ANNEXURE-1 : TECHNICAL DATA SHEET

R2

A – SITE CONDITION

Barometric Pressure …… 736 mmHg.

B – TECHNICAL PARMETERS

|  |  |  |  |
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| **A** |  | **MIST COOLING UNIT PARAMETERS** |  |
| 1) |  | Medium handled | Flue Gas – Analysis ( % by Volume, wet) : CO2 – 10.8 ; O2 – 6.62 ; N2-72.73 ; Moisture – 9.84 .;; Flue Gas with dust concentration of 120 mg/Nm3 and SOx level- 1246 mn/Nm3 |
| 2) |  | Operating Temp at inlet , Deg C | 148 |
| 3) |  | Operating Pressure at inlet, mmwc | 290 |
| 4) |  | Flow, m3/hr | 5,66,800 ( Rated ) ;; 6,23,494 ( Design ) |
| 4-a) |  | Velocity of flue gas , m/s | 4.92 ( Rated ) ;; 5.41 (Design ) |
| 5) |  | MCU location | Outdoor |
| 6) |  | Flue gas outlet temperature, Deg C | 53 (desired) |
| 7) |  | Flue gas outlet Moisture Content | **Fully saturated** |
| 6) |  | Spray water quantity, m3/hr | 28 |
| 7) |  | Excess Water, m3/hr | 5 (Included in above) |
| 8) |  | **Spray water temperature, deg C** | **30** |
| 8-a) |  | Spray water quality | Clarified Water |
| 9) |  | MCU duct details | As per enclosed layout as annexure |
| 9-a) |  | MCU duct dimensions L x W x H, MTR | 8 x 4 x 15 |
| 9-b) |  | MCU arrangement | Vertical |
| 9-c) |  | Flue gas Flow path | From top to bottom |
|  |  |  |  |
| **B)** |  | **DATASHEET - MAIN MISTING NOZZLES** |  |
| 1) |  | No. of Nozzles required | 28 NOS |
| 2) |  | Nozzle model | BETE TF8 (Full Cone) |
| 3) |  | Nozzle inlet pressure required, kg/cm2 g | 8.7 kg/cm2 |
| 4) |  | Nozzle capacity, LPM / (m3/hr) | 17.3 ( 1.038) |
| 5) |  | Total flow , m3/hr | 28 x 1.038 = 29.06 |
| 6) |  | Nozzle Cone diameter, mm | Greater than 1100 |
| 7) |  | Droplet size, micron | Around 90 |
| 8) |  | Nozzle spray angle, degree | BETE to indicate |
| 9) |  | Nozzle orifice dia, mm | BETE to indicate |
| 10) |  | Nozzle MOC | SS 316 L |
| 11) |  | Nozzle datasheet | BETE to furnish |
| **C)** |  | **DATASHEET - EMERGENCY NOZZLES** |  |
| 1) |  | No. of Nozzles required | 28 NOS |
| 2) |  | Nozzle model | BETE TF12 (Full Cone) |
| 3) |  | Nozzle inlet pressure required, kg/cm2 g | 1.5 kg/cm2 |
| 4) |  | Nozzle capacity, LPM / (m3/hr) | 16.5 ( 0.99) |
| 5) |  | Total flow , m3/hr | 28 x 0.99 = 27.72 |
| 6) |  | Nozzle Cone diameter, mm | BETE to indicate |
| 7) |  | Droplet size, micron | BETE to indicate |
| 8) |  | Nozzle spray angle, degree | BETE to indicate |
| 9) |  | Nozzle orifice dia, mm | BETE to indicate |
| 10) |  | Nozzle MOC | SS 316 L |
| 11) |  | Nozzle datasheet | BETE to furnish |

