



CPO (REFINERIES)

**TURNAROUND JOBS IN PROCESS UNITS IN CDU4 COMPLEX
AT BPCL- MUMBAI REFINERY.**

ADDENDUM NO:1 TO REQUEST FOR QUOTATION

CRFQ NO. 1000329115 -1

(E-TENDER NO. 57247)

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E-Tender Sys No: 57247

1.0 INTRODUCTION

Addendum No: 1 is issued against the tender for “TURNAROUND JOBS IN PROCESS UNITS IN CDU4 COMPLEX AT BPCL MUMBAI REFINERY DURING JUNE-JULY 2019”. This Addendum shall form the part of tender document for Package-1, CDU4 COMPLEX E-Tender No: 57247 and shall be signed and submitted along with the techno-commercial bid.

The description of the Addendum is given below;

Package 1: CDU4 COMPLEX

TECHNICAL		
Section No/Page No. of the document in the tender	Sub heading Ref	Addendum issued
VOLUME I SECTION 3, Page 12 & VOLUME VI APPENDIX G, Page 4	4.2 CONSTRUCTION WATER & ANNEXURE 1- OWNER MATERIAL SUPPLY	Construction water shall be arranged by contractor. DM water wherever required shall be provided by BPCL
VOLUME VI APPENDIX E, Page 14 & 15	ANNEXURE-12 - MINIMUM REQUIREMENT OF MOBILIZATION OF CRITICAL RESOURCES	Requirements in this annexure are revised. Updated Appendix E is issued along with addendum.
VOLUME II ATTACHMENT 1 GENERAL REQUIREMENTS, Page 39	UNDERTAKING TO BE SIGNED BY THE BIDDER REGARDING MOBILIZATION AND HOUSEKEEPING, Violation Sr. No. 8,	Penalty shall be Rs 1000/- per instance per day
VOLUME III SECTION A COLUMN	Sr. No. 6, 144-C-106	Provide air conditioning unit
VOLUME II ATTACHMENT 4 HEAT EXCHANGERS & AFC, Page 3	Clause No. 5. CLEANING OF EXCHANGER TUBE BUNDLE, COMPONENTS & FIN FAN COOLER TUBES	For cleaning of tube bundle Robotic hydrojetting/ Hydro kinetic machine to be deployed.

VOLUME II ATTACHMENT 1 GENERAL REQUIREMENTS, Page 16	Clause No. 1.11.3 SCAFFOLDING & PLATFORMS	Requirement of galvanized pipe and clamps for scaffolding are withdrawn from this package
VOLUME II ATTACHMENT 1 GENERAL REQUIREMENTS, Page 4	Clause No. 1.6.5 WORKING HOURS	Work permits shall be issued 7 am / 7 pm. Supervisors to be mobilized for permit receipt accordingly. BPCL expects workmen should reach site by 07:30 am / 07:30 pm so that work can be started sharp 07:45 am/pm.
VOLUME I SECTION 3, Page 44	45.0 LIQUIDATED DAMAGES	Following condition is added to the clause – “Hindrance due to monsoon shall not be considered in the reasons for delay”.
VOLUME III SECTION S ADMIN SERVICES, Page 1	A) SUPPLY OF PORTA CABINS DURING TURNAROUND 2019	Requirement of 40' porta cabin is modified as below - 40' x 10' x 8'6" (all dimension in feet) with suitable lifting arrangements. Total quantity 2 nos.
VOLUME II ATTACHMENT 1 GENERAL REQUIREMENTS, Page 61	UNDERTAKING TO BE SIGNED BY THE BIDDER REGARDING SAFETY, Sr. No. 1,	Helmet colors are standardized by BPCL corporate office. Specification is attached along with addendum. Same to be followed during turnaround.

All other terms and conditions of the tender shall remain unaltered.

APPENDIX E

CONTRACTOR RESOURCES

GENERAL NOTE

In this Appendix, CONTRACTOR shall provide all details as required by the Annexure. The information contained in these Annexures shall be the basis on which OWNER will evaluate CONTRACTOR technical competence and ability to carry out the CONTRACT.

Submission of all specified details as sought under these Annexures is mandatory and any Bidder not complying with this requirement (i.e. submissions with "to be advised later", "to be submitted on award" etc.) may be rejected.

The Annexures shall form a part of the APPENDIX E - CONTRACTOR RESOURCES and these shall be based upon those submitted with CONTRACTOR'S Tender.

CONTRACTOR shall furnish the following information as mentioned below in the format as per Annexure appended below:

- Detailed manpower deployment chart (schedule) for both senior and non-senior staff
- Also contractor shall submit following details in the offer:
 1. Resource deployment plan indicating details of manpower (staff as well as for labours of contractor as well as for subcontractor). CONTRACTOR shall submit detailed manpower deployment chart (schedule) for both senior as well as non senior staff.
 2. Plan for deployment of machinery (e.g. All types of cranes / hydra / trailer / forklifts / torquing tools / hydro blasting machine / etc.) Contractor shall indicate all other construction equipments required but not mentioned here.) And other tools / tackles clearly indicating usage for the equipments for which these have been identified.
 3. Contractor shall indicate clearly the key personnel list for following disciplines along with CV's. OWNER shall review this list and give approval for the same. If OWNER finds anybody as unsuitable, then CONTRACTOR shall identify alternate person for the same:

- TURN AROUND MANAGER
- TURN AROUND COORDINATOR
- PLANNING MANAGER
- QUALITY CONTROL MANAGER
- LOGISTICS MANAGER
- SAFETY MANAGER

The following Annexures are appended herewith.

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| Annexure 4 | - | SUPPLIERS |
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ANNEXURE 1 - CONTRACTOR PERSONNEL

A) CONTRACTOR REPRESENTATIVE

None of CONTRACTOR PERSONNEL listed here shall be removed or relocated from the positions indicated or replaced without the prior written approval of OWNER. Personnel removed shall be immediately replaced with new personnel who, in the sole opinion of OWNER are of, at least, an equivalent standard as the personnel removed.

CONTRACTOR REPRESENTATIVE shall be

Name :

Position :

CONTRACTOR REPRESENTATIVE nominated deputy (ies) shall be a _____ Engineer who will be in permanent pay roll of CONTRACTOR, for at least last three years, with a minimum of ten (10) years relevant experience.

Name :

Position :

Address :

Telex No :

Telephone :

The above nominated deputy (ies) cannot be changed during execution of the CONTRACT.

The above nominated deputy(ies) is/are authorised to act on behalf of CONTRACTOR REPRESENTATIVE on the following matters under the CONTRACT:-

(a)

(b)

(c)

B) CONTRACTOR SAFETY ENGINEER

The person responsible for safety related matters shall be

Name :

Nationality :

Qualifications ...

C) CONTRACTOR PLANING ENGINEER

The person responsible for safety related matters shall be

Name :

Nationality :

Qualifications ...

D) CONTRACTOR LOGISTIC ENGINEER

The person responsible for safety related matters shall be

Name :

Nationality :

Qualifications ...

ANNEXURE 1 - CONTRACTOR PERSONNEL (CONT'D)

C) CONTRACTOR QA/QC REPRESENTATIVE

Name :

Nationality :

Qualification :

D) CONTRACTOR Key Personnel

This Annexure also includes CV's for all those persons of key positions required to be filled under the CONTRACT.

All CONTRACTOR PERSONNEL must have the prior approval of OWNER before being engaged in the WORK.

The period the personnel have been employed by CONTRACTOR shall be given.

This Annexure should include details of qualification, experience and C.V. of the proposed Project Manager.

Specific mention shall be made in this Annexure of CONTRACTOR PERSONNEL who shall be responsible for safety related matters.

ANNEXURE2 - FACILITIES. PLANT AND EQUIPMENT

CONTRACTOR states below the details of its resources and facilities intended to be utilised for this CONTRACT. CONTRACTOR design office, design facilities, expediting and procurement agencies, fabrication yard (location and facilities) etc. are listed.

CONTRACTOR states below the details of the main items of constructional plant and equipment, which it proposes to use for this CONTRACT. Details of all equipments etc. are specified. This list is the minimum that CONTRACTOR will be required to provide on WORKSITE. CONTRACTOR states whether the tool or equipment is already in CONTRACTOR ownership or will be purchased or hired. Details of any special tools should be highlighted.

Description	Capacity and present Whereabouts	Manufacture and year of manufacture	No. of Units
The provision of this information shall not relieve CONTRACTOR from providing such information as OWNER may require in accordance with the CONTRACT more information of the special equipment and tools CONTRACTOR proposes to supply or use, neither shall it in any way relieve CONTRACTOR of any of its obligations to carry out, and, complete the WORK in accordance with the CONTRACT.			

ANNEXURE3 - SUBCONTRACTORS

CONTRACTOR shall furnish in following format, the names and addresses of all SUBCONTRACTORS from whom it proposes to obtain services.

CONTRACTOR is not permitted to change any SUBCONTRACTOR named in this list without first obtaining OWNER written approval

Full technical submissions are required for all services rendered under the CONTRACT as required by the General Conditions of Contract & special conditions of contract and the Specifications.

EQUIPMENT	ACTIVITY	SUB- CONTRACTOR / PRINCIPLE CONTRACTOR	REMAKRS
HEATERS			
	REFRACTORY		
	MECHANICAL JOBS		
	MECHANICAL DECOCKING		
	ROPE ACESS TECHNOLOGY		
	CERAMIC FIBER INSULATION WORK		
BOILERS			
	MECHANICAL JOBS		
COLUMNS			
	MECHANICAL JOBS		
	COLUMN INSULATION		
	VENTILLATION SERVICES		
EXCHANGERS			
	EXCHANGER JOBS		
	BUNDLE PULLERS		
	HYDROJETTING		
	RETUBING		
	SUPPLY OF CRANE		
	FOAM CLEANING OF AFC		
	INSITU MACHINING		
VESSELS	MECHANICAL JOBS		
RELIEF VALVES / RUPTURE DISC	MECHANICAL JOBS		

EJECTORS	MECHANICAL JOBS		
CW SYSTEM			
	MECHANICAL JOBS		
	CEMENT LINING		
INSTRUMENT			
	INSTRUEMNT SERVICES		
PAINTING			
	SUPPLY OF PAINT		
	APPLICATOR		
	SHOTBLASTING		
INSULATION			
	REMOVAL AND APPLICATION		
SCAFFOLDING			
GLAND PACKING INSTALLATION			
PIPING MODIFICATION / PIPING JOB			
VALVE RECONDITIONING			
FRP LINING			

ANNEXURE4 - SUPPLIERS

CONTRACTOR states below the names and addresses of all suppliers from where it proposes to procure goods.

CONTRACTOR is not permitted to change any supplier named in this list without first obtaining OWNER written authority.

Full technical submissions are required for all goods procured under the CONTRACT as required by the General Conditions of Contract and the Specifications.

Supplier

Goods to be supplied

ANNEXURE 5 - CONTRACTOR COMPANY ORGANISATION CHART

CONTRACTOR inserts a copy of its organization chart which clearly shows the Company structure with respect to Subsidiaries and Joint Venture Partners, if applicable. The organigram indicates positions of Company Directors, Managers, Partners, etc.

ANNEXURE 6 – CONTRACTOR'S SITE ORGANISATION CHART

CONTRACTOR provides the proposed organisation chart for this CONTRACT (including key SUBCONTRACTOR personnel, where applicable, and the person responsible for QA/QC, safety, execution etc.). The C.V's of all the personnel identified under this Annexure shall be submitted under Annexure 1.

ANNEXURE 7 - QA/QC PROCEDURES

CONTRACTOR Quality Assurance and Control System dedicated for this CONTRACT shall confirm to OWNER Quality System Requirements.

CONTRACTOR shall develop "Shutdown Quality Plan" following the guidelines set out in above document to implement the activities relevant to the Scope of Work; The Quality plan should be accompanied by a complete package of supporting documentation.

ANNEXURE-12 - MINIMUM REQUIREMENT OF MOBILIZATION OF CRITICAL RESOURCES

BPCL requires that the contractor to mobilize at least the following resources. Contractor to note that the following numbers are minimum requirements to be mobilized but not limited to it.

SL. NO.	ITEM DESCRIPTION	UNITS	QTY
1	CRANE (300 MT)	300 MT	1
2	CRANE (150 MT)	150 MT	2
3	CRANE (75 MT)	75 MT	1
4	FARHANA	10 MT	3
5	LOW BED TRAILERS	20 FEET	3
6	LOW BED TRAILERS	40 FEET	3
7	FORK LIFT	5 MT	2
8	SR(STRESS RELEIVING) EQUIPMENT	UNITS	3
9	OIL FILTERING	UNITS	4
10	ROBOTIC HYDROJETTING / HYDRO KINETIC MACHINE	UNITS	2
11	HYDROJETTING M/C	20000 PSI	10
12	De-watering pump	NOS	2
13	FOAM CLEANING OF AFC	UNITS	2
14	AIR COMPRESSOR	8 KG/CM2	3
15	DIESEL WELDING GENERATOR	125 KV	1
16	BOLT TORQUING TOOLS (ELECTRICAL & PNEUMATIC)	UNITS	10 teams for day shift & 5 teams for night shift
17	WELDING MACHINE WITH CABLE, SWITCH BOARDS WITH ELCB & OTHER ACCESSORIES	22 KV	20
18	VEHICLE HIRE (JEEP)	NO	4
19	ROPE ACCESS	UNIT	1
20	O2, H2S AND HC METERS	UNIT	15 EACH
21	BA COMPRESSOR SET ALONG WITH HOSES.	NOS	1
22	AIR EDUCTORS (COPPUS MAKE OR EQUIVALENT)	NOS	15
23	INTRINSICALLY SAFE	NOS	2

	MOBILE PHONES		
24	HYDROTEST MACHINE ELECTRICAL & MANUAL	NOS	6 +10
25	SCISSOR LIFTS	NOS	1
26	SHOT BLASTING HOOPER WITH RV	NOS	3
27	24 V FLAMEPROOF PORTABLE FLOOD LIGHT OF AROUND 5000 LUMEN	NOS	5
28	FIRE RETARDED CLOTH OF VARIOUS SIZE FOR THE BOOTH	ROLLS	50
29	FINGER SAVER	NOS	70
30	POWER DB PANELS	NOS	3
31	DRILLING M/C	NO	3
32	POWER BUFFING M/C WITH BUFFING WHEELS	NOS	10
33	SCAFFOLDING MATERIAL ALONG WITH TOE GUARD, PLANKS EQUIVALENT TO	M3	30000
34	CHAIN BLOCKS 2 MT + 5 MT + 10 MT	NOS	20+15+5
35	LIFTING BELTS 2 MT + 5 MT + 10 MT	NOS	20+15+5
36	CHERRY PICKER	NOS	1
37	VALVE TEST BENCH	NOS	2
38	FLANGE SPREADER	NOS	3
39	NUT CUTTER	NOS	4
40	BUNDLE PULLER	NOS	4
41	BUNDLE CLIMBER	NOS	1

Besides the above requirement, which is the minimum requirement (in terms of quantity and capacity), the contractor shall deploy all other additional resources finalized in bar chart to complete the job in totality within specified time.

The above resources are expected to be available at site as per requirement 03 days in advance. However, cranes & bundle puller can be mobilized from the day of start of shutdown.

Safety Directive

Standardisation of Colour of Safety Helmets

Background

OISD Standard 155 on Personal Protective Equipments(PPE)Part 1, states that the use of personal protective equipment can do one or more of the following:

- Reduce risk of dangerous occurrences (e.g. safety belts).
- Provide a physical barrier between the user and the hazard (e.g. apron, face shield).
- Render a hostile environment friendly albeit for limited period of time (e.g. breathing apparatus).

One such PPE used for Head Protection is the Safety Helmet. The need and importance of wearing a Safety Helmet in Operating areas is well known to the intended recipients of this Directive. BPCL has zero tolerance to violation of not wearing the desired PPE including the safety helmet. The issue in hand to be resolved is the use of different colour of Safety Helmets by different Business Units / Locations / Plants leading to a lot of confusion and indiscipline. For eg., Company Employees in Refineries wear white colour safety helmets whereas in Retail/LPG BUs, they wear yellow colour safety helmets. Contract workmen in Retail/LPG wear white helmets. Locations also have a practice of donning different colour safety helmets based on roles to be played in fire drill or as safety role holder of location. Though there is no statutory regulation prescribing a particular colour of safety helmet for a particular group of people, there are some internationally accepted norms which are followed by many Corporations across the Globe.

Based on a detailed study and feedback collected from field, Regional and HQ role holders of Marketing BUs as well as the HSSE role holders of Refineries, Corporate HSSE is issuing this Directive to standardise the colour of safety helmets across BPCL at a time when the Hard Hat (as it was traditionally called), turns 100 years old.

Standardisation of colour of Safety Helmets

The table below provides the colour and the category of users who shall wear them. In addition to the colour, the following also should be kept in mind -

- 1) OSHA & ANSI guidelines prohibit painting or stickering of safety helmets as this can eliminate electrical resistance, conceal defects, cracks, penetration, and any damage that would be otherwise readily identifiable during any inspection to ensure reliability. If at all the Company Logo needs to be placed, it should be at least three-quarters of an inch away from the edge of the helmet.
- 2) It is more important for each one in a Fire Order to know their roles & perform them rather than a third party to identify them based on their helmet colours. Sometimes, an individual might have to play multiple roles due to shortage or delay of response from other team members. Colour of safety helmet, except for the Fire Chief/Site Incident Controller/Chief Incident Controller, who should be identifiable by leaders of various teams to seek directions from, is not necessary for each team member.

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Corporate HSSE

(Health, Safety, Security, Environment)



REF : CORP.HSSE.SD.0004 DATE : 22.04.2019

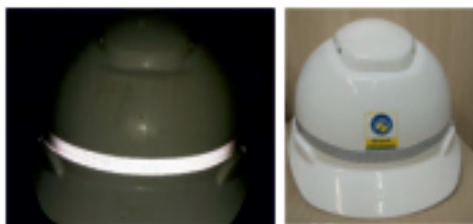
Safety Helmet Colour	Image	Category of Users
RED		CIC & SIC (TM, Ops I/C, Station Manager, Plant I/C, ED I/C Refinery, CGM Ops I/C Refinery)
WHITE		All BPCL Employees (Company electricians shall wear White Electrical Helmets)
YELLOW		All Contract Labourers including Security Guards (Contract electricians shall wear Yellow Electrical Helmets)
BLUE		Contract Crew of POL Tank Lorry, LPG Truck, Lube Truck, I&C trucks, Aviation Refueller
GREY		All Visitors including visiting Company Employees from other Locations/ Region/HQ of same or different BU/Entity

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- 3) Though the reflective tapes or tubes on the Protective Overall is enough for visibility in the dark, but if it is felt that an additional retro-reflective sticker on the safety helmet is required, one may use 3M Scotchlite Reflective Tape or equivalent, silver in colour, ½ inch width around the helmet at least three-quarters of an inch away from the edge of the helmet.



- 4) Special colour of safety helmet for Safety Officer is not being advocated as Corporate HSSE feels that each one at any location / Office is responsible for Safety of the premises and is a Safety Officer.
- 5) No outside agency can claim to have their own standard of colour for safety helmet while they are engaged at our premises. They are bound to use the colours standardised by BPCL.

Specifications of Safety Helmet

Safety Helmet shall be made of Virgin HDPE with head band, sweat band, 4 point adjustable Ratchet suspension, Elastic chin strap which can be easily attached and detached. Crown ventilation shall be provided. Helmet shall conform to ANSI / ISEA Z89.1-2014, TYPE-1, CLASS-C. For electrical usage, safety helmets of Class G or E to be selected. Tests conforming to relevant standards such as IS:2925-1984 or ISO International Standard No.3873 or an equivalent, duly certified by DGMS, should be used to check performance of Safety Helmets.

Maintenance and Inspection

Before and after each use, every Safety Helmet should be inspected for any wear or damage that might have accrued. A general inspection and maintenance process should be:

- Inspect your safety helmet shell and suspension frequently. Check for cracks, frayed straps and any sign of damage before every use. Replace the hard hat immediately if you notice any signs of wear, damage, abuse or degradation.
- If the safety helmet has sustained an impact, dispose it off immediately, even if damage is not visible.
- Prolonged exposure to direct sunlight will degrade the helmet's shell. Do not store in direct sunlight when not in use. When you're done with your helmet for the day, store it in clean, dry area that does not exceed 120 degrees Fahrenheit.
- Completely avoid using paints, solvents, or hydrocarbon-type cleaners (ex: M.E.K., thinner, gasoline, kerosene). These materials can cause deterioration to the shell's ability to withstand impact and penetration.
- Clean your helmet regularly (as often as you inspect it, which should be with every use). Avoid harsh detergent; use mild soap and warm water when cleaning it.
- Avoid dropping, throwing, or using your helmet to sit on or as support. Safety rated helmets are not to be used as a vehicular or sports helmet.

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Corporate HSSE

(Health, Safety, Security, Environment)



REF : CORP.HSSE.SD.0004 DATE : 22.04.2019

- Never store personal belongings in between the suspension or shell. These objects can transmit a large force to the head and neck, causing serious injury or death.
- Establish and maintain a replacement program for your helmets, and all your PPE. Keep detailed purchase records and damage reports to keep track of equipment life cycles.

Replacement

As per OISD Standard 184 on “Replacement of Personal Protective Equipment and Life Saving Appliances”, the periodicity of replacement of Safety Helmet is once in 3 years. But if the Safety Helmet bears cracks, dents, penetration, or even wear from rough care and treatment, it should be replaced immediately.

Let the standardisation of colour of the Safety Helmet be one additional element in the standardisation of safety systems and processes in BPCL.

References : IS:2925-1984, OISD Standard: 155 (Part I), OISD Standard: 184, ANSI/ISEA Z89.1-2014 , OSHA Standard 29 CFR 1910.135 and 29 CFR 1926.100



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