

2.5.6 Combined License Information

2.5.6.1 Basic Geologic and Seismic Information

Regional and site-specific geological, seismological, and geophysical information as well as conditions caused by human activities are addressed in Subsections 2.5.1, 2.5.2.1, 2.5.4, and 2.5.4.1.

2.5.6.2 Site Seismic and Tectonic Characteristics Information

Site-specific information related to the vibratory ground motion aspects of the site and region are addressed in Subsection 2.5.2, 2.5.4.7, and 2.5.4.9.

2.5.6.3 Geoscience Parameters

Site-specific seismic analyses are addressed in Subsections 2.5.2.6 and 2.5.4.11.

2.5.6.4 Surface Faulting

Surface and subsurface geological, seismological, and geophysical information related to the potential for surface or near-surface faulting affecting the site is addressed in Subsection 2.5.3.

2.5.6.5 Site and Structures

Site-specific information regarding the underlying site conditions and geologic features is addressed in Subsections 2.5.4, 2.5.4.1, and 2.5.4.3.

2.5.6.6 Properties of Underlying Materials

The properties of the foundation soils for design of the nuclear island basemat are addressed in Subsections 2.5.4.2, 2.5.4.3, 2.5.4.4, 2.5.4.6, and 2.5.4.7.

2.5.6.7 Excavation and Backfill

Seismic Category I excavations, fills, and slopes are addressed in Subsections 2.5.4.5, 2.5.4.10.4, and 2.5.4.12.

2.5.6.8 Groundwater Conditions

Groundwater conditions are addressed in Subsection 2.5.4.6.

2.5.6.9 Liquefaction Potential

Liquefaction potential is addressed in Subsection 2.5.4.8.

2.5.6.10 Bearing Capacity

The allowable soil bearing capacities for static and dynamic loads are addressed in Subsection 2.5.4.10.

2.5.6.11 Earth Pressures

The static and dynamic lateral earth pressures and hydrostatic groundwater pressures acting on plant safety-related facilities are addressed in Subsection 2.5.4.10.4.

2.5.6.12 Static and Dynamic Stability of Facilities

Soil characteristics affecting the stability of the nuclear island are addressed in [Subsection 2.5.4.10.3](#).

2.5.6.13 Subsurface Instrumentation

Instrumentation for monitoring the performance of the foundations of the nuclear island is addressed in [Subsection 2.5.4.5](#).

2.5.6.14 Stability of Slopes

The static and dynamic stability of soil and rock slopes, the failure of which could adversely affect the nuclear island, is addressed in [Subsection 2.5.5](#).

2.5.6.15 Embankments and Dams

The static and dynamic stability of embankments and dams, the failure of which could adversely affect the nuclear island, is addressed in [Subsection 2.5.5.1.1](#).

2.5.6.16 Settlement of Nuclear Island

Settlement of the nuclear island foundation and adjacent buildings is addressed in [Subsections 2.5.4.10.3](#).

2.5.6.17 Waterproofing System

The waterproofing system used for the foundation mat (mudmat) and below grade exterior walls exposed to flood and groundwater under seismic Category I structures is addressed in [Subsections 3.8.5.1 and 14.3.3.4](#).

2.5.6.18 Soil Properties for Seismic Analysis of Buried Pipes

The AP1000 does not utilize safety-related buried piping. No additional information is required on soil properties.