UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 218 TO FACILITY OPERATING LICENSE NO. DPR-33

AMENDMENT NO. 234 TO FACILITY OPERATING LICENSE NO. DPR-52

AMENDMENT NO. 192 TO FACILITY OPERATING LICENSE NO. DPR-68

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3

DOCKET NOS. 50-259, 50-260, AND 50-296

1.0 INTRODUCTION

By letter dated September 30, 1993, the Tennessee Valley Authority (the licensee) requested amendments of the technical specifications (TS) for the Browns Ferry Nuclear Plant (BFN) Units 1, 2, and 3. The proposed changes clarify current procedures used at BFN to verify the spent fuel pool water level and provide numerical correspondence between the temperature and sampling Limiting Conditions for Operation and the corresponding Surveillance Requirements. The licensee provided this submittal in response to Inspection Reports 50-259/93-07, 50-260/93-07, and 50-296/93-07, dated April 16, 1993. The resident inspector noted that Technical Specification Surveillance Requirement 4.10.C.1 requires that the spent fuel pool water level be recorded daily, whenever irradiated fuel is stored in the spent fuel pool. The inspector questioned the adequacy of using a control room annunciator for fulfilling this TS requirement.

2.0 BACKGROUND

The spent fuel pool water level monitoring, indication, and alarming functions are classified under the Fuel Pool Cooling and Cleanup system in the BFN Final Safety Analysis Report (FSAR), Chapter 10.5. Per the BFN FSAR, the Power Generation Design Basis for the fuel pool cooling and cleanup system is as follows:

1. The fuel pool cooling and cleanup system shall minimize the corrosion product buildup and control water clarity, so that the fuel assemblies can be efficiently handled underwater,

2. The fuel pool cooling and cleanup system shall minimize the fission product concentration in the water which could be released from the pool to the Reactor Building environment,

3. The fuel pool cooling and cleanup system shall monitor fuel pool water level and maintain a water level above the fuel sufficient to provide shielding for normal building occupancy.

The spent fuel pool water level surveillance requirement is being revised to explicitly describe the methods currently used to verify fuel pool water level, and to provide an alternative method to verify pool level which allows for maintenance on the primary fuel pool water level instrumentation. The fuel pool water level will be recorded as "above the low level alarm setpoint" or, in case of maintenance restrictions, the water level will be measured directly.

The water level in the spent fuel storage pool provides absorption of soluble fission gases and transport delays of insoluble gases that must pass through the water before being released to the secondary containment atmosphere. The water also provides radiation shielding for workers who may be in the vicinity. Since the proposed TS does not reduce the water level required to be maintained in the spent fuel pool, the shielding and gas absorption capability of the water is not diminished. Therefore, the proposed change is acceptable.

The spent fuel pool water temperature and sampling and analysis surveillance requirements are being revised to provide a numerical correspondence between the given Limiting Condition for Operation and its corresponding Surveillance Requirement. Also, the temperature and sampling and analysis revisions clarify the wording associated with the spent fuel pool surveillance requirements respectively. These changes are administrative in nature and do not alter the intent of the TS, therefore, the staff finds them acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Alabama State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes the surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (58 FR 67862). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

5.0 CONCLUSION

The Commission has concluded, based upon the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and (3) issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: March 2, 1995