Technical Specification Change Request No. 9

Replace pages 3/4 6-12 and B 3/4 6-3 with the attached replacement pages 3/4 6-12 and B 3/4 6-3.

Reason for Proposed Change

Condition 2.C. (4) of the Crystal River Unit #3 Operating License required FPC to isolate the sodium thiosulfate addition tank from the chemical additive system until such time as permanent modifications to the system could be submitted to the Commission for review and approval. These proposed modifications including proposed changes to the plant technical specifications were to be submitted by FPC to the Commission within 9 months of receipt of the CR #3 Operating License. The attached technical specification pages reflect the modifications made to the chemical compositions of the additive system, i.e. NaOH in both BST-1 and BST-2, and are consistent with the proposed modifications being submitted for review by the Commission.

Safety Analysis Justifying Proposed Change

The attached GAI Report, "Reactor Building Spray and ECCS Storage Tanks Drawdown Transient Analysis," provides detailed justification in support of the proposed changes to the Chemical Additive System and assures that these changes do not in any way diminish the level of safety provided by the original design. Specifically, the GAI report addresses the following main points:

1) Verified that the original system drawdown analysis and performance tests were still applicable to the Chemical Additive System as modified.

2) Verified that the proper amount of NaOH is injected into the system for proper Ph control and optimum iodine removal under all modes of system operation, including all single failure cases considered in the original safety analysis.

3) Verified that the operation of the modified Chemical Additive System during accident conditions has negligible effect on the doses at the site boundary and low population zone that were calculated in the original MHA analysis. The original calculated doses and the doses calculated for the modified system are only a small fraction of the dose limits specified by 10CFR100.

Therefore, none of the requirements applicable to the safety analysis are diminished by the proposed changes and no unreviewed safety question is involved.

SPRAY ADDITIVE SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.2 The spray additive system shall be OPERABLE with spray additive tanks containing at least:

a. A contained volume in BST-1 of between 12,970 and 13,920 gallons of solution containing between 80,000 and 95,000 ppm of sodium nydroxide (NaOH), and

b. A contained volume in BST-2 of between 11,190 and 12,010 gallons of solution containing between 80,000 and 95,000 ppm of sodium hydroxide (NaOH).

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the spray additive system inoperable, restore the system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the spray additive system to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the next 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.2 The spray additive system shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position, and

b. At least once per 6 months by:

1. Verifying the contained solution volume in the tanks, and

2. Verifying the concentration of the NaOH solution by chemical analysis.

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

3/4.6.2.1 CONTAINMENT SPRAY SYSTEM

The OPERABILITY of the containment spray system ensures that containment depressurization and cooling capability will be available in the event of a LOCA. The pressure reduction and resultant lower containment leakage rate are consistent with the assumptions used in the safety analyses. The leak rate surveillance requirements assure that the leakage rates assumed for the system during the recirculation phase will not be exceeded.

3/4.6.2.2 SPRAY ADDITIVE SYSTEM

The OPERABILITY of the spray additive system ensures that sufficient NaOH is added to the containment spray in the event of a LOCA. The minimum NaOH volume and concentration ensures sufficient NaOH is available to remove organic iodine from the containment atmosphere and return it to the spray water. The limits on contained sodium hydroxide solution volume and concentration ensure a pH value of between 7.2 and 11.0 of the solution within the containment sump after a design basis accident. The pH band minimizes the evolution of iodine and minimizes the effect of chloride and caustic stress corrosion cracking on mechanical systems and components. The contained water volume limit includes an allowance for water not usable because of tank discharge line location or other physical characteristics.

3/4.6.2.3 CONTAINMENT COOLING SYSTEM

The OPERABILITY of the containment cooling system ensures that:

1. The containment air temperature will be maintained within limits during normal operation, and

2. Adequate heat removal capacity is available when operated in conjunction with the containment spray systems during post-LOCA conditions.