OIL INDIA LIMITED
(A Government of India Enterprise)
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Corrigendum No. 3 to IFB No. SDG7383P18

Engineering, Fabrication and supply of Modular Packages Contract (MPC) for OCS at Nadua and GGS at East Khagorijan in Dibrugarh District, Assam

1. This Corrigendum is issued to notify the following:

a) In view of fresh queries received from bidders in matter corresponding to technical SOW, the final OIL/Consultant's responses to the queries are generated. All the bidders are requested to refer to **Annexure- 1** attached herewith.

b) Extension of the Bid Closing/Technical Bid Opening date and date of sale of bid document as under :-

i) Bid Closing Date & Time	**:** 30.05.2018, 11:00 hrs. IST.
ii) Technical Bid Opening Date & Time	**:** 30.05.2018, 14:00 hrs. IST.
iii) Last Date & Time of Sale of Bid Document	**:** 23.05.2018, 15:30 hrs. IST.

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

3. Bidder to note that no further extension of BCD will be granted for any reasons which are beyond control of OIL. Bidders are therefore requested to strictly comply with above mentioned time schedule.

4. All the prospective bidders are requested to regularly visit OIL's website: www.oil-india.com and e-procurement portal https://etender.srm.oilindia.in/irj/portal for further announcements/latest information related to this tender.

Annexure – 1 to Corrigendum No. 3

Following is summary of OIL/Consultant's responses to fresh pre-bid queries raised by bidders consequence to issuance of Corrigendum No. 2 to IFB No. SDG7383P18:

SL. No	RFQ Section	Page No	Reference Clause	Technical Query	Type	OIL/Consultant's Response	Status
GENERAL							
1	IFB No: SGD7383P18	68 of 71	Section 6.0 Package Engineering	OIL to confirm that the Process technology, design, sizes etc., provided in the Basic Engineering Package are for indicative purpose only. Contractor shall design the packages based on Proven technologies and previous experiences, to achieve the desired performance warranties.	Clarification	Noted. Bidder to get confirmation from EPCM Consultant if any deviation from Basic Engineering Design.	Closed
2	IFB No: SGD7383P18	52 of 171	Section 2.0 Objective	OIL to confirm that the term **MPC contractor's** scope of works will be limited to the **MPC-2: Process Systems Package-International Competitive Bidding** as mentioned in the document titled "EOI_OIL_OCS GGS" and Scope limited to **MPC-2** works in PID's and subsequent engineering documents.		Bidder's scope is defined in tender SGD7383P18 Vol I Part 3 Section 1 Terms of Reference and Technical Specifications. Related technical documents are available in Vol II of the tender. Scope split is marked in P&ID.	Closed
3	Project Schedule	159	Proforma -M	The scheduling software shall be Primavera (P6). A detailed schedule covering all major activities from project start to package delivery shall be prepared in P6 and submitted after award of LOI	Clarification	Bidder is expected to provide L2 level schedule indicating critical activities planned for execution of the contract. Bidder can prepare the schedule in Primavera or MS Projects.	Closed

4	IFB No: SGD7383P18	67 of 171	Section 5.0 Modular Package Design Concept	Please confirm that the skid size shall not exceed the size of a standard iso 40' container.	Clarification	Skid size shall be in line road transportable limit. Standard container ISO size modules/skids are preferred. If skid size exceeds the transportable limit the same shall be split for transport and assembled at the site.	Closed
PROCESS							
1	Process data for East Khagorijan	12 of 15	Section 4.8	OIL to confirm the design capacity for the East Khagorijan Gas processing packages.	Clarification	Bidder to mention the document number or ref number. **Design Capacity:** Associated Gas- 0.1 MMSCMD NAG Gas - 1 MMSCMD. Bidder to follow Process Design Basis for system design capacity.	Closed
	Vol-II, Basic Engineering package for East Khagorijan	24 of 316 (22 of 70)	Section 5.8			Design Capacity: Associated Gas - 0.1 MMSCMD NAG Gas - 1 MMSCMD. Bidder to follow Process Design Basis for system design capacity.	Closed
2	Process data for Nadua	11 of 13	Section 4.8	OIL to confirm the design capacity for the Nadua Gas processing packages.	Clarification	Bidder to mention the document number or ref. number. **Design Capacity:** Associated Gas - 0.2 MMSCMD Bidder to follow Process Design Basis for system design capacity.	Closed

<table>
<tr><td></td><td>Vol-II, Basic Engineering package for Nadua</td><td>24 of 306 (22 of 70)</td><td>Section 5.8</td><td></td><td></td><td>Design Capacity:

Associated Gas - 0.2 MMSCMD Bidder to follow Process Design Basis for system design capacity.</td><td>Closed</td></tr>
<tr><td rowspan="2">3</td><td>Vol-II, Basic Engineering package for EK/ND</td><td>18 of 306 (16 of 70) / 18 of 316 (16 of 70)</td><td>Section 5.3</td><td rowspan="2">OIL to clarify the LP wells maximum pressure and also provide the revised HMB for system design.</td><td rowspan="2">Clarification</td><td>LP wells arrival pressure is 5-10 kg/cm2g.</td><td>Closed</td></tr>
<tr><td>Vol-II, Basic Engineering package for EK/ND</td><td>285 of 306</td><td>HMB Sheet No - 3 of 19</td><td>When HP well pressure depleted below 28 kg/cm2g, the HP wells will be routed to LP wells. HMB has been issued already.</td><td>Closed</td></tr>
<tr><td>4</td><td>Vol-II, Basic Engineering packages EK</td><td>31 of 316 (29 of 70)</td><td>Section 8.4</td><td>Overall process design basis for EK indicates a total inlet oil flow rate of 1000KLPD, whereas design basis indicates a design requirement of each dehydrator to be designed for 500 KLPD liquid + 50% V/V Inlet BS&W.

We Presumes that, each dehydrator shall be designed for 500KLPD dry oil+250 KLPD free water / Emulsion. Please confirm</td><td>Clarification</td><td>Crude Stabilization is 2 x 50% train. Each train to design for 500 KLPD considering 50% emulsions at the inlet. (250KLPD free oil + 250 KLPD emulsion)</td><td>Closed</td></tr>
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5	Vol-II, Basic Engineering packages ND	31 of 306(29 of 70)	Section 8.4	Overall process design basis for EK indicates a total inlet oil flowrate of 1200KLPD, whereas design basis indicates a design requirement of each dehydrator to be designed for500 KLPD liquid + 50% V/V Inlet BS&W.We Presumes that, each dehydrator shall be designed for 600KLPD dry oil+300 KLPD free water /Emulsion. Please confirm	Clarification	Crude Stabilization is 2 x 50% train. Each train to designed for 600 KLPD considering 50% emulsion at the inlet. (300KLPD free oil + 300 KLPD emulsion)	Closed
6	Vol-II, Basic Engineering packages EK Part-3 Vol-II, Basic Engineering packages EK Part-4	5 of 23 to 10 of 23 2 of 26 and 3 of 26	PID's	Well fluid from remote wells is flowing through inlet manifold, Header and separator. Referred PID's doesn't have any control valve till the separator to reduce the arrival pressure from 90 kg/cm2 to 26 kg/cm2 which is operating pressure of inlet separator A. Company to clarify if there is any control valve at upstream of separator to be included to the scope or any change in operating and design pressure of Inlet separator, to be advised by OIL.	Clarification	HP and LP manifold design pressure is 385 kg/cm2g. The NAG Inlet Heaters are also designed for 385 kg/cm2g and operating at 350 kg/cm2g. The Inlet Heater-A is designed for 100 kg/cm2g.The pressure at the Inlet Separator-A is maintained by the gas outlet control valve (20-PV-1067B) which is set at the operating pressure of 26 kg/cm2g. There is no Inlet heater designed for the pressure of 250 kg/cm2g. Bidder to check the same. No change in process scheme.	Closed

PIPING							
1	VOLUME-II MECHANICA L	113	1.1 Onsite condition	Considering actual scenario, Instead of T1: Design Temp, suggest combining with Operating temp T2 for the cases L6 to L13.		MPC Contractor shall consider the Design temp (T1) for the specified cases. However during package engineering, if the nozzle load cannot be qualified for design temp the same shall be raised for company approval based on the process input.	Closed
2	IFB No: SDG7383P18	65 of 171	3.3 For Both Facilties in Nadua and East Khagorijan	Contractor's scope does not include any foam & fire water system packages **(Part of MPC-6)**, hence we presume that the fire water demand calculation shall be in the scope of others. Fire fighting study for the overall facility being in the scope of others **(Part of MPC-6)**, contractor will not be able to estimate the quantity of deluge pipes, valves, spray nozzles and associated firefighting fixtures required within the package. OIL to confirm that design and supply of fire fighting and deluge system for the packages shall be excluded from the contractor's scope. However if the same supplied as free issue materials by company, shall be installed at manufacturers facility.	Exclusion	MPC2 Contractor shall design and supply the fire fighting system required for process skids in their scope (as per Fire Fighting Design Basis). Regarding fire water demand, Bidder shall perform deluge calculation for their scope. Using this information, fire water demand calculation for the overall facility will be determined by others. Make and model of the required spray nozzles and other equipment related to fire fighting will be informed to the successful bidder.	Closed
	IFB No: SDG7383P18	73 of 71	Section 8 Minimum Deliverables				Closed

3	IFB No: SDG7383P18	66 of 171	3.3 For Both Facilties in Nadua and East Khagorijan	Contractor's scope of work shall include supply of the insulation materials as loose supplied items Ex-Works at manufacturers facility based on the package requirements. Same to be installed by others at site. OIL to confirm.	Clarification	Contractor to deliver modules with thermal insulation.	Closed
ELECTRICAL							
1	IFB No: SDG7383P18	67	4.0-f	Contractor's scope of work is limited only to supply of pump motors, local control station (per P&ID) and electrical heaters if any. Power distribution (MCC) with required power & control cables with glands shall be made available by others.	Clarification	Noted & Confirmed.	Closed
2	IFB No: SDG7383P18	67	4.0-h	Process Packages supplied by Contractor will be provided with lighting for the packages, which are cabled up to skid edge Lighting Junction Box. Power supply to the skid edge lighting junction box to be provided by others.	Clarification	Noted & Confirmed. However, MPC contractor shall note that Distribution Boards shall be provided instead of junction boxes, to have isolation of individual circuits.	Closed
3	IFB No: SDG7383P18	75	8.0 - Electrical - 11	Process Package will be provided with 2 nos. of earth stud diagonally opposite on the skid. Further interconnection to the main grid shall be provided by others. All equipment's and conducting materials with in the package will be bonded to the structural steel base of the skid.	Information	Confirmed.	Closed
4	IFB No: SDG7383P18	78	10.0	We understand only DGMS certifications is applicable for all the electrical items with in the process packages included in the MPC-2 scope of supply. OIL to confirm.	Clarification	Confirmed.	Closed

5	17039-EK-E-DB-9001 - Vol II Electrical EK	20	8.1	Based on provided HAC layout, we understand all electrical equipment's to be certified for Zone-2, IIA/IIB, T3 for the process packages. Please confirm.	Clarification	Confirmed.	Closed
6	17039-EK-E-DB-9001 - Vol II Electrical EK	All	All	This is document taken as information only, relevant clauses will only be referred in relation to the type of item being supplied as part of process package.	Information	Bidder's understanding is correct. Relevant clauses shall be referred in relation to the type of item being supplied as part of process package.	Closed
7	17039-EK-E-DB-9001 - Vol II Electrical EK	-	-	Electrical design ambient temperature will be considered as 40 deg C. Please confirm.	Clarification	Design temperature shall be considered as 45 deg. C	Closed
8	17039-EK-E-DB-9001 - Vol II Electrical EK	29	10.3	Package motors will only comply with the criteria listed per Electrical design basis.	Information	Tender conditions shall prevail.	Closed
9	P&ID - EK - MPC-2			MPC-2 Contractor's scope of work is limited only to supply of Pump/Cooler motor and local control station. Power/MCC along with required power & control cables with glands to the pump motor shall be made available by others.	Clarification	Refer reply on electrical query no.1.	Closed

10	P&ID - EK - MPC-2	17039-EK-P-DW-0210-03	Fuel gas super heater - EK-NAP-3020A/B with Electric Heater Control Panel – EK-AG-3020	MPC-2 Contractor's scope of work is limited only to supply of electric heater & its control panel. Power/MCC along with required power & control cables with glands to the heater and its control panel and b/w heater and its control panel shall be made available by others. OIL should also confirm the location of the control panel to be safe area or Hazardous area. Identified location to be provided by OIL.	Clarification	For heater and heater control panel, Power & Control cables from MCC will be supplied and directly terminated by others. Control and instrument cables between heater and heater control panel shall be supplied, installed and wired up by MPC-2 contractor. Heater Control Panel shall be located inside the skid itself and shall be suitable for hazardous area Zone-2, gas Group IIA/IIB, T3.	Closed
11	P&ID - EK - MPC-2	17039-EK-P-DW-0203-19	Crude Dehydrator and LP Separator	MPC-2 Contractor's scope of work is limited only to supply of transformer and its control panel. Power/MCC along with required power & control cables with glands to the Transformer and its control panel shall be made available by others. OIL should also confirm the location of the control panel to be safe area or Hazardous area. Identified location to be provided by OIL.	Clarification	For transformer and transformer local control panel, Power & Control cables from MCC will be supplied and directly terminated by others. Control and instrument cables between transformer and transformer local control panel shall be supplied, installed and wired up by MPC-2 contractor. Transformer Local Control Panel shall be located inside the skid itself and shall be suitable for hazardous area Zone-2, gas Group IIA/IIB, T3.	Closed

12	P&ID - EK - MPC-2	17039-EK-P-DW-0214-02	Ground Flare KO Drum Heater - EK-HBG-2210	MPC-2 scope of work is limited only to supply of electric heater & its control panel. Power/MCC along with required power & control cables with glands to the heater and its control panel and b/w heater and its control panel shall be made available by others.	Clarification	For heater and heater control panel, Power & Control cables from MCC will be supplied and directly terminated by others. Control and instrument cables between heater and heater control panel shall be supplied, installed and wired up by MPC-2 contractor. Heater Control Panel shall be located inside the skid itself and shall be suitable for hazardous area Zone-2, gas Group IIA/IIB, T3.	Closed
INSTRUMENTATION							
1	17039-EK-I-DB-8001	19 of 72	Paragraph 3	MPC 2 package Skid instruments will be terminated at skid Junctions boxes. Skid JB to control room cable will be in customer scope. Only the following panels will be considered under MPC- 2 scope. - Oil metering control panel (P&ID : 17039-EK-P-DW-0203-16) - Dehydrator Transformer Control Panel (P&ID : 17039-EK-P-DW-0203-19) - LP Gas compression package PLC (P&ID : 17039-EK-P-DW-0204-01) - Fuel Gas Heater control Panel (P&ID : 17039-EK-P-DW-0210-03) - Local Electrical panel ignition control system (P&ID : 17039-EK-P-DW-0214-04)	Clarification	Bidder shall note that Oil Metering Control Panel is not required as all Oil Metering I/Os connected to Master Control System for Monitoring. MPC-2 Contractor shall provide Interface Cable Schedule to EPCM	Closed

				The interface cables and glands from local control panel and PLC to master DCS is not in MPC-2 Contractor's scope. This is applicable for both Nadua and East Khagorijan locations			
2	IFB No: SDG7383P18	65 of 171	3.3 For Both Facilties in Nadua and East Khagorijan	Please clarify the scope of F&G detectors. We presume that the contractor should consider only space for the installation of F&G detectors; same will be supplied and installed to the skids based on the overall F&G studies **(Part of MPC-7)** that will be undergone by others.	Clarification	MPC-2 Contractor shall supply and install F&G detectors wired up till Skid edge F&G Junction Boxes. F&G Detector/device Make and Model No. will be advised by EPCM	Closed
MECHANICAL							
1	Mechanical Design Basis	-	-	As per specification, transportation load is not specified. Confirmation required on the applicability of Transportation load case. If applicable provide the loads.	Clarification	MPC contractor shall submit the transportation load for company approval during package engineering.	Closed
2	17039-EK-M-SP-2009		4.5	Since the pumps are standard API 610 pumps. Bearings' Bearing system life (the calculated life of the combined system of bearings in the pump) shall be equivalent to at least 25 000 h with continuous operation at rated conditions, and at least 16 000 h at maximum radial and axial loads and rated speed	Clarification	Noted and Accepted.	Closed

END OF CORRIGENDUM NO. 3