

OIL INDIA LIMITED
(A Government of India Enterprise)
P.O. Duliajan – 786602, Assam, India
Website: www.oil-india.com

Corrigendum No. 3 to IFB No. CPI8240P19

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 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- I** attached herewith.
 - b) The Legend sheet for the P & ID is attached herewith as **Annexure- II**
 2. All other terms and conditions of the tender remain unaltered.
 3. 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.
 4. Bidder to submit this Corrigendum No. 03 along with **Annexure – I & II** duly signed & stamped in all pages as token of acceptance and shall upload this document in the un-priced folder of the e- bid.
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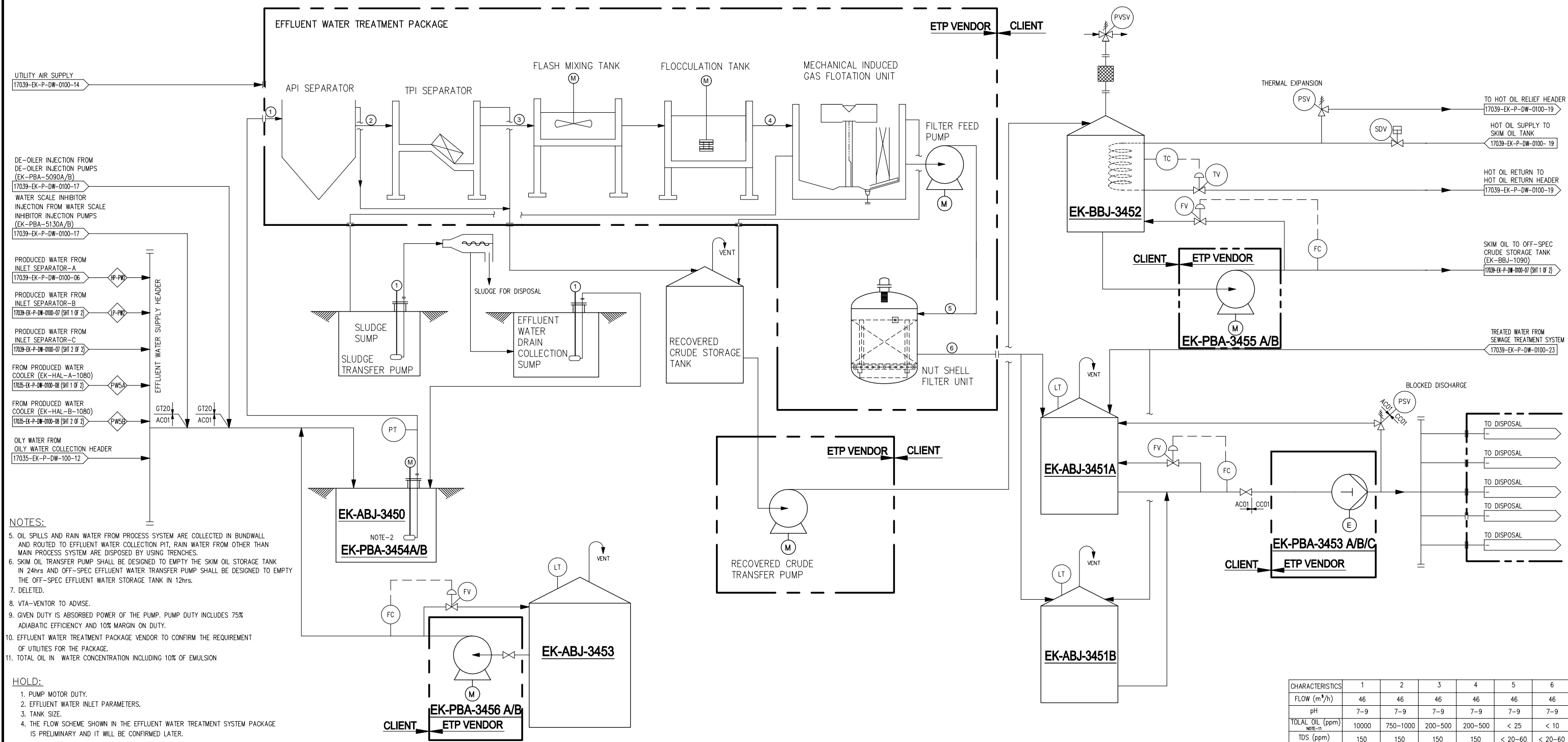
Annexure – I

CONSOLIDATED LIST OF OIL / CONSULTANT’S RESPONSE TO THE PRE-BID QUERIES

SL No	RFQ Section	Ref. Clause	Subject	Type	Bidder’s Query	OWNER’S RESPONSE
1	Technical Volume-II, Section-I	Corrigendum - II	Change in effluent inlet & outlet quality	Clarification	We kindly request you to provide us breakup to oil (10000ppm) in terms of emulsified oil & free oil. This will help us to determine the treatment scheme. We hope bidder is allowed to make changes in treatment scheme given in tender document. Kindly confirm.	Consider 50% emulsified oil, remaining free oil. The effluent treatment scheme should contain the following minimum equipments. If bidder feels necessary to add equipments in the treatment scheme to meet the outlet specification, he can do so * API Separator * TPI Separator * DAF System
2	7	Volume I, Part III	-	List of Chemical dosing system requirement	It is mentioned in corrigendum-II “The inlet and outlet process conditions have been specified in the tender. Vendor to suitably design the chemical dosing system to meet the tender requirements. We understand from above that bidder is free to select own scheme as per requirement of outlet quality. Kindly confirm.	Refer response to Sl. No. 1 above
3	Volume I, Part III	3.3	STP plant inlet design parameter	Clarification	STP to be designed for 50 Personnel. Bidder shall design the system based on the number of people and for their Kitchen, Dining, Washing, and Bathing & Toilet facilities. We kindly request you to provide STP inlet parameters to avoid confusion at latter stage.	Please use information available in Central Public Health Environmental & Engineering Organisation
4	Volume I, Part III and Corrigendum No. 2	-	Document Missing	Addition	It is mentioned in Corrigendum -II that “Bidder shall refer attached P&ID legend” Please note that same is missing in corrigendum-II. Kindly provide the same	Please refer Annexure-II attached herewith.

5	Vol. I Part III Section 1 and Corrigendum No. 2	4.0 f	Details of control systems	Clarification	It is mentioned in Corrigendum -II that "PLC shall be redundant configuration. There shall be two numbers of work stations. Control System shall be SIL-2 rated. Kindly confirm requirement of SIL-2.	Control system and instruments shall be non SIL rated.
6	Volume I, Part III	-	Cable	Clarification	Cable between JB to PLC will be in bidder scope or same will be supplied by others. Kindly confirm.	Cable between package skids JB to PLC will be in others scope. Bidder to provide cable schedule for the same.
7	Volume II, Section-I	-	Skim Oil Transfer Pump	General	-	Bidder to include the following pump skid in the scope of supply, Skim oil Transfer pump (2x100%) with suction and discharge piping, valves, instruments etc. shall be supplied as separate skid for transferring the skim oil to Off-spec crude storage tank. The pump capacity shall be 6.25 m3/hr and differential pressure of 5 kg/cm ² (g) as per API 610. Bidder shall provide the skid for both EK and Nadua. Refer the P&ID in the tender document (Pg. No.165, 166 of 379) for Skim oil Transfer pump

TAG NUMBER	EK-EZZ-1340	EK-ABJ-3451A/B	EK-ABJ-3450	EK-BBJ-3452	EK-ABJ-3453	TAG NUMBER	EK-PBA-3453A/B/C	EK-PBA-3454A/B	EK-PBA-3455A/B	EK-PBA-3456A/B
DESCRIPTION	EFFLUENT WATER TREATMENT PACKAGE (1x100%)	CLARIFIED WATER STORAGE TANK (2x50%)	EFFLUENT WATER STORAGE TANK	SKIM OIL TANK	OFF-SPEC EFFLUENT WATER STORAGE TANK	DESCRIPTION	CLARIFIED WATER DISPOSAL PUMPS (3x50%)	EFFLUENT WATER TRANSFER PUMP (2x100%)	SKIM OIL TRANSFER PUMPS (2x100%)	OFF-SPEC EFFLUENT WATER TRANSFER PUMPS (2x100%)
TYPE	-	VERTICAL CONE ROOF	RECTANGULAR (UNDERGROUND)	VERTICAL CONE ROOF ATMOSPHERIC	VERTICAL CONE ROOF	TYPE	RECIPROCATING, GAS ENGINE DRIVEN TYPE	CENTRIFUGAL, VERTICAL	CENTRIFUGAL	CENTRIFUGAL
SERVICE	EFFLUENT WATER	CLARIFIED WATER	EFFLUENT WATER	SKIM OIL	OFF-SPEC EFFLUENT WATER	SERVICE	CLARIFIED WATER	EFFLUENT WATER	SKIM OIL	OFF-SPEC EFFLUENT WATER
PRESSURE	DESIGN kg/cm ² g	VTA	FOW+0.07 kg/cm ²	FOW+0.07 kg/cm ²	FOW+0.07 kg/cm ²	DESIGN PRESSURE	kg/cm ² g	80	10	10
	OPERATING kg/cm ² g	VTA	ATM	ATM	ATM	DESIGN TEMPERATURE	°C	85	85	85
TEMPERATURE	DESIGN °C	85	85	85	85	OPERATING TEMPERATURE	°C	51	55	51
	OPERATING °C	51	51	51	55	DISCHARGE PRESSURE	kg/cm ² g	70.3	5	5
DESIGN CAPACITY	m ³ /hr/KLPD	46/1108	554 KL	1108 KL	150 KL	554 KL	DIFFERENTIAL PRESSURE	kg/cm ²	60.3	5
DIMENSION	mm	VTA	8100 (I/D) x 12000(H) (HOLD-3)	20000 (L) x 18000(W) x 4000(H) (HOLD-3)	5500 (I/D) x 8000(H) (HOLD-3)	8450 (I/D) x 12600(H) (HOLD-3)	DESIGN CAPACITY	m ³ /hr/KLPD	46/1108 (EACH)	46/1108
DESIGN CODE	VTA	ROARKS FORMULAE	-	API 650, OISD 108	ROARKS FORMULAE	ABSORBED POWER	kW	113.5 (NOTE-9) (EACH)	9.23 (NOTE-9)	1.25 (NOTE-6)
MATERIAL OF CONSTRUCTION	VTA	CS +3mm CA	RCC	CS +3mm CA; HEATING COIL: SS316	CS +3mm CA	MOTOR DUTY	kW	-	11 (HOLD-1)	- (HOLD-1)
						DESIGN CODE	API-674	API-610	API-610	API-610
						MATERIAL OF CONSTRUCTION	CASING : CS +3mm CA, INTERNAL: SS316	CASING : CS +3mm CA, INTERNAL: SS316	CASING : CS +3mm CA, INTERNAL: SS316	CASING : CS +3mm CA, INTERNAL: SS316



- NOTES:**
5. OIL SPILLS AND RAIN WATER FROM PROCESS SYSTEM ARE COLLECTED IN BUNDWALL AND ROUTED TO EFFLUENT WATER COLLECTION PIT, RAIN WATER FROM OTHER THAN MAIN PROCESS SYSTEM ARE DISPOSED BY USING TRENCHES.
 6. SKIM OIL TRANSFER PUMP SHALL BE DESIGNED TO EMPTY THE SKIM OIL STORAGE TANK IN 24hrs AND OFF-SPEC EFFLUENT WATER TRANSFER PUMP SHALL BE DESIGNED TO EMPTY THE OFF-SPEC EFFLUENT WATER STORAGE TANK IN 12hrs.
 7. DELETED.
 8. VTA-VENTOR TO ADVISE.
 9. GIVEN DUTY IS ABSORBED POWER OF THE PUMP. PUMP DUTY INCLUDES 75% ADIABATIC EFFICIENCY AND 10% MARGIN ON DUTY.
 10. EFFLUENT WATER TREATMENT PACKAGE VENDOR TO CONFIRM THE REQUIREMENT OF UTILITIES FOR THE PACKAGE.
 11. TOTAL OIL IN WATER CONCENTRATION INCLUDING 10% OF EMULSION
- HOLD:**
1. PUMP MOTOR DUTY.
 2. EFFLUENT WATER INLET PARAMETERS.
 3. TANK SIZE.
 4. THE FLOW SCHEME SHOWN IN THE EFFLUENT WATER TREATMENT SYSTEM PACKAGE IS PRELIMINARY AND IT WILL BE CONFIRMED LATER.

CHARACTERISTICS	1	2	3	4	5	6
FLOW (m ³ /h)	46	46	46	46	46	46
pH	7-9	7-9	7-9	7-9	7-9	7-9
TOTAL OIL (ppm)	10000	750-1000	200-500	200-500	< 25	< 10
TDS (ppm)	150	150	150	150	< 20-60	< 20-60

NOTES:

1. EFFLUENT WATER TREATMENT PACKAGE VENDOR TO FINALIZE THE FLOW SCHEME WITH IN THE PACKAGE AS PER INLET EFFLUENT WATER AND OUTLET TREATED WATER SPECIFICATION.
2. EFFLUENT WATER TREATMENT PACKAGE INLET PARAMETERS:- (HOLD-2)

OIL IN WATER	10000 PPM
pH	7-9
TSS	100 PPM
TURBIDITY	100-180 NTU
COO	180-1400 PPM
BOD	80-135 PPM
DISSOLVED OXYGEN	1.0 TO 6 PPM
SRB	10 ³ TO 10 ⁶ CFU/ML
ANY OTHER BACTERIAL ACTIVITY	NOT MEASURED

3. AS PER ASSAM STATE POLLUTION CONTROL BOARD, EFFLUENT WATER DISCHARGE SHALL MEET THE BELOW AS MINIMUM.

- (i) OIL IN WATER < 10 PPM
- (ii) SLUDGE CONTENT - NIL
- (iii) OUTLET TEMPERATURE - 51°C
- (iv) pH - 6.5 TO 8.5
- (v) TSS - 98% REMOVAL OF SUSPENDED SOLIDS > 10 MICRONS.
- (vi) DISSOLVED OXYGEN < 0.2 ppm.
- (vii) BACTERIAL ACTIVITY LIKE SRB, GAB, IRB&APB - NIL.

4. EFFLUENT WATER TREATMENT PACKAGE SHALL BE DESIGNED ON THE PHILOSOPHY OF ZERO DISCHARGE FROM THE INSTALLATION WITH NIL SLUDGE.

REV	DATE	DESCRIPTION	DRAWN	CHK.	APPR.
B	14 FEB 18	ISSUED FOR BID	DAM	PSN/TKV/MSB/MSR	
A	28 NOV 17	ISSUED FOR REVIEW	DAM	PSN/TKV/MSB/MSR	

COMPANY:

Oil India Limited

EPCM CONSULTANT:

KAVIN™

PROJECT: CREATION OF SURFACE PRODUCTION FACILITIES (OCS & GGS) AT NADUA & EAST KHAGORIJAN

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TITLE: UTILITY FLOW DIAGRAM EFFLUENT WATER TREATMENT SYSTEM

PROJECT NO.: KIP-17039 PROJECT SITE: EAST KHAGORIJAN

DRAWING NO.: 17039-EK-P-DW-0100-11 REV: B SHEET: 1 OF 1 SCALE: NTS