

2.11.2.5. Removal of all other potentially radioactive gaseous waste and ventilation discharge from the restricted area shall be by monitored release through the stack.

2.11.2.6. There shall be two stack blowers, each capable of discharging a minimum air flow of 35,000 ft³ per min. through a 350 ft high stack.

2.11.3 Solid Wastes

Solid radioactive waste shall be collected, packaged in suitable containers, and shipped offsite for disposal.

2.12 FUEL STORAGE AND HANDLING

2.12.1 A fuel handling system shall be provided which is capable of remotely installing or removing fuel assemblies, one at a time, from the reactor core.

2.12.2 New fuel storage shall be provided in the new fuel storage racks located in pits in the biological shield. The pits shall have draining provisions and shall normally be covered within a sealed closure. The effective multiplication factor (K_{eff}) for the new fuel storage racks, if the pits were flooded while filled with new fuel, shall be less than 0.95.

2.12.3 Spent fuel storage shall be provided in the spent fuel storage racks located at the bottom of the storage well within the containment vessel. The spent fuel storage racks are designed and shall be maintained with a nominal 7.0 inch center-to-center distance between fuel assemblies in each individual rack assembly and with a boron containing poison slab between each storage location to ensure K_{eff} of < 0.95 when flooded with unborated water. Fuel in the storage well shall have a U-235 loading of < 16.6 grams per axial centimeter for zircaloy clad fuel and ≤ 22.6 grams per axial centimeter for stainless steel clad fuel assemblies.

2.12.4 Water in the storage well shall be maintained at a temperature not exceeding 150°F by a storage well cooling system.

2.12.5 The fuel storage well water level shall be at least 16 feet* above any fuel stored in the spent fuel storage racks.

* During core refueling operations, with the transfer canal flooded to allow movement of irradiated fuel elements from the reactor vessel to the FESW, the depth of water above the spent fuel stored in the upper level of the storage rack is about 23 feet. During a typical refueling, the flooded conditions exists for three to four weeks and the radioactivity decontamination factor of the water is 100 in accordance with Reg. Guide 1.25. Beyond this period the iodine decay offsets the reduced decontamination factor that results when the water level is restored to a depth of 16 feet above the stored fuel elements.

4.2.1.9 The containment building shall be isolated whenever the spent fuel storage well contains irradiated fuel which has decayed less than 43* days after exposure in a critical reactor and a shipping cask for irradiated fuel is being moved by the crane on the 701 foot level or located within one cask length of the top of the spent fuel storage well or is within the spent fuel storage well. During cask movement near or at the FESW the water level in the FESW must be at least 16 ft above the top of the fuel storage rack (no more than 7 feet below the top of the FESW).

* 43 days for off loading less than one half of the core, i.e. less than 36 fuel elements. 51 days for off loading more than 36 fuel elements.

4.2.8 Spent Fuel Storage and Handling

4.2.8.1 Fuel elements and control rods shall be inserted or removed from the reactor vessel one at a time.

4.2.8.2 Irradiated fuel elements shall be stored underwater in spent fuel storage racks that are positioned on the bottom of the spent fuel storage well, or in an approved shipping cask.

4.2.8.3 During the handling of irradiated fuel elements that have been operated at power levels greater than 1 Mwt the depth of water in the reactor upper cavity and/or the spent fuel storage well shall be at least 2 ft above the active fuel.

4.2.8.4 Irradiated fuel elements shall have decayed for at least 72 hours prior to placing them in the spent fuel storage well.

4.2.8.5 With the exception of a spent fuel shipping cask, the core spray bundle, the transfer canal shield plug and the other components and fixtures that are normally located and used within the spent fuel storage well, no objects heavier than a fuel assembly shall be handled over the spent fuel storage well.