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

Dominion℠

NOV 16 2001

Docket No. 50-245
B18502

RE: 10 CFR 50.90

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

Millstone Nuclear Power Station, Unit No. 1
Partial Withdrawal of Changes to Technical Specifications and
Submittal of Change to Bases Page B 3.1-1

Dominion Nuclear Connecticut, Inc. (DNC) has decided to withdraw a number of changes to the Millstone Unit No. 1 Technical Specifications that were submitted on December 5, 2000.(1) This submittal proposed to revise the Millstone Unit No. 1 Technical Specifications to be consistent with the Proposed Improved Standard Technical Specifications applicable to permanently shutdown and defueled facilities as submitted by the Boiling Water Reactor (BWR) Owners' Group on October 12, 1999.(2)

Withdrawal of Changes to LCO 3.1.1 of the Technical Specifications and its Bases

In the December 5, 2000, submittal, the Applicability statement for Limiting Condition for Operation (LCO) 3.1.1 was proposed to be changed from "Whenever irradiated fuel is stored in the Fuel Storage Pool" to "During movement of irradiated fuel assemblies in the Fuel Storage Pool." To support this change, Required Actions A.1 and A.2 and the Bases were revised. These proposed changes are withdrawn, because DNC determined that the existing Applicability statement and Required Actions did not represent a significant operations burden.

(1) F. C. Rothen letter to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 1, Docket No. 50-245, Revision to Technical Specifications to Adopt the Proposed Improved Standard Technical Specifications for Permanently Shutdown and Defueled Facilities," dated December 5, 2000.

(2) Letter BWROG-99075 from W. Glenn Warren, Chairman, BWR Owners' Group, dated October 12, 1999.

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In August 2000, the Nuclear Regulatory Commission (NRC) verbally requested additional information to support their review of the proposed change to the Applicability statement for LCO 3.1.1. DNC's withdrawal of the proposed change to the Applicability statement for LCO 3.1.1 should resolve the NRC's concerns. Thus, no additional information is submitted regarding the fuel handling accident analysis, heavy loads program, or the reactor building crane design.

Withdrawal of Changes to Sections 4.0 and 5.0 of Technical Specifications

When the original License Amendment Request was submitted on December 5, 2000, Millstone Unit No. 1 was managed independently from the remainder of the Millstone site. Millstone Unit No. 1 had its own Quality Assurance Program and procedures.

Millstone Unit No. 1 is no longer managed independently. A single Quality Assurance Manual is utilized to manage the activities of Millstone Unit Nos. 1, 2 and 3. Given the change in the methodology for managing Millstone Unit No. 1, DNC is withdrawing the changes to Millstone Unit No. 1 Technical Specifications 5.1.1, 5.1.3, 5.2.1, 5.2.2.f, 5.5.1, 5.5.2, 5.5.3, 5.5.4, 5.5.5, 5.5.6, 5.5.7, 5.6.1, 5.6.2, 5.6.3, and 5.7.1 proposed in the submittal dated December 5, 2000.

In addition, DNC is withdrawing the proposed change to Millstone Unit No. 1 Technical Specification 4.1 that would have removed the requirement restricting the sale or lease of parts of the site within 2,063 feet of the reactor building.

Conclusions

The Justifications, Significant Hazards Considerations and Environmental Assessment provided in the December 5, 2000, submittal remain valid for the remaining proposed changes.

For your convenience, Attachments 1 and 2 contain a complete set of marked-up and retyped pages of the Millstone Unit No. 1 Technical Specifications and its Bases reflecting the changes proposed in the submittal dated December 5, 2000, and the withdrawals made in this submittal. Attachments 1 and 2 include a change to Bases page B 3.1-1 which was implemented on March 18, 2001, in accordance with 10 CFR 50.59. This change identifies that the Millstone Unit No. 1 Control Room was replaced by the Millstone Unit No. 1 Central Monitoring System.

Schedule

The license amendment request dated December 5, 2000, did not contain a schedule. via this submittal, we request issuance of this amendment by January 31, 2002, with the amendment to be implemented within 60 days of issuance.

There are no regulatory commitments contained within this letter

If there are any questions or comments regarding this submittal, please contact Mr. Ravi Joshi at (860) 440-2080.

Very truly yours,

DOMINION NUCLEAR CONNECTICUT, INC.

Raymond P. Necci, Vice President
Nuclear Operations - Millstone

Sworn to and subscribed before me

this 16th day of November, 2001

Notary Public

My Commission expires SANDRA J. ANTON
NOTARY PUBLIC
COMMISSION EXPIRES
MAY 31, 2005

Attachments

cc: H. J. Miller, Region I Administrator
J. B. Hickman, NRC Project Manager, Millstone Unit No. 1
T. J. Jackson, NRC Inspector, Region I, Millstone Unit No. 1

Director
Bureau of Air Management
Monitoring and Radiation Division
Department of Environmental Protection
79 Elm Street
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B18502

Attachment 1

Millstone Nuclear Power Station, Unit No. 1

Revised Mark-up of the Technical Specifications and its Bases

A.1

TABLE OF CONTENTS

A.1

1.0 USE AND APPLICATION

1.1 Definitions

NOTE

The defined terms of this section appear in capitalized type and are applicable throughout these Technical Specifications and Bases.

Term	Definition
ACTIONS	ACTIONS shall be that part of a Specification that prescribes Required Actions to be taken under designated Conditions within specified Completion Times.
CERTIFIED FUEL HANDLER	A CERTIFIED FUEL HANDLER is an individual who complies with provisions of the CERTIFIED FUEL HANDLER training program required by Technical Specification 5.4.1.
OPERABLE-OPERABILITY	A system, subsystem, division, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling and seal water, lubrication, and other auxiliary equipment that are required for the system, subsystem, division, component or device to perform its specified safety function(s) are also capable of performing their related support function(s).

A.2

A.3

1.0 USE AND APPLICATION

1.2 Logical Connectors

PURPOSE

The purpose of this section is to explain the meaning of logical connectors.

Logical connectors are used in Technical Specifications (TS) to discriminate between, and yet connect, discrete Conditions, Required Actions, Completion Times, Surveillances, and Frequencies. The only logical connectors that appear in TS are AND and OR. The physical arrangement of these connectors constitutes logical conventions with specific meanings.

BACKGROUND

Several levels of logic may be used to state Required Actions. These levels are identified by the placement (or nesting) of the logical connectors and by the number assigned to each Required Action. The first level of logic is identified by the first digit of the number assigned to a Required Action and the placement of the logical connector in the first level of nesting (i.e., left justified with the number of the Required Action). The successive levels of logic are identified by additional digits of the Required Action number and by successive indentions of the logical connectors.

When logical connectors are used to state a Condition, Completion Time, Surveillance, or Frequency, only the first level of logic is used, and the logical connector is left justified with the statement of the Condition, Completion Time, Surveillance, or Frequency.

EXAMPLES

The following examples illustrate the use of logical connectors.

A.1 Page Deleted

(continued)

A.3

1.0 USE AND APPLICATION

1.2 Logical Connectors

EXAMPLES (continued)

EXAMPLE 1.2-1
ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. LCO not met.	A.1 Verify..... AND A.2 Restore.....	

In this example the logical connector AND is used to indicate that when in Condition A, both Required Actions A.1 and A.2 must be completed.

(continued)

A.1 Page Deleted

A.3

1.0 USE AND APPLICATION

1.2 Logical Connectors

EXAMPLES (continued)

EXAMPLE 1.2-2

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. LCO not met.	A.1 Trip..... OR A.2.1 Verify..... AND A.2.2 Reduce	

This example represents a more complicated use of logical connectors. Required Actions A.1 and A.2 are alternative choices, only one of which must be performed as indicated by the use of the logical connector OR and the left justified placement. Either of the Actions may be chosen. If A.2 is chosen, then both A.2.1 and A.2.2 must be performed as indicated by the logical connector AND.

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A.1

1.0 USE AND APPLICATION

1.0-2 Completion Times

PURPOSE The purpose of this section is to establish the Completion Time convention and to provide guidance for its use.

BACKGROUND Limiting Conditions for Operation (LCOs) specify minimum requirements for ensuring the safe storage of irradiated fuel. The ACTIONS associated with an LCO state Conditions that typically describe the ways in which the requirements of the LCO can fail to be met. Specified with each stated Condition are Required Action(s) and Completion Times(s).

DESCRIPTION The Completion Time is the amount of time allowed for completing a Required Action. It is referenced to the time of discovery of a situation (e.g., variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a MODE or specified condition stated in the Applicability of the LCO. Required Actions must be completed prior to the expiration of the specified Completion Time. An ACTIONS Condition remains in effect and the Required Actions apply until the Condition no longer exists or the unit is not within the LCO Applicability.

A.4

A.3

EXAMPLES The following examples illustrate the use of Completion Times with different types of Conditions.

(continued)

A.1

1.0 USE AND APPLICATION

1.0 (2) Completion Times

EXAMPLES (continued)

EXAMPLE 1.3-1

A.3

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Required Action and associated Completion Time not met.	A.1 Verify.....	6 hours
	AND	
	A.2 Restore	36 hours

Condition A has two Required Actions. Each Required Action has its own separate Completion Time. Each Completion Time is referenced to the time that Condition A is entered. The Required Actions of Condition A are to perform the verification required by ACTION A.1 within 6 hours AND to perform the restoration required by ACTION A.2 within 36 hours. A total of 6 hours is allowed for performing ACTION A.1 and a total of 36 hours (not 42 hours) is allowed for performing ACTION A.2 from the time that Condition A was entered. If ACTION A.1 is completed within 3 hours, the time allowed completing ACTION A.2 is the next 33 hours because the total time allowed for completing ACTION A.2 is 36 hours.

MOVE TO PAGE 1.0-2

IMMEDIATE COMPLETION TIME	When "Immediately" is used as a Completion Time, the Required Action should be pursued without delay and in a controlled manner.

A.1

1.0 USE AND APPLICATION

1.0 3 Frequency

PURPOSE

The purpose of this section is to define the proper use and application of Frequency requirements.

DESCRIPTION

Each Surveillance Requirement (SR) has a specified Frequency in which the Surveillance must be met in order to meet the associated LCO. An understanding of the correct application of the specified Frequency is necessary for compliance with the SR.

The "Specified Frequency" is referred to throughout this section and each of the Specifications of Section 3.0, Surveillance Requirement (SR) Applicability. The "Specified Frequency" consists of the requirements of the Frequency column of each SR, as well as certain Notes in the Surveillance column that modify performance requirements.

A.3

EXAMPLES 8

The following examples illustrate the various ways that Frequencies are specified. In these examples, the Applicability of the LCO (LCO not shown) is when irradiated fuel is stored in the fuel pool.

(continued)

A.1

1.0 USE AND APPLICATION

1.4 Frequency

EXAMPLES (continued)

MOVE TO Page 1.0-3

EXAMPLE 1.4-1

SURVEILLANCE REQUIREMENTS

A.3

SURVEILLANCE	FREQUENCY
Verify parameter is within limits.	7 days 12 hours

A.16

This

A.3

Example 1.4-1 contains the type of SR most often encountered in the Technical Specifications (TS). The Frequency specifies an interval (12 hours) during which the associated Surveillance must be performed at least one time. Performance of the Surveillance initiates the subsequent interval. Although the Frequency is stated as 12 hours, an extension of the time interval to 1.25 times the interval specified in the Frequency is allowed by SR 3.0.2 for operational flexibility. The measurement of this interval continues at all times, even when the SR is not required to be met per SR 3.0.1 (such as when a variable is outside specified limits, or the unit is outside the Applicability of the LCO). If the interval specified by SR 3.0.2 is exceeded while the unit is in the specified condition in the Applicability of the LCO, and the performance of the Surveillance is not otherwise modified, then SR 3.0.3 becomes applicable.

7 days

A.16

A.K

7 days

(continued)

A.1

1.0 USE AND APPLICATION

1.4 Frequency

EXAMPLES (continued)

EXAMPLE 1.4-2

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
Verify parameter is within limits.	Within 24 hours prior to moving irradiated fuel AND 24 hours thereafter

Example 1.4-2 has two Frequencies. The first is a one time performance Frequency, and the second is of the type shown in Example 1.4-1. The logical connector "AND" indicates that both Frequency requirements must be met. The use of "prior to" indicates that the surveillance must be performed once before the initiation of fuel handling activities. This type of Frequency does not qualify for the extension allowed by SR 3.0.2. "Thereafter" indicates future performances must be established per SR 3.0.2, but only after a specified condition is first met (i.e., the "prior to" performance in this example).

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A.5

3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

SR 3.0.1 SRs shall be met during specified conditions in the Applicability for individual LCOs unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on ~~inoperable equipment or~~ variables outside specified limits.

A.6

SR 3.0.2 The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the frequency is met.

SR 3.0.3 If it is discovered that a Surveillance was not performed within its specified frequency, then compliance with the requirement to declare the LCO not met may be delayed from the time of discovery up to 24 hours ~~or up to the limit of the specified frequency, whichever is less~~. This delay period is permitted to allow performance of the surveillance.

A.7

If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met and the applicable Condition(s) must be entered. ~~The Completion Times of the Required Actions begin immediately upon expiration of the delay period.~~

A.8

When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met and the applicable Condition(s) must be entered. ~~The Completion Times of the Required Actions begin immediately upon failure to meet the Surveillance.~~

PLANT A.17

3.1 DEFUELED SYSTEMS

3.1.1 Fuel Storage Pool Water Level

LCO 3.1.1 The Fuel Storage Pool Water Level shall be greater than or equal to 33 feet.

APPLICABILITY Whenever irradiated fuel is stored in the Fuel Storage Pool.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Fuel Storage Pool Water Level not within limit.	A.1 Suspend all Fuel Handling Operations. AND	Immediately
	A.2 Restore Fuel Storage Pool Water Level to within limits.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.1.1 Verify the Fuel Storage Pool Water Level is greater than or equal to 33 feet. AND Record the Fuel Storage Pool Water Level.	24 hours 7 days L.8

LA.1

R.1

3.2 SPENT FUEL HANDLING

3.2.1 Reactor Building Crane Operability

LCO 3.2.1 The Reactor Building crane shall be OPERABLE.

APPLICABILITY When the Reactor Building crane is used for handling of a spent fuel cask.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Reactor Building crane is INOPERABLE.	A.1 Suspend all Spent Fuel Cask handling and place the load in a safe condition.	Immediately

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.2.1	Conduct a visual inspection of crane cables, sheaves, hook, yoke, and cask lifting trunnions. Conduct no-load mechanical and electrical tests to verify proper operation of crane controls, brakes, and lifting speeds. Conduct a load test by lifting the empty cask out of the pivot cradle. The above inspections and pre-lifting procedure shall meet the requirements of ANSI Standard B30.2, 1967.	Within 4 days prior to Spent Fuel Cask handling operations and every 4 days thereafter during spent fuel cask handling

R.1

3.2 SPENT FUEL HANDLING

3.2.2 Reactor Building Crane Travel with a Spent Fuel Cask

LCO 3.2.2 The Reactor Building crane loaded with a Spent Fuel Cask shall be prohibited from travel over irradiated fuel assemblies. The Reactor Building crane mode switch shall be in a "Mode 2" position and the mode switch key removed.

APPLICABILITY When the Reactor Building crane is used for handling of a spent fuel cask.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Reactor Building Crane mode switch not in "Mode 2" position and mode switch key not removed.	A.1 Suspend all Spent Fuel Cask handling and place the load in a safe condition.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.2.2 Demonstrate OPERABILITY of Reactor Building crane interlocks and limit switches which prevent crane travel over irradiated fuel assemblies.	Within 7 days prior to Spent Fuel Cask handling operations Every 7 days thereafter during Spent Fuel Cask handling

4.0 DESIGN FEATURES

4.1 Site Location

A.12

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 (1620 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

L.3

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.~~

4.2.1.b L.9

4.2.1.a 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.

4.2.2 A.9

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

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Insert to CTS Page 4.0-1

4.2.1 Criticality

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

A.9

a. 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; and

L.9

b. $K_{eff} \leq 0.95$.

4.2.2 Capacity

A.9

The fuel storage pool is designed and shall be maintained with a storage capacity limited to no more than 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.~~ Deleted L.4

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 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 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.

Change to Title Case A.2

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

5.2 Organization

5.2.2 Facility Staff

a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 5.2-1.

b. At least one person qualified to stand watch in the control room shall be present in the control room when irradiated fuel is stored in the fuel storage pool.

c. Deleted

d. An individual qualified in radiation protection procedures shall be onsite during fuel handling operations.

e. All fuel handling operations shall be directly supervised by a qualified individual.

f. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform functions important to the safe storage of irradiated fuel assemblies. These procedures should follow the general guidance of the NRC Policy Statement on working hours (Generic Letter No. 82-12).

g. The Shift Manager shall be a CERTIFIED FUEL HANDLER. L.4

(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 - Change to Title Case A.2

5.3.1.2 The Health Physics Manager shall meet or exceed the qualifications of Regulatory Guide 1.8, Revision 1.

Deleted

5.0 ADMINISTRATIVE CONTROLS

5.4 Training

5.4.1 An NRC approved training and retraining program for the CERTIFIED FUEL HANDLERS shall be maintained.

L.10

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B 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

BASES

SR 3.0.3 SR 3.0.3 establishes the flexibility to defer declaring an affected variable outside the specified limits when a Surveillance has not been completed within the specified Frequency. A delay period of up to 24 hours applies from the point of time that it is discovered that the Surveillance has not been performed in accordance to SR 3.0.2, and not at the time that the specified Frequency was not met.

This delay period provides adequate time to complete Surveillances that have been missed. This delay period permits the completion of a Surveillance before complying with Required Actions or other remedial measures that might preclude completion of the Surveillance.

The basis for this delay period includes consideration of facility conditions, adequate planning, availability of personnel, the time required to perform the Surveillance, the safety significance of the delay in completing the required Surveillance, and the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the requirements. When a Surveillance with a Frequency based not on time intervals, but upon specified facility conditions or operational situations, is discovered not to have been performed when specified, SR 3.0.3 allows the full delay period of 24 hours to perform the Surveillance. B.1

Failure to comply with specified Frequencies for SRs is expected to be an infrequent occurrence. Use of the delay period established by SR 3.0.3. is a flexibility which is not intended to be used as a convenience to extend Surveillance intervals.

(continued)

Next Page

B 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

BASES

SR 3.0.3 (continued)

If a Surveillance is not completed within the allowable delay period, then the variable is considered outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon expiration of the delay period. If a Surveillance is failed within the delay period, then the variable is outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon failure of the Surveillance.

Completion of the Surveillance within the delay period allowed by this Specification, or within the Completion Time of the ACTIONS, restores compliance with SR 3.0.1.

PLANT A.17

B 3.1 DEFUELED SYSTEMS

B 3.1.1 Fuel Storage Pool Water Level

BASES

BACKGROUND

The minimum water level in the spent fuel storage pool meets the assumptions of iodine decontamination factors following a fuel handling accident. A general description of the spent fuel storage pool design is found in Chapter 3 of the DSAR, (Ref. 1). The assumptions of the fuel handling accident are found in Chapter 5 of the DSAR (Ref. 2).

APPLICABLE SAFETY ANALYSIS

Although the unit is permanently shutdown and defueled, fuel handling accidents in the fuel storage pool are still possible.

A bounding calculation of the radiological consequences of such an accident in the spent fuel pool was performed, based on the following:

- Actual source term - radioactive decay since shutdown credited
- Failure of four assemblies - 248 fuel rods in four 8 x 8 assemblies
- Unfiltered ground release - no credit for secondary containment or standby gas treatment

The analysis concluded that 1) calculated doses at the exclusion area boundary and the low population zone are within 10CFR100 limits; and 2) calculated doses to the operating units Control Rooms and Unit 1 Central Monitoring Station are within the limits set in GDC -19.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.1.1

7 day

B,5

This SR ensures that the water level is within the established limit. The water level in the fuel storage pool must be checked periodically. The ~~24 hour~~ Frequency is based on engineering judgement and is considered adequate because of available indication of level changes and the large volume of water in the pool. Water level changes are controlled by facility procedures and level changes are unlikely based on operating experience.

References

1. DSAR Chapter 3
2. DSAR Chapter 5

B 3.2 SPENT FUEL HANDLING

B 3.2.1 Reactor Building Crane Operability

BASES

BACKGROUND The purpose of this specification is to preclude the possibility of dropping a spent fuel cask over irradiated fuel in the fuel storage pool.

A description of the Reactor Building crane design improvements was provided by the licensee to the NRC on June 29, 1973. The modification improvements were described as a "Cask Drop Prevention System." By letter dated December 30, 1975, the NRC informed the licensee that the proposed improvements were acceptable. However, the NRC also requested the licensee to submit proposed Technical Specifications to assure safe operation and continued surveillance of the Reactor Building crane. The licensee submitted the proposed Technical Specifications on April 1, 1976, and the NRC approved new Technical Specifications, including the "Crane Operability" LCO, as Amendment 27 to License No. DPR-21. I

APPLICABLE SAFETY ANALYSIS The "Cask Drop Prevention System" utilizes a redundant hoist system rated at 110 tons for the main hoist. This redundant system ensures that a load will not be dropped for all postulated credible single-component failures. The range of component failure examined extends over the total load path from the cask trunnions through the cask lifting yoke and redundant hoist system to the crane bridge structure. In addition, once the crane is set into the cask handling mode, its travel over the fuel pool will be limited to the cask storage area of the spent fuel pool. The operability requirements of the Reactor Building crane ensure that all redundant features of the crane have been adequately inspected.

Spent fuel cask drop over irradiated fuel in the fuel storage pool is precluded by these features as well as the features described in LCO and Surveillance Requirement 3.2.2 of these Technical Specifications.

(continued)

B 3.2 SPENT FUEL HANDLING

B 3.2.1 Reactor Building Crane Operability

3.4

BASES

LCO

The Reactor Building crane is required to be OPERABLE. The operability is established by:

- a visual inspection of the crane cables, sheaves, hook, yoke, and cask lifting trunnions,
- conducting no-load mechanical and electrical tests to verify proper operation of crane controls, brakes and lifting speeds,
- conducting a load test by lifting an empty cask out of the pivot cradle.

Maintaining the Reactor Building crane OPERABLE preserves the assumption of preventing a cask drop accident.

APPLICABILITY

This LCO applies whenever the Reactor Building crane is used for handling of a spent fuel cask.

ACTIONS

A.1

When the operability requirements for the Reactor Building crane cannot be met, steps should be taken to preclude a Spent Fuel Cask drop accident from occurring. Fuel cask handling activities should be suspended immediately and the load placed in a safe condition. This will effectively preclude a spent fuel cask drop accident from occurring.

SURVEILLANCE REQUIREMENTS

SR 3.2.1

This SR verifies operability of the Reactor Building crane and ensures that the redundant features of the crane have been adequately inspected. The redundant hoist system ensures that a load will not be dropped for all postulated credible single-component failures. The Frequency is appropriate because operability is required to be established before Spent Fuel Cask handling operations commence.

(continued)

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B 3.2 SPENT FUEL HANDLING

B 3.2.2 Reactor Building Crane Travel with a Spent Fuel Cask

BASES

BACKGROUND

The purpose of this specification is to preclude the possibility of dropping a spent fuel cask over irradiated fuel in the fuel storage pool. The Reactor Building crane has a 2-position mode switch which is designed to restrict crane motion, when in "Mode 2," as follows:

- It prevents a spent fuel cask height above the refueling floor not greater than 6 inches, and
- It establishes a predetermined path which specifically excludes the area above irradiated fuel by interlocks and limit switches.

This specification, in conjunction with LCO 3.2.1, ensures that a fuel cask drop over irradiated fuel in the fuel storage pool is prevented from occurring.

APPLICABLE SAFETY ANALYSIS

The "Cask Drop Prevention System" features a single-failure proof design that prevents a spent fuel cask drop over the fuel storage pool with resultant damage to irradiated fuel and/or plant equipment and structures. Once the Reactor Building crane mode switch is set into the cask handling mode, its travel over the fuel storage pool will be limited to the cask storage area of the fuel pool. This design feature as well as associated crane interlocks and limit switches ensure that a spent fuel cask drop will not occur over the irradiated fuel in the fuel storage pool.

An event initiated by a spent fuel cask drop over the irradiated fuel in the fuel storage pool is precluded by these features as well as the features described in LCO and Surveillance Requirement 3.2.1 of these Technical Specifications.

(continued)

B.4

B 3.2 SPENT FUEL HANDLING

B 3.2.2 Reactor Building Crane Travel with a Spent Fuel Cask

BASES

LCO

The Reactor Building crane mode switch is required to be in the "Mode 2" position with its key removed. This mode switch position is an engineered control which restricts crane travel to a path which excludes the area above the irradiated fuel in the fuel storage pool. Also, the height of a spent fuel cask loaded on the crane is restricted to a height of no greater than 6 inches above the refueling floor.

Maintaining the Reactor Building crane mode switch, associated crane limit switches, and interlocks preserves the assumption of preventing a cask drop accident.

APPLICABILITY

This LCO applies whenever the Reactor Building crane is used for handling of a spent fuel cask.

ACTIONS

A.1

When mode switch requirements for the Reactor Building crane cannot be met, steps should be taken to preclude a spent fuel cask drop accident from occurring. Fuel cask handling activities should be suspended immediately and the load placed in a safe condition. This will effectively preclude a spent fuel cask drop accident from occurring.

SURVEILLANCE REQUIREMENTS

SR 3.2.2

This SR demonstrates operability of the Reactor Building crane interlocks and limit switches which restricts the height of the crane load (i.e., the spent fuel cask bottom) to no more than 6 inches above the refueling floor and restricts crane path from traveling over the irradiated fuel assemblies. The Frequency is appropriate because operability is established before spent fuel cask handling operations start and operability is periodically assured during spent fuel cask handling.

Docket No. 50-245
B18502

Attachment 2

Millstone Nuclear Power Station, Unit No. 1

Retyped Technical Specifications and its Bases

TABLE OF CONTENTS

1.0 USE AND APPLICATION

1.1 Definitions

----------NOTE ----------
The defined terms of this section appear in capitalized type and are applicable throughout these Technical Specifications and Bases.

Term	Definition
ACTIONS	ACTIONS shall be that part of a Specification that prescribes Required Actions to be taken under designated Conditions within specified Completion Times.

1.0 USE AND APPLICATION

1.2 Completion Times

PURPOSE

The purpose of this section is to establish the Completion Time convention and to provide guidance for its use.

BACKGROUND

Limiting Conditions for Operation (LCOs) specify minimum requirements for ensuring the safe storage of irradiated fuel. The ACTIONS associated with an LCO state Conditions that typically describe the ways in which the requirements of the LCO can fail to be met. Specified with each stated Condition are Required Action(s) and Completion Times(s).

DESCRIPTION

The Completion Time is the amount of time allowed for completing a Required Action. It is referenced to the time of discovery of a situation (e.g., variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a specified condition stated in the Applicability of the LCO. An ACTIONS Condition remains in effect and the Required Actions apply until the Condition no longer exists or the unit is not within the LCO Applicability.

IMMEDIATE COMPLETION TIME

When "Immediately" is used as a Completion Time, the Required Action should be pursued without delay and in a controlled manner.

1.0 USE AND APPLICATION

1.3 Frequency

PURPOSE

The purpose of this section is to define the proper use and application of Frequency requirements.

DESCRIPTION

Each Surveillance Requirement (SR) has a specified Frequency in which the Surveillance must be met in order to meet the associated LCO. An understanding of the correct application of the specified Frequency is necessary for compliance with the SR.

The "Specified Frequency" is referred to throughout this section and each of the Specifications of Section 3.0, Surveillance Requirement (SR) Applicability. The "Specified Frequency" consists of the requirements of the Frequency column of each SR.

EXAMPLE

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
Verify parameter is within limits.	7 days

This example contains the type of SR encountered in the Technical Specifications (TS). The Frequency specifies an interval (7 days) during which the associated Surveillance must be performed at least one time. Performance of the Surveillance initiates the subsequent interval. Although the Frequency is stated as 7 days, an extension of the time interval to 1.25 times the interval specified in the Frequency is allowed by SR 3.0.2 for operational flexibility. The measurement of this interval continues at all times, even when the SR is not required to be met per SR 3.0.1 (such as when a variable is outside specified limits, or the unit is outside the Applicability of the LCO). If the interval specified by SR 3.0.2 is exceeded while the unit is in the specified condition in the Applicability of the LCO, and the performance of the Surveillance is not otherwise modified, then SR 3.0.3 becomes applicable.

3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

SR 3.0.1 SRs shall be met during specified conditions in the Applicability for individual LCOs unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on variables outside specified limits.

SR 3.0.2 The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the frequency is met.

SR 3.0.3 If it is discovered that a Surveillance was not performed within its specified frequency, then compliance with the requirement to declare the LCO not met may be delayed from the time of discovery up to 24 hours. This delay period is permitted to allow performance of the surveillance.

If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met and the applicable Condition(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met and the applicable Condition(s) must be entered.

3.1 PLANT SYSTEMS

3.1.1 Fuel Storage Pool Water Level

LCO 3.1.1 The Fuel Storage Pool Water Level shall be greater than or equal to 33 feet.

APPLICABILITY Whenever irradiated fuel is stored in the Fuel Storage Pool.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Fuel Storage Pool Water Level not within limit.	A.1 Suspend all Fuel Handling Operations. AND A.2 Restore Fuel Storage Pool Water Level to within limits.	Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.1.1 Verify the Fuel Storage Pool Water Level is greater than or equal to 33 feet.	7 days

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 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 Criticality

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

a. 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; and

b. $K_{eff} \leq 0.95$.

4.2.2 Capacity

The fuel storage pool is designed and shall be maintained with a storage capacity limited to no more than 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 Deleted.

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 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 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

5.2 Organization

5.2.2 Facility Staff

a Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 5.2-1.

b. At least one person qualified to stand watch in the control room shall be present in the control room when irradiated fuel is stored in the fuel storage pool.

c. Deleted

d. An individual qualified in radiation protection procedures shall be onsite during fuel handling operations.

e. All fuel handling operations shall be directly supervised by a qualified individual.

f. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform functions important to the safe storage of irradiated fuel assemblies. These procedures should follow the general guidance of the NRC Policy Statement on working hours (Generic Letter No. 82-12).

(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 Health Physics Manager shall meet or exceed the qualifications of Regulatory Guide 1.8, Revision 1.

5.0 ADMINISTRATIVE CONTROLS

5.4 Training

Deleted.

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B 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

BASES

SR 3.0.3 SR 3.0.3 establishes the flexibility to defer declaring an affected variable outside the specified limits when a Surveillance has not been completed within the specified Frequency. A delay period of up to 24 hours applies from the point of time that it is discovered that the Surveillance has not been performed in accordance to SR 3.0.2, and not at the time that the specified Frequency was not met.

This delay period provides adequate time to complete Surveillances that have been missed. This delay period permits the completion of a Surveillance before complying with Required Actions or other remedial measures that might preclude completion of the Surveillance.

The basis for this delay period includes consideration of facility conditions, adequate planning, availability of personnel, the time required to perform the Surveillance, the safety significance of the delay in completing the required Surveillance, and the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the requirements.

Failure to comply with specified Frequencies for SRs is expected to be an infrequent occurrence. Use of the delay period established by SR 3.0.3. is a flexibility which is not intended to be used as a convenience to extend Surveillance intervals.

If a Surveillance is not completed within the allowable delay period, then the variable is considered outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon expiration of the delay period. If a Surveillance is failed within the delay period, then the variable is outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon failure of the Surveillance.

Completion of the Surveillance within the delay period allowed by this Specification, or within the Completion Time of the ACTIONS, restores compliance with SR 3.0.1.

B 3.1 PLANT SYSTEMS

B 3.1.1 Fuel Storage Pool Water Level

BASES

BACKGROUND

The minimum water level in the spent fuel storage pool meets the assumptions of iodine decontamination factors following a fuel handling accident. A general description of the spent fuel storage pool design is found in Chapter 3 of the DSAR, (Ref. 1). The assumptions of the fuel handling accident are found in Chapter 5 of the DSAR (Ref. 2).

APPLICABLE SAFETY ANALYSIS

Although the unit is permanently shutdown and defueled, fuel handling accidents in the fuel storage pool are still possible.

A bounding calculation of the radiological consequences of such an accident in the spent fuel pool was performed, based on the following:

- Actual source term - radioactive decay since shutdown credited
- Failure of four assemblies - 248 fuel rods in four 8 x 8 assemblies
- Unfiltered ground release - no credit for secondary containment or standby gas treatment

The analysis concluded that 1) calculated doses at the exclusion area boundary and the low population zone are within 10CFR100 limits; and 2) calculated doses to the operating units Control Rooms and Unit 1 Central Monitoring Station are within the limits set in GDC -19.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.1.1

This SR ensures that the water level is within the established limit. The water level in the fuel storage pool must be checked periodically. The 7 day Frequency is based on engineering judgement and is considered adequate because of available indication of level changes and the large volume of water in the pool. Water level changes are controlled by facility procedures and level changes are unlikely based on operating experience.

References

1. DSAR Chapter 3
2. DSAR Chapter 5