

6.0 ENGINEERED SAFETY FEATURES

The engineered safety features (ESF) of this plant are those structures, systems and/or components provided to prevent, limit, or mitigate the release of energy and radioactive material in excess of 10CFR50.67 limits in the event of a design basis accident. ESF can be divided into five general groups: containment structures/systems, emergency core cooling systems, habitability systems, fission product removal and control systems, and other structures, systems, and components which perform an ESF function. The systems, or portions of systems, within these groups, are as follows:

Containment Structures/Systems:

- Primary containment,
- Secondary containment,
 - Standby Gas Treatment System (SGTS)
 - Reactor Building Recirculation System
- Containment heat removal system,
 - Containment Spray Cooling (CSC) mode of RHR system
 - Suppression Pool Cooling (SPC) mode of RHR system
- Containment isolation system,
 - Primary Containment Isolation System
- Containment combustible gas control,
 - Primary Containment Ventilation System (only safety-related drywell unit cooler fans, CRD area ventilation fans and associated safety-related ductwork),
 - Containment Atmosphere Control System.

Emergency Core Cooling Systems:

- High pressure coolant injection (HPCI),
- Automatic depressurization system (ADS),
- Core spray (CS), and
- Low pressure coolant injection (LPCI mode of RHR system).

Habitability Systems:

Control Structure HVAC systems which service the Habitability envelope, including:

- Control Room HVAC,
- Control Structure HVAC,
- Computer Room HVAC

Control Structure Emergency Outside Air Supply System,
Battery Room Exhaust,
Kitchen and Toilet Exhaust.

Fission Product Removal and Control Systems:

Standby Gas Treatment System (SGTS)
Reactor Building Recirculation System
Control Structure Emergency Outside Air Supply System,

Other Systems/Components:

Main Steam line isolation system (See Section 5.4.5),
Control rod drive housing support systems (See Sections 4.5.3 and 4.6.1.2),
Control rod velocity limiter (See Section 4.2),
Main steam line flow restrictor (See Section 5.4.4),
Standby liquid control system (See Section 9.3.5), and
Main steam isolation valve - leakage isolated condenser treatment method (ICTM).