6.	Earth Compactor	2 nos.	Need based
7.	Reinforcement steel cutting & Bending machine	2 nos.	Need based
8.	Welding Machine	2 nos.	Need based
9.	Grinding Machine	4 nos.	Need based
10.	Excavator	1 no.	Need based
11.	Theodolite with staff	1 no.	Need based
12.	Dumpy level with staff	1 no.	Need based
13.	Compression testing machine ( for concrete cubes )		Need based
14.	Cube mould (15cm x 15cm x 15cm)	6 nos.	Need based
15.	Sieve analysis sieve sets for coarse & fine aggregates	1 set	Need based
14.	Jar/Beaker for Bulk density test of sand	1 no.	Need based

BHEL will not provide any tool, plants, facilities or any testing facility/apparatus for the work. It will be contractor's responsibility to arrange all required tools, plants and other testing apparatus, etc. at their own cost. The prices quoted & finalized are inclusive of the charges towards providing such T&P. No extra payment will be entertained because of this.

However, subject to availability, BHEL may provide few T&P to the contractor for expediting and in larger interest of the project. In case any such facility is provided to the contractor, BHEL will make necessary recovery in the running account/final bills towards the hire charges. A departmental charge @ 5% will also be affected such cases. The decision of BHEL on the hire charges will be final and binding on contractor.

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## Chapter V- Time Schedule

### 5.1 TIME SCHEDULE

#### 5.1.1

The entire work of Fireproofing works as detailed elsewhere in the Tender Specification shall be completed within **Two (2) Month** from the date of commencement of work at site.

#### 5.1.2

During the total period of contract, the contractor has to carry out the activities in a phased manner as required by BHEL and the program of milestone events.

#### 5.1.3

The work shall be commenced on the mutually agreed date between the bidder and BHEL engineer. The decision of BHEL in this regard shall be final and binding on the contractor. The scope of work under this contract is deemed to be completed only when so certified by the site Engineer.

### 5.2 COMMENCEMENT OF CONTRACT PERIOD

The date of commencement of contract period shall be the mutually agreed date between the bidder and BHEL engineer to start the work. In case of discrepancy, the decision of BHEL engineer will be final.

### 5.3 MOBILISATION

#### 5.3.1

The activities for this work shall be started as per directions of Construction manager of BHEL.

#### 5.3.2

The contractor should mobilize manpower in order to complete the work in **Two (2) Month**.

#### 5.3.3

Requisite Material, men and machinery should be arranged in order to complete the project within stipulated time.

#### 5.3.4

The contractor has to augment his resources in such a manner that following major milestones of the project are achieved on specified schedules:

In order to meet above schedule in general, and any other intermediate targets set, to meet project, contractor shall arrange & augment all necessary resources from time to time on the instructions of BHEL.

### 5.4 CONTRACT PERIOD

For the purpose of contract, the period shall be taken as **Two (2) Month**. Completion of the work shall be as per BHEL Bar Charts revised from time to time. In order to expedite the work, the contractor has to deploy manpower as per site requirement without any extra cost to BHEL.

### 5.5 GUARANTEE PERIOD

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The guarantee period of twelve months shall commence from the date of completion of all works as certified by the BHEL site engineer.

## **5.6 PROTECTION OF WORK**

The contractor shall have total responsibility for protecting his works until it is taken over by the Employer. No claim will be entertained by the Employer or the representative of the Employer for any damage or loss to the Contractor's works and the Contractor shall be responsible for complete restoration of the damaged works to original conditions to comply with the specification and drawings. Should any such damage to the Contractor's Works occur because of other party not being under his supervision or control, the Contractor shall make his claim directly with the party concerned.

If disagreement, conflict, or dispute develops between the Contractor and the other party or parties concerned regarding the responsibility for damage to the Contractor's Works the same shall be rectified. The Contractor shall not cause any delay in the repair of such damaged Works because of any delay in the resolution of such disputes. The Contractor shall proceed to repair the Work immediately and no cause thereof will be assigned pending resolution of such disputes.

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## Chapter VI- Statutory Regulation

**6.1 GST:** For All types of works excepting works covered under sl no 6.2

**6.2 BUILDING & OTHER CONSTRUCTION WORKERS (REGULATION OF EMPLOYMENT AND CONDITIONS OF SERVICE) ACT, 1996 (BOCW Act) AND RULES OF 1998 READ WITH BUILDING & OTHER CONSTRUCTION WORKERS CESS Act, 1996 & CESS RULES, 1998 and**

**INTER-STATE MIGRANT WORKMEN ACT, 1979 (IN CASE BIDDER ENGAGE MANPOWER FROM OTHER STATE)**

In case any portion of work involves execution through building or construction workers and/or inter-state migrant workers, then compliance to the above titled Acts as applicable shall be ensured by the contractor and contractor shall obtain license and deposit the cess under the Act. In the circumstances, it may be ensured as under:-

It shall be the sole responsibility of the contractor in the capacity of employer to forthwith (within a period of 15 days from the award of work) apply for a license to the Competent Authority under the BOCW Act and/or ISMW Act as applicable and obtain proper certificate thereof by specifying the scope of its work. It shall also be responsibility of the contractor to furnish a copy of such certificate of license / permission to BHEL within a period of one month from the date of award of contract.

It shall be the sole responsibility of the contractor as employer to ensure compliance of all the statutory obligations under these acts and rules including that of payment / deposit of cess as per the applicability under above referred Acts within a period of one month from the receipt of payment.

It shall be the responsibility of the sub-contractor to furnish the receipts / challans towards deposit of the cess together with the number, name and other details of beneficiaries (building/Inter-state Migrant workmen) engaged by the sub-contractor during the preceding month.

It shall be the absolute responsibility of the sub-contractor to make payment of all statutory payments & compensations to its workers including that is provided under the Workmen's Compensation Act, 1923.

## **Chapter VI- Field quality control plan**

1. Work shall be executed as per approved field quality control plan (FQCP). Indicative quality control plan of IOCL is attached as Annexure-IV. Contractor shall prepare, submit the field quality control plan in line with IOCL QCP.  
Submitted FQCP shall be reviewed and approved by BHEL/IOCL/ TECHNIP.

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## **Chapter VIII: HSE (Health, Safety, Environment) and PPE (personal Protective Equipment) Guidelines**

1. Contractor shall follow all the HSE guidelines as mentioned chapter IX off SCC and IOCL (Annexure-I).
2. Contractor shall deploy one (1) number of qualified and experienced safety officer for the entire period of contract.
3. Contractor shall submit the biodata of safety officer to BHEL/Customer (IOCL), for approval.
4. In case of any dispute/ contradiction, IOCL HSE rules and guidelines shall prevail.



**Volume IA**  
**Part II**  
**Technical Specification**

## Chapter-I: SCOPE OF WORK

- 1.0** Supply and laying of vermiculite based lightweight cementitious concrete coating and concrete based around structural steel members (viz. beams, columns, bracings etc.), on equipment/ vessel skirts, saddles and supports for fireproofing as per detail specification and standard provided in the contract documents.
- 1.1** Supply and laying of vermiculite based lightweight cementitious concrete coating corresponding to 2 hours fire rating as per respective UL design number under UL-1709 (XR category) subject to a minimum of 30mm thickness as per Type-II of Standard Specification 080557C-000-JSS-1800-003 as fire proofing material of required thickness around structural steel members (viz. beams, columns, bracings etc.) for the required fire protection from reaching temperature 538 degree C; cleaning the steel surfaces and applying primer compatible to vermiculite material if required as per manufacturer specifications, supplying, placing and fixing in position cover plates conforming to IS:2062 and stiffeners for members exceeding 600 mm depth, supply and welding of MS nuts on angle and box sections and cover blocks for other sections, supplying, placing and fixing in position galvanized expanded metal sheet with mesh size 4.5 mm x 13.5 mm conforming to IS:412 except on angle and box sections, hot dipped galvanized welded wire fabric reinforcement 2 mm dia 50 mm x 50 mm mesh conforming to IS:1566, and tying the reinforcement to the cover blocks with galvanized 16 SWG tying wire, including cutting, straightening, cleaning, bending, applying primer on MS nuts and affected surfaces, curing or providing a layer of approved membrane of curing compound, patching of damaged portion wherever required to achieve a smooth and even surface, providing chamfering at corners, supplying and laying of non-bituminous polysulfide or silicon rubber mastic sealant at terminating edges/ metal joints, painting the surfaces with sealer coat of epoxy polyamide as base and finish coats of coating system No.1 of NORSOK Standard M-501, including the cost of all labour, materials, specified tests, shuttering, staging, scaffolding, working platforms, approaches, etc. for all shapes and positions at all heights above pavement etc. all complete as per specifications 080557C-000-LD-1790-001, 080557C-000-JSS-1800-003 and directions of Engineer-in-Charge. (ALL MATERIALS SHALL BE SUPPLIED BY THE CONTRACTOR).
- 1.2** Supply and laying of vermiculite based lightweight cementitious concrete coating corresponding to 3 hours fire rating as per respective UL design number under UL-1709 (XR category) subject to a minimum of 30mm thickness as per Type-III of Standard Specification 080557C-000-JSS-1800-003 as fire proofing material of required thickness on equipment/ vessel skirts, saddles and supports for the required fire protection from reaching temperature 427 degree C; cleaning the steel surfaces and applying primer compatible to vermiculite material if required as per manufacturer specifications, supplying, placing and fixing in position cover

plates conforming to IS:2062, hot dipped galvanized welded wire fabric reinforcement of 2 mm dia 50 mm x 50 mm mesh conforming to IS:1566 and tying the reinforcement with the pre welded nuts by galvanized 16 SWG tying wire, including straightening, cutting, bending of the reinforcement, including supplying and welding of additional MS nuts if directed by the Engineer-in-charge, applying primer wherever required, curing or providing a layer of approved membrane of curing compound, patching of damaged portion wherever required to achieve a smooth and even surface, providing chamfering at corners, supplying and laying of non-bituminous polysulfide or silicon rubber mastic sealant at terminating edges/ metal joints, painting the surfaces with sealer coat of epoxy polyamide as base and finish coats of coating system No.1 of NORSOK Standard M-501, including the cost of all labour, materials, specified tests, shuttering, staging, scaffolding, working platforms, approaches, etc. for all shapes and positions. all complete as per specifications 080557C-000-LD-1790-001, 080557C-000-JSS-1800-003 and directions of Engineer-in-Charge. (ALL MATERIALS SHALL BE SUPPLIED BY THE CONTRACTOR).

- 1.3 Supply and laying of concrete of grade M30 as per Type-I of Standard Specification 080557C-000-JSS-1800-003 as fire proofing material with 10 mm and down size graded coarse and fine aggregates including admixture around structural steel members (viz. beams, columns, bracings etc.) minimum thickness 65mm all complete; cleaning the steel surfaces, supplying, placing and fixing in position cover plates conforming to IS:2062 and stiffeners for members exceeding 600 mm depth, supply and welding of MS nuts on angle and box sections and cover blocks for other sections, supplying, placing and fixing in position galvanized expanded metal sheet with mesh size 4.5 mm x 13.5 mm conforming to IS:412 except on angle and box sections, hot dipped galvanized welded wire fabric reinforcement 2 mm dia 50 mm x 50 mm mesh conforming to IS:1566, and tying the reinforcement to the cover blocks with galvanized 16 SWG tying wire, including cutting, straightening, cleaning, bending, vibrating, tamping, curing or providing a layer of approved membrane of curing compound, rendering with cement sand mortar (1:3) wherever required to achieve a smooth and even surface, providing L50x50x6 at corners or as specified in the drawing, applying primer on MS nuts, angles and affected surfaces, supplying and laying of non-bituminous polysulfide or silicon rubber mastic sealant at terminating edges/ metal joints, painting the surfaces with sealer coat of epoxy polyamide as base and finish coats of coating system No.1 of NORSOK Standard M-501, including the cost of all labour, materials, specified tests, shuttering, staging, scaffolding, working platforms, approaches, etc. for all shapes and positions at all heights upto & including 10 m above pavement etc. all complete as per specifications 080557C-000-LD-1790-001, 080557C-000-JSS-1800-003 and directions of Engineer-in-Charge. (ALL MATERIALS INCLUDING CEMENT TO BE SUPPLIED BY THE CONTRACTOR).

## 2.0 THE WORK WILL INVOLVE

All civil and structural works connected with the above mentioned fireproofing work, like approach, working platform, scaffolding & form work, embedment, primer, painting, waterproofing, sealing etc.

## 3.0 GENERAL

- 1) The drawings enclosed with this tender are intended to give the tenderer a general idea of the type and extent of work involved. The drawings are as such only indicative and not to be considered as the exact construction drawings.

**Further this is to be noted that the drawings and the documents furnished along with this specification are the sole property of BHEL. It must not be used directly or indirectly in any way detrimental to the interest of the company.**

- 2) The scope of work will also include such other related works although they may not be specifically mentioned in the above paragraph and all such incidental items not specified but reasonably imply and necessary for completion of the job as a whole all as desired and as directed by the engineer.
- 3) The detail scope of work covered above is not a comprehensive list of items of work involved. The detail scope of work may vary considerably depending on the actual construction requirements.

## 4.0 ALSO INCLUDED IN THE SCOPE

Unless otherwise specified, the work to be provided by the contractor for the items mentioned in the “Schedule of items” shall include but not be limited to the following.

- 1) Furnishing all labour, materials, supervision, construction plans, equipment, supplies, transport, to and from the site, fuel, electricity, compressed air, water, transit and storage insurance and all other incidental items and temporary works not shown on specified but reasonably implied or necessary for the proper completion, maintenance and handling over the works, except in accordance with the stipulations laid down in the contract documents and additional stipulations as may be provide by the engineer during the course of works.

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- 2) Furnishing samples of all materials required by the engineers for testing/inspection and approval for use in the works. The samples may be retained by the engineer for final incorporation in the works.
- 3) Furnishing test reports for the products used or intended to be used, if called for the specifications or if so desired by the engineer.
- 4) Giving all notices, paying all fees, taxes etc., in accordance with the general conditions of contract, that are required for all works including temporary works.
- 5) Arranging manufacturer's supervision for items of work done as per manufacturer's specifications when so specified.
- 6) Providing all incidental items not shown or specified but reasonably implied or necessary for the successful completion of the work in accordance with contract.

### **5.0 WORK BY OTHERS**

No work under the specification will be provided by any agency other than the contractor unless specifically mentioned elsewhere in the contract.

## Chapter-II: TECHNICAL SPECIFICATIONS & DRAWINGS FOR INFORMATION

### TECHNICAL SPECIFICATIONS & DRAWINGS FOR INFORMATION.

**NOTE:** Contractor has to make himself well conversant with the  
Customer specification and drawings.

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## **LIST OF TECHNICAL SPECIFICATIONS & DRAWINGS**

S.NO.	DRAWING No.	TITLE	REV.NO.
1	080557C-088-JSD-1700-001	DESIGN BASIS FOR CIVIL, STRUCTURAL ARCHITECTURAL AND U/G NETWORK	C
2	080557C-000-JSS-1800-003	SPECIFICATION FOR FIRE PROOFING OF STEEL STRUCTURES	A
3	080557C-000-LD-1790-001	CONSTRUCTION STANDARD FOR CONCRETE WORKS	A
4	080557C-26899053-CIV-A2001-001	FIREPROOFING LAYOUT	R4
5	080557C-000-JSD-2300-001	SPECIFICATION FOR PAINTING	C
6	080557C-26899053-CIV-A2011-001	GENERAL NOTES FOR PCC & RCC WORKS	R1
7	080557C-000-JSS-1700-005	SPECIFICATION FOR MATERIALS OF CIVIL & STRUCTURAL WORKS	B
8	080557C-000-PP-807	JOB SPECIFICATION FOR MATERIAL RECEIVING, INSPECTION, HANDLING, STORAGE & PRESERVATION	0
9	080557C-26899053-PIP-A0201-001	PLOT PLAN (TENDER PURPOSE ONLY)	R1
10	080557C-26899053-CIV-A2007-001	PIPE RACK-01 GA DWG- PLAN	R3
11	080557C-26899053-CIV-A2007-002	PIPE RACK-01 GA DWG- PLAN & SECTION	R3
12	080557C-26899053-CIV-A2007-004	PIPE RACK-01 GA DWG- LONG SECTION	R3
13	080557C-26899053-CIV-A2007-005	PIPE RACK-01 GA DWG- LONG SECTION	R4
14	080557C-26899053-CIV-A2007-006	PIPE RACK-01 GA DWG- CROSS SECTION	R6
15	080557C-26899053-CIV-A2007-011	PIPE RACK-02 GA DWG- PLAN	R2
16	080557C-26899053-CIV-A2007-013	PIPE RACK-02 GA DWG- CROSS SECTION	R1
17	080557C-26899053-CIV-A2007-014	PIPE RACK-02 GA DWG- LONG SECTION	R2
18	080557C-26899053-CIV-A2007-015	PIPE RACK-02 GA DWG- CROSS SECTION	R1
19	080557C-26899053-CIV-A2007-022	TS01 - ELEVATION	R1

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20	080557C-26899053-CIV-A2007-023	TS01 - PLAN	R2
21	080557C-26899053-CIV-A2007-024	TS01 - ELEVATION	R3
22	080557C-26899053-CIV-A2007-025	TS01 - PLAN	R2
23	080557C-26899053-CIV-A2007-026	TS01 - ELEVATION	R2

**Note:** Please refer annexure-II for all the specifications mentioned above.



## **Chapter-III: PREAMBLE FOR THE SCHEDULE OF QUANTITIES**

### **PREAMBLE TO THE SCHEDULE OF QTS. (SOQ)**

- 1) Details of the items in this Schedule shall be read in conjunction with the corresponding TechnipFMC/IOCL specifications, drawings and other documents and shall have precedence over any contrary statement mentioned anywhere in this document.
- 2) The work shall be carried out as per construction drawings, specifications, the description of the items in this schedule and/or Engineer's instructions. Drawings enclosed with these documents are only indicative giving some idea of the type of work involved. The layout, sizes and details of the building, structures and foundations shown in tender drawings may vary at a large extent during actual construction. Final drawings will be issued progressively during the execution of the work.
- 3) Items of work provided in this schedule but not covered in the specifications shall be executed strictly as per instructions of the Engineer.
- 4) Unless specifically mentioned otherwise in the contract, the bidder shall quote his rates for the finished items and shall provide for the complete cost towards fuel, tools, tackle, equipment, constructional plant, temporary works, labour materials, levies, taxes, transport, layout, repairs, rectification, maintenance till handing over, supervision, shops, establishments, services, temporary roads, revenue expenses, contingencies, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the works according to the contract.
- 5) The rate quoted shall be inclusive of cleaning the site of any vegetations, dressing and leveling etc., required for commencement of site activities. No separate payment will be made towards the same.
- 6) Rates shall be quoted both in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellation should be counter signed by the bidder. In case of illegibility, the interpretation of the engineer shall be final. All entries shall be in English language.
- 7) Engineer's decision shall be final and binding on the contractors regarding clarification of items in this schedule with respect to the other section of the contract.
- 8) In case of any discrepancy between item descriptions, relevant drawing and/or specification clarification shall be sought at tender stage itself. Otherwise it shall be assumed that the bidder has quoted for the more stringent requirement.

## **HIERARCHY**

In case of any conflict/deviations amongst various documents, the order of precedence shall be as follows

- Statutory Regulations
- TechnipFMC/ IOCL specification
- EIL specification
- Items in Schedule of quantities
- IS/BS standards