YANKEE ATOMIC ELECTRIC COMPANY

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United States Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Attention: Mr. John Hickman, Project Manager
Decommissioning Section
Project Directorate IV and Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Reference: License No. DPR-3 (Docket No. 50-29)

Subject: 10CFR50.59 Summary Report for 2000

Enclosed is the Yankee Atomic Electric Company 10CFR50.59 Summary Report for 2000. The attached report briefly describes the facility changes, tests, and experiments implemented without prior NRC approval as allowed under the provisions of 10CFR50.59. This report is submitted in accordance with 10CFR50.59(d)(2).

Subsequent summary reports will be issued on a biennial basis pursuant to the reporting requirements delineated in 10CFR50.59(d)(2).

We trust this information is satisfactory; however, if you have any questions, please contact us.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

J.A. Kay

James A. Kay
Manager of Regulatory Affairs

cc: Mr. R. Bellamy, USNRC, Region I

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YANKEE ATOMIC ELECTRIC COMPANY

YANKEE NUCLEAR POWER STATION

(DOCKET NO. 50-29)

10CFR50.59 SUMMARY REPORT FOR 2000

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A. Engineering Design Changes (EDCs)

- **EDC 99-302, Independent Spent Fuel Storage Installation (ISFSI) Facility Design and Construction**

This EDC constructed an Independent Spent Fuel Storage Installation (ISFSI) at the YNPS site for use with the NAC supplied Multi-Purpose Canister (MPC) system for spent fuel and Greater than Class C (GTCC) waste storage. The ISFSI consists of a concrete pad, access road, security fences, required instrumentation, lighting, security equipment, equipment in the existing Gatehouse and associated electrical power. Specifically, the activities entailed the excavation for, and construction of, the concrete ISFSI pad, provisions for electrical, instrumentation and security needs associated with the ISFSI site, and enhancements to the ISFSI roadway.

The EDC's scope was determined to not adversely affect any other ongoing decontamination activities, dismantlement activities, radioactive material packaging, radioactive material storage, or radioactive material handling activities in support of decommissioning. The scope of this EDC was found to have no impact on Technical Specifications or its bases. In addition, it was determined that no Unreviewed Safety Question was created.

B. Non-Nuclear Safety Changes (NNS)

- **NNS 00-001, Addition of New Filter/Demineralizer to Spent Fuel Pool**

This NNS modification installed a new filter/demineralizer in the spent fuel pool in order to aid in waste volume reduction during upcoming fuel pool activities. The unit is a Chem-Nuclear Model No. UDF-48, 125 gpm, submersible, sluiceable cavity filtration / ion exchange system with an internal capacity of 38 ft^3. The filter is a stand-alone unit, which is designed to be submersed in the spent fuel pool. Locating the unit in the spent fuel pool eliminates costly installation of piping, shielding, and eliminates the potential for leaks and potential contamination of area outside the SFP. The new filter will be located on the SFP floor and positioned as needed for fuel pool activities.

Off normal conditions and consequences associated with the installation and operation of the new demineralizer in the spent fuel pool were found to not result in any challenges to plant safety. The evaluation found that this modification would not result in a malfunction which could affect the accidents as described and evaluated in the FSAR or create a potential for a new accident with off-site consequences. Installation of the new filter into the Spent Fuel Pool was bounded by the existing cask drop analysis. No Unreviewed Safety Question was created as a result of this activity. The activity was found to not impact Technical Specifications or its bases.

C. Temporary Design Changes

- **Temporary Change Request (TCR) No. 00-19, Installation of the Foundation and Floor for the New Fuel Transfer Enclosure**

This TCR allowed for the excavation of soil and the placement of concrete for the footings, foundation and floor of the Fuel Transfer Enclosure (FTE). The FTE will support fuel handling operations necessary to relocate spent nuclear fuel from the Spent Fuel Pit (SFP) to the Independent Spent Fuel Storage Installation (ISFSI). Administrative controls assured that buried conduit and Auxiliary Service Water (ASW) lines in the vicinity of trenching operations were not damaged. Excavation activities were performed so as not to affect the SFP Building located nearby or potentially reduce SFP water level. Operation and failure modes of mechanical systems used to provide cooling to the SFP and other systems were not affected by this TCR.

The installation activities associated with this TCR were found to have no affect on the SFP structure, stainless steel liner, the SFP cooling pressure boundary, the SFP storage racks or the spent fuel assemblies. Blasting was prohibited during excavation activities. This TCR did not modify the manner in which equipment within the SFP Building was operated and did not challenge any of the physical protective boundaries or fission product barriers. The Defueled Technical Specifications were determined to be unaffected by this activity. It was determined that no Unreviewed Safety Question was created.

D. Other Changes

- **Safety Evaluation – FSAR Update to Create a PSDAR within the FSAR**

This effort performed an update to the YNPS FSAR primarily to segregate certain information concerning post-shutdown decommissioning activities in a manner that conforms to the standard format and content of a post-shutdown decommissioning activities report (PSDAR). NRC Draft Regulatory Guide DG-1071 recommends that licensees with an approved Decommissioning Plan (DPlan) "extract pertinent detail from the decommissioning plan and submit a PSDAR update in the format and content specified by [DG-1071]." All of the FSAR changes can be classified in one of the following categories:

1. Changes strictly administrative in nature, comprising:
   -changes reflecting grammatical corrections,
   -deletion of information no longer pertinent to the FSAR,
   -editorial changes due to rearrangement of text.
2. Changes due to new information (e.g., updated decommissioning cost estimate).
3. Changes due to new or revised regulations.
4. Changes due to an update in applied methodology or new information.
5. Changes approved since the last biennial update (Document Notice of Revision in progress or DNR's).

This evaluation, which was in support of the aforementioned changes 1 through 4 to the FSAR, determined that no Unreviewed Safety Questions (USQs) were created as a result of this activity.

- **Safety Evaluation – Installation/Use of Fuel Assembly Envelope Gauge in Spent Fuel Pool**

The installation and use of a fuel assembly envelope gauge in the Spent Fuel Pool was required in order to measure fuel assembly bowing during fuel inspection. In support of using the fuel assembly envelope gauge, the safety evaluation reviewed the raising of lower and upper tier fuel assemblies to the fuel assembly envelope gauge thereby exceeding the 6 inch travel restriction over lower tier racks. This evaluation determined that by relocating certain fuel assemblies from racks within the procedurally controlled load path to the envelope gauge, the effects of a fuel assembly drop would be bounded by existing analysis. The activity was found to not challenge any of the physical protective boundaries or fission product barriers. The Limiting Conditions for Operation, Surveillance Requirements, Design Features, and Bases identified in the Technical Specifications were not affected by this activity. It was determined that no Unreviewed Safety Question was created.

- **Safety Evaluation – Installation of Existing Grate in Lower Tier (Row 25 - East Bay) of the Spent Fuel Pool**

This activity installed a metal grate in the lower tier east bay of Row 25 in the spent fuel pool to serve as a protective barrier during fuel movements conducted during fuel inspections. Installation of grating over lower tier fuel racks is permissible per YNPS operating procedure OP-5969. This activity is consistent with or bounded by existing accident analyses. Inadvertent draining of the spent fuel pool will not occur as a result of this activity. The activity was found to not challenge any of the physical protective boundaries or fission product barriers. The Limiting Conditions for Operation, Surveillance Requirements, Design Features, and Bases identified in the Technical Specifications were not affected by this activity. The evaluation determined that no Unreviewed Safety Question was created.

- **Safety Evaluation – Fire Protection Technical Requirements Revision**

This safety evaluation supported Revision 3 to the Fire Protection Technical Requirements Manual (FPTRM). These changes included:

- Effects due to removal of a detector from its base;
- The "two in two out rule" per 10CFR1910.134;
- Allowing certain pre-determined changes without need for further 10CFR50.59 evaluations;
- Adding the Turbine Building to the section requiring fire watch patrols and removal of fire suppression equipment;
- Revision to surveillance requirements 2.A.1 and 2.A.2 to conform with NFPA 72.
- Permanent equipment removals performed since Revision 2 of the manual;
- Revision to the Fire Brigade size;

- Addition of the Secondary Maintenance Shop to the Storeroom and Warehouse Dry Sprinkler System;
- Modifications to the VC fire hose station requirement;
- Revision to surveillance frequencies in accordance with NFPA 72.

These changes were found not to affect any fire protection systems associated with the safe storage of spent fuel or those that might minimize the release of radiological material. The Technical Specifications and its bases were not effected by this activity. It was determined that no Unreviewed Safety Question was created.