- The UPS shall be designed and manufactured “standalone” for automatic operation
- The UPS shall be designed to supply clean, uninterrupted power to the loads
- The design of UPS shall take account of continuous load capacity, de-rating for non-linear loads and ambient temperature conditions
- The UPS shall be sized to supply all instrumentation and control equipment, including but not limited to, control and computer room hardware, mimic, annunciation, telecommunication systems and emergency lighting etc., where applicable.

6.5.12. Cables

The Consultant shall demonstrate consideration of the following items in the design of cables:

- All LV cables shall be 600/1000V-grade copper single/multi cores
- Where required a neutral conductor shall be in the form of a core of the same section as the other cores - separate neutral cables are not permitted
- Each cable is of sufficient rating for its normal and fault conditions
- Cables shall be sized considering following:
    - Laid in ground/air/duct
    - Depth of laying for cables laid direct in the ground/duct
    - Temperature of the ground/air
    - Group rating factors
    - Thermal resistivity of soil (for cable laid direct in ground/duct)
    - Allowable voltage drop
- Earthing conductor shall be of adequate cross sectional area and be either one core of a multicore cable or a separately run single-core cable. The use of conduit and water pipes in any part of the earth continuity conductor is not permitted.
- General routing of cables shall be indicated on the drawings and the final routes and duct locations agreed with DMAT.

6.5.13. Mobile Generator Junction Box / Stand-by Generator with ATS

A mobile generator junction box shall be provided for mobile generator connection in case of mains power supply failure.

A stationary generator shall be provided for tunnel lifting pumping station.