

AMENDMENT NO. 1 ... TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				EXISTING	READ AS
	SE C/ PART	SUBSEC.	PAGE NO.	CLAUSE NO.		
1.	VI/B	M2	3 of 5	1.02.06	In Engine Hall at EOT crane rail level, chequered plate walkway of minimum 500mm clear width from face of the column to the hand rail (excluding hand rail) on crane side to be provided at column sectional depth for full length of the building. Cage ladder shall be provided for reaching the EOT crane operators cabin and walkway level.	In Engine Hall at EOT crane rail level, chequered plate walkway of minimum 500mm clear width from face of the column to the hand rail (excluding hand rail) on crane side to be provided at column sectional depth for full length of the building. Cage ladder shall be provided for reaching the EOT crane operators cabin (if provided) and walkway level.
2.	VI/A	Vol III	3 of 69	2.03.00 (vii)	Start up system including Start up Air compressor & Air Bottle/ Start up system including Start up Air compressor & Air Bottle(s) (Common for all engines)	Start up system including Start up Air compressor & Air Bottles.
3.	VI/A	Vol V	6 of 9	2.01.05	Owner/Client shall attend the Factory Acceptance Tests of all the Engines and along with Alternators.	Owner/Client shall attend the Factory Acceptance Tests of all the Engines and Alternators.
4.	VI/B	M1	2 of 19	1.02.02.01	Shop test for each Genset shall be carried out at manufacturer's work for demonstration of following: 1. Net Power output at Base/Full Load 2. Net Heat Rate at LHV basis at 100% of Genset base load.	Deleted

AMENDMENT NO. 1 ... TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				EXISTING	READ AS
	SE C/ PART	SUBSEC.	PAGE NO.	CLAUSE NO.		
					Above tests shall necessarily be carried out with the "Alternator" that will be supplied for this package. Bidder shall also submit the procedure for above shop tests along with their bid.	
5.	Section VI, PART-B	Sub-Chapter-IIC, Volume-III,	4.00.00, Sl. No. (ii)	10 of 52	Direct measurement of NO and NO ₂ shall be done. Total NO _x values shall be reported as NO ₂ i.e. NO _x = NO + NO ₂ = NO X 1.53 + NO ₂ = NO _x as NO ₂ .	Direct Measurement of NO and NO ₂ shall be done. Total NO _x values shall be reported as NO ₂ i.e. NO _x = NO + NO ₂ = NO X 1.53 + NO ₂ = NO _x as NO ₂ .
6.	Section VI, PART-B	Sub-Chapter-IIC, Volume-III,	5.01.11	19 of 52	A Sampling System compatible with the Analysers / Monitors for Total Suspended Particulates (TSP), PM10 PM2.5, NO _x , SO _x , CO, Mercury and Ozone shall be provided by the vendor. The system, wherever applicable, shall have the facility for moisture removal.	A Sampling System compatible with the Analysers / Monitors for Total Suspended Particulates (TSP), PM10 PM2.5, NO _x , SO _x , and CO, Mercury and Ozone shall be provided by the vendor. The system, wherever applicable, shall have the facility for moisture removal.
7.	Section VI, PART-B	Sub-Chapter-IIC, Volume-III,	5.02.06	23 of 52	Mercury Analyser Principle : Atomic Absorption/Atomic Fluorescence Measurement Elemental Mercury in ambient air Display LCD Range 0.5-2000ng/m ³ / 5-10000 ng/m ³ (selectable) Calibration Built-in calibration facility	Mercury Analyser Principle : Atomic Absorption/Atomic Fluorescence Measurement Elemental Mercury in ambient air Display LCD Range 0.5-2000ng/m³ / 5-10000 ng/m³ (selectable) Calibration Built-in calibration facility Digital Signal Transmission RS232 link.

AMENDMENT NO. 1 ... TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				EXISTING	READ AS
	SE C/ PART	SUBSEC.	PAGE NO.	CLAUSE NO.		
					Digital Signal Transmission RS232 link. Analyser shall be capable to transfer all the data through RS 232 link to a PC based data logger. Accessories To be provided	Analysers shall be capable to transfer all the data through RS 232 link to a PC based data logger. Accessories To be provided
8.	Section VI, PART-B	Sub-Chapter-III, Volume-III,	5.02.07	23,24 of 52,	Ozone Analyser 1 Principle UV Photometric / Chemiluminescence 2 Measurement O ₃ 3 Display LCD 4 Ranges 0-100 ppb to 0-10 ppm. 5 Minimum detectable limit 0.6 ppb (RMS) 6 Zero drift < 1.0 ppb 7 Span drift +/-1% of measured value /week 8 Response time (upto 95% of full scale) 20 Seconds. 9 Linearity 1% of Full-Scale 10 Calibration Built-in Calibration facility 11 Consumable and Spares Recommended requirement of 3 year continuous operation 12 Digital signal transmission RS 232 link. Analyser shall be capable to transfer all the data through RS 232 link to PC based Data logger. 13 Accessories To be provided	Ozone Analyser 1 Principle UV Photometric / Chemiluminescence 2 Measurement O₃ 3 Display LCD 4 Ranges 0-100 ppb to 0-10 ppm. 5 Minimum detectable limit 0.6 ppb (RMS) 6 Zero drift < 1.0 ppb 7 Span drift +/-1% of measured value /week 8 Response time (upto 95% of full scale) 20 Seconds. 9 Linearity 1% of Full Scale 10 Calibration Built-in Calibration facility 11 Consumable and Spares Recommended requirement of 3 year continuous operation 12 Digital signal transmission RS 232 link. Analyser shall be capable to transfer all the data through RS 232 link to PC based Data logger. 13 Accessories To be provided
9.	Section-VI,	Volume -III,	ANNEX-URE: IC, MEASUR-	58 of 69	AAQMS (SO ₂ , NO _x , CO, Mercury, Ozone, Dust monitoring)	AAQMS (SO ₂ , NO _x , CO, Mercury , Dust monitoring)

AMENDMENT NO. 1 ... TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				EXISTING	READ AS
	SE C/ PART	SUBSEC.	PAGE NO.	CLAUSE NO.		
	PART-A		ING IN-STRUMENTS: SL. NO. 1			
10.	Section VI, PART-B	Sub-Chapter-III, Volume-III	5.01.07	19 of 52,	Three (3) Nos. of local AAQMS stations to be provided for the project. One (1) no. of local AAQMS station shall be installed in the plant premises. Location of other two (2) nos. of local AAQMS stations shall be decided during detail engineering.	To be replaced with Annexure-1.
11.	VI/A	Vol II E1	1 of 9	2.09.00	PLC based control system wherever envisaged shall be provided with 100% redundancy i.e. hot standby.	Clause deleted
12.	VI/A	Vol III	56 of 69	Annexure-IB	-	Note: Electrical mandatory spares if covered under other chapter/volume at Annexures – IA, IB, IC & ID of technical specification are not required to be repeated.
13.	VI/A	Vol III	25 of 69	23.02.00	Mandatory spares	Following clauses are added: h. Unless stated otherwise a 'set' means items or sub-items required for each type/size range of the assembly/ sub-assembly, required for replacement in one main equipment. It is further intended that the assembly/ sub-assembly which

AMENDMENT NO. 1 ... TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO .	SPECIFICATION REFERENCE				EXISTING	READ AS
	SE C/ PA RT	SUBSEC.	PAGE NO.	CLAUSE NO.		
						have different orientation (like left hand or right hand, top or bottom), different direction of rotation or mirror image positioning or any other reasons which result in maintaining two different sets of the spares to be used for the subject assembly/ sub-assembly, these shall be considered as different types of assembly/ sub-assembly. i. Whenever the quantities have been indicated for each type, size, thickness, material, radius, range etc., these shall cover all the items supplied and installed and the breakup for these shall be furnished in the bid. j. Bidder shall not indicate "Not Applicable" against any of the spare (except for those items for which "if applicable" is specified). In case of not applicability, functionally equivalent spare to be mentioned with price in the relevant price schedules. k. Contractor to provide detail break-up of price for each item/head identified in

AMENDMENT NO. 1 ... TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO .	SPECIFICATION REFERENCE				EXISTING	READ AS						
	SE C/ PA RT	SUBSEC.	PAGE NO.	CLAUSE NO.								
						mandatory spares before NOA. During detail Engineering, if it found that one head has several sub-items//heads, then the price allocated to main head shall be divided by the contractor for each sub-item/head in BBU of Mandatory spares.						
14.	VI/B	Vol I M1	5 of 19	2.02.02.02 (ii)	Lube oil storage tanks shall be made from suitable grade of mild steel plates...	Lube oil storage tanks shall be made from suitable grade of stainless steel plates...						
15.	VI/B	M6	6 of 6	-	-----NIL-----	Following clause has been added: 11.00.00 Piping & Valves: <table><tr><td></td><td>Material of Construction</td></tr><tr><td>Piping</td><td>ASTM A-53 type E Gr. B galvanized.</td></tr><tr><td>Valves</td><td>Galvanized carbon steel OR Gun metal (for sizes 50 NB and below)</td></tr></table>		Material of Construction	Piping	ASTM A-53 type E Gr. B galvanized.	Valves	Galvanized carbon steel OR Gun metal (for sizes 50 NB and below)
	Material of Construction											
Piping	ASTM A-53 type E Gr. B galvanized.											
Valves	Galvanized carbon steel OR Gun metal (for sizes 50 NB and below)											

AMENDMENT NO. 1 ... TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO .	SPECIFICATION REFERENCE				EXISTING	READ AS
	SE C/ PA RT	SUBSEC.	PAGE NO.	CLAUSE NO.		
16.	VI/ B	M1	11 of 19	4.00.00 (viii)	Safe means of access shall be provided and to every place of crane where examination/maintenance of any component is involved. A platform shall extend to full length of the crane bridge on both sides of the bridge girder . The platform shall be made of checkered Steel plate. A double tire hand-rail of height 1100 mm shall be provided along the outer edge of the platform and 75mm high toe-guards shall be provided all along the platforms and wherever else required from safety consideration. The width of platform shall not be less than 800mm in width and Guard rails shall be provided on the crab side of the bridge platform	Safe means of access shall be provided and to every place of crane where examination/maintenance of any component is involved. A platform shall extend to full length of the crane. The platform shall be made of checkered Steel plate. A double tire hand-rail of height 1100 mm shall be provided along the outer edge of the platform and 75mm high toe-guards shall be provided all along the platforms and wherever else required from safety consideration. The width of platform shall not be less than 800mm in width and Guard rails shall be provided on the crab side of the bridge platform

ANNEXURE I

5.01.07: Three (3) Nos. of local AAQMS stations to be provided for the project. One (1) no. of local AAQMS station shall be installed in the plant premises. Location of other two (2) nos. of local AAQMS stations shall be decided during detail engineering. The quantity for AAQMS will be as follows:

Sl. No.	Ambient air quality monitoring system(AAQMS)	Quantity
1.	SO2 ANALYSER	03 Nos.
2.	NOX ANALYSER	03 Nos.
3.	CO ANALYSER	03 Nos.
4.	SUSPENDED PARTICULATE MONITORS	06 Nos.
5.	SAMPLING INLET HEADS (PM 10, PM 2.5 AND TSP)	3 Sets for each type
6.	MULTI GAS CALIBRATION SYSTEM	03 Sets
7.	PC BASED DATA LOGGER FOR INDIVIDUAL AAQMS STATIONS	03 Nos.
8.	PC BASED DATA LOGGER FOR CENTRAL STATION WITH A4 LASER PRINTER	1 No.
9.	Wind Speed Sensor	1 No.
10.	WIND DIRECTION SENSOR	1 No.
11.	AIR TEMPERATURE SENSOR	1 No.
12.	RELATIVE HUMIDITY (RH) SENSOR	1 No.
13.	SOLAR RADIATION SENSOR	1 No.
14.	METEREOLOGICAL MAST	1 No.
15.	RAIN GAUGE	1 No.
16.	SAMPLE HANDLING SYSTEM	1 LOT
17.	CONNECTIVITY FROM CENTRAL AAQMS STATION TO INDIVIDUAL STATIONS THROUGH WIRELESS LINK	1 LOT
18.	WINDOW A/C FOR EACH OF INDIVIDUAL AAQMS STATIONS (1.5 TONS EACH)	06 Nos.
19.	UPS FOR EACH INDIVIDUAL AAQMS STATION	03 Nos.
20.	UPS FOR PC BASED CENTRAL STATION	01 No.