

2.5.6 Power Transmission (Main Generator) System

1.0 Description

The power transmission system transmits main generator output to the transmission system via the main step-up transformers (MSU) and provides power to the station auxiliary loads via the MSU and switchyard.

2.0 Arrangement

2.1 MSUs are separated from the emergency auxiliary transformers (EAT).

3.0 Mechanical Design Features

3.1 Each MSU has an oil containment system.

3.2 Each MSU has a deluge fire protection system.

4.0 Electrical Considerations

4.1 MSUs and associated isophase bus are sized to support the main generator rated output at generator rated power factor.

5.0 Interface Requirements

5.1 The GEN switchyard circuit breakers shall be sized to supply the load requirements.

6.0 Inspection, Tests, Analyses and Acceptance Criteria

Table 2.5.6-1 lists the power transmission system ITAAC.

Table 2.5.6-1—Power Transmission System ITAAC

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
2.1	MSUs are separated from the EATs.	An inspection will be performed.	Each as-built MSU is separated from the EATs by distance or a fire barrier.
3.1	Each MSU has an oil containment system.	An inspection will be performed.	Each MSU has an oil containment system.
3.2	Each MSU has a deluge fire protection system.	An inspection will be performed.	Each MSU has a deluge fire protection system.
4.1	The MSUs and associated isophase bus are sized to support the main generator rated output at generator rated power factor.	An analysis will be performed.	The main generator rated output at rated power factor is within the as-built MSU and associated isophase bus ratings.