WATER SUPPLIES DEPARTMENT
STANDARD SPECIFICATION E-90-11
DRAWING FOR
SWITCHBOARD AND CONTROL BOARD

1.   GENERAL

This Specification is supplementary to WSD Standard Specification E-90-01 (Drawing for Electrical and Instrumentation Equipment). Drawings shall be provided to show:

(a)   Circuit / schematic diagram;

(b)   Exterior layout;

(c)   Interior layout; and

(d)   Busbar layout (*for switchboard only*).

2.   CIRCUIT / SCHEMATIC DIAGRAM

Circuits sharing the same functionality shall be grouped into a single line on the drawing for clarity. Circuits shall be grouped by function as follows:

(a)   Current and voltage transformer leads;

(b)   D.C. power supplies;

(c)   A.C. power supplies;

(d)   Tripping control;

(e)   Closing interlocks and control;

(f)   Indication and alarm;

(g)   Instrument lead; and

(h)   Spares

3.   EXTERIOR LAYOUT

Drawing of exterior layout shall show the following details:

(a)   Front and side elevation of panel or console fabrication details (e.g. dimensions, panel material, paint finish, door hinge, structural support, mounting details and lifting provision etc.);

(b)   Installation arrangement (e.g. components mounting arrangement and schedule of component labels etc.); and

(c)   Mounting and fixing arrangement of cable boxes and openings for cable entry and their gland plates.

4.   INTERIOR LAYOUT

Drawing of interior layout shall show the following details:

(a)   Installation arrangement (e.g. wiring routes, wiring channels and components mounting arrangement and schedule of component labels etc.); and

(b)   Ventilation path and cubicles / compartment segregation.

5.   BUSBAR LAYOUT   *(for switchboard only)*

Drawing of busbar layout shall show the following details:

(a)   Metallic material of conductors and their jointing section, insulation material of busbars and their supports;

(b)   Arrangements and dimensions of main busbars and down-droppers;

(c)   Details of busbar joints, busbar supports, busbar mounted fuses and busbar connections to switchgears; and

(d)   Ventilation spacing (e.g. location, size and protective screen etc.)

-    End of this Specification   -