August 29, 1989

Docket No. 50-423

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Mr. Edward J. Mroczka
Senior Vice President
Nuclear Engineering and Operations
Connecticut Yankee Atomic Power Company
Northeast Nuclear Energy Company
Post Office Box 270
Hartford, Connecticut 06141-0270

Dear Mr. Mroczka:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. 72997)

The Commission has issued the enclosed Amendment No. 39 to Facility Operating License No. NPF-49 for Millstone Nuclear Power Station, Unit No. 3, in response to your application dated April 20, 1989.

The amendment changes the Millstone Unit 3 Technical Specifications (TS) to allow storage of fuel with an enrichment of up to 5.0 nominal weight percent U-235 as follows: (1) Section 1.0, "Definitions," is changed by adding new TS 1.40 and 1.41 to define the fuel regional storage pattern, (2) A new TS 3/4.9.13 "Spent Fuel Pool - Reactivity," is added to limit the fuel K_{eff} to less than or equal to .95, (3) A new TS 3/4.9.14, "Spent Fuel Pool - Storage Pattern," is added to implement the fuel storage pattern, (4) TS 5.6.1.1, "Criticality" is changed and expanded to address the storage of fuel utilizing a regional storage system, and (5) A new TS 5.6.3, "Capacity" is added to address the use of cell blocking devices in the storage of fuel. In addition to the above, TS 5.6.1.2, is deleted.

A copy of the related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,
/s/

David H. Jaffe, Project Manager
Project Directorate I-4
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 39 to NPF-49
2. Safety Evaluation

cc w/enclosures:
See next page

[AMENDMENT 72997]

LA:PDI-4	PM:PDI-4	SPLB	PD:PDI-4	OGC
SNorris	DJaffe:eb	for CMcCracken	for JStolz	SRXB MWHodges
8/3/89	8/3/89	8/8/89	8/8/89	8/28/89 8/7/89

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

August 29, 1989

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Office of Nuclear Reactor Regulation

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2. Safety Evaluation

cc w/enclosures:
See next page

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

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

DOCKET NO. 50-423

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 39
License No. NPF-49

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Northeast Nuclear Energy Company, et al. (the licensee) dated April 20, 1989, 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. 39 , 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 its issuance, to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Director
Project Directorate I-4
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 29, 1989

ATTACHMENT TO LICENSE AMENDMENT NO.39

FACILITY OPERATING LICENSE NO. NPF-49

DOCKET NO. 50-423

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change. The corresponding overleaf pages are provided to maintain document completeness.

Remove	Insert
ii	ii
xii	xii
1-7	1-7
-	3/4 9-16
-	3/4 9-17
-	3/4 9-18
-	3/4 9-19
B 3/4 9-3	B 3/4 9-3
5-6	5-6

INDEX

DEFINITIONS

INDEX

DEFINITIONS

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

VENTING

1.39 VENTING shall be the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration, or other operating condition, in such a manner that replacement air or gas is not provided or required during VENTING. Vent, used in system names, does not imply a VENTING process.

SPENT FUEL POOL STORAGE PATTERNS:

1.40 Region I spent fuel racks contain a cell blocking device in every 4th location for criticality control. This 4th location will be referred to as the blocked location. A STORAGE PATTERN refers to the blocked location and all adjacent and diagonal Region I cell locations surrounding the blocked location. Boundary configuration between Region I and Region II must have cell blockers positioned in the outermost row of the Region I perimeter, as shown in Figure 3.9-2.

1.41 Region II contains no cell blockers.

TABLE 1.1

FREQUENCY NOTATION

NOTATION	FREQUENCY
S	At least once per 12 hours.
D	At least once per 24 hours.
W	At least once per 7 days.
M	At least once per 31 days.
Q	At least once per 92 days.
SA	At least once per 184 days.
R	At least once per 18 months.
S/U	Prior to each reactor startup.
N.A.	Not applicable.
P	Completed prior to each release.

SURVEILLANCE REQUIREMENTS (Continued)

2) Verifying that the system maintains the spent fuel storage pool area at a negative pressure of greater than or equal to 1/4 inch Water Gauge relative to the outside atmosphere during system operation, and

3) Verifying that the heaters dissipate 150 ± 15 kW when tested in accordance with ANSI N510-1980.

e. After each complete or partial replacement of a HEPA filter bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the system at a flow rate of 20,700 cfm ± 10%; and

f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 20,700 cfm ± 10%.

4.9.12.2 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.

*ANSI N510-1980 shall be used in place of ANSI N510-1975 referenced in Regulatory Guide 1.52, Revision 2, March 1978.

REFUELING OPERATIONS

SPENT FUEL POOL - REACTIVITY

3.9.13 The Reactivity Condition of the Spent Fuel Pool shall be such that k_{eff} is less than or equal to 0.95 at all times.

APPLICABILITY: Whenever fuel assemblies are in the spent fuel pool.

ACTION: With the requirements of the above specification not satisfied:

a. Borate until $k_{eff} \leq .95$ is reached, and

b. Perform surveillance 4.9.1.2 until the misplaced/dropped fuel assembly causing $k_{eff} > .95$ is corrected.

SURVEILLANCE REQUIREMENTS

4.9.13 Ensure that all fuel assemblies to be placed in Region II of the spent fuel pool are within the enrichment and burn-up limits of Figure 3.9-1 by checking the fuel assembly's design and burn-up documentation.

REFUELING OPERATIONS

SPENT FUEL POOL - STORAGE PATTERN

LIMITING CONDITION FOR OPERATION

3.9.14 Each STORAGE PATTERN of the Region I spent fuel pool racks shall require that:

a. Prior to storing fuel assemblies in the STORAGE PATTERN per Figure 3.9-2, the cell blocking device for the cell location must be installed.

b. Prior to removal of a cell blocking device from the cell location per Figure 3.9-2, the STORAGE PATTERN must be vacant of all stored fuel assemblies.

APPLICABILITY: Whenever fuel assemblies are in the spent fuel pool.

ACTION: Take immediate action to comply with 3.9.14(a), (b).

SURVEILLANCE REQUIREMENT

4.9.14 Verify that 3.9.14 is satisfied with no fuel assemblies stored in the STORAGE PATTERN prior to installing and removing a cell blocking device in the spent fuel racks.

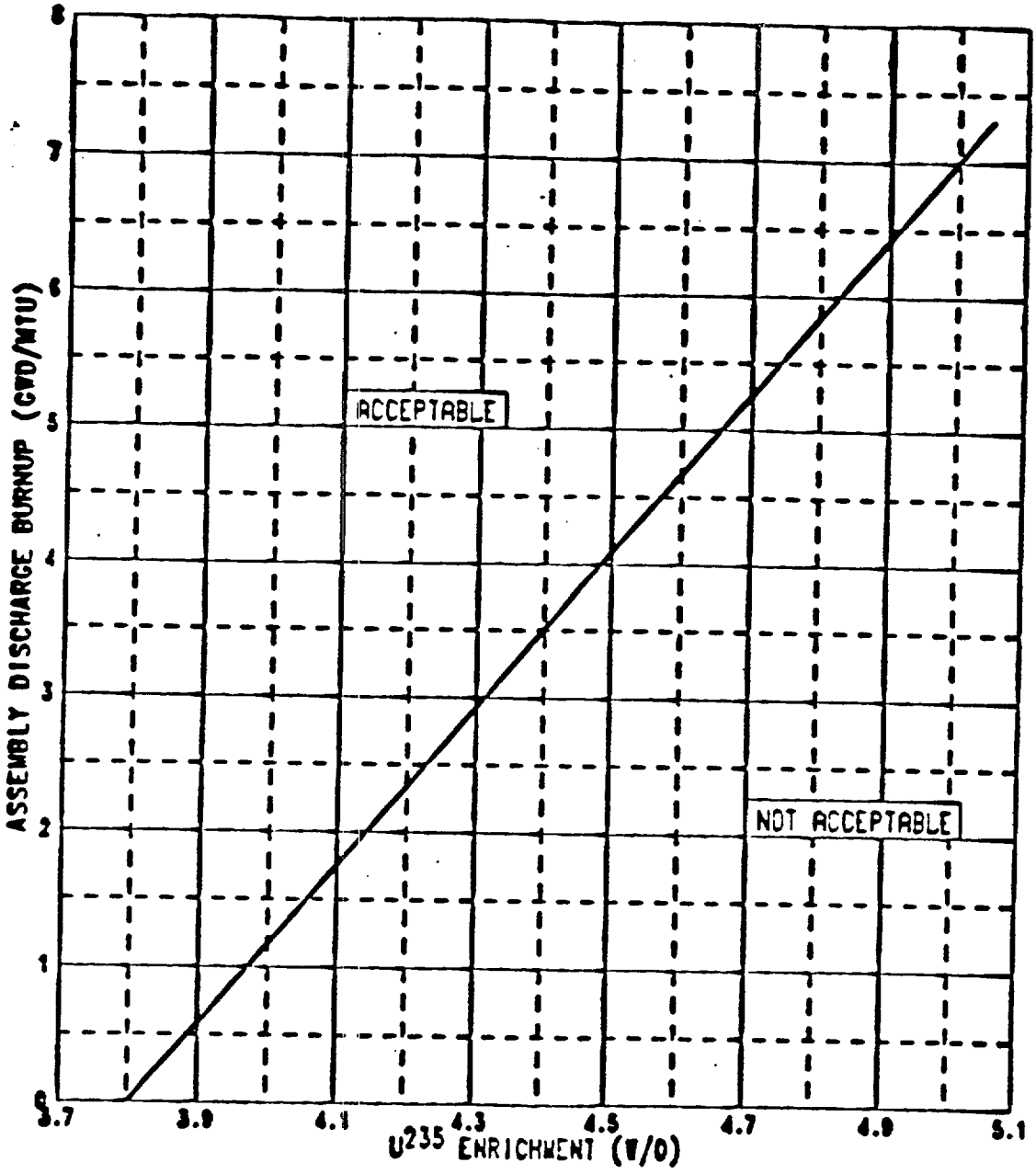
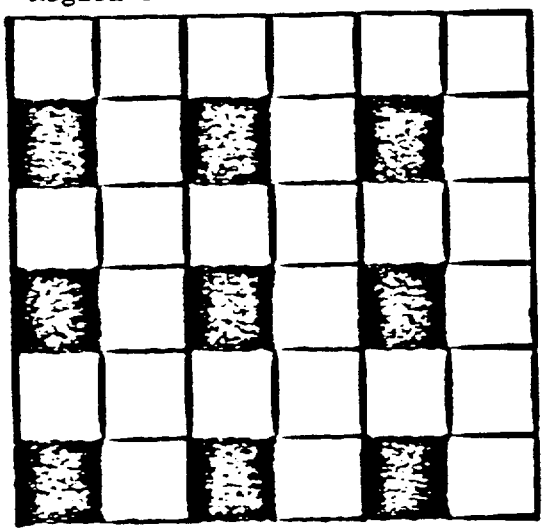


Figure 3.9-1

MILLSTONE UNIT 3 FUEL ASSEMBLY MINIMUM BURNUP VS INITIAL U235 ENRICHMENT FOR STORAGE IN REGION II SPENT FUEL RACKS

This face must be along the wall of the spent fuel pool, or other Region I modules.

Region II fuel may be placed along this face



This face must be along the wall of the spent fuel pool, or other Region I modules.

Region II fuel may be placed along this face.

Fuel Assembly Location

Cell Blocker Location

Figure 3.9-2

MILLSTONE UNIT 3 REGION I THREE OF FOUR FUEL ASSEMBLY LOADING SCHEMATIC FOR A TYPICAL 6 X 6 STORAGE MODULE

3/4.9.10 and 3/4.9.11 WATER LEVEL - REACTOR VESSEL and STORAGE POOL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 10% iodine gap activity released from the rupture of an irradiated fuel assembly. The minimum water depth is consistent with the assumptions of the safety analysis.

3/4.9.12 FUEL BUILDING EXHAUST FILTER SYSTEM

The limitations on the Fuel Building Exhaust Filter System ensure that all radioactive material released from an irradiated fuel assembly will be filtered through the HEPA filters and charcoal adsorber prior to discharge to the atmosphere. Operation of the system with the heaters operating for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the safety analyses. ANSI N510-1980 will be used as a procedural guide for surveillance testing.

3/4.9.13 SPENT FUEL POOL - REACTIVITY

The limitations described by Figure 3.9-1 ensure that the reactivity of fuel assemblies introduced into Region II are conservatively within the assumptions of the safety analysis.

Administrative controls have been developed and instituted to verify that the enrichment and burn-up limits of Figure 3.9-1 have been maintained for the fuel assembly.

3/4.9.14 SPENT FUEL POOL - STORAGE PATTERN

The limitations of this specification ensure that the reactivity conditions of the Region I storage racks and spent fuel pool k_{eff} will remain less than or equal to 0.95.

The Cell Blocking Devices in the 4th location of the Region I storage racks are designed to prevent inadvertent placement and/or storage of fuel assemblies in the blocked locations. The blocked location remains empty to provide the flux trap to maintain reactivity control for fuel assemblies in adjacent and diagonal locations of the STORAGE PATTERN.

STORAGE PATTERN for the Region I storage racks will be established and expanded from the walls of the spent fuel pool per Figure 3.9-2 to ensure definition and control of the Region I/Region II boundary and minimize the number of boundaries where a fuel misplacement incident can occur.

5.3 REACTOR CORE

FUEL ASSEMBLIES

5.3.1 The core shall contain 193 fuel assemblies with each fuel assembly containing 264 fuel rods clad with Zircaloy-4. Each fuel rod shall have a nominal active fuel length of 144 inches. The initial core loading shall have a maximum nominal enrichment of 3.4 weight percent U-235. Reload fuel shall be similar in physical design to the initial core loading and shall have a maximum nominal enrichment of 3.8 weight percent U-235.

CONTROL ROD ASSEMBLIES

5.3.2 The core shall contain 61 full-length control rod assemblies. The full-length control rod assemblies shall contain a nominal 142 inches of absorber material. The nominal values of absorber material shall be 95.3% hafnium and 4.5% natural zirconium. All control rods shall be clad with stainless steel.

5.4 REACTOR COOLANT SYSTEM

DESIGN PRESSURE AND TEMPERATURE

5.4.1 The Reactor Coolant System is designed and shall be maintained:

a. In accordance with the Code requirements specified in Section 5.2 of the FSAR, with allowance for normal degradation pursuant to the applicable Surveillance Requirements,

b. For a pressure of 2500 psia, and

c. For a temperature of 650°F, except for the pressurizer which is 680°F.

VOLUME

5.4.2 The total water and steam volume of the Reactor Coolant System is 12,240 cubic feet at a nominal T_{avg} of 587°F.

5.5 METEOROLOGICAL TOWER LOCATION

5.5.1 The meteorological tower shall be located as shown on Figure 5.1-3.

5.6 FUEL STORAGE

CRITICALITY

5.6.1.1 The spent fuel storage racks are designed and shall be maintained with:

a. A k_{eff} equivalent to less than or equal to 0.95 when flooded with unborated water.

b. A nominal 10.35-inch center-to-center distance between fuel assemblies placed in the storage racks.

c. Fuel assemblies stored in Region I of the spent fuel pool may have a maximum nominal fuel enrichment of up to 5.0 weight percent U_{235}. Region I is designed to permit storage of fuel in a 3-out-of-4 array with the 4th storage location blocked as shown in Figure 3.9-2.

d. Fuel assemblies stored in Region II of the spent fuel pool may have a maximum nominal fuel enrichment of up to 5.0 weight percent, conditional upon compliance with Figure 3.9-1 to ensure that the design burnup of the fuel has been sustained.

e. Racks are qualified to maximum nominal enrichment of 5.0 w/o U_{235}; however, actual plant analysis is performed on a Cycle 3 specific basis due to considerations on the pool cooling and piping systems and pool structure.

DRAINAGE

5.6.2 The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 45 feet.

CAPACITY

5.6.3 The spent fuel storage pool contains 756 storage locations of which a maximum of 100 locations will be blocked.

5.7 COMPONENT CYCLIC OR TRANSIENT LIMIT

5.7.1 The components identified in Table 5.7-1 are designed and shall be maintained within the cyclic or transient limits of Table 5.7-1.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 39

TO FACILITY OPERATING LICENSE NO. NPF-49

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

DOCKET NO. 50-423

1.0 INTRODUCTION

By application for license amendment dated April 20, 1989, Northeast Nuclear Energy Company, et al. (the licensee), requested changes to Millstone Unit 3 Technical Specifications (TS).

The proposed amendment would change the Millstone Unit 3 Technical Specifications (TS) to allow storage of fuel with an enrichment of up to 5.0 nominal weight percent U-235 as follows: (1) Section 1.0, "Definitions," would be changed by adding new TS 1.40 and 1.41 to define the fuel regional storage pattern, (2) A new TS 3/4.9.13 "Spent Fuel Pool - Reactivity," would be added to limit the fuel K_{eff} to less than or equal to .95, (3) A new TS 3/4.9.14, "Spent Fuel Pool - Storage Pattern," would be added to implement the fuel storage pattern, (4) TS 5.6.1.1, "Criticality" would be changed and expanded to address the storage of fuel utilizing a regional storage system, and (5) A new TS 5.6.3, "Capacity" would be added to address the use of cell blocking devices in the storage of fuel. In addition to the above, the licensee has requested that TS 5.6.1.2 be deleted.

2.0 DISCUSSION AND EVALUATION

The purpose of the licensee's April 20, 1989 application is to seek approval for storage of fuel in the spent fuel storage pool with an initial enrichment of up to a nominal 5.0 weight percent (w/o) U-235. The criticality and accident considerations addressed reflect the effects of storage of 5.0 w/o enriched fuel. The thermal hydraulic and certain structural effects, however, only reflect conditions associated with the present Cycle 3 fuel. Accordingly, certain analyses must be reperformed on a cycle-by-cycle basis or bounding analyses must be submitted for approval.

2.1 Criticality

Millstone Unit 3 spent fuel racks are designed to limit the effective neutron multiplication factor (k_{eff}) to less than, or equal to, .95 provided that the stored fuel enrichment is not greater than 3.85 weight percent (w/o) U-235.

The licensee has now proposed to store fuel with an enrichment of up to 5.0 w/o U-235. The increased enrichment would be compensated by use of cell blocking devices, which would limit the proximity of high enrichment fuel (up to 5.0 nominal w/o U-235).

The Millstone Unit No. 3 spent fuel pool (SFP) storage racks were reanalyzed by Westinghouse utilizing a two-region storage scheme to accommodate a nominal 5.0 w/o U-235 fuel. Region I was reanalyzed to show that fresh 5.0 w/o (nominal) U-235 fuel can be stored in the racks in a three-out-of-four storage scheme. Region II was reanalyzed to take into consideration the changes in fuel and fission product inventory resulting from depletion in the reactor core of fuel with nominal enrichments up to 5.0 w/o U-235.

The Region I rack reanalysis was based on maintaining K_{eff} less than or equal to 0.95 for storage of Westinghouse 17 x 17 OFA and STD fuel at a nominal 5.0 w/o U-235 utilizing three-out-of-four storage cells in the array. The Region II spent fuel rack reanalysis was based on maintaining K_{eff} less than or equal to 0.95 for storage of Westinghouse 17 x 17 OFA and STF fuel at a nominal 5.0 w/o U-235 with an initial enrichment/burnup combination in the acceptable area of proposed TS Figure 3.9-1 with utilization of every cell permitted for storage of the fuel assemblies. A K_{eff} of less than or equal to .95 is the acceptance criteria for subcriticality contained in Standard Review Plan 9.1.2, "Spent Fuel Storage," Section III.2.a.

Based upon the above, we conclude that the use of regional fuel storage together with the cell blocking devices will effectively limit K_{eff} to less than .95, for nominal 5.0 w/o enriched fuel, and is thus acceptable.

2.2 Structural/Seismic Considerations

From a seismic/structural standpoint, the change of nominal enrichment from 3.8 w/o U-235 to a nominal enrichment 5.0 w/o U-235 does not affect the current licensing analysis due to the fact that the total weight of the fuel assembly remains the same. The enrichment change is in the distribution of U-235 versus U-238 that comprises the fuel pellet. Thus, there is no effect on the mechanical load bearing or seismic resistance of the spent fuel racks or associated structures.

The proposed storage of irradiated 5.0 w/o fuel does result in higher thermal loads when compared with 3.8 w/o fuel. The licensee, however performed thermal load analyses for Cycle 3 - specific conditions which resulted in the FSAR analysis for a nominal 3.8 w/o fuel being bounding. The analyses address thermal loads on concrete structural members and the spent fuel pool liner. With regard to the spent fuel racks, the increased decay heat of the 5.0 w/o fuel increases the cell/axial and cell-to-grid weld shear stresses; however, the stress increases are small and are well within allowable values.

Based upon the above, we conclude that storage of 5.0 w/o fuel does not effect the mechanical load bearing or seismic resistance capability of the spent fuel racks or associated structures. In addition the thermal stresses associated with 5.0 w/o fuel, with regard to the spent fuel racks are acceptable during Cycle 3 operation. The thermal loads for the spent fuel pool liner and structural concrete members have been shown to be acceptable for Cycle 3 - specific conditions. Additional calculation for subsequent cycles, or bounding analyses, must be submitted for approval.

2.3 Spent Fuel Pool Cooling

The licensee has performed Cycle 3 - specific calculations to determine the adequacy of the spent fuel pool cooling system. The original design calculation was revised to reflect actual maximum reactor plant component cooling water temperature. Heat loads for an end of Cycle 3 core off-load, for a Cycle 3 emergency full core off-load, and for plant operation with a normal refuel load (one-third core) in the SFP, were determined. These heat loads were used as the basis for determining the SFP cooling system fluid temperatures under a variety of operating scenarios.

For all cases except an emergency core off-load, the predicted temperatures were lower than those described in the SFP cooling safety evaluation in the Millstone Unit No. 3 Final Safety Analysis Report (FSAR) (Section 9.1.3.3). All temperatures were based on only one 100 percent capacity train of SFP cooling in operation. The second train of SFP cooling is either in standby or out of service. Under no scenarios did the SFP fluid boil or the fluid temperature exceed 200°F.

For an emergency core off-load occurring during Cycle 3, the pool temperature was predicted to reach 163°F. This temperature exceeds the predicted temperature of 149°F for this event in the FSAR. A review of the design conditions of the equipment and piping confirmed that 163°F is acceptable since it is below the design temperature of the SFP cooling system which is 200°F.

We conclude that the Millstone Unit 3 spent fuel pool cooling system is adequate for Cycle 3 operation in that heat load calculations, except for an emergency core off-load, are bounded by the existing FSAR calculations. For the emergency core off-load case, boiling in the spent

fuel pool does not occur and thus meets the guidance in Standard Review Plan 9.1.3, "Spent Fuel Pool Cooling and Cleanup System," Section III.1.d and is acceptable. Additional calculations of spent fuel pool cooling capability for subsequent cycles, or bounding analyses, must be submitted for approval.

3.0 ACCIDENT ANALYSES

The licensee has considered the potential consequences of various accidents that could result from storage of fuel with increased enrichment/burnup.

- Fuel Handling Accident - The source term for the fuel handling accident is insensitive to increased enrichment or burnup of the spent fuel. Accordingly the radiological consequences of the fuel handling accident do not increase.

- Criticality - As described in Section 2.1 herein, the proposed spent fuel storage strategy utilizes a regional scheme with cell blocking devices. The proposed strategy acceptably limits K_{eff} to less than or equal to .95. Thus, probability of a criticality being achieved in the spent fuel pool will not increase with storage of fuel with an enrichment of up to 5.0 w/o.

- Loss of Spent Fuel Pool Integrity - The integrity of spent fuel pool structures and systems are judged to be adequate in light of the increased heat load associated with the higher enrichment and burnup of the spent fuel. This conclusion is somewhat limited in that it only reflects Cycle 3 conditions in the spent fuel pool.

Based upon the above, we conclude that the consideration of potential failures and accidents associated with storage of fuel assemblies with higher enrichment and burnup is acceptable.

4.0 TECHNICAL SPECIFICATIONS

The licensee has proposed several changes to the Millstone Unit 3 TS which reflect the proposed storage of fuel, in the spent fuel pool, with a nominal enrichment of up to 5.0 w/o. In addition, TS 5.6.1.2 would be deleted.

- Section 1.0--Definitions

  New definitions, proposed Sections 1.40 and 1.41, would be added to define the required fuel storage patterns. Section 1.40 would define the fuel storage pattern of Region I fuel, and Section 1.41 would delineate the fuel storage requirements of Region II fuel. The reason for this change to a regionalized storage pattern is to account for the required three-out-of-four storage pattern required for criticality considerations of fuel assemblies with no burnup or minimum burnup and with nominal enrichments less than or equal to 5.0 w/o U-235 and greater than 3.8 weight percent U-235.

. Section 3/4.9--Refueling Operations

New Sections, 3/4.9.13 and 3/4.9.14, Spent Fuel Pool, would be added, with new accompanying Limiting Conditions for Operation 3.9.13 and 3.9.14 and Surveillance Requirements 4.9.13 and 4.9.14. The reason for these changes is to provide the specific conditions and criteria for SFP reactivity and regionalized fuel storage, with the accompanying applicability and verification requirements. In addition, a new Figure 3.9-1 would be added to provide the fuel burnup versus enrichment criteria, and a new Figure 3.9-2 would be added to provide the Region I fuel assembly loading schematic. The accompanying new Bases 3/4.9.13 and new Bases 3/4.9.14 would be added to provide the bases for new Sections 3/4.9.13 and 3/4.9.14. Additionally, new Bases 3/4.9.13 makes reference to administrative controls to verify fuel assembly burnup. These controls are currently being formalized and will be in place prior to the issuance of this amendment request.

. Section 5.6--Fuel Storage

Section 5.6.1.1 would be modified and expanded in order to address the storage of fuel utilizing a regionalized storage scheme.

Section 5.6.1.2 would be deleted. The reason for this change is that this section was only applicable to storage of new fuel stored dry in the spent fuel racks, during the first reload, and is no longer applicable.

Section 5.6.3, Capacity, would be changed from specifying the specific number of fuel assemblies allowed to be stored in the SFP to specifying only the number of storage locations available. The reason for this change is to account for the varying number of cell blockers which may now occupy various fuel storage locations in support of the regionalized storage scheme. Utilizing cell blockers, it may not be possible to fill all possible storage locations with spent fuel. Therefore, the number of storage locations, not fuel assemblies, need be addressed.

The proposed changes to the TS implement the two region fuel storage system addressed in Section 2.1, herein. The proposed TS, which provide assurance that K_{eff} will be maintained at less than or equal to .95 under the most adverse postulated conditions, are acceptable. With regard to TS 5.6.1.2, this TS can be deleted since it restricts the K_{eff} of first cycle fuel to .98 when stored, dry, in the spent fuel racks. Since the spent fuel pool will remain water-filled for the life of the facility, the potential overmoderating effects of aqueous fire-fighting foam are no longer a concern.

5.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. We have determined

that the amendment involves 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 staff has previously published a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets 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 amendment.

6.0 CONCLUSION

We have 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, and (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.

Dated: August 29. 1989

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