

2.5.8 Lightning Protection and Grounding

1.0 Description

The lightning protection and grounding system provides equipment grounding and instrumentation and control system grounding.

2.0 Electrical Considerations

2.1 Lightning protection is provided for main step-up transformers (MSU), normal auxiliary transformers (NAT) and emergency auxiliary transformers (EAT).

2.2 Main generator, emergency diesel generator (EDG) and station blackout diesel generator (SBODG) neutrals are bonded to the station ground grid.

2.3 AC distribution system transformer neutral points are connected to the station ground grid.

2.4 Ground bus of ac distribution system switchgear, load centers and motor control centers (MCC) listed in Table 2.5.1-2—Class 1E Emergency Power Supply Electrical Equipment Design, is connected to the station ground grid.

2.5 Plant instrumentation grounding system is connected to the station grounding grid.

3.0 Inspection, Tests, Analyses and Acceptance Criteria

3.1 Table 2.5.8-1—Lightning Protection and Grounding System Inspections, Tests, Analyses, and Acceptance Criteria, provides the ITAAC for the lightning protection and grounding system.

Table 2.5.8-1—Lightning Protection and Grounding System Inspections, Tests, Analyses, and Acceptance Criteria

	Commitment	Inspection, Test or Analysis	Acceptance Criteria
2.1	Lightning protection is provided for MSUs, NATs and EATs.	An inspection will be performed.	Lightning protection is provided for MSUs, NATs and EATs.
2.2	Main generator, EDG and SBODG neutrals are connected to the station ground grid.	An inspection will be performed.	The main generator, EDG and SBODG neutrals are connected to the station ground grid.
2.3	AC distribution system transformer neutral points are connected to the station ground grid.	An inspection will be performed.	The ac distribution system transformer neutral points are connected to the station ground grid.
2.4	The ground bus of ac distribution system switchgear, loads centers and MCCs listed in Table 2.5.1-2 is connected to the station ground grid.	An inspection will be performed.	The ground bus of the ac distribution system switchgear, load center and MCCs listed in Table 2.5.1-2 is connected to the station ground grid.
2.5	Plant instrumentation grounding system is connected to the station grounding grid.	An inspection will be performed.	The plant instrumentation grounding system is connected to the station grounding grid.