TENDER DOCUMENT

NIT No.: DLI/C&E/WI-675/272

FOR

Tender for ‘Design, Engineering, Supply, installation, testing and commissioning of VENTILATION PACKAGE AND ASSOCIATED WORKS’ for the project of “Augmentation of Fuel and Flux crushing facilities (Package- 064) of Bhilai Steel Plant, (SAIL)”.

VOLUME – 2C

DRAWING LIST

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NOTE
1. Double door for AC area shall be provided.
2. Average weight per panel will considered as 500 Kgs. for designing civil/structural design.
3. Separate duct for welding power socket, 220V sockets & Lighting shall be submitted.
4. Fixed windows for ventilation in ladies’ room with double glass shall be provided for light during day-time.
5. Safety items like hard gloves, shock treatment shields, discharge rods, rubber mats (of required voltage) in front and rear of all panels change/disconnect boards, fire extinguishers, fire sand buckets, usually fixed in single line diagram of LT&C/PT&C, MCCs, PDCs, ML/Rl, LEDa, SDLbks and key boxes etc., keys and key house, etc.
6. All electrical room shall be constructed with heat proof material at the roof. It is exposed to sunlight.
7. Electrical room shall be considered fire hazardous.
8. Sufficient quantity of the fire extinguisher at various location will be provided as per safety equipment inside sub-station.
9. Intelligent, microprocessor based, addressable type automatic fire detection and alarm systems for all MCC rooms. Electrical room.
10. Cable cellar, Dispatcher/Control room using smoke detectors, heat detectors with sound/visual etc. shall be provided as per TS/GTS.
11. Breaker handling facilities will be provided.
12. Two no of 4 legged wooden stools of height 1m and 4m each will be provided.
13. Permanent emergency light shall also be provided.
14. False ceiling shall be provided for AC room housing IMCC/MCC/PTCS/PUPS/BATTERY BANK.
15. Cable supporting structure in cable cellar shall be provided as per requirement is either from floor or ceiling.
16. Standard size of cable tray shall be in 300 x 450 & 600.
17. Hinged double door with Architectural glass has been provided for power transformer room.
18. All opening/cutout will be closed or covered with Chequered plate.
19. Faint / Chequered plate will be provided to cover the cable trench.
20. Mund & size of cable tray will be provided as per requirements.
21. Panel dimensions are tentative.
22. Draining Water required at various location shall be met by continuous pumping arrangement as per TS/GTS.
23. Spacing between the panels has been provided as per the provisions and may differ due to space constraint.
24. No wall between the dry type transformers has been provided due to space constraint.
25. Mate of the electrical equipment shall be fully watertight and moisture proof.
26. PCB, MCB, DBDS etc. having four minutes only.
27. Cooling tower required for water cooled package air conditioning (PAC) shall be install on the roof of LT&C building.
28. Bottom of the beam in ground floor cable shall be 2.3 Meter.

S. No. | Area                                                   | AMBIENT TEMP |
-------|--------------------------------------------------------|--------------|
1      | ELECTRICAL ROOM                                        | + 45 Deg C   |
2      | PRESSURIZED VENTILATION                                | + 45 Deg C   |
3      | MCC ROOM (HOUSING INTELLIGENT Mux, VFD PANELS, TR CONTROLLERS, Riser Etc.) | + 45 Deg C   |
4      | CABLE CELLAR                                           | + 240 Deg C  |
5      | CONTROL ROOM - AIR CONDITIONED                        |              |
NOTE:
1. Double door for AC area shall be provided.
2. Average weight of AC area shall be considered at 1 Ton per sq. m. for designing civil / structural design.
3. Supersede Dim. for ceiling power circuit, 240V circuit & Lighting shall be provided.
4. Fixed window full protection ventilation room with double glass shall be provided for light during day site.
5. Safety glass the fixed glass should be tampered glass, back-up only the trunk of insulated glass, clearly visible from the street and none of panic/evacuation/evacuation/bells. The entrance/exit, the stair, lobby, main entrance, As built and One Line Drawings of LT PCU LTSS, MCC, PSS, MEDUSA, LIM, SELCO box and key boxes etc., area and key boxes, etc.
6. All electrical work shall be constructed with heat proof material on the roof it is exposed to sunlight.
7. Electrical work shall be completed.
8. Sufficient quantity of fire extinguisher at various locations will be provided as part of safety equipment inside substations.
9. System hand layout shall be provided.
10. Elevator motor room (lighting) shall be provided.
11. Provide emergency lights with 3 hour autonomy.
12. Heaters shall be provided for AC room heating.
13. All switchgear spaces in cabinet shall be provided.
14. Stair case each floor shall be provided as per requirements in either with stair or running.
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18. Stair case each floor shall be provided as per requirements in either with stair or running.
19. Panel dimensions are tentative.
20. Inclined Water required at this location shall be met by continuous pumping arrangement or any other method.
21. Fixing between the panels has been permitted as per the provisions and may vary due to space conditions.
22. The above-listed items are subject to change due to space conditions.
23. All switchgear spaces in cabinet shall be provided.
24. FOR: MECON Ltd. 23-09-21.
25. Lug AC supply shall be provided in HEB 1.5% BATTERIES BANK & ADEQUATE PROVISION.
26. Bottom of the bismuth in a cable shall be 2.2 meter.
27. Cables other than copper shall be insulated 47 hour C.
28. Bottom of the bismuth in a cable shall be 2.2 meter and duct has been considered parallel to the bismuth.