The following modifications with respect to Technical Specification for **EFFLUENT TREATMENT PLANT PACKAGE FOR 4X270 MW BHADRADRI TPS, technical** specification no **PE-TS-411-164-A001** shall apply.

Bidder to note that existing clauses/details as appearing in the specification stands is/are being modified and clauses/details as mentioned in "Modified to or Read as" column shall be applicable and complied by the bidder as listed below in **SCHEDULE A** .

SCHEDULE A

MODIFIED CLAUSES/PAGE NUMBERS.

Sl no.	Vol. No.	Section/ Description	Clause no	Page no	Existing clause/details	Modified to or Read as
1.	IIB	SECTION I/ P&ID FOR EFFLUENT TREATMENT PLANT & AMENDMENT 1 DATED 07.03.2018 SL NO.1 & AMENDMENT 2 DATED 10.04.2018 SL NO.1	P&ID FOR EFFLUENT TREATMENT PLANT	227 of 481	AMENDMENT NO.2 / P&ID FOR EFFLUENT TREATMENT PLANT R10	P&ID FOR EFFLUENT TREATMENT PLANT R10 has been replaced with P&ID FOR EFFLUENT TREATMENT PLANT R11. R11 shall be referred wherever R10 of P&ID is mentioned in BHEL technical specification no PE-TS-411-164-A001, R1 wrt EFFLUENT TREATMENT PLANT.
2.	IIB	SECTION I/ SUB SECTION-IA/ SPECIFIC TECHNICAL REQUIREMENT (MECHANICAL)	SPECIFIC TECHNICAL REQUIREMENT (MECHANICAL)	5-17 of 481	AMENDMENT NO.2 / SPECIFIC TECHNICAL REQUIREMENT (MECHANICAL) R3 dated 10.04.2018	In SPECIFIC TECHNICAL REQUIREMENT (MECHANICAL) R3 dated 10.04.2018, BHEL technical specification no PE-TS-411-164-A001, R1 wrt EFFLUENT TREATMENT PLANT, following additional scope has been included in bidder's scope. 1. One no. Lime dosing tank (RCC Construction) for lamella clarifier / tube settler including slow speed gear operated agitator driven by motor complete with overflow seal, integral pipe works, dissolving basket, filling connection, valves, instrumentation and all other accessories

						required. 2. Two (2) (1W+1S) nos. screw type lime milk dosing pumps along with motors, piping, valves, fittings, instrumentation and accessories associated with the same.
3.	IIB	SECTION I/ SUB SECTION-IA/ DATASHEET A	SPECIFIC TECHNICAL REQUIREMENT (MECHANICAL)	230-240 of 481	AMENDMENT NO.2 / DATASHEET A R3 dated 10.04.2018	In DATASHEET A R3 dated 10.04.2018, BHEL technical specification no PE-TS-411-164-A001, R1 wrt EFFLUENT TREATMENT PLANT, following additional scope has been included in bidder's scope. **LIME DOSING SYSTEM (@ 30 ppm)** 1 — Tank — Number-One Number Capacity (effective) - 24 Hrs storage capacity of holding lime solution (of about 6% W/V concentration) + 20% margin excluding freeboard to dose lime to Lamella clarifier/ Tube Settler. Material- RCC with 2 coats of Bitumastic paint over 2 coats of primer Motorized Stirrer (MOC-SS 316)- One (1) number (Horizontal mounted). Dissolving Basket-One no. (MOC: SS 316) 2 — Pump — Two (2X100% capacity) numbers of Screw type each Suitable for lime dosing to Lamella clarifier/ Tube Settler at designed dosage rate (suitable for lime of 6% W/V strength) and head as required. Suction condition: Flooded. Pump casing: 2.5% Ni-Cast Iron to IS 210 FG 260 Stator: EPDM rubber Shaft and shaft sleeve: SS 410, recirculation of pumps shall be connected to tank.
4.	IIB	SECTION I/ SUB SECTION-IA/ ANNEXURE VI	MANDATORY SPARES LIST	125 of 481	MANDATORY SPARES LIST	In addition to ANNEXURE VI / MANDATORY SPARES LIST OF BHEL technical specification no PE-TS-411-164-A001, R1 wrt EFFLUENT TREATMENT PLANT & AMENDMENT No. 2 DATED 10.04.2018/ SL NO.6, following additional mandatory spares have been included in bidder's scope: **Dosing/Metering Pumps (For each Type and Rating)**

Sl. No.	Name of Items	Unit	QUANTITY
i.	Diaphragm	Set	3
ii.	Oil seals of gear box	Set	1
iii.	Connecting Rod with nuts & bolts	Set	1
iv.	Worm & Worm Wheel	Set	1
v.	All pump Bearings including Cross head guide Bearings	Set	2
Note: One set consists of quantity required for complete replacement of one pump.			

Lamella Clarifier / Tube Settler

Sl. No.	Name of Items	Unit	QUANTITY
i.	Pack of Lamella clarifier/ tube settler	Set	1
ii.	Oil skimmer	Set	1
Note: One set consists of quantity required for complete replacement.			

Bidder to comply.