

to the spent fuel pool 10 days after the emergency shutdown.

3. 105°F component cooling water temperature.

Results:

<u>No. of Cooling Trains Operation</u>	<u>Total Heat Load (10<sup>6</sup> Btu/hr)</u>	<u>Spent Fuel Pool Bulk Temperature (°F)</u>
1	30.384	158
2	30.384	131

The computer code BPOOL is used to analyze the natural circulation cooling of the spent fuel in the event of a loss of all external means of cooling for the spent fuel pool. BPOOL is a proprietary program of NAI. The code is based on the assumption that boiling takes place near the top of the fuel channel. BPOOL evaluates the saturation properties of the coolant on the basis of the static pressure at the top of the storage racks. These properties include water density, temperature, and steam density. The steam is assumed to separate and flow out of the pool. The water at the saturation temperature corresponding to the pressure at the top of the racks flows downward to the inlet of the storage racks. The static pressure at this location is higher than the pressure at the top of the storage racks and as a result the fluid is subcooled as it enters the fuel assembly. The fluid becomes less dense as it passes up the fuel channel. Near the top of the fuel channel the fluid reaches saturation conditions and net boiling occurs. The computer code, BPOOL, assumes a loss of all external means of cooling, but it should be noted that the Farley spent fuel pool cooling system is redundant and single failure-proof.

Under normal conditions, voiding between fuel assemblies is highly unlikely because these spaces are not sealed to keep out water. Holes are provided at the top and bottom of each inner can to permit a definitive flowpath for circulation of water in these spaces.

III.1.5.(4) Potential Fuel and Rack Handling Accidents

The high-density poison racks are of a free-standing design, utilizing bottom support pads, resting on the floor of the spent fuel pool. The installation of the high-density racks will include removal of the existing 13-in. center storage racks. The high-density racks will be installed dry since there is no fuel in the storage pool.

The following is a sequence of events for installing the high-density poison racks.

Phase I      Install and test a temporary crane for handling the existing racks and the high-density racks. The