

5.2 CONTAINMENT

Applicability

Applies to those design features of the Containment System relating to operational and public safety.

Objective

To define the significant design features of the reactor containment structure.

Specifications

A. REACTOR CONTAINMENT

1. The reactor containment completely encloses the entire reactor and reactor coolant system and ensures that an acceptable upper limit for leakage of radioactive materials to the environment is not exceeded even if gross failure of the reactor coolant system occurs. The structure provides biological shielding for both normal and accident situations.
2. The containment structure is designed for an internal pressure of 47 psig, plus the loads resulting from an earthquake producing 0.10g applied horizontally and 0.05g applied vertically at the same time⁽¹⁾. The containment is also structurally designed to withstand an external pressure 2.5 psig higher than the internal pressure.

B. PENETRATIONS

1. All penetrations through the containment reinforced concrete pressure barrier for pipe, electrical conductors, ducts and access hatches are of the double barrier type⁽²⁾.
2. The automatic Phase A containment isolation (trip) valves are actuated to the closed position either manually or by an automatically-derived safety injection signal. The automatic Phase B containment isolation valves are tripped closed by automatic or manual containment spray actuation. The actuation system is designed such that no single component failure will prevent containment isolation if required.