

Dominion Nuclear Connecticut, Inc.
Millstone Power Station
Rope Ferry Road
Waterford, CT 06385



Dominion™

AUG 14 2002

Docket No. 50-245

50-336

50-423

B18722

RE: 10 CFR 50.90

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Millstone Nuclear Power Station, Unit Nos. 1, 2 and 3
Modification to Technical Specification Change Request
Administrative and Editorial Changes to the
Unit Nos. 1, 2 and 3 Technical Specifications

By letter dated November 8, 2001,⁽¹⁾ Dominion Nuclear Connecticut, Inc. (DNC), proposed administrative and editorial changes to the Millstone Unit No. 1 Permanently Defueled Technical Specifications (PDTs) and Unit Nos. 2 and 3 Technical Specifications (TS). Subsequent to submittal, the U.S. Nuclear Regulatory Commission (NRC) identified that within proposed Unit Nos. 2 and 3 TS Specification 5.1, "Site Location," a reference to the Code of Federal Regulations (CFR) section specifying the definition of the exclusion area boundary (EAB) was incorrect and should refer to 10 CFR 100.3 rather than 10 CFR 100.3(a). A change to Specification 5.1 in the Unit Nos. 2 and 3 TS (and Specification 4.1 in the Unit No. 1 PDTs) is proposed to provide the correct reference to the appropriate CFR section (Attachment 1, 2 and 3 mark-ups).

During the transformation and subsequent approval of the Unit No. 1 TS as the PDTs version⁽²⁾⁽³⁾ Specification 5.1, "Site," was revised - converted to a text-only description and reformatted as Specification 4.1, "Site Location." The current language of Unit No. 1 PDTs Specification 4.1 is analogous to that proposed for Specification 5.1 for Unit Nos. 2 and 3 in the November 8, 2001, submittal. DNC has also identified that the value listed in

⁽¹⁾ J. Alan Price, Dominion Nuclear Connecticut, Inc. letter to U.S. Nuclear Regulatory Commission, "Technical Specification Change Request, Administrative and Editorial Changes to the Unit Nos. 1, 2 and 3 Technical Specifications," (B18415) dated November 8, 2001.

⁽²⁾ R. P. Necci, Northeast Nuclear Energy Company letter to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 1, Proposed Revision to Technical Specifications, Permanently Defueled Technical Specifications," (B17621) dated April 19, 1999.

⁽³⁾ Louis L. Wheeler, U.S. Nuclear Regulatory Commission, to R. P. Necci, "Millstone Nuclear Power Station, Unit 1 - Issuance of Amendment RE: Permanently Defueled Technical Specifications," (TAC No. MA5326), dated November 9, 1999.

Pool

Unit No. 1 PDTS Specification 4.1 for the distance from the elevated stack to the nearest site boundary, i.e., 1620 feet, should be changed to 1627 feet for consistency with proposed Specification 5.1 for Unit Nos. 2 and 3.

DNC, therefore, proposes two changes be made, (1) revise Specification 5.1 for Unit Nos. 2 and 3 and Specification 4.1 for Unit No. 1, to change the reference for where the definition of EAB is specified from 10 CFR 100.3(a) to 10 CFR 100.3, and (2), revise Specification 4.1 for Unit No. 1 to reflect the correct distance from the elevated stack to the nearest site boundary, i.e., 1627 feet.

The November 8, 2001, letter provided, among other things, the basis for revising the Unit Nos. 2 and 3 TS to remove various figures, e.g., those specifying the EAB and replacing them with a specification providing a text-only description of the site location. Correcting the CFR reference to where the definition of the EAB is specified in proposed Specification 5.1 (Unit Nos. 2 and 3 TS) and Specification 4.1 (Unit No. 1 PDTS), and correcting the distance from the elevated stack to the nearest site boundary in Specification 4.1 for Unit No. 1, do not change the approach or conclusions contained within the November 8, 2001, letter.

These changes to correct the CFR reference within proposed Specification 5.1 (Unit Nos. 2 and 3 TS) and Specification 4.1 (Unit No. 1 PDTS), and correcting the distance from the elevated stack to the nearest site boundary in Specification 4.1 for Unit No. 1, do not affect the conclusions of the Safety Summary, Significant Hazards Consideration or the Environmental Consideration provided in the November 8, 2001, submittal.

Attachments 1, 2 and 3 are a marked-up version of the pages of the current unit TS reflecting the proposed changes associated with this submittal. For your convenience, a complete set of retyped pages reflecting the proposed changes associated with this submittal and the November 8, 2001, submittal are included in Attachments 4, 5 and 6.

There are no regulatory commitments contained in this letter.

If you should have any questions regarding this submittal, please contact Mr. Ravi Joshi at (860) 440-2080.

Very truly yours,

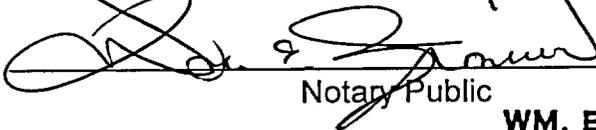
DOMINION NUCLEAR CONNECTICUT, INC.



J. Alan Price
Site Vice President - Millstone

Subscribed and sworn to before me

this 14 day of August, 2002



Notary Public

WM. E. BROWN
NOTARY PUBLIC

Date Commission Expires: MY COMMISSION EXPIRES MAR. 31, 2006

- cc: H. J. Miller, Region I Administrator
J. B. Hickman, NRC Project Manager, Millstone Unit No. 1
J. R. Wray, NRC Inspector, Region I, Millstone Unit No. 1
R. B. Ennis, NRC Senior Project Manager, Millstone Unit No. 2
NRC Senior Resident Inspector, Millstone Unit No. 2
V. Nerses, NRC Senior Project Manager, Millstone Unit No. 3
NRC Senior Resident Inspector, Millstone Unit No. 3

Director
Bureau of Air Management
Monitoring and Radiation Division
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

- Attachments:
- 1) Marked-up Unit No. 1 Permanently Defueled Technical Specification Page
 - 2) Marked-up Unit No. 2 Technical Specification Page
 - 3) Marked-up Unit No. 3 Technical Specification Page
 - 4) Retyped Unit No. 1 Permanently Defueled Technical Specification Pages (includes November 8, 2001, pages)
 - 5) Retyped Unit No. 2 Technical Specification Pages (includes November 8, 2001, pages)
 - 6) Retyped Unit No. 3 Technical Specification Pages (includes November 8, 2001, pages)



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Attachment 1

Millstone Nuclear Power Station, Unit Nos. 1, 2 and 3

Modification to Technical Specification Change Request
Administrative and Editorial Changes to the
Unit Nos. 1, 2 and 3 Technical Specifications

Marked-up Unit No. 1 Permanently Defueled Technical Specification Page

Modification to Technical Specification Change Request
Administrative and Editorial Changes to the
Unit Nos. 1, 2 and 3 Technical Specifications

Marked-up Unit No. 1 Permanently Defueled Technical Specification Page

A change to the following Technical Specification page has been proposed.

<u>Permanently Defueled Technical Specification Section Numbers</u>	<u>Title(s) of Section(s)</u>	<u>Affected Pg. and Amendment No.</u>
4.1*	Site Location	Page 4.0-1, Am. No. 109

* Note, this page was not included in the November 8, 2001, submittal (letter B18415) as no change to this specification was proposed.

4.0 DESIGN FEATURES

4.1 Site Location The Unit 1 Reactor Building is located on the site at Millstone Point in Waterford, Connecticut. The nearest site boundary on land is 2063 feet northeast of the reactor building (~~1626~~¹⁶²⁷ feet northeast of the elevated stack), which is the minimum distance to the boundary of the exclusion area as described in 10CFR100.3(a). No part of the site that is closer to the reactor building than 2063 feet shall be sold or leased except to Dominion Nuclear Connecticut, Inc. or its corporate affiliates for use in conjunction with normal utility operations.

4.2 Fuel Storage

4.2.1 The new fuel storage facility shall be such that the K_{eff} dry is less than 0.90 and flooded is less than 0.95.

4.2.2 The K_{eff} of the spent fuel storage pool shall be less than or equal to 0.90. This K_{eff} value is satisfied with fuel assemblies having a maximum k-infinity of 1.24 in the normal reactor configuration at cold conditions, and an average U-235 enrichment of 3.8 weight percent or less.

4.2.3 The number of fuel assemblies stored in the spent fuel storage pool shall not exceed 3229 bundles.

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Attachment 2

Millstone Nuclear Power Station, Unit Nos. 1, 2 and 3

Modification to Technical Specification Change Request
Administrative and Editorial Changes to the
Unit Nos. 1, 2 and 3 Technical Specifications
Marked-up Unit No. 2 Technical Specification Page

Modification to Technical Specification Change Request
Administrative and Editorial Changes to the
Unit Nos. 1, 2 and 3 Technical Specifications

Marked-up Unit No. 2 Technical Specification Page

A change to the following Technical Specification page has been proposed.

<u>Technical Specification Section Numbers</u>	<u>Title(s) of Section(s)</u>	<u>Affected Pg. and Amendment No.</u>
5.1	SITE	Page 5-1, Am. No. 216

June 6, 1998

5.0 DESIGN FEATURES

5.1 SITE

← Insert "A"

EXCLUSION AREA

5.1.1 The exclusion area is shown on Figure 5.1-1.

LOW POPULATION ZONE

5.1.2 The low population zone is shown on Figure 5.1-2.

FLOOD CONTROL

5.1.3 The flood control provisions shall be designed and maintained in accordance with the design provisions contained in Section 2.5.4.2 of the FSAR.

5.2 CONTAINMENT

← DELETED

CONFIGURATION

5.2.1 The reactor containment building is a steel lined, reinforced concrete building of cylindrical shape, with a dome roof and having the following design features:

- a. Nominal inside diameter = 130 feet.
- b. Nominal inside height = 175 feet.
- c. Minimum thickness of concrete walls = 3.75 feet.
- d. Minimum thickness of concrete dome = 3.25 feet.
- e. Minimum thickness of concrete floor pad = 8.5 feet.
- f. Nominal thickness of steel liner = 0.25 inches.
- g. Net free volume = 1.9×10^6 cubic feet.

SITE LOCATION

The Unit 2 Containment Building is located on the site at Millstone Point in Waterford, Connecticut. The nearest site boundary on land is 2034 feet northeast of the containment building wall (1627 feet northeast of the elevated stack), which is the minimum distance to the boundary of the exclusion area as described in 10 CFR 100.3. No part of the site that is closer than these distances shall be sold or leased except to Dominion Nuclear Connecticut, Inc. or its corporate affiliates for use in conjunction with normal utility operations.

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Attachment 3

Millstone Nuclear Power Station, Unit Nos. 2 and 3

Modification to Technical Specification Change Request
Administrative and Editorial Changes to the
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Marked-up Unit No. 3 Technical Specification Page

Modification to Technical Specification Change Request
Administrative and Editorial Changes to the
Unit Nos. 1, 2 and 3 Technical Specifications

Marked-up Unit No. 3 Technical Specification Page

A change to the following Technical Specification page has been proposed.

<u>Technical Specification Section Numbers</u>	<u>Title(s) of Section(s)</u>	<u>Affected Pg. and Amendment No.</u>
5.1	SITE	Page 5-1 (Jan 31, 1986)

5.0 DESIGN FEATURES5.1 SITE← Insert 'A'EXCLUSION AREA

5.1.1 The Exclusion Area shall be as shown in Figure 5.1-1.

LOW POPULATION ZONE

5.1.2 The Low Population Zone shall be as shown in Figure 5.1-2.

SITE BOUNDARY FOR LIQUID AND GASEOUS EFFLUENTS

5.1.3 The site boundary for liquid and gaseous effluents shall be as shown in Figure 5.1-3.

5.2 CONTAINMENT← DELETEDCONFIGURATION

5.2.1 The containment building is a steel-lined, reinforced concrete building of cylindrical shape, with a dome roof and having the following design features:

- a. Nominal inside diameter = 140 feet.
- b. Nominal inside height = 201 feet, 3 inches.
- c. Minimum thickness of concrete walls = 4 feet, 6 inches.
- d. Minimum thickness of concrete roof = 2 feet, 6 inches.
- e. Minimum thickness of concrete floor pad = 10 feet.
- f. Nominal thickness of steel liner = 1/4 inch (floor), 3/8 inch (wall), and 1/2 inch (dome).
- g. Net free volume = 2.26×10^6 cubic feet.

DESIGN PRESSURE AND TEMPERATURE

5.2.2 The containment building is designed and shall be maintained for a minimum internal pressure of 8 psia, a maximum internal pressure of 59.7 psia, and a temperature of 280°F.

SITE LOCATION

The Unit 3 Containment Building is located on the site at Millstone Point in Waterford, Connecticut. The nearest site boundary on land is 1719 feet northeast of the containment building wall (1627 feet northeast of the elevated stack), which is the minimum distance to the boundary of the exclusion area as described in 10 CFR 100.3. No part of the site that is closer than these distances shall be sold or leased except to Dominion Nuclear Connecticut, Inc. or its corporate affiliates for use in conjunction with normal utility operations.

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Attachment 4

Millstone Nuclear Power Station, Unit Nos. 1, 2 and 3

Modification to Technical Specification Change Request
Administrative and Editorial Changes to the
Unit Nos. 1, 2 and 3 Technical Specifications

Retyped Unit No. 1 Permanently Defueled Technical Specification Pages
(includes November 8, 2001, pages)

4.0 DESIGN FEATURES

4.1 Site Location The Unit 1 Reactor Building is located on the site at Millstone Point in Waterford, Connecticut. The nearest site boundary on land is 2063 feet northeast of the reactor building (1627 feet northeast of the elevated stack), which is the minimum distance to the boundary of the exclusion area as described in 10 CFR 100.3. No part of the site that is closer to the reactor building than 2063 feet shall be sold or leased except to Dominion Nuclear Connecticut, Inc. or its corporate affiliates for use in conjunction with normal utility operations.

4.2 Fuel Storage

4.2.1 The new fuel storage facility shall be such that the K_{eff} dry is less than 0.90 and flooded is less than 0.95.

4.2.2 The K_{eff} of the spent fuel storage pool shall be less than or equal to 0.90. This K_{eff} value is satisfied with fuel assemblies having a maximum k-infinity of 1.24 in the normal reactor configuration at cold conditions, and an average U-235 enrichment of 3.8 weight percent or less.

4.2.3 The number of fuel assemblies stored in the spent fuel storage pool shall not exceed 3229 bundles.

5.0 ADMINISTRATIVE CONTROLS

5.1 Responsibility

5.1.1 The designated officer shall be responsible for overall operation of the Millstone Station Site and shall delegate, in writing, the succession to this responsibility. The designated manager shall be responsible for overall Unit safe operation and shall delegate in writing the succession of this responsibility.

5.1.2 The Shift Manager shall be responsible for the control room command function.

5.1.3 Unless otherwise defined, the technical specification titles for members of the staff are generic titles. Unit-specific titles for the functions and responsibilities associated with these generic titles are identified in the Quality Assurance Program Topical Report.

5.0 ADMINISTRATIVE CONTROLS

5.2 Organization

5.2.1 Onsite And Offsite Organizations

Onsite and offsite organizations shall be established for unit operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting the safe storage of irradiated fuel.

- a. Lines of authority, responsibility, and communication shall be established and defined for the highest management levels through intermediate levels to and including all operating organization positions. These relationships shall be documented and updated, as appropriate, in the form of organization charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements shall be documented in the Quality Assurance Program Topical Report.
- b. The designated manager shall be responsible for overall unit safe operation and shall have control over those onsite activities and resources necessary for maintenance and storage of irradiated fuel in a safe condition.
- c. The designated officer shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to ensure the safe storage of irradiated fuel.
- d. The individuals who train the CERTIFIED FUEL HANDLERS and those who carry out radiation protection functions or perform quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their ability to perform their assigned functions.

(continued)

5.0 ADMINISTRATIVE CONTROLS

5.3 Facility Staff Qualifications

5.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, except for:

5.3.1.1 The operations manager or assistant operations manager shall be a CERTIFIED FUEL HANDLER.

5.3.1.2 The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, Revision 1, May 1977.

5.0 ADMINISTRATIVE CONTROLS

5.5 Procedures

- 5.5.1 Written procedures shall be established, implemented, and maintained covering the following activities:
- a. The procedures applicable to the safe storage of irradiated fuel recommended in Appendix "A" of Regulatory Guide 1.33, February 1978;
 - b. Fire Protection Program implementation;
 - c. Cold Weather Operations;
 - d. Quality Controls for effluent monitoring, using the guidance in Regulatory Guide 1.21, Rev. 1, June 1974;
 - e. Liquid and gaseous radioactive effluent discharges from the unit for all operations involving offsite releases of radioactive effluents. These procedures shall specify the use of appropriate waste treatment utilizing the guidance provided in the REMODCM;
 - f. Fuel handling operations;
 - g. All programs specified in Specification 5.6, except for Section I.E, Radiological Environmental Monitoring of REMODCM, which is performed in accordance with Specifications 5.5.6 and 5.5.7.
- 5.5.2 The designated manager, designated officer, or designated senior officer may designate specific procedures and programs, or classes of procedures and programs to be reviewed in accordance with the Station Qualified Reviewer Program in lieu of review by the SORC. The review per the SORC or Station Qualified Reviewer Program shall be in accordance with the Quality Assurance Program Topical Report.
- 5.5.3 Procedures listed in Specification 5.5.1, and changes thereto, shall be approved by the designated manager, or designated officer or by cognizant managers or directors who are designated as the Approval Authority by the designated manager, or designated officer as specified in administrative procedures. The Approval Authority for each procedure and program or class of procedure and program shall be specified in administrative procedures.

(continued)

5.0 ADMINISTRATIVE CONTROLS

5.5 Procedures (continued)

- 5.5.4 Each procedure of Specification 5.5.1, and changes thereto, shall be reviewed by the SORC and shall be approved by the designated manager or designated officer, or be reviewed and approved in accordance with the Station Qualified Reviewer Program prior to implementation. Each procedure of Specification 5.5.1 shall be reviewed periodically as set forth in administrative procedures.
- 5.5.5 Temporary changes to procedures of Specification 5.5.1 above may be made provided:
- a. the intent of the original procedure is not altered;
 - b. the change is approved by two members of the plant management staff, at least one of whom is a CERTIFIED FUEL HANDLER;
 - c. the change is documented, reviewed by the SORC or the Station Qualified Reviewer Program, as applicable, and approved by the designated manager, designated officer, or the Station Qualified Reviewer Program department manager within 14 days of implementation.
- 5.5.6 All procedures and procedure changes required for the Radiological Environmental Monitoring Program (REMP) of Specification 5.6.1 shall be reviewed by an individual (other than the author) from the organization responsible for the REMP and approved by appropriate supervision.
- 5.5.7 Temporary changes may be made for the Radiological Environmental Monitoring Program provided the intent of the original procedure is not altered and the change is documented and reviewed by an individual (other than the author) from the organization responsible for the REMP within 14 days of implementation.
-

(continued)

5.0 ADMINISTRATIVE CONTROLS

5.6 Programs and Manuals

5.6.2 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications

- a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
- b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
 1. A change in the TS incorporated in the license; or
 2. A change to the updated FSAR or Bases that requires NRC approval pursuant to 10CFR50.59.
- c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the FSAR.
- d. Proposed changes that meet the criteria of Specification 5.6.2b above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10CFR50.71(e).

(continued)

5.0 ADMINISTRATIVE CONTROLS

5.8 High Radiation Area

5.8 High Radiation Area

5.8.1 Pursuant to 10CFR Part 20.1601(c), in lieu of the requirements of 10CFR Part 20.1601(a), each high radiation area as defined in 10 CFR Part 20 shall be barricaded and conspicuously posted as a high radiation area, and entrance thereto shall be controlled by requiring issuance of a radiation work permit or equivalent. Individuals trained and qualified in radiation protection procedures (e.g., a radiation protection technician) or personnel continuously escorted by such individuals may be exempted from this RWP requirement while performing their assigned duties in high radiation areas where radiation doses could be received that are equal to or less than 1 rem in 1 hour (measured at 30 centimeters from any source of radiation) provided they are otherwise following plant radiation protection procedures, or a general radiation protection RWP, for entry into such high radiation areas.

Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- a. A radiation monitoring device that continuously indicates the radiation dose rate in the area,
- b. A radiation monitoring device that continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rates in the area have been determined and personnel have been made knowledgeable of them,
- c. An individual qualified in radiation protection procedures with a radiation dose rate monitoring device. This individual is responsible for providing positive radiation protection control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified in the radiation protection procedures or the applicable RWP.

(continued)

5.0 ADMINISTRATIVE CONTROLS

5.8 High Radiation Area

5.8 High Radiation Area (continued)

- 5.8.2 In addition to the requirements of Specification 5.8.1, areas that are accessible to personnel and that have radiation levels greater than 1.0 rem (but less than 500 rads at 1 meter) in 1 hour at 30 cm from the radiation source, or from any surface penetrated by the radiation, shall be provided with locked or continuously guarded doors to prevent unauthorized entry, and the keys shall be maintained under the administrative control of the appropriate supervisor on duty or radiation protection supervision. Doors shall remain locked except during periods of access by personnel under an approved RWP that specifies the dose rates in the immediate work areas and the maximum allowable stay time for individuals in that area. In lieu of a stay time specification on the RWP, direct or remote continuous surveillance (such as closed circuit TV cameras) may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities being performed within the area.
- 5.8.3 Individual high radiation areas that are accessible to personnel, that could result in radiation doses greater than 1.0 rem in 1 hour, and that are within large areas where no enclosure exists to enable locking and where no enclosure can be reasonably constructed around the individual area shall be barricaded and conspicuously posted. A flashing light shall be activated whenever the dose rate in such an area exceeds or is expected to exceed 1.0 rem in 1 hour at 30 cm from the radiation source or from any surface penetrated by the radiation.
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Attachment 5

Millstone Nuclear Power Station, Unit Nos. 1, 2 and 3

Modification to Technical Specification Change Request
Administrative and Editorial Changes to the
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Retyped Unit No. 2 Technical Specification Pages
(includes November 8, 2001, pages)

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PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.7.5.1.1 The water level shall be determined to be below plant grade at least once per hour when the eye of a hurricane is within 150 miles of the facility.

4.7.5.1.2 The above specified meteorological conditions shall be determined at least once per 2 hours when a hurricane eye is within 150 miles of the facility. The meteorological conditions shall be determined from weather service forecasts and/or from the site meteorological instrumentation.

5.0 DESIGN FEATURES

5.1 SITE LOCATION

The Unit 2 Containment Building is located on the site at Millstone Point in Waterford, Connecticut. The nearest site boundary on land is 2034 feet northeast of the containment building wall (1627 feet northeast of the elevated stack), which is the minimum distance to the boundary of the exclusion area as described in 10 CFR 100.3. No part of the site that is closer than these distances shall be sold or leased except to Dominion Nuclear Connecticut, Inc. or its corporate affiliates for use in conjunction with normal utility operations.

5.2 DELETED

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DESIGN FEATURES

5.3 REACTOR CORE

FUEL ASSEMBLIES

5.3.1 The reactor core shall contain 217 fuel assemblies with each fuel assembly containing 176 rods. Reload fuel shall be similar in physical design to the initial core loading and shall have a maximum enrichment of 4.5 weight percent of U-235.

CONTROL ELEMENT ASSEMBLIES

5.3.2 The reactor core shall contain 73 full length and no part length control element assemblies. The control element assemblies shall be designed and maintained in accordance with the design provisions contained in Section 3.0 of the FSAR with allowance for normal degradation pursuant to the applicable Surveillance Requirements.

5.4 DELETED

DESIGN FEATURES

5.5 DELETED

5.6 FUEL STORAGE

CRITICALITY

5.6.1 a) The new fuel (dry) storage racks are designed and shall be maintained with sufficient center to center distance between assemblies to ensure a $k_{eff} \leq .95$. The maximum nominal fuel enrichment to be stored in these racks is 4.50 weight percent of U-235.

b) Region A of the spent fuel storage pool is designed and shall be maintained with a nominal 9.8 inch center to center distance between storage locations to ensure a $K_{eff} \leq .95$ with the storage pool filled with unborated water. Fuel assemblies stored in this region must comply with Figure 3.9-4 to ensure that the design burnup has been sustained.

c) Region B of the spent fuel storage pool is designed and shall be maintained with a nominal 9.8 inch center-to-center distance between storage locations to ensure $K_{eff} \leq .95$ with a storage pool filled with unborated water. Fuel assemblies stored in this region may have a maximum nominal enrichment of 4.5 weight percent U-235. Fuel assemblies stored in this region are placed in a 3 out of 4 STORAGE PATTERN for reactivity control.

d) Region C of the spent fuel storage pool is designed and shall be maintained with a 9.0 inch center to center distance between storage locations to ensure a $K_{eff} \leq .95$ with the storage pool filled with unborated water. Fuel assemblies stored in this region must comply with Figures 3.9-1a or 3.9-1b to ensure that the design burn-up has been sustained. Additionally, fuel assemblies utilizing Figure 3.9-1b require that borated stainless steel poison pins are installed in the fuel assembly's center guide tube and in two diagonally opposite guide tubes. The poison pins are solid 0.87 inch O.D. borated stainless steel, with a boron content of 2 weight percent boron.

e) Region C of the spent fuel storage pool is designed to permit storage of consolidated fuel and ensure a $K_{eff} \leq 0.95$. The contents of consolidated fuel storage boxes to be stored in this region must comply with Figure 3.9-3.

DESIGN FEATURES

5.7 DELETED

5.8 DELETED

5.9 DELETED

ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

6.1.1 The designated officer shall be responsible for overall operation of the Millstone Station Site and shall delegate in writing the succession to this responsibility. The designated manager shall be responsible for overall Unit safe operation and shall delegate in writing the succession to this responsibility.

6.1.2 The Shift Manager shall be responsible for the control room command function.

6.1.3 Unless otherwise defined, the technical specification titles for members of the staff are generic titles. Unit specific titles for the functions and responsibilities associated with these generic titles are identified in the Quality Assurance Program Topical Report.

6.2 ORGANIZATION

6.2.1 OFFSITE AND ONSITE ORGANIZATIONS

Onsite and offsite organizations shall be established for unit operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting the safety of the nuclear power plant.

- a. Lines of authority, responsibility, and communication shall be established and defined for the higher management levels through intermediate levels to and including all operating organization positions. These relationships shall be documented and updated, as appropriate, in the form of organization charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements shall be documented in the Quality Assurance Program Topical Report.
- b. The designated manager shall be responsible for overall unit safe operation and shall have control over those onsite activities necessary for safe operation and maintenance of the plant.
- c. The designated officer shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operation, maintaining, and providing technical support to the plant to ensure nuclear safety.
- d. The individuals who train the operating staff and those who carry out radiation protection and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

6.2.2 FACILITY STAFF

- a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.

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FACILITY STAFF (CONTINUED)

- d. A radiation protection technician shall be on site when fuel is in the reactor. (Table 6.2-1)
- e. ALL CORE ALTERATIONS after the initial fuel loading shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
- f. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions. These procedures should follow the general guidance of the NRC Policy Statement on working hours (Generic Letter No. 82-12).

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971* for comparable positions, except for:

- a. If the operations manager does not hold a senior reactor operator license for Millstone Unit No. 2, then the operations manager shall have held a senior reactor operator license at a Pressurized Water Reactor and an individual serving in the capacity of the assistant operations manager shall hold a senior reactor operator license for Millstone Unit No. 2.
- b. The Shift Technical Advisor (STA) who shall meet the requirements of Specification 6.3.1.b.1 or 6.3.1.b.2.
 - 1. Dual-role individual: Must hold a senior reactor operator's license at Millstone Unit No. 2, meet the STA training criteria of NUREG-0737, Item I.A.1.1, and meet one of the following educational alternatives:
 - a. Bachelor's degree in engineering from an accredited institution;
 - b. Professional Engineer's license obtained by the successful completion of the PE examination;

* As of November 1, 2001, applicants for reactor operator and senior reactor operator qualification shall meet or exceed the education and experience guidelines of Regulatory Guide 1.8, Revision 3, May 2000.

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- c. Bachelor's degree in engineering technology from an accredited institution, including course work in the physical, mathematical, or engineering sciences;
 - d. Bachelor's degree in a physical science from an accredited institution, including course work in the physical, mathematical, or engineering sciences;
 - e. Successful completion of the Memphis State University (MSU) STA program. (Note: This alternative is only acceptable for individuals who have completed the program prior to December 31, 1986); or
 - f. Successful completion of the Thames Valley State Technical College associate's degree in Nuclear Engineering Technology program, provided that the individual was enrolled in the program by October 1, 1987.
2. Dedicated STA: Must meet the STA training criteria of NUREG-0737, Item I.A.1.1, and have received specific training in plant design, and response and analysis of the plant for transients and accidents.
- c. The radiation protection manager who shall meet or exceed the qualifications of Regulatory Guide 1.8, Revision 1, May 1977.

TABLE 6.2-1⁽³⁾

MINIMUM SHIFT-CREW COMPOSITION⁽²⁾

LICENSE CATEGORY	APPLICABLE MODES	
	1, 2, 3 & 4	5 & 6
Senior Reactor Operator	2	1 ⁽¹⁾
Reactor Operator	2	1
Non-Licensed Operator	2	1
Shift Technical Advisor	1 ⁽⁴⁾	None Required

- (1) Does not include the licensed Senior Reactor or Senior Reactor Operator Limited to Fuel Handling individual supervision CORE ALTERATIONS after the initial fuel loading.
- (2) The above shift crew composition and the qualified radiation protection technician of Section 6.2.2 may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence provided expeditious actions are taken to fill the required position.
- (3) Requirements for minimum number of licensed operators on shift during operation in modes other than cold shutdown or refueling are contained in 10CFR50.54(m).
- (4) The Shift Technical Advisor position can be filled by either of the two Senior Reactor Operators (a dual-role individual), if he meets the requirements of Specification 6.3.1.b.1.

- f. Fire Protection Program implementation.
 - g. Quality Control for effluent monitoring using the guidance in Regulatory Guide 1.21 Rev. 1, June 1974.
 - h. Radiological Effluent Monitoring and Offsite Dose Calculation Manual (REMOCM) implementation, except for Section I.E., Radiological Environmental Monitoring.
- 6.8.2
- a. The designated manager or designated officer or designated senior officer may designate specific procedures and programs, or classes of procedures and programs to be reviewed in accordance with the Quality Assurance Program Topical Report.
 - b. Procedures and programs listed in Specification 6.8.1, and changes thereto, shall be approved by the designated manager or designated officer or by cognizant managers or directors who are designated as the Approval Authority by the designated manager or designated officer, as specified in administrative procedures. The Approval Authority for each procedure and program or class of procedure and program shall be specified in administrative procedures.
 - c. Each procedure of Specification 6.8.1, and changes thereto, shall be reviewed and approved in accordance with the Quality Assurance Program Topical Report, prior to implementation. Each procedure of Specification 6.8.1 shall be reviewed periodically as set forth in administrative procedures.
- 6.8.3 Temporary changes to procedures of 6.8.1 above may be made provided:
- a. The intent of the original procedure is not altered.
 - b. The change is approved by two members of the plant management staff, at least one of whom holds a Senior Reactor Operator's License on the unit affected.
 - c. The change is documented, reviewed and approved in accordance with the Quality Assurance Program Topical Report within 14 days of implementation.
- 6.8.4 Written procedures shall be established, implemented and maintained covering Section I.E., Radiological Environmental Monitoring, of the REMOCM.

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- 6.8.5 All procedures and procedure changes required for the Radiological Environmental Monitoring Program (REMP) of 6.8.4 above shall be reviewed by an individual (other than the author) from the organization responsible for the REMP and approved by appropriate supervision.

Temporary changes may be made provided the intent of the original procedure is not altered and the change is documented and reviewed by an individual (other than the author) from the organization responsible for the REMP within 14 days of implementation.

6.9 REPORTING REQUIREMENTS

Routine Reports

- 6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the U.S. Nuclear Regulatory Commission, Document Control Desk, Washington, D.C. 20555, one copy to the Regional Administrator, Region I, and one copy to the NRC Resident Inspector, unless otherwise noted.

Startup Report

- 6.9.1.1 A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal or hydraulic performance of the plant.
- 6.9.1.2 The startup report shall address each of the tests identified in the FSAR and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any additional specific details required in license conditions based on other commitments shall be included in this report.
- 6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

ADMINISTRATIVE CONTROLS

ANNUAL REPORTS¹

- 6.9.1.4 Annual reports covering the activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year. The initial report shall be submitted prior to March 1 of the year following initial criticality.
- 6.9.1.5 Reports required on an annual basis shall include:
- a. A tabulation, on an annual basis of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man-rem exposure according to work and job functions,² e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.
 - b. The complete results of steam generator tube inservice inspections performed during the report period (reference Specification 4.4.5.1.5.b).
 - c. The results of specific activity analysis in which the primary coolant exceeded the limits of Specification 3.4.8. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than the limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit.

1 A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station.

2 This tabulation supplements the requirements of 20.407 of 10 CFR Part 20.

ADMINISTRATIVE CONTROLS

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

6.12 HIGH RADIATION AREA

6.12.1 Pursuant to paragraph 20.203(c)(5) of 10 CFR Part 20, in lieu of the "control device" or "alarm signal" required by paragraph 20.203(c), each high radiation area, as defined in 10 CFR Part 20, in which the intensity of radiation is equal to or less than 1000 mR/h at 45 cm (18 in.) from the radiation source or from any surface which the radiation penetrates shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit (RWP). Individuals qualified in radiation protection procedures (e.g., radiation protection technician) or personnel continuously escorted by such individuals may be exempt from the RWP issuance requirement during the performance of their assigned duties in high radiation areas with exposure rates equal to or less than 1000 mR/h, provided they are otherwise following plant radiation protection procedures for entry into such high radiation areas. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area; or
- b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and personnel have been made knowledgeable of them; or
- c. An individual qualified in radiation protection procedures with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the radiation protection manager in the RWP.

ADMINISTRATIVE CONTROLS

6.12 HIGH RADIATION AREA (CONT.)

6.12.2 In addition to the requirements of Specification 6.12.1, areas accessible to personnel with radiation levels greater than 1000 mR/h at 45 cm (18 in.) from the radiation source or from any surface which the radiation penetrates shall be provided with locked doors to prevent unauthorized entry, and the keys shall be maintained under the administrative control of the Shift Manager on duty and/or radiation protection supervision. Doors shall remain locked except during period of access by personnel under an approved RWP which shall specify the dose rate levels in the immediate work areas and the maximum allowable stay time for individuals in that area. In lieu of the stay time specification of the RWP, direct or remote (such as closed-circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities being performed within the area.

For individual high radiation areas accessible to personnel with radiation levels greater than 1000 mR/h that are located within large areas where no enclosure exists for purposes of locking, and where no enclosure can be reasonably constructed around the individual area, that individual area shall be barricaded, conspicuously posted, and a flashing light shall be activated as a warning device.

6.13 SYSTEMS INTEGRITY

The licensee shall implement a program to reduce leakage from systems outside containment that would, or could, contain highly radioactive fluids during a serious transient, or accident, to as low as practical levels. This program shall include the following:

1. Provisions establishing preventive maintenance and periodic visual inspection requirements, and
2. Integrated leak test requirements for each system at a frequency not to exceed refueling cycle intervals.

6.14 IODINE MONITORING

The licensee shall implement a program which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:

1. Training of personnel,
2. Procedures for monitoring, and
3. Provisions for maintenance of sampling and analysis equipment.

ADMINISTRATIVE CONTROLS

- b. A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and
- c. Participation in a Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

6.22 Reactor Coolant Pump Flywheel Inspection Report

This program shall provide for the inspection of each reactor coolant pump flywheel by either qualified in-place UT examination over the volume from the inner bore of the flywheel to the circle of one-half the outer radius, or a surface examination (magnetic particle testing and/or penetrant testing) of exposed surfaces defined by the volume of the disassembled flywheels at least once every 10 years.

6.23 TECHNICAL SPECIFICATIONS (TS) BASES CONTROL PROGRAM

This program provides a means for processing changes to the Bases of these Technical Specifications.

- a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
- b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
 - 1. A change in the TS incorporated in the license or
 - 2. A change in the updated FSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.
- c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the FSAR.
- d. Proposed changes that meet the criteria of Specification 6.23.b above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

Docket No. 50-245
50-336
50-423
B18722

Attachment 6

Millstone Nuclear Power Station, Unit Nos. 1, 2 and 3

Modification to Technical Specification Change Request
Administrative and Editorial Changes to the
Unit Nos. 1, 2 and 3 Technical Specifications
Retyped Unit No. 3 Technical Specification Pages
(includes November 8, 2001, pages)

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5.0 DESIGN FEATURES

5.1 SITE LOCATION

The Unit 3 Containment Building is located on the site at Millstone Point in Waterford, Connecticut. The nearest site boundary on land is 1719 feet northeast of the containment building wall (1627 feet northeast of the elevated stack), which is the minimum distance to the boundary of the exclusion area as described in 10 CFR 100.3. No part of the site that is closer than these distances shall be sold or leased except to Dominion Nuclear Connecticut, Inc. or its corporate affiliates for use in conjunction with normal utility operations.

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DESIGN FEATURES

5.3 REACTOR CORE

FUEL ASSEMBLIES

5.3.1 The core shall contain 193 fuel assemblies. Each fuel assembly shall consist of 264 zircaloy-4 or ZIRLO clad fuel rods with an initial composition of natural uranium dioxide or a maximum nominal enrichment of 5.0 weight percent U-235 as fuel material. Limited substitutions of zircaloy-4, ZIRLO or stainless steel filler rods for fuel rods, in accordance with NRC-approved applications of fuel rod configurations, may be used. Fuel assembly configurations shall be limited to those fuel designs that have been analyzed with applicable NRC staff-approved codes and methods, and shown by test or cycle-specific reload analyses to comply with all fuel safety design bases. Each fuel rod shall have a nominal active fuel length of 144 inches. A limited number of lead test assemblies that have not completed representative testing may be placed in nonlimiting core regions.

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 or 80% silver, 15% indium, and 5% cadmium. All control rods shall be clad with stainless steel.

5.4 DELETED

5.5 DELETED

DESIGN FEATURES

CAPACITY

5.6.3 The spent fuel storage pool contains 350 Region 1 storage locations, 673 Region 2 storage locations and 756 Region 3 storage locations, for a total of 1779 total available fuel storage locations. An additional Region 2 rack with 81 storage locations may be placed in the spent fuel pool, if needed. With this additional rack installed, the Region 2 storage capacity is 754 storage locations, for a total of 1860 total available fuel storage locations.

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ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

6.1.1 The designated officer shall be responsible for overall operation of the Millstone Station Site and shall delegate in writing the succession to this responsibility. The designated manager shall be responsible for overall Unit safe operation and shall delegate in writing the succession to this responsibility.

6.1.2 The Shift Manager shall be responsible for the control room command function.

6.1.3 Unless otherwise defined, the technical specification titles for members of the staff are generic titles. Unit specific titles for the functions and responsibilities associated with these generic titles are identified in the Quality Assurance Program Topical Report.

6.2 ORGANIZATION

6.2.1 OFFSITE AND ONSITE ORGANIZATIONS

Onsite and offsite organizations shall be established for unit operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting the safety of the nuclear power plant.

- a. Lines of authority, responsibility, and communication shall be established and defined for the highest management levels through intermediate levels to and including all operating organization positions. These relationships shall be documented and updated, as appropriate, in the form of organization charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements shall be documented in the Quality Assurance Program Topical Report.
- b. The designated manager shall be responsible for overall unit safe operation and shall have control over those onsite activities necessary for safe operation and maintenance of the plant.
- c. The designated officer shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant to ensure nuclear safety.
- d. The individuals who train the operating staff and those who carry out radiation protection and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

6.2.2 FACILITY STAFF

- a. Each on-duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1;

ADMINISTRATIVE CONTROLS

FACILITY STAFF (Continued)

- b. At least one licensed Operator shall be in the control room when fuel is in the reactor. In addition, while the unit is in MODE 1, 2, 3, or 4, at least one licensed Senior Operator shall be in the control room;
- c. At least two licensed Operators shall be present in the control room during reactor startup, scheduled reactor shutdown and during recovery from reactor trips.
- d. A radiation protection technician* shall be on site when fuel is in the reactor;
- e. All CORE ALTERATIONS shall be observed and directly supervised by either a licensed Senior Reactor Operator or licensed Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation;
- f. Deleted
- g. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions. These procedures should follow the general guidance of the NRC Policy Statement on working hours (Generic Letter No. 82-12).

*The radiation protection technician composition may be less than the minimum requirements for a period of time not to exceed 2 hours, in order to accommodate unexpected absence, provided immediate action is taken to fill the required positions.

TABLE 6.2-1

MINIMUM SHIFT CREW COMPOSITION

POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODE 1, 2, 3, or 4	MODE 5 or 6
SM	1	1
SRO	1	None
RO	2	1
PEO	2	1
STA	1*	None

- SM - Shift Manager with a Senior Operator license on Unit 3
- SRO - Individual with a Senior Operator license on Unit 3
- RO - Individual with an Operator license on Unit 3
- PEO - Plant Equipment Operator (Non-licensed)
- STA - Shift Technical Advisor

The shift crew composition may be one less than the minimum requirements of Table 6.2-1 for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2-1. This provision does not permit any shift crew position to be unmanned upon shift change due to an oncoming shift crewmember being late or absent.

During any absence of the Shift Manager from the control room while the unit is in MODE 1, 2, 3, or 4, an individual with a valid Senior Operator license shall be designated to assume the control room command function. During any absence of the Shift Manager from the control room while the unit is in MODE 5 or 6, an individual with a valid Senior Operator license or Operator license shall be designated to assume the control room command function.

*The STA position may be filled by an on-shift Senior Reactor Operator only if that Senior Reactor Operator meets the Shift Technical Advisor qualifications of the Commission Policy Statement on Engineering Expertise on Shift.

ADMINISTRATIVE CONTROLS

6.2.3 Deleted.

6.2.4 SHIFT TECHNICAL ADVISOR

6.2.4.1 The Shift Technical Advisor shall provide advisory technical support to the Shift Manager in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. The Shift Technical Advisor shall have a bachelor's degree or equivalent in a scientific or engineering discipline and shall have received specific training in the response and analysis of the unit for transients and accidents, and in unit design and layout, including the capabilities of instrumentation and controls in the control room.

ADMINISTRATIVE CONTROLS

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971* for comparable positions, except for:

- a. If the operations manager does not hold a senior reactor operator license for Millstone Unit No. 3, then the operations manager shall have held a senior reactor operator license at a pressurized water reactor, and the assistant operations manager shall hold a senior reactor operator license for Millstone Unit No. 3.
- b. The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, Revision 1, May 1977.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff that meets or exceeds the requirements and recommendations of Section 5.5 of ANSI N18.1-1971* and 10 CFR Part 55.59 shall be maintained.

6.4.2 Deleted.

6.5 Deleted.

* As of November 1, 2001, applicants for reactor operator and senior reactor operator qualification shall meet or exceed the education and experience guidelines of Regulatory Guide 1.8, Revision 3, May 2000.

ADMINISTRATIVE CONTROLS

- f. Not used.
 - g. Fire Protection Program implementation;
 - h. Quality controls for effluent monitoring, using the guidance in Regulatory Guide 1.21, Rev. 1, June 1974; and
 - i. Radiological Effluent Monitoring and Offsite Dose Calculation Manual (REMDCM) implementation except for Section I.E, Radiological Environmental Monitoring.
- 6.8.2
- a. The designated manager or designated officer or designated senior officer may designate specific procedures and programs, or classes of procedures and programs to be reviewed in accordance with the Quality Assurance Program Topical Report.
 - b. Procedures and programs listed in Specification 6.8.1, and changes thereto, shall be approved by the designated manager or designated officer or by cognizant managers or directors who are designated as the Approval Authority by designated manager or designated officer as specified in administrative procedures. The Approval Authority for each procedure and program or class of procedure and program shall be specified in administrative procedures.
 - c. Each procedure of Specification 6.8.1, and changes thereto, shall be reviewed and approved in accordance with the Quality Assurance Program Topical Report, prior to implementation. Each procedure of Specification 6.8.1 shall be reviewed periodically as set forth in administrative procedures.
- 6.8.3 Temporary changes to procedures of Specification 6.8.1 may be made provided:
- a. The intent of the original procedure is not altered;
 - b. The change is approved by two members of the plant management staff, at least one of whom holds a Senior Operator license on the unit affected; and
 - c. The change is documented, reviewed and approved in accordance with the Quality Assurance Program Topical Report within 14 days of implementation.

ADMINISTRATIVE CONTROLS

PROCEDURES AND PROGRAMS (Continued)

6.8.5 Written procedures shall be established, implemented and maintained covering Section I.E, Radiological Environmental Monitoring, of the REMODCM.

6.8.6 All procedures and procedure changes required for the Radiological Environmental Monitoring Program (REMP) of Specification 6.8.5 above shall be reviewed by an individual (other than the author) from the organization responsible for the REMP and approved by appropriate supervision.

Temporary changes may be made provided the intent of the original procedure is not altered and the change is documented and reviewed by an individual (other than the author) from the organization responsible for the REMP within 14 days of implementation.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the U.S. Nuclear Regulatory Commission, Document Control Desk, Washington, D.C. 20555, one copy to the Regional Administrator, Region I, and one copy to the NRC Resident Inspector, unless otherwise noted.

STARTUP REPORT

6.9.1.1 A summary report of plant startup and power escalation testing shall be submitted following: (1) receipt of an Operating License, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the unit.

The Startup Report shall address each of the tests identified in the Final Safety Analysis Report and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.

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6.12 HIGH RADIATION AREA

6.12.1 Pursuant to paragraph 20.203(c)(5) of 10 CFR Part 20, in lieu of the "control device" or "alarm signal" required by paragraph 20.203(c), each high radiation area, as defined in 10 CFR Part 20, in which the intensity of radiation is equal to or less than 1000 mR/h at 45 cm (18 in.) from the radiation source or from any surface which the radiation penetrates shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit (RWP). Individuals qualified in radiation protection procedures (e.g., radiation protection technician) or personnel continuously escorted by such individuals may be exempt from the RWP issuance requirement during the performance of their assigned duties in high radiation areas with exposure rates equal to or less than 1000 mR/h, provided they are otherwise following plant radiation protection procedures for entry into such high radiation areas. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area; or
- b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and personnel have been made knowledgeable of them; or
- c. An individual qualified in radiation protection procedures with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the radiation protection manager in the RWP.

6.12.2 In addition to the requirements of Specification 6.12.1, areas accessible to personnel with radiation levels greater than 1000 mR/h at 45 cm (18 in.) from the radiation source or from any surface which the radiation penetrates shall be provided with locked doors to prevent unauthorized entry, and the keys shall be maintained under the administrative control of the Shift Manager on duty and/or radiation protection supervision. Doors shall remain locked except during periods of access by personnel under an approved RWP which shall specify the dose rate levels in the immediate work areas and the maximum allowable stay time for individuals in that area. In lieu of the stay time specification of the RWP, direct or remote (such as closed circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities being performed within the area.

For individual high radiation areas accessible to personnel with radiation levels of greater than 1000 mR/h that are located within large areas, such as PWR containment, where no enclosure exists for purposes of locking, and where no enclosure can be reasonably constructed around the individual area, that individual area shall be barricaded, conspicuously posted, and a flashing light shall be activated as a warning device.

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- j. Limitations on the annual dose or dose commitment to any member of the public due to releases of radioactivity and to radiation from uranium fuel cycle sources, conforming to 40 CFR 190.

6.16 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provided (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in the REMODCM, (2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

- a. Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the REMODCM.
- b. A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and
- c. Participation in a Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

6.17 REACTOR COOLANT PUMP FLYWHEEL INSPECTION PROGRAM

This program shall provide for the inspection of each reactor coolant pump flywheel by either qualified in-place UT examination over the volume from the inner bore of the flywheel to the circle of one-half the outer radius or a surface examination (magnetic partical testing and/or penetrant testing) of exposed surfaces defined by the volume of the disassembled flywheels at least once every 10 years.

6.18 TECHNICAL SPECIFICATIONS (TS) BASES CONTROL PROGRAM

This program provides a means for processing changes to the Bases of these Technical Specifications:

- a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
- b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
 - 1. A change in the TS incorporated in the license or
 - 2. A change to updated FSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.

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- c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the FSAR.
- d. Proposed changes that meet the criteria of Specification 6.18.b above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

6.19 COMPONENT CYCLIC OR TRANSIENT LIMIT

This program provides controls to track the FSAR, Section 3.9N, cyclic and transient occurrences to ensure that components are maintained within the design limits.