

February 20, 2002

Mr. J. A. Price
Vice President - Nuclear Technical Services - Millstone
c/o Mr. David A. Smith
Dominion Nuclear Connecticut, Inc.
Rope Ferry Road
Waterford, CT 06385-0128

SUBJECT: MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3 - ISSUANCE OF
AMENDMENT RE: FUEL HANDLING ACCIDENTS INSIDE CONTAINMENT
AND VENTILATION SYSTEMS (TAC NO. MA9364)

Dear Mr. Price:

The Commission has issued the enclosed Amendment No. 203 to Facility Operating License No. NPF-49 for the Millstone Nuclear Power Station, Unit No. 3, in response to your application dated June 29, 2000, as supplemented by letters dated October 16, 2000, January 25, April 4, and September 21, 2001.

The amendment modifies Technical Specifications (TSs) Sections 3.3.2, "Instrumentation - Engineered Safety Features Actuation System Instrumentation;" 3.7.7, "Plant Systems - Control Room Emergency Ventilation System;" 3.7.8, "Plant Systems - Control Room Envelope Pressurization System;" 3.7.9, "Plant System - Auxiliary Building Filter System;" 3.9.1.1, "Refueling Operations - Boron Concentration;" 3.9.1.2, "Refueling Operations - Boron Concentration;" 3.9.2, "Refueling Operations - Instrumentation;" 3.9.4, "Refueling Operations - Containment Building Penetrations;" 3.9.9, "Refueling Operations - Containment Purge and Exhaust Isolation System;" 3.9.10, "Refueling Operations - Water Level - Reactor Vessel;" and 3.9.12, "Refueling Operations - Fuel Building Exhaust Filter System." The Bases for these TSs will be modified as a result of these proposed changes.

At the time of the application, NNECO was the licensed operator of Millstone Nuclear Power Station, Unit No. 3 (MP3). On March 31, 2001, the majority of the owners of MP3 transferred their ownership interest in MP3 to Dominion Nuclear Connecticut, Inc. (DNC/licensee), and NNECO's operating authority for MP3 was transferred to DNC. By letter dated April 2, 2001, DNC requested that the Nuclear Regulatory Commission (NRC) continue to review and act upon all requests before the NRC that had been submitted by NNECO.

J. Price

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A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/RA/

Victor Nerses, Sr. Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-423

Enclosures: 1. Amendment No. 203 to NPF-49
2. Safety Evaluation

cc w/encls: See next page

J. Price

-2-

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

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DOMINION NUCLEAR CONNECTICUT, INC.

DOCKET NO. 50-423

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 203

License No. NPF-49

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Dominion Nuclear Connecticut, Inc., (the licensee) dated June 29, 2000, as supplemented by letters dated October 16, 2000, January 25, April 4, and September 21, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-49 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 203, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of issuance, and shall be implemented within 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA CGratton for/

James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: February 20, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 203

FACILITY OPERATING LICENSE NO. NPF-49

DOCKET NO. 50-423

Replace the following pages of the Appendix A Technical Specifications, with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

<u>Remove</u>	<u>Insert</u>
3/4 3-22	3/4 3-22
3/4 3-24	3/4 3-24
3/4 3-39	3/4 3-39
3/4 3-40	3/4 3-40
3/4 3-41	3/4 3-41
3/4 7-15	3/4 7-15
3/4 7-16	3/4 7-16
3/4 7-17	3/4 7-17
3/4 7-18	3/4 7-18
3/4 7-19	3/4 7-19
3/4 7-20	3/4 7-20
3/4 9-1	3/4 9-1
3/4 9-1a	3/4 9-1a
3/4 9-2	3/4 9-2
3/4 9-4	2/4 9-4
3/4 9-10	3/4 9-10
3/4 9-11	3/4 9-11
3/4 9-13	3/4 9-13
3/4 9-15	3/4 9-15
B3/4 7-12	B3/4 7-12
B3/4 7-13	B3/4 7-13
B3/4 7-13a	B3/4 7-13a
B3/4 7-15	B3/4 7-15
B3/4 7-16	B3/4 7-16
B3/4 7-18	B3/4 7-18
B3/4 7-19	B3/4 7 19
B3/4 7-20	B3/4 7-20
B3/4 7-21	B3/4 7-21
B3/4 7-23	B3/4 7-23
-----	B3/4 7-23a
B3/4 9-1a	B3/4 9-1a
B3/4 9-8	B3/4 9-8
B3/4 9-9	B3/4 9-9

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 203

TO FACILITY OPERATING LICENSE NO. NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

DOCKET NO. 50-423

1.0 INTRODUCTION

By letter dated June 29, 2000, as supplemented by letters dated October 16, 2000, January 25, April 4, and September 21, 2001, Northeast Nuclear Energy Company (NNECO/licensee) submitted a request to amend the Technical Specifications (TSs) for the Millstone Nuclear Power Station, Unit No. 3 (MP3). The proposed changes are based upon revisions to the licensee's analyses of the MP3 Fuel Handling Accident Inside Containment (FHAIC) and Fuel Handling Accident Inside the Spent Fuel Pool (FHAISFP). The amendment modifies TSs Sections 3.3.2, "Instrumentation - Engineered Safety Features Actuation System Instrumentation;" 3.7.7, "Plant Systems - Control Room Emergency Ventilation System;" 3.7.8, "Plant Systems - Control Room Envelope Pressurization System;" 3.7.9, "Plant System - Auxiliary Building Filter System;" 3.9.1.1, "Refueling Operations - Boron Concentration;" 3.9.1.2, "Refueling Operations - Boron Concentration;" 3.9.2, "Refueling Operations - Instrumentation;" 3.9.4, "Refueling Operations - Containment Building Penetrations;" 3.9.9, "Refueling Operations - Containment Purge and Exhaust Isolation System;" 3.9.10, "Refueling Operations - Water Level - Reactor Vessel;" and 3.9.12, "Refueling Operations - Fuel Building Exhaust Filter System." The Bases for these TSs will be modified as a result of these proposed changes. The October 16, 2000, January 25, April 4, and September 21, 2001, letters provided clarifying information that was within the scope of the original application and did not change the staff's proposed no significant hazards consideration determination.

At the time of the application, NNECO was the licensed operator of MP3. On March 31, 2001, the majority of the owners of MP3 transferred their ownership interest in MP3 to Dominion Nuclear Connecticut, Inc. (DNC/licensee), and NNECO's operating authority for MP3 was transferred to DNC. By letter dated April 2, 2001, DNC requested that the Nuclear Regulatory Commission (NRC) continue to review and act upon all requests before the NRC that had been submitted by NNECO.

In the amendment request, the licensee stated that the proposed changes associated with the revised FHAIC analysis will result in an increase in the consequences of an FHAIC since the current analysis of an FHAIC does not assume the release of any radioactive material from containment and the revised analysis does assume a release of radioactive material. However, the licensee notes that the calculated consequences for the revised FHAIC analysis are bounded by the consequences of the Design Basis Loss of Coolant Accident (DBLOCA).

In addition, the FHAISFP analysis has been revised resulting in a small increase in the associated consequences. The licensee states that the revised fuel handling accident (FHA) analyses demonstrate that the radiological consequences are well within the offsite dose criteria of 10 CFR Part 100 and the dose criteria of 10 CFR Part 50, Appendix A, General Design Criterion (GDC) 19, for Control Room (CR) operators. The licensee proposed numerous changes to the MP3 TSs to be consistent with the revised FHA analyses as well as to address the impact of a loss of control room and fuel building boundary integrity on the associated ventilation systems. The licensee also proposed enhancements to several TS requirements.

2.0 BACKGROUND

2.1 Fuel Handling Accident Analysis Evaluation

Regulatory requirements and guidance upon which the staff relies to evaluate the acceptability of licensee fuel handling accident analyses include:

- 10 CFR Part 100, "Reactor Site Criteria," for offsite exposure limits;
- 10 CFR Part 50, Appendix A, General Design Criterion (GDC) 19, "Control Room," for control room personnel dose limits;
- Regulatory Guide 1.25 (Safety Guide 25), "Assumptions Used for Evaluating the Potential Radiological Consequences of a Fuel Handling Accident in the Fuel Handling and Storage Facility for Boiling and Pressurized Water Reactors," March 3, 1972; for acceptable analysis assumptions; and
- Standard Review Plan (SRP) Section 15.7.4, "Radiological Consequences of Fuel Handling Accidents."

2.2 Content of Technical Specifications

Changes to TSs addressed in this amendment include relocation of certain TS requirements that do not satisfy the following regulatory criteria for retention in TSs.

Section 182a of the Atomic Energy Act of 1954, as amended (the Act) requires applicants for nuclear power plant operating licenses to include the TSs as part of the license. The Commission's regulatory requirements related to the content of the TSs are set forth in 10 CFR 50.36. The regulation requires that the TSs include items in eight specific categories. The categories are (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; (5) administrative controls; (6) decommissioning; (7) initial notification; and (8) written reports. However, the regulation does not specify the particular requirements to be included in a plant's TSs.

Further, Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36 specifies four criteria to be used in determining whether a particular matter is required to be included in a limiting condition for operation (LCO), as follows: (1) Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary; (2) a process variable, design feature, or operating restriction that is an initial condition of a design-basis accident or transient analysis that either assumes the failure of, or presents a challenge to, the integrity of a fission product barrier; (3) a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a

design-basis accident or transient that either assumes the failure of, or presents a challenge to, the integrity of a fission product barrier; or (4) a structure, system, or component that operating experience or probabilistic safety assessment has shown to be significant to public health and safety. LCOs and related requirements that fall within or satisfy any of the criteria in the regulation must be retained in the TSs, while those requirements that do not fall within or satisfy these criteria may be relocated to licensee-controlled documents.

3.0 EVALUATION

The licensee proposed changes to the current TSs based, in part, on its revised FHA analyses. The staff's evaluation first addresses the revised FHA analyses, and then each of the proposed changes to the current TSs.

3.1 Evaluation of FHA Analyses

The licensee used updated control room atmospheric dispersion (X/Q) values in the radiological analyses of FHAs. The updated X/Q values were used in both the FHAIC and FHAISFP analyses. The licensee observed some inconsistencies in the statistical analyses for the older, hand calculated X/Q values versus the newer, updated X/Q values and determined that X/Q values recalculated using a computer should be used in the FHA dose assessment. Both sets of calculations used the Murphy-Campe methodology, which is a methodology in the NRC SRP. The updated X/Q values are more limiting. Based on this, the staff determined that the updated X/Q values are acceptable for use in the design basis accident dose analyses of the MP3 FHAs.

3.1.1 Fuel-Handling Accident Inside Containment (FHAIC)

The current analysis for the FHAIC at MP3 assumes that the containment is isolated as required by TS 3.9.4. Under the current TS and procedures, containment purge is in operation during fuel handling, with an operable containment purge isolation system that will secure containment purge upon detection of high radiation levels inside containment. The physical design of the containment and the containment purge isolation system response will prevent the release of radioactive material through the containment purge exhaust. Therefore, the licensee did not previously calculate radiological consequences for the FHAIC.

DNC has revised the FHAIC dose analysis to allow the containment personnel access hatch doors to remain open during core alterations and fuel movement inside containment. The analysis assumes that at least one containment personnel access hatch door is able to be closed within 10 minutes after a fuel-handling accident. The licensee's control room dose calculation assumed the entire amount of radioactive material released to the containment from the damaged fuel was exponentially released to the environment within 2 hours, which is consistent with guidance in RG 1.25. However, the licensee's offsite dose calculation took credit for the manual closure of the personnel access hatch door by assuming that the release of radioactive material to the environment ends at 10 minutes.

In addition, the analysis included ICRP-30 (International Commission on Radiation Protection) iodine dose conversion factors, a core inventory based on high burnup fuel, and the assumption that all 264 fuel rods of the dropped assembly plus an additional 50 fuel rods from the impacted assembly will be damaged. The licensee stated that in all instances of the fuel assembly drop scenario evaluation, except for one, there will be at least 23 feet of water over the assembly.

In the one instance where this is not the case (a scenario where the fuel assembly falls on the reactor vessel flange), there is slightly less than 23 feet of water (the licensee indicated 22 feet) over the assembly. However, the staff considers the usually applied assumption of a pool iodine decontamination factor (DF) equal to 100 for 23 feet of water above the damaged fuel assembly would still be applicable since the DF is conservatively calculated and 22 feet is not significantly less than 23 feet. Therefore, the staff finds the licensee's justification for continued use of a DF of 100 to be acceptable. The staff has determined that the licensee's assumptions and methodology for the dose analysis of an FHAIC are acceptable because they conform to Standard Review Plan (SRP) 15.7.4 and the guidance in RG 1.25.

DNC also proposed to revise certain TSs sections to allow the Control Room boundary to be opened intermittently, under administrative controls, during fuel movement inside the containment. The administrative controls consist of "stationing a dedicated individual at the opening who is in constant communication with the control room. This individual will have a method to rapidly close the opening when the need for control room isolation is indicated." The staff found this revision acceptable (for details, see staff evaluation in Section 3.2.2B). The licensee documented the use of administrative controls in a revision to the Bases for TS 3/4.7.7.

The licensee's analysis demonstrates that the radiological consequences of the revised design-basis FHAIC at MP3 are well within the reference values given in 10 CFR Part 100. "Well within" is defined by SRP Section 15.7.4 as 25 percent or less of the 10 CFR Part 100 limits (i.e., a whole body acceptance criterion of 6 rem and a thyroid acceptance criterion of 75 rem). Control room dose results are within the 10 CFR Part 50, Appendix A, GDC 19 reference value of 5 rem whole body or its equivalent (30 rem thyroid, as defined by SRP Section 6.4). The radiological consequences to the dedicated individual stationed at the Control Room boundary also do not exceed GDC 19 reference values. The licensee's results are summarized in Table 1.

Table 1
Revised Doses for Fuel Handling Accident Inside Containment

Location	Thyroid (rem)	Thyroid Acceptance Criterion (rem)	Whole Body (rem)	Whole Body Acceptance Criterion (rem)
EAB ¹	68.1	75	0.28	6
LPZ ¹	3.66	75	0.015	6
MP3 Control Room ²	24.4	30	0.321	5
MP2 Control Room ²	9.18	30	0.176	5

The licensee proposed changes to TS 3.9.4 to allow both doors of the containment personnel access hatch to remain open during fuel movement in containment, provided administrative

¹EAB is Exclusion Area Boundary and LPZ is Low Population Zone

²The radioactivity released from MP3 containment to the environment may also be drawn into the Millstone Unit 2 (MP2) control room by the Unit 2 Control Room Emergency Ventilation System.

controls are in place to ensure that at least one door can be closed within a specified time. The licensee also revised TS 3.9.4.b to refer to the personnel access hatch instead of referring to an airlock. This is consistent with MP3 terminology.

Though the licensee indicated that the radiological consequences of an FHAIC would be within design limits, and that a designated individual will be continuously available to close the door, the staff had questions related to the licensee's ability to successfully complete all the required actions to allow manual closure of the personnel access hatch within the 10-minute limit. In response to the staff's request for additional information (RAI), the licensee provided clarification of the difference between a "designated individual" and a "dedicated individual" in its supplemental submittal dated January 25, 2001. The "dedicated individual" has sole responsibility for the required action (i.e., door closure); "the dedicated individual will not have any additional duties". The "designated individual" may have other responsibilities (in the vicinity of the door), provided that the additional duties do not prevent completing the assigned action within the specified time interval. The licensee states, "there may be hoses and cables going through the access hatch that must be removed before the door can be closed. If there are no hoses or cables through the containment personnel access hatch, the designated individual may be able to perform additional activities in the containment personnel access hatch area."

In its January 25, 2001, submittal, the licensee stated that the 10 minutes credited in its proposed FHAIC analysis included time to clear any obstructions (e.g., hoses, cables, etc.) from the access hatch and to close the hatch door. Time necessary to evacuate personnel from the containment was not included in the licensee's 10-minute estimate. In particular, the licensee stated:

The validity of the 10 minute closure time is based on a qualitative evaluation of the tasks involved with containment personnel access hatch door closure, including the door opening mechanisms. The containment personnel access hatch doors are hydraulically operated. To close a containment personnel access hatch door simply requires pushing the close pushbutton which starts a hydraulic pump and closes the door in less than one minute. If the hydraulic pump is not available, the door can be manually pumped closed. Since this is a manual evolution, closure times will vary, but it is reasonable to assume a manual closure time of less than three minutes.

Returning the access hatch door to the closed position restores the containment boundary and returns the containment to its original design-basis configuration. The licensee revised the Bases for TS 3/4.9.4 to document the 10-minute closure time and use of the designated individual.

Based on the licensee's response to the staff's RAI, there is reasonable assurance that the manual actions proposed by the licensee can be successfully achieved to maintain the radiological consequences of an FHAIC within the required limits. Therefore, the staff finds the changes associated with an FHAIC at MP3 acceptable because the analysis demonstrates that the radiological consequences meet the criteria of 10 CFR Part 100 and 10 CFR Part 50, Appendix A, GDC 19.

3.1.2 Fuel Handling Accident Inside the Spent Fuel Pool (FHAISFP)

DNC also revised the dose analysis of the FHAISFP to include a core inventory based on high burnup fuel, ICRP-30 iodine dose conversion factors and a 2-hour exponential rate release of radioactive material to the environment, instead of the previously assumed puff release. The licensee did not propose changes to the assumed plant configuration or mitigation approach. The staff has determined that the licensee's assumptions and methodology for the dose analysis of the FHAISFP are acceptable because they conform to SRP 15.7.4 and the guidance in RG 1.25.

DNC also proposed to revise certain TSs to allow the Fuel Building boundary to be opened intermittently, under administrative controls, during fuel movement inside the spent fuel pool. The administrative controls consist of "stationing a dedicated individual at the opening who is in constant communication with the control room. This individual will have a method to rapidly close the opening when the need for Fuel Building isolation is indicated." The licensee documented the use of administrative controls in a revision to the Bases for TS 3/4.9.12.

The licensee's revised analysis demonstrates that radiological consequences of an FHAISFP at MP3 remain well within the acceptance criteria given in 10 CFR Part 100. The control room dose results are within the GDC 19 dose limits of 5 rem whole body and 30 rem thyroid. The radiological consequences to the dedicated individual stationed at the Fuel Building boundary also do not exceed GDC 19 limits. The licensee's results are summarized in Table 2.

Table 2
Revised Doses for Fuel-Handling Accident Inside the Spent Fuel Pool

Location	Thyroid (rem)	Thyroid Acceptance Criterion (rem)	Whole Body (rem)	Whole Body Acceptance Criterion (rem)
EAB	6.87	75	0.528	6
LPZ	0.465	75	0.0357	6
MP3 Control Room	4.21	30	0.11	5
MP2 Control Room	2.27	30	0.708	5

The staff finds the changes associated with the fuel handling accident inside the spent fuel pool acceptable because the analysis demonstrates that the radiological consequences meet the criteria of 10 CFR Part 100 and 10 CFR Part 50, Appendix A, GDC 19.

3.2 TS Changes

As previously noted, in its letter dated June 29, 2000, the licensee proposed several changes to the TSs for MP3 consistent with the revised FHAIC and FHAISFP analyses. Based on the revised FHAIC and FHAISFP analyses, many of the assumptions for postulated accidents have been revised; and, therefore, the affected TSs are also revised for various ventilation systems. The TS changes proposed and the staff's evaluation are provided below.

3.2.1 TS 3/4.3.2 Engineered Safety Features Actuation System Instrumentation

A. Description of Proposed Changes

- (1) The licensee proposed replacing the applicable modes designation of "All" listed in TS Table 3.3-3 and TS Table 4.3-2 for Functional Units 7.a, "Manual Actuation," and 7.e, "Control Building Inlet Ventilation Radiation," with an asterisk (*). The new table notation (*) will require these functions to be operable in Modes 1 through 6, and during fuel movement within containment or the spent fuel pool (SFP).
- (2) The licensee proposed replacing the applicable mode designation of "All" listed in TS Table 3.3-3 for Functional Unit 7.c, "Automatic Actuation Logic and Actuation Relays," with "Modes 1, 2, 3, and 4."
- (3) The licensee also proposed changing TS Table 3.3-3 Action 18, which applies to Functional Unit 7.e, from "With less than the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the Control Room Emergency Ventilation System in the re-circulation mode of operation," to "With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 7 days. After 7 days, or if no channels are OPERABLE, immediately suspend CORE ALTERATIONS and fuel movement, if applicable, and be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours." Note that the minimum channels operable, "2/intake," is the same number as the total number of channels in both the current and proposed TS for TS Table 3.3-3 Functional Unit 7.e. Thus, the condition addressed by the action statement is not changed.

B. Evaluation

- (1) The change in the applicable modes designation from "All" to "*" for TS Table 3.3-3 Functional Units 7.a and 7.e does not alter the intent of the original requirement. The licensee stated that the proposed change ensures that the necessary mitigation functions are available as assumed in the associated analyses. The staff finds the proposed changes acceptable because they will clarify the requirements to ensure that the necessary mitigation functions are available.
- (2) The change in the applicable modes designation from "All" to "Modes 1, 2, 3, and 4" for TS Table 3.3-3 Functional Unit 7.c is consistent with other automatic actuation logic requirements found in TS Table 3.3-3 and the associated surveillance requirement contained in TS Table 4.3-2, "Engineered Safety Features Actuation System Instrumentation Surveillance Requirements," for Functional Unit 7.c. Further, the Control Room Emergency Ventilation System (CREVS) will remain operable during Modes 5 and 6 and during fuel movement within containment or the SFP in order to mitigate any potential fuel handling accident conditions.

The licensee stated that the proposed change ensures that the necessary mitigation functions are available as assumed in the associated analyses. Given that there are no safety requirements necessitating operability of the automatic actuation function during Modes 5 and 6, combined with the fact that the change will continue to ensure that the

necessary mitigation functions are available, the staff finds the subject change acceptable.

- (3) With respect to the proposed change to TS Table 3.3-3 Action 18, the licensee notes that the current TS action requirement, to place the CREVS in the re-circulation mode of operation, has not been verified to provide sufficient protection for the control room operators. The staff finds that this rationale, by itself, is insufficient to provide a technical basis for deleting this requirement. However, the proposed change is consistent with other MP3 TSs in the event one train is inoperable, such as current TS 3/4.7.7 for the Control Room Emergency Filtration System (CREFS), which also specifies that action must be taken to restore the inoperable system to an operable status within 7 days. The staff finds the change acceptable because of the low probability of a loss of coolant accident (LOCA) during this 7-day time period and the ability of the remaining train to provide the required capability.

In the event both channels of the Control Building Inlet Ventilation Radiation are inoperable, affecting both CREFS trains, the proposed action requirement is to shut down the unit, whereas, the current TS would permit continued operation provided CREFS operates in recirculation mode. The staff finds this is a more restrictive change, and, therefore, is acceptable because it is conservative in that it places the plant in a condition in which the CREFS and CREVS specifications are not required.

3.2.2 TS 3/4.7.7 Control Room Emergency Ventilation System

A. Description of Proposed Changes

- (1) Limiting Condition for Operation (LCO)

Current TS 3.7.7, which states,

Two independent Control Room Emergency Air Filtration Systems
shall be OPERABLE.*

will be modified by a footnote, indicated by adding a pound sign (#) to the word OPERABLE. The footnote will read as follows:

The Control Room boundary may be opened intermittently
under administrative control.

- (2) Applicability

The current Applicability for TS 3.7.7, of "ALL MODES," will be replaced with:

MODES 1, 2, 3, 4, 5, and 6.
During fuel movement within containment or the spent fuel pool.

- (3) Actions in MODES 1, 2, 3, and 4

The current TS 3.7.7 Action for MODES 1, 2, 3, and 4, is:

With one Control Room Emergency Air Filtration System inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

The proposed TS 3.7.7 Actions for MODES 1, 2, 3, and 4, are:

- a. With one Control Room Emergency Air Filtration System inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With both Control Room Emergency Air Filtration Systems inoperable, except as specified in ACTION c., immediately suspend the movement of fuel assemblies within the spent fuel pool. Restore at least one inoperable system to OPERABLE status within 1 hour or be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.
- c. With both Control Room Emergency Air Filtration Systems inoperable due to an inoperable Control Room Boundary, immediately suspend the movement of fuel assemblies within the spent fuel pool and restore the Control Room boundary to OPERABLE status within 24 hours or be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.

(4) Actions in MODES 5 and 6

Current TS 3.7.7 Actions, which are applicable in MODES 5 and 6, are:

- a. With one Control Room Emergency Air Filtration System inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE Control Room Emergency Air Filtration System in the recirculation mode.
- b. With both Control Room Emergency Air Filtration Systems inoperable, or with the OPERABLE Control Room Emergency Air Filtration System required to be in the recirculation mode by ACTION a. not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

The proposed TS 3.7.7 Actions for MODES 5 and 6, which are also applicable during fuel movement within containment or the spent fuel pool, are:

- d. With one Control Room Emergency Air Filtration Systems inoperable, restore the inoperable system to OPERABLE status within 7 days. After 7 days, either initiate and maintain operation of the remaining OPERABLE Control Room Emergency Air Filtration System in the recirculation mode of operation, or immediately suspend CORE ALTERATIONS and the movement of fuel assemblies.
- e. With both Control Room Emergency Air Filtration Systems inoperable, or with the OPERABLE Control Room Emergency Air Filtration System required to be in the recirculation mode by ACTION d. not capable of being powered by an OPERABLE emergency power source, immediately suspend CORE ALTERATIONS and movement of fuel assemblies.

(5) Surveillance Requirements

The licensee proposed adding "and outside atmosphere" to current TS 4.7.7.e.2) such that it would read (new wording shown in *italics*):

4.7.7 Each Control Room Emergency Air Filtration System shall be demonstrated OPERABLE:

- e. At least once each REFUELING INTERVAL by:
 - 2) Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/8 inch Water Gauge at less than or equal to a pressurization flow of 230 cfm relative to adjacent areas *and outside atmosphere* during positive pressure system operation; and

B. Evaluation

(1) Changes to the LCO, Applicability, and Actions

A utilities Owners Group (OG) recognized that the Standard Technical Specifications (STS) were inconsistent with regard to the remedial measures to be taken when breaching various ventilation-controlled boundaries. In response, the OG-established Technical Specification Task Force (TSTF) submitted for staff review a generic change to the improved STS to correct these inconsistencies. Generic change (a) revised the action requirements to allow 24 hours to restore an inoperable CR boundary to operable status, and (b) added a note to the LCO to permit intermittent opening of the CR boundary under administrative control. This LCO note will address routine operations, such as normal entry and egress, and other minor evolutions that result in a short-term loss of CR boundary integrity. The staff approved the requested changes as TSTF-287, Rev. 5, which was incorporated in NUREG-1431, Rev. 2.

In its submittal, the licensee stated that its administrative controls for opening the CR boundary are consistent with those stipulated in the staff's acceptance of TSTF-287, Rev. 5. Specifically, for entry and exit through doors, the administrative control of the opening is performed by the person(s) entering or exiting the area. For other openings, these controls consist of stationing a dedicated individual at the opening who is in continuous communication with the control room. This individual will have a method to rapidly close the opening when a need for control room isolation is indicated. Therefore, the proposed LCO footnote stating that the CR boundary may be opened intermittently under administrative control is acceptable because using the required administrative controls will ensure restoration of the integrity of the CR boundary when required in a timely fashion. This will ensure the accident mitigation equipment will be able to function as assumed to protect CR personnel.

The proposed 24-hour allowance to restore an inoperable CR boundary to operable status is reasonable based on the low probability of a DBA occurring during this time period and the use of compensatory measures. During the period that the control room boundary is inoperable, appropriate compensatory measures (consistent with the intent of GDC 19) should be utilized to protect control room operators from potential hazards such as radioactive contamination, toxic chemicals, smoke, temperature and relative humidity, and physical security. Preplanned measures should be available to address these concerns for intentional and unintentional entry into the condition. The 24-hour period is a typically reasonable time to diagnose, plan and possibly repair, and test most problems with the control room boundary. The use of compensatory measures as part of the justification for 24-hour allowance is acceptable based on the licensee's commitment in its submittal to have written procedures available describing the compensatory measures to be taken in the event of an intentional or unintentional entry into TS 3.7.7 Action c. Therefore, the 24-hour allowance of TS 3.7.7 Action c is acceptable.

The licensee stated that the Applicability changes are necessary to ensure the CREVS will be operable during fuel movement inside containment or the SFP when the plant is defueled. The current applicability of ALL MODES does not address this condition. Thus, the applicability requirements for CREVS operability have been expanded to include fuel movement inside containment or the SFP when the plant is defueled. This is acceptable because it will ensure that this accident mitigation system is available, as assumed in the revised FHA analysis, to protect the CR personnel during and after a postulated event that results in a radiological release.

In addition, action requirements for CREVS have been expanded to include the immediate suspension of core alterations and movement of fuel assemblies within the SFP. These requirements were implemented to ensure that in the event of a postulated FHA during movement of fuel assemblies and core alterations, CREVS is operable to reduce the potential risk to CR operators from a radiological event. Therefore, these changes are acceptable.

The staff finds the proposed changes to the LCO, Applicability, and Actions acceptable because they will require that the necessary accident mitigation systems are available as assumed in the associated analyses. The proposed action statements require placing the plant in a condition that provides adequate protection and minimizes risk while allowing reasonable completion times to reach the required unit conditions in an orderly

manner. In addition, the other editorial and format changes, which are administrative, are acceptable because they do not change, but only clarify, the current TS requirements.

(2) Change to Surveillance Requirement

The licensee stated that the change to current TS 4.7.7.e.2) will provide consistency within the TS and that actual test performance will not change. The staff considers this to be an editorial change, which is administrative, and that it is acceptable because it does not change, but only clarifies, the current TS requirement.

3.2.3 3/4.7.8 Control Room Envelope Pressurization System (CREPS)

A. Description of Proposed Changes

(1) Limiting Condition for Operation (LCO)

Current TS 3.7.8, which states,

Two independent Control Room Envelope Pressurization Systems shall be OPERABLE.*

will be modified by a footnote, indicated by adding a pound sign (#) to the word OPERABLE. The footnote will read as follows:

The Control Room boundary may be opened intermittently under administrative control.

(2) Applicability

The current Applicability for TS 3.7.8, of "ALL MODES," will be replaced with:

MODES 1, 2, 3, 4, 5, and 6.
During fuel movement within containment or the spent fuel pool.

(3) Actions in MODES 1, 2, 3, and 4

The current TS 3.7.8 Actions for MODES 1, 2, 3, and 4 are:

- a. With one Control Room Envelope Pressurization System inoperable either:
 1. Restore the inoperable system to OPERABLE status within 7 days, or
 2. Initiate and maintain operation of an OPERABLE Control Room Emergency Air Filtration System in the recirculation mode, or

3. Be in HOT STANDBY within 6 hours and COLD SHUTDOWN within the next 30 hours and suspend all operations involving CORE ALTERATIONS or positive reactivity changes.
- b. With both Control Room Envelope Pressurization Systems inoperable, within one hour initiate action to restore one inoperable system to OPERABLE status and either:
 1. Initiate and maintain operation of an OPERABLE Control Room Emergency Air Filtration System in the recirculation mode, or
 2. Be in HOT STANDBY within 6 hours and COLD SHUTDOWN within the next 30 hours and suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

The proposed TS 3.7.8 Actions for MODES 1, 2, 3, and 4 are:

- a. With one Control Room Envelope Pressurization System inoperable restore the system to OPERABLE status within 7 days or be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.
- b. With both Control Room Envelope Pressurization Systems inoperable, except as specified in ACTION c. or ACTION d., immediately suspend the movement of fuel assemblies within the spent fuel pool. Restore at least one inoperable system to OPERABLE status within 1 hour or be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.
- c. With both Control Room Envelope Pressurization Systems inoperable due to an inoperable Control Room boundary, immediately suspend the movement of fuel assemblies within the spent fuel pool. Restore the Control Room boundary to OPERABLE status within 24 hours or be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.
- d. With both Control Room Envelope Pressurization Systems inoperable during the performance of Surveillance Requirements 4.7.8.c and system not being tested under administrative control, immediately suspend the movement of fuel assemblies within the spent fuel pool. Restore at least one inoperable system to OPERABLE status within 4 hours or be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.

(4) Actions in MODES 5 and 6

The current TS 3.7.8 Actions, noted above, are also applicable in MODES 5 and 6.

The proposed TS 3.7.8 Actions for MODES 5 and 6, which are also applicable during fuel movement within containment or the spent fuel pool, are:

- e. With one Control Room Envelope Pressurization System inoperable, restore the inoperable system to OPERABLE status within 7 days. After 7 days, immediately suspend CORE ALTERATIONS and movement of fuel assemblies.
- f. With both Control Room Envelope Pressurization Systems inoperable, immediately suspend CORE ALTERATIONS and movement of fuel assemblies.

(5) Surveillance Requirements

The licensee proposed replacing the word "the" with "adjacent areas and" to current TS 4.7.8.c.2 so that it would read (new wording shown in *italics*):

4.7.8 Each Control Room Envelope Pressurization System shall be demonstrated OPERABLE:

- c. At least once each REFUELING INTERVAL or following a major alteration of the control room envelope pressure boundary by:
 - 2. Verifying that after a 60 second time delay following a Control Building Isolation test signal, the control room envelope pressurizes to greater than or equal to 1/8 inch W.G. relative to *adjacent areas and* outside atmosphere; and

B. Evaluation

(1) Changes to the LCO, Applicability, and Actions

The CREPS is designed to maintain the potential CR operator dose from a radiological event to within GDC 19 limits.

Similar to the changes made to current TS 3.7.7, the licensee proposed (a) revising the action requirements to allow 24 hours to restore an inoperable CR boundary to operable status, and (b) modifying the LCO with a note to permit intermittent opening of the CR boundary under administrative control. These changes are acceptable because, as previously discussed, the use of administrative controls to restore integrity of the CR boundary, when required, will ensure the accident mitigation equipment will be able to function as assumed to protect CR personnel.

The licensee states that Applicability changes are necessary to ensure the CREPS will be operable during fuel movement inside containment or the SFP when the plant is defueled. The current Applicability of ALL MODES does not address this condition. Thus, the applicability requirements for CREPS operability have been expanded to include fuel movement inside containment or the SFP when the plant is defueled. This is acceptable because it will help ensure that this mitigation system is available, as assumed in the revised FHA analysis, to protect the CR personnel during and after a postulated event which results in a radiological release.

In addition, action requirements for CREPS have been expanded to include the immediate suspension of core alterations and movement of fuel assemblies within the SFP. These requirements were implemented to ensure that in the event of a postulated FHA during movement of fuel assemblies and core alterations, CREPS is operable to reduce the potential risk to CR operators from a radiological event. Therefore, these changes are acceptable.

The staff finds the proposed changes acceptable because they will require that CREPS is available as assumed in the associated analyses, and the proposed action statements require placing the plant in a condition that provides adequate protection and minimizes risk while allowing reasonable completion times to reach the required unit conditions in an orderly manner. In addition, the other editorial and format changes, which are administrative, are acceptable because they do not change, but only clarify, the current TS requirements.

(2) Change to Surveillance Requirement

The licensee stated that the change to current TS 4.7.8.c.2 will provide consistency within the TS and that actual test performance will not change. The staff considers this to be an editorial change, which is administrative, and that it is acceptable because it does not change, but only clarifies, the current TS requirement.

3.2.4 TS 3/4.7.9 Auxiliary Building Filter System (ABFS)

A. Description of Proposed Changes

The licensee proposes to replace the LCO statement of current TS 3.7.9, which states,

Two independent Auxiliary Building Filter Systems shall be OPERABLE with each system comprised of:

- a. one OPERABLE filter and fan, and
- b. one OPERATIONAL Charging Pump/Reactor Plant Component Cooling Water Pump Ventilation System.

with the following statement:

Two independent Auxiliary Building Filter Systems shall be OPERABLE.

B. Evaluation

The operability of the ABFS and associated filters and fans ensure that radioactive materials leaking from the equipment within the charging pump, component cooling water pump, and heat exchanger areas following a LOCA are filtered prior to reaching the environment.

The licensee proposed relocating the detailed design information contained in the current LCO statement to the Bases of this specification. This will not change the requirement for two ABFSs to be operable. In addition, adequate regulatory control of any changes to this information, which is design detail contained in the Final Safety Analysis Report (FSAR), is assured through 10 CFR 50.59.

The staff finds the proposed change acceptable because the proposed relocation will not result in any change in ABFS operation or affect existing applicable safety requirements, and because the information removed from the specification is not required to be in the TS under 10 CFR 50.36 or §182a of the Atomic Energy Act.

3.2.5 TS 3/4.9.1 Refueling Operations - Boron Concentration

A. Current TS 3.9.1.1 - Boron Concentration in the Reactor Coolant System

The current LCO statement reads as follows:

The boron concentration of all filled portions of the Reactor Coolant System and the refueling canal shall be maintained uniform and sufficient to ensure that more restrictive of the following reactivity conditions is met.

Current TS surveillance requirement 4.9.1.1.2 reads as follows:

The boron concentration of the Reactor Coolant System and the refueling canal shall be determined by chemical analysis at least once per 72 hours.

The proposed TS changes will replace the term “refueling canal” with the term “refueling cavity” in the LCO statement and surveillance requirement 4.9.1.1.2. This change is consistent with MP3 terminology. The phrase “uniform” will be deleted from the LCO. The staff finds these changes acceptable because 1) it is not necessary to include a requirement for the boron concentration to be uniform since this will occur as a result of diffusion and forced circulation and 2) the other change is editorial. This will not change the LCO requirement to maintain the boron concentration in the filled portions of the Reactor Coolant System (RCS) and the refueling cavity sufficient to meet the more restrictive of the two conditions specified in the LCO. In addition, this will not result in any change to the current approach that MP3 uses to verify compliance with this specification.

B. Current TS 3.9.1.2 - Boron Concentration in the Spent Fuel Pool (SFP)

The current LCO statement reads as follows:

The soluble boron concentration of the Spent Fuel Pool shall be maintained uniform and greater than or equal to 800 ppm.

The proposed TS change will remove the phrase “maintained uniform and” from the LCO. The staff finds this change acceptable because it is not necessary to include a requirement for the

boron concentration to be uniform since this will occur as a result of diffusion and forced circulation. This will not change the LCO requirement to maintain the soluble boron concentration in the SFP greater than or equal to 800 ppm. This will not result in any change to the current approach that MP3 uses to verify compliance with this specification.

3.2.6 TS 3/4.9.2 Refueling Operations - Instrumentation

A. Description of Proposed Change

(1) Changes to Actions

The licensee proposed to revise TS 3.9.2 Actions a and b, for inoperable source range neutron flux monitors, which currently state,

- a. With one of the above required monitors inoperable or not operating, immediately suspend all operations involving CORE ALTERATIONS or positive reactivity changes.
- b. With both of the above required monitors inoperable or not operating, determine the boron concentration of the Reactor Coolant System at least once per 12 hours.

The licensee proposed to delete the phrase "or not operating" from the above specifications. The licensee also proposed to further revise Action b by adding the phrase "within 4 hours and" after the word "System," and the word "thereafter" at the end of the sentence.

(2) Changes to Surveillance Requirements

The applicable sections of current TS 4.9.2 read as follows:

- a. CHANNEL CHECK including audible counts at least once per 12 hours,
- b. An ANALOG CHANNEL OPERATIONAL TEST within 12 hours prior to the initial start of CORE ALTERATIONS, and
- c. An ANALOG CHANNEL OPERATIONAL TEST at least once per 7 days.

The licensee proposed to revise TS 4.9.2.a by replacing the word "including" with the phrase "and verification of." The licensee also proposed to replace TSs 4.9.2.b and 4.9.2.c with a single surveillance requirement, as follows:

- b. A CHANNEL CALIBRATION at least once per 18 months.*

This change includes the addition of a footnote (*), which states,

- * Neutron detectors are excluded from CHANNEL CALIBRATION.

B. Evaluation

(1) Changes to Actions

Deletion of the phrase “or not operating” from current TS 3.9.2 Action a is appropriate because it is redundant to the term “inoperable.” The staff considers this change acceptable because it is merely editorial in nature and does not change the technical meaning of the current TS action requirement.

Specifying a 4-hour period, in current TS 3.9.2 Action b, to complete the initial surveillance, and clarifying that the subject surveillance will be performed every 12 hours enhances Action b and is more restrictive than the current action requirement. The staff finds the proposed changes acceptable because the specified completion times ensure that unplanned changes in boron concentration would be identified such that core reactivity conditions would remain stabilized until the source range neutron flux monitors are restored to operation.

(2) Changes to Surveillance Requirements

The proposed change to current TS 4.9.2.a would eliminate any confusion associated with an interpretation that the subject channel check requires an audio count rate channel check. The subject LCO specifies two channels to be checked and only one channel can be selected to provide input to the audio count rate circuit at a time. The change clarifies the intent of the current LCO to verify one channel with audio indication or counts once every 12 hours. The staff finds this change acceptable because the revised channel check surveillance requirement will provide adequate assurance that both source range neutron flux monitor channels provide indication that is consistent with core conditions as required during Mode 6 and are capable of detecting changes in the reactivity condition of the core.

The proposed changes to current TS 4.9.2.b to replace the analog channel operational test with a channel calibration and a footnote, regarding exclusion of the neutron detectors from the channel calibration, are consistent with the STS (NUREG-1431, Rev. 2) and current TS 4.3.1.1, Table 4.3-1, “Reactor Trip System Instrumentation Requirements,” Functional Unit 6, “Source Range, Neutron Flux,” Channel Calibration surveillance requirement, and Note 4. The purpose of an analog channel operational test is to verify trip setpoints and to perform a channel calibration if needed. The subject instrumentation only provides indication of the neutron flux level in the reactor core. Therefore, a channel calibration that will ensure that the instrument channels are properly aligned is the more appropriate surveillance requirement for the subject instrumentation. The staff finds the changes acceptable because the proposed surveillance requirement will provide adequate assurance that the source range neutron flux monitor indication is consistent with core conditions as required during Mode 6 and is capable of detecting changes in the reactivity condition of the core.

3.2.7 TS 3/4.9.4 Containment Building Penetrations

The licensee proposed changes to TS 3.9.4 to allow the containment personnel access hatch (current TS refers to this as an “airlock”) to be open during core alterations or movement of

irradiated fuel within the containment provided it is capable of being closed by an operable personnel access hatch under administrative controls. The licensee also proposed changes to the surveillance requirements of TS 4.9.4 to verify each required containment penetration is in the required status at least once per 7 days (current TS also required this 100 hours prior to entering the Applicability of this specification) and verify each required containment purge and exhaust valve actuates to the isolation position per TS 4.6.3.2. The licensee stated that an acceptable performance of a surveillance requirement within the currently specified periodic surveillance frequency is required prior to entering the Applicability of the specification. The licensee also stated that since this is normally done shortly before entering the Applicability of the specification, the proposed removal of "within 100 hours" will not adversely impact the probability that a containment penetration will be in the wrong position. The staff notes that this change is consistent with the STS (NUREG-1431, Rev. 2).

The staff considers the proposed change to allow the personnel access hatch to be open and capable of being closed acceptable because (a) this is consistent with the revised FHAIC analysis and (b) the analysis demonstrates that the radiological consequences meet the criteria of 10 CFR Part 100 and 10 CFR Part 50, Appendix A, GDC 19. This change was also discussed earlier in this evaluation, under section 3.1.1.

The staff considers the proposed change to the surveillance requirements acceptable because the proposed surveillance requirements ensure that a postulated FHA that releases fission product radioactivity within the containment will not result in a release of significant fission product radioactivity to environment. In addition, the penetrations will continue to be verified in their required position prior to the start of core alterations or fuel movement inside containment.

The staff considers the change in terminology from "airlock" to " personnel access hatch door" and the changes in format to TS 3/4.9.4 acceptable because they are editorial in nature and do not change the TS requirements.

3.2.8 TS 3/4.9.9 Containment Purge and Exhaust Isolation System

The licensee proposed a change to current TS 4.9.9 to no longer specify that the Containment Purge and Exhaust Isolation System be demonstrated operable 100 hours prior to the start of core alterations and noted that this frequency change will not change the requirement to verify system operability prior to the start of core alterations or fuel movement inside containment. The licensee stated that an acceptable performance of a surveillance requirement within the currently specified periodic surveillance frequency is required prior to entering the Applicability of the specification. The licensee also stated that since this is normally done shortly before entering the Applicability of the specification, the proposed removal of "within 100 hours" will not adversely impact the probability that the system will be inoperable.

The staff considers the proposed change acceptable because the Containment Purge and Exhaust Isolation System will continue to be demonstrated operable prior to entering the Applicability of the specification which will ensure that the radiological consequences of a FHAIC are well within the 10 CFR Part 100 limits and within the 10 CFR Part 50, Appendix A, GDC 19 limits.

3.2.9 TS 3/4.9.10 Refueling Operations - Water Level - Reactor Vessel

The licensee proposed to revise current TS surveillance requirement 4.9.10, which states,

The water level shall be determined to be its minimum required depth within 2 hours prior to the start of and at least once per 24 hours thereafter during movement of fuel assemblies or control rods.

by removing the phrases "within 2 hours prior to the start of and" and "thereafter during movement of fuel assemblies or control rods." The revised TS 4.9.10 would retain only the currently specified periodic surveillance frequency of "once per 24 hours." The licensee stated that an acceptable performance of a surveillance within the specified periodic frequency (24 hours in this case) is required prior to entering the Applicability of the specification, and this is normally done shortly before entering the applicability of the specification. The proposed removal of "within 2 hours" will not change the requirement to verify refueling cavity water level prior to entering the Applicability of the specification. The revised surveillance frequency is adequate in view of the large volume of water and normal procedural controls of valve positions, which make significant unplanned level changes unlikely. The staff notes the revised frequency is also consistent with the STS (NUREG-1431, Rev. 2).

The staff finds the proposed change acceptable because the reactor vessel water level will continue to be verified at or above its minimum required depth prior to entering the Applicability of the specification and the large volume of water and normal procedural controls make significant unplanned level changes unlikely.

3.2.10 TS 3/4.9.12 Fuel Building Exhaust Filter System (FBEFS)

A. Description of Proposed Changes

(1) Change to the LCO

The licensee proposed modifying current TS 3.9.12 LCO, which states,

Two independent Fuel Building Exhaust Filter Systems shall be OPERABLE. At least one Fuel Building Exhaust Filter System shall be in operation whenever any evolution involving movement of fuel within the storage pool or crane operations with loads over the storage pool is in progress.

by adding a footnote (#) to the word OPERABLE. This new footnote states:

The Fuel Building boundary may be opened intermittently under administrative control.

(2) Change to Surveillance Requirement

The licensee also proposed modifying the surveillance requirement of current TS 4.9.12.2, which states,

The Fuel Building Exhaust Filter System shall be verified to be operating within 2 hours prior to the initiation of and at least once per 12 hours during either fuel movement within the fuel storage pool or crane operations with loads over the fuel storage pool whenever irradiated fuel with less than 60 days decay is in the storage pool.

by deleting the requirement "within 2 hours prior to the initiation of and."

B. Evaluation

(1) Change to the LCO

This change is similar to the proposed change discussed previously in this evaluation when discussing the proposed changes to TS 3/4.7.7. This footnote will permit reliance upon administrative controls to restore the FBEFS boundary, when required, in a timely fashion, consistent with the assumptions of the FHAISFP analysis. In addition, this footnote will address routine operations such as normal entry and egress, and other minor evolutions that result in a short-term loss of fuel building boundary integrity. The staff finds this change acceptable because the use of administrative controls to restore the integrity of the fuel building boundary, when required, will ensure the accident mitigation equipment of the FBEFS will be able to function as assumed in the analysis of a FHAISFP.

(2) Change to Surveillance Requirement

This change is similar to changes proposed to other surveillance requirement frequencies discussed previously in this evaluation. The licensee stated that since an acceptable performance of a surveillance requirement within the specified periodic surveillance frequency is required prior to the start of fuel movement or crane operations inside the spent fuel pool, and since this is normally done shortly before entering the Applicability of the specification, the proposed removal of the requirement "within 2 hours prior to the initiation of and" will not adversely impact the probability of failure to have an operable FBEFS operating prior to and during fuel movement or crane operations inside the SFP. The staff notes that this is consistent with the STS (NUREG-1431, Rev. 2). The staff considers the proposed changes acceptable because the FBEFS will continue to be demonstrated operating prior to fuel movement or crane operations inside the SFP.

3.2.11 Bases Changes

In addition to the TS changes outlined above, the licensee proposed changes to the associated TS Bases to reflect proposed TS changes. The licensee stated that these changes are consistent with the revised FHA analyses and the other proposed TS changes.

Information added to the Bases section of TS 3/4.7.9, "Auxiliary Building Filter System," would credit operator action under certain conditions. The licensee proposed to use an approved procedure and states: "a designated individual at the Charging Pump/Reactor Plant Component Cooling Water Pump Ventilation System remote control switch...who can rapidly respond to instructions from procedures or control room personnel," to immediately return the switch from "Off" to "Auto" following the start of the redundant system train, or after performing post maintenance testing. The control switch is located in the control room, requires a simple manipulation to actuate, and does not represent a new approach to system operation. The licensee states: "The actions to be performed by the designated operator reflect how the system is normally operated, and are covered by normal operating procedures." In addition, if the designated operator fails to take the necessary required actions, the licensee states: "the Supplementary Leak Collection and Release System (SLCRS) will still be able to establish a negative pressure in the Secondary Containment. Therefore, the consequences of the designated operator failing to restore the Charging Pump/Reactor Plant Component Cooling Water Pump Ventilation System is [are] minimal." The staff has no objection to the proposed Bases changes.

4.0 STATE CONSULTATION

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

5.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact has been prepared and published in the *Federal Register* on April 13, 2001 (66 FR 19246). Accordingly, based on the environmental assessment, the staff has determined that the issuance of the amendment will not have a significant impact on the quality of the human environment.

6.0 CONCLUSION

The Commission has concluded, based on 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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