

### **1.1.26 Warrantee & Guarantee Periods**

- A. For all M&E Equipment and Plants the Warrantee/ Defect Notification Period shall be three years; and the Guarantee Period shall be ten years against all manufacturing defects.

### **1.1.27 Design Criteria**

#### **1.1.28 General**

- A. All plant, equipment and systems shall be designed and constructed to be suitable for open air installation and operation under ambient climatic conditions. Only the central control / LV electrical switchgear panel and PLC panels, derated and suitable for +50 °C ambient temperature, shall be installed in air-conditioned environment.
- B. Remote, outdoor installed, control elements and electrical switchgears, etc. shall be encapsulated in suitable panels made from reinforced and UV-resistant GRP material as detailed in the Electrical Specifications.
- C. Special care shall be taken to avoid condensate at plants and systems due to the existing ambient weather conditions. Weather protection covers for the outdoor installed equipment shall be provided to avoid overheating of equipment and systems due to direct sunshine.
- D. Protective measures against flooding (caused by rainstorms or others) are to be foreseen. The arrangement of plant shall be such to avoid, as far as practicable, accumulation of sand near installations.
- E. Pumps installed in dry wells shall be selected with minimum 10% additional capacity to avoid motor overload during possible flooding event.

### **1.1.29 Storm Water Pumping Stations**

- A. The pumping stations shall handle storm water and road drainage including any spillage on roads of oil, chemicals and other substances or liquids. The Contractor shall confirm that he has taken this into account when selecting suitable materials for the pumps, valves, pipe work, etc.
- B. The pumps, rising mains and other equipment need to be sized for the range of flows resulting from very different flow regimes (high flows after rainfall and low flows all year round).