

## **2.10 Other Systems**

### **2.10.1 Cranes**

#### **1.0 Description**

The containment polar crane and the auxiliary crane provide for the lifting of heavy loads. The cranes can be operated during shutdown and refueling conditions. Some components of the cranes may be operated during plant operation.

#### **2.0 Arrangement**

2.1 The component locations of the cranes are as listed in Table 2.10.1-1—Crane Equipment Mechanical Design.

#### **3.0 Mechanical Design Features**

3.1 The equipment identified in Table 2.10.1-1 can withstand seismic design basis loads without loss of safety function.

#### **4.0 Equipment and System Performance**

4.1 The containment polar crane prevents the uncontrolled lowering of a heavy load.

4.2 The auxiliary crane prevents the uncontrolled lowering of a heavy load.

#### **5.0 Inspections, Tests, Analyses and Acceptance Criteria**

Table 2.10.1-2 lists the cranes ITAAC.

**Table 2.10.1-1—Crane Equipment Mechanical Design**

<b>Equipment Description</b>	<b>Equipment Tag Number<sup>(1)</sup></b>	<b>Equipment Location</b>	<b>Function</b>	<b>Seismic Category</b>
Containment Polar Crane	SMJ-01	Containment Building	Avoid uncontrolled lowering of heavy load.	II
Auxiliary Crane	SMF-01	Fuel Building	Avoid uncontrolled lowering of heavy load.	II

1) Equipment tag numbers are provided for information only and are not part of the certified design.

**Table 2.10.1-2—Cranes ITAAC**

<b>Commitment Wording</b>		<b>Inspections, Tests, Analyses</b>	<b>Acceptance Criteria</b>
2.1	The component location of the cranes are listed in Table 2.10.1-1.	Inspection of the as-built system will be performed.	The components of the cranes are located as listed in Table 2.10.1-1.
3.1	The equipment identified in Table 2.10.1-1 can withstand seismic design basis loads without loss of safety function.	<ul style="list-style-type: none"> <li>a. Inspection will be performed to verify that the equipment identified in Table 2.10.1-1 is located on the Nuclear Island.</li> <li>b. Type tests, analyses, or a combination of type tests and analyses of the equipment will be performed.</li> <li>c. Inspection will be performed verifying that the as-installed equipment, including anchorage, is seismically bounded by the tested or analyzed conditions.</li> </ul>	<ul style="list-style-type: none"> <li>a. The equipment identified in Table 2.10.1-1 is located on the Nuclear Island.</li> <li>b. The equipment identified in Table 2.10.1-1 can withstand seismic design basis loads without loss of function.</li> <li>c. The as-installed equipment, including anchorage, is seismically bounded by the tested or analyzed conditions.</li> </ul>
4.1	The containment polar crane prevents the uncontrolled lowering of a heavy load.	Load testing of the main and auxiliary hoists that handle heavy loads will be performed. The test load will be 125% ( $\pm 5\%$ ) of the rated load of the crane.	The crane lifts the test load and lowers, stops, and holds the test load with the hoist holding brakes.
4.2	The auxiliary crane prevents the uncontrolled lowering of a heavy load.	Load testing of the main and auxiliary hoists that handle heavy loads will be performed. The test load will be 125% ( $\pm 5\%$ ) of the rated load of the crane.	The crane lifts the test load and lowers, stops, and holds the test load with the hoist holding brakes.