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

Dominion

APR 7 2003

Docket No. 50-336
B18820

RE: 10 CFR 50.90

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

Millstone Power Station, Unit No. 2
Response to a Request for Additional Information
License Basis Document Change Request 2-5-00
Boration, Emergency Core Cooling, Containment Spray and Cooling
and Auxiliary Feedwater Systems (TAC No. MB5019)

In a letter dated May 7, 2002[1] Dominion Nuclear Connecticut, Inc. (DNC) requested changes to the Millstone Unit No. 2 Technical Specifications. The main purpose of the requested changes was to relocate the Boration System requirements from Technical Specifications, revise Emergency Core Cooling and Containment Spray and Cooling Systems allowed outage times and revise the Emergency Core Cooling, Containment Spray and Cooling, and Auxiliary Feedwater Systems surveillance requirements. On October 22, 2002,[2] a Request for Additional Information (RAI) was received via facsimile from the Nuclear Regulatory Commission which contained questions related to the aforementioned License Basis Document Change Request. This RAI was formally received on December 31, 2002.[3]

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(1) J. A. Price letter to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 2, License Basis Document Change Request 2-5-00, Boration, Emergency Core Cooling, Containment Spray and Cooling and Auxiliary Feedwater Systems," dated May 7, 2002.

(2) R. B. Ennis (NRC) Facsimile Transmission, "Request for Additional Information Regarding Proposed Amendment to Technical Specifications Boration, Emergency Core Cooling, Containment Spray and Cooling and Auxiliary Feedwater Systems, Unit No. 2, Docket No. 50-336," dated October 22, 2002.

(3) R B. Ennis (NRC) Letter to J. A. Price, "Request for Additional Information, Boration, Emergency Core Cooling, Containment Spray and Cooling, and Auxiliary Feedwater Systems, Millstone Power Station, Unit No. 2 (TAC NO. MB5019)," dated December 31, 2002.

A001

This RAI was discussed during a conference call conducted on December 18, 2002. Attachment 1 provides the DNC response to this RAI. The additional information provided in this letter will not affect the conclusions of the Safety Summary and Significant Hazards Consideration discussion in the DNC letter dated May 7, 2002.

There are no regulatory commitments contained within 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.

William R. Matthews
Senior Vice President - Nuclear Operations

Sworn to and subscribed before me
this 7 day of April, 2003

Diane M. Phillipo
Notary Public

DIANE M. PHILLIPO
NOTARY PUBLIC
MY COMMISSION EXPIRES 12/31/2005

My Commission Expires

Attachment (1)

cc: H. J. Miller, Region I Administrator
R. B. Ennis, NRC Senior Project Manager, Millstone Unit No. 2
Millstone Senior Resident Inspector

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

Docket No. 50-336
B18820

Attachment 1

Millstone Power Station, Unit No. 2

Response to a Request for Additional Information
License Basis Document Change Request 2-5-00
Boration, Emergency Core Cooling, Containment Spray and Cooling
and Auxiliary Feedwater Systems
Supplemental Information

Response to a Request for Additional Information
License Basis Document Change Request 2-5-00
Boration, Emergency Core Cooling, Containment Spray and Cooling and Auxiliary Feedwater Systems
Supplemental Information

In a letter dated May 7, 2002[1] Dominion Nuclear Connecticut, Inc. (DNC) requested changes to the Millstone Unit No. 2 Technical Specifications. On October 22, 2002,[2] questions related to the aforementioned Technical Specifications Change Request were received via facsimile from the Nuclear Regulatory Commission (NRC). These questions were discussed during a conference call conducted on December 18, 2002. This RAI was formally received on December 31, 2002.[3] The questions and associated responses are presented below:

Question 1

General Comment

The Licensee's application proposed to revise the MP2 plant specific current Technical Specification (CTS) 3/4.1.1.3, relocate CTS 3/4.1.2.1 through 3/4.1.2.8 to the TRM, revise CTS 3/4.5.2, 3/4.5.3, 3/4.6.2.1, and 4.7.1.2 to be consistent with NUREG-1432 "Standard Technical Specifications-Combustion Engineering Plants" and revise or delete as appropriate the Bases associated with these CTS. In the NRC staff's judgement, based on the extent and scope of the changes, the proposed amendment is in fact a mini conversion to the Improved Standard Technical Specifications (ISTS).

In accordance with Nuclear Energy Institute (NEI)-96-06, "Improved Technical Specifications Conversion Guidance," dated August 1996, the attachments to an ISTS conversion/mini-conversion application for each chapter/specification should include the following:

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(1) J. A. Price letter to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 2, License Basis Document Change Request 2-9-02, Boration, Emergency Core Cooling, Containment Spray and Cooling and Auxiliary Feedwater Systems," dated May 7, 2002.

(2) R. B. Ennis (NRC) Facsimile Transmission, "Request for Additional Information Regarding Proposed Amendment to Technical Specifications Boration, Emergency Core Cooling, Containment Spray and Cooling and Auxiliary Feedwater Systems, Unit No. 2, Docket No. 50-336," dated October 22, 2002.

(3) R. B. Ennis (NRC) letter to J. A. Price, "Request for Additional Information, Boration, Emergency Core Cooling, Containment Spray and Cooling, and Auxiliary Feedwater Systems, Millstone Power Station, Unit No. 2 (TAC NO. MB5019)," dated December 31, 2002.

1. A reprinted copy of the proposed TS in the ISTS, or CTS format;

2. Marked-up pages of the current Technical Specifications to show the proposed changes as Administrative (A), More Restrictive (M), Less Restrictive-Specific (L), Less Restrictive-Generic (LA), and Relocated (R);

3. Discussion of the proposed changes of the current TS;

4. Marked-up pages of the ISTS and Bases to show the proposed changes;

5. Justification for differences between the proposed changes and the ISTS; and

6. Proposed no significant hazards consideration determination for the changes.

The May 7, 2002, application is lacking, or inadequate for Items 2, 3, and 5. The following request for additional information (RAI) addresses some of the concerns associated with Items 3 and 5, but is not inclusive. These items need to be provided before the review can be completed.

Comment: Revise the submittal to conform to the conversion guidelines.

Response

The main purpose of the Technical Specification changes contained in the May 7, 2002, submittal was to change the pump and valve testing at Millstone Unit No. 2 from a monthly frequency to a quarterly frequency. The proposed change in the frequency testing is consistent with the majority of the U.S. nuclear power plants. In addition, the proposed Technical Specification changes relocated the Boration System to the Technical Requirements manual as a result of a revised small break loss of coolant accident analysis, which no longer credits charging pump flow for accident mitigation.

The Technical Specification changes were not proposed to convert the applicable specifications to the Improved Technical Specifications (ITS) contained in NUREG-1432. This was not a mini-conversion to the Improved Technical Specifications. Since the proposed changes were extensive, the ITS format was used where appropriate. This was done to reduce the potential to create errors in the proposed requirements if a new approach was used. In addition, the use of a standardized format should allow a more efficient NRC review of the proposed changes, especially since Millstone Unit No. 2 is based on a standard Combustion Engineering design. DNC will revise the submittal to incorporate the NEI 96-06 guidance, where appropriate, and supplement additional justification in the following responses.

Question 2

General Comment

Except for the changes associated with the relocation of CTS 3/4.1.2.1 through 3/4.1.2.8, the majority of the changes had justifications which provided a description of the change and concluded that the change was acceptable because it was either consistent with standard industry practices and guidelines, consistent with other MP2 TS or requirements, consistent with the STS or a combination of these consistency justifications. Consistency with the ITS, other CTS or standard industry practices and guidelines is not an adequate justification for concluding that a change is acceptable. Each change needs to be justified based on the technical merits of the change and its applicability to the MP2 specifications. Revising the submittal in accordance with RAI number 1 would resolve most of this concern.

Comment: Revise the discussions and justifications for all the changes to provide justifications based on the technical merits of the changes and their applicability to the MP2 specifications.

Response

The justifications provided for the proposed changes were based on the technical acceptability to Millstone Unit No. 2. Consistency with standard industry practices and the ITS is an important benchmark for proposed TS changes, and DNC agrees that this benchmark alone is not sufficient basis for why the proposed changes are acceptable. DNC views consistency with the rest of the nuclear industry as providing additional assurance of the validity of the proposed changes. Conversely, it is DNC's view that the changes that are not consistent with standard industry guidance should be extensively justified, including an explanation of why it is necessary to deviate from the norm. DNC will clarify and expand, where appropriate, its justification of the proposed changes when responding to the Staff's questions.

Question 3 3/4.1.1.3 Boron Dilution

CTS 3/4.1.1.3
CTS 3.1.2.3 Actions a and b
CTS 3.1.2.4 Actions a and b
Proposed TS (PTS) 3/4.1.3 Actions

CTS 3/4.1.1.3 has been modified by the addition of restrictions that limit the number of charging pumps capable of injecting into the Reactor Coolant System (RCS) to a maximum of two when RCS temperature is less than 300°F. These restrictions were part of the LCO, Actions, and Surveillance Requirements in CTS 3/4.1.2.3 and 3/4.1.2.4. Proposed Technical Specification (PTS) 3/4.1.1.3, Action b, specifies the

remedial actions to be taken if more than two charging pumps are capable of injecting into the RCS when the RCS temperature is less than 300°F. No action is proposed if no charging pumps are capable of injecting into the RCS under these operating conditions. If no charging pumps are capable of injecting into the RCS system, then it is assumed that the charging pumps are inoperable. In this situation the remedial measures to be taken when in Modes 1, 2, 3 and 4 are the Actions of CTS 3.0.3, an immediate shutdown (CTS 3.1.2.4 does not have an action for two charging pumps inoperable), and when in MODES 5 and 6 is suspension of "all operations involving CORE ALTERATIONS or positive reactivity changes until one charging pump is restored to OPERABLE status" (CTS 3.1.2.3 Action a).

Comment: Revise the Actions for PTS 3.1.1.3 to include remedial measures to be taken when no charging pumps are capable of injecting into the RCS when the RCS temperature is less than 300°F. Provide the appropriate discussions and justifications for this change.

Response

The proposed changes to Current Technical Specification (CTS) 3.1.1.3 are the result of the proposed relocation of the Boration System requirements (CTS 3.1.2.1 through 3.1.2.8) from the Technical Specifications to the Technical Requirements Manual (TRM). The proposed changes to 3.1.1.3 address the boron dilution analysis assumption concerning maximum dilution flow when the Reactor Coolant System (RCS) temperature is below 300°F. This dilution flow assumption is maintained by ensuring a maximum of two charging pumps are capable of injecting into the RCS when RCS cold leg temperature is < 300°F. The proposed addition to the Limiting Condition for Operation (LCO) of CTS 3.1.1.3 is as follows.

> A maximum of two charging pumps shall be capable of injecting into the Reactor Coolant System whenever the temperature of one or more of the Reactor Coolant System cold legs is < 300°F.

This LCO is met if no charging pumps are capable of injecting into the RCS, one charging pump is capable of injecting into the RCS, or two charging pumps are capable of injecting into the RCS. A new action requirement was added to provide guidance to address the situation when three charging pumps are capable of injecting into the RCS.

It is not correct to revise the action requirements of the Proposed Technical Specification (PTS) 3.1.1.3 to address the situation where no charging pumps are capable of injecting into the RCS (i.e., no charging pumps are operable) as requested. If no charging pumps are capable of injecting into the RCS, the LCO is satisfied and the boron dilution analysis assumption is maintained. In addition, there would be no reason to enter CTS 3.0.3 as stated in the above question. The requirements for operable charging pumps and the associated action requirements contained in CTS 3.1.2.3 and

3.1.2.4 have been relocated to the TRM. In addition, charging pump operability requirements remain in CTS 3.5.2, which is applicable in MODES 1, 2, and 3* (*pressurizer pressure ≥ 1750 psia), as explained in the submittal, dated May 7, 2002, on Pages 7, 8, and 28 through 32 of Attachment 1.

The structure of the LCO for PTS 3.1.1.3 which specifies a maximum number of charging pumps capable of injecting into the RCS, but no minimum charging pump operability requirement is consistent with CTS 3.4.9.3 and also with NUREG-1432 Technical Specification 3.4.12. These specifications provide low temperature overpressure protection by limiting the number of pumps capable of injecting mass into the RCS. The respective LCOs provide a limitation on the maximum number of pumps allowed to be capable of injecting into the RCS. They do not provide a requirement for minimum number of pumps to be operable or capable of injecting into the RCS. This supports the above position that it would not be correct to modify PTS 3.1.1.3 as requested, and also that entry into CTS 3.0.3 would not be appropriate.

Question 4 3/4.5.2 Emergency Core Cooling System (ECCS) Subsystems -Tavg ≥ 300°F

The requirement in CTS 3.5.2 that "Two separate and independent ECCS subsystems shall be OPERABLE" is modified in PTS 3.5.2 to delete the words "separate and independent." The justification provided in Attachment 1 CTS 3.5.2 item 1 states that this information is in the MP2 Final Safety Analysis Report (FSAR) and thus it can be deleted. This is not entirely correct. In conversion space, this item is not deleted but relocated to a licensee controlled document (i.e., FSAR). Since these words are also found in the Bases for CTS/PTS 3/4.5.2, it would be considered as a relocation to the Bases as well. In addition, just because the words are contained in those documents, is not an adequate justification for this change. No discussion or justification is provided as to why these words can be relocated.

Comment: Provide a discussion and justification for this Less Restrictive (LA) change.

Response

The proposed removal of the extra detail and information from the LCO for CTS 3.5.2 (separate and independent) was classified as a deletion since this information would no longer appear in the respective LCO. However, following the guidance contained in NEI 96-06, this type of change is classified as "Removed Detail." This is a subset of the Less Restrictive (L) change category in which certain details and information from otherwise retained specifications, are removed from the specification and placed in the Bases, FSAR, or other Licensee controlled documents. Removed detail changes, which are less Restrictive-Generic, are designated as (LA). These changes include details of system design and function, procedural details or methods of conducting surveillances, or alarm or indication-only instrumentation.

The proposed removal of "separate and independent" from the LCO for CTS 3.5.2 can be classified as an (LA) change. As previously stated (Attachment 1 Page 7), the FSAR already describes the required separation and independence of the two ECCS trains. The design of the facility is required to be described in the FSAR by 10 CFR 50.34. In addition, the Bases for Technical Specification 3.5.2 already specifies that the two ECCS trains shall be separate and independent. The removal of this extra detail from the LCO for CTS 3.5.2 is acceptable because it will not affect the requirement for two ECCS trains to be operable. The requirement to be separate and independent can be adequately controlled in the FSAR and the Bases, which require change control in accordance with 10 CFR 50.59. In addition, changes to the Technical Specification Bases are now controlled by the Bases Control Program, Technical Specification 6.23, which was recently approved for Millstone Unit No. 2 by License Amendment No. 270.[4] This approach provides an effective level of regulatory control and provides for a more effective change control process. The level of safety of facility operation is unaffected by the proposed change because there is no change in the requirement to have two ECCS trains operable.

Similar changes have recently been approved for Millstone Unit No. 2 by License Amendment No. 273.[5] The approved changes removed the word "independent" from the LCOs for Technical Specifications 3.7.3.1, "Plant Systems - Reactor Building Closed Cooling Water System," and 3.7.4.1, "Plant Systems - Service Water System."

Question 5 3/4.5 2 ECCS Subsystems – Tavg≥ 300°F

CTS 3.5.2 a, b, and c
PTS 3.5.2 and Associated Bases

The requirements of CTS 3.5.2 which describe what constitutes an OPERABLE ECCS subsystem (CTS 3.5.2 a, b, and c) are relocated In PTS 3.5.2 to the Bases. The justification provided in Attachment 1, CTS 3.5.2 item 2 only states that the Bases is the appropriate location for this information. The justification did not provide any reason as to why it is acceptable to relocate this information to the Bases other than the implied consistency with the STS (see RAI number 2).

Comment: Provide a discussion and justification for this Less Restrictive (LA) change.

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(4) R. B. Ennis (NRC) letter to Dominion Nuclear Connecticut, Inc., "Millstone Power Station, Unit Nos. 1, 2, and 3 - Issuance of Amendments RE: Administrative and Editorial Changes (TAC Nos. MB3394, MB3395, and MB3396)," dated September 17, 2002.

(5) R. B Ennis (NRC) letter to Dominion Nuclear Connecticut, Inc , "Millstone Power Station, Unit No. 2 - Issuance of Amendment 273 (TAC No. MB4273)," dated February 13, 2003.

Response

The proposed relocation of the extra detail and information from the LCO for CTS 3.5.2 (what constitutes an operable ECCS subsystem) can be classified as a Removed Detail or (LA) change in accordance with NEI 96-06. This is a subset of the Less Restrictive (L) change category in which certain details and information from otherwise retained specifications are removed from the specification and placed in the Bases, FSAR, or other Licensee controlled documents. These changes include details of system design and function, procedural details or methods of conducting surveillances, or alarm or indication-only instrumentation.

The relocation of this extra detail from the LCO for CTS 3.5.2 to the associated Bases is acceptable because it will not affect the requirement for two ECCS trains to be operable. The details of what constitutes an operable ECCS subsystem can be adequately controlled in the Bases, which require change control in accordance with 10 CFR 50.59. In addition, changes to the Technical Specification Bases are now controlled by the Bases Control Program, Technical Specification 6.23, which was recently approved for Millstone Unit No. 2 by License Amendment No. 270. This approach provides an effective level of regulatory control and provides for a more effective change control process. The level of safety of facility operation is unaffected by the proposed change because there is no change in the requirement to have two ECCS trains operable.

Question 6 3/4.5.2 ECCS Subsystems - Tavg ≥ 300°F

CTS 3.5.2 Action a
PTS 3.5.2 Action a

CTS 3.5.2 Action a requires that an Inoperable ECCS subsystem be restored to OPERABLE status within 48 hours. PTS 3.5.2 Action a, changes the 48 hours to 72 hours based on the emergency diesel generator (EDG) allowed outage time (AOT) of 72 hours and consistency with the STS (Attachment 1,CTS 3.5.2 item 3). Additional justification was also provided in Attachment 1, "Safety Summary-LCO and Action Requirement Changes," which stated that "As specified in Regulatory Guide (RG) 1.177, licensee initiated Technical Specification changes (surveillance frequencies and allowed outage times) that are consistent with currently approved staff positions (e.g., NUREG-1432) do not require the submittal of risk information in support of the proposed changes." While the RG does not require a risk evaluation for proposed surveillance frequency and AOT changes that are consistent with approved staff positions, it does not alleviate the licensees' responsibility to provide an adequate justification for the change as implied by the submittal. These justifications are unacceptable for this Less Restrictive (L) change (see RAI number 2).

Comment: Provide a discussion and justification for this Less Restrictive (L) change.

Response

The proposed change in the allowed outage time (AOT) for an inoperable ECCS subsystem from 48 hours to 72 hours is a less restrictive change. The purpose of the AOTs specified in Technical Specifications is to provide a reasonable time for performance of maintenance, surveillance testing, and equipment repair. Although this deviates from the design basis of the plant, which is to be able to mitigate all design basis accidents with a single failure, continued operation for a limited time period is acceptable due to the low probability of a design basis accident occurring during this time period. When operating within the constraints of the allowed outage time, it is not necessary to postulate the occurrence of a single failure in the redundant train, following a design basis accident. This position is supported by the following guidance that was provided by D. Eisenhut, NRC Acting Director Division of Operating Reactors, in a letter dated April 10, 1985.

> "The NRC's Standard Technical Specifications (STS) were formulated to preserved the single failure criterion for systems that are relied upon in the safety analysis report. By and large, the single failure criterion is preserved by specifying Limiting Conditions for Operation (LCOs) that require all [DATA MISSING - WORD(S)] components of safety related systems to be OPERABLE. When the required redundancy is not maintained, either due to equipment failure or maintenance outage, action is required, within a specified time, to change the operating mode of the plant to place it in a safe condition. The specified time to [DATA MISSING - WORD(S)] action, usually called the equipment out-of-service time, is a temporary relaxation of the single failure criterion, which, consistent with overall system reliability considerations, provides a limited time to fix equipment or otherwise make it OPERABLE. If equipment can be returned to OPERABLE status within the specified time, plant shutdown is not required."

An AOT of 72 hours is a reasonable time for restoration of an inoperable ECCS subsystem. The acceptability of a 72 hour AOT, and the associated increase in risk, is illustrated throughout the NRC approved Improved Standard Technical Specifications (NUREG-1432) and older Standard Technical Specifications (NUREG-0212) for Combustion Engineering plants.

The design of Millstone Unit No. 2 is such that it can be classified as a standard Combustion Engineering (CE) nuclear power plant. There are no significant differences in the design of the ECCS when compared to the analog CE plant design used as the basis for NUREG-1432. In addition, the probability of a design basis accident at Millstone Unit No. 2 is consistent with other Combustion Engineering plants. As a result, a 72 hour AOT is a reasonable time period to allow one ECCS subsystem to be inoperable, thereby minimizing the associated increase in plant risk.

This approach, to adopt a standard AOT, is supported by Regulatory Guide (RG) 1.177,[6] which states it is not necessary to submit risk information in support of Licensee initiated Technical Specification changes (surveillance frequencies and allowed outage times) that are consistent with currently approved staff positions (e.g., NUREG-1432). However, as previously stated in Attachment 1, Page 33 of the original submittal, DNC has performed a qualitative evaluation of the proposed change and determined it would not adversely impact plant safety. Allowing an additional 24 hours for an ECCS subsystem to be inoperable has a minimal impact on risk. In addition, the proposed AOT increase will avert unplanned plant shutdowns where the transition risk incurred by unexpected plant shutdowns can be comparable to, and often exceed, those associated with continued power operation. Therefore, this less restrictive change will not adversely impact public health and safety.

Question 7 3/4.5.2 ECCS Subsystems - Tavg ≥ 300°F

CTS 3.5.2 Action a
PTS 3.5.2 Action a

CTS 3.5.2 Action a requires that if the inoperable ECCS subsystem cannot be restored to OPERABLE status within the specified AOT, then the plant must "be in HOT SHUTDOWN within the next 12 hours." PTS 3.5.2 Action a changes the shutdown requirement to "HOT STANDBY within the next six hours and reduce pressurizer pressure to less than 1750 psia within the following six hours." The justification in Attachment 1, CTS 3.5.2 item 3 provided for this change states that "the current requirement to be in HOT SHUTDOWN is not consistent with the applicability of this specification (Mode 3 with pressurizer pressure ~ 1750 psia)." The justification further states a consistency argument (see RAI number 2) and states that there is no technical change since it is consistent with the current applicability and the total shutdown time of 12 hours. This is incorrect. CTS 3.5.2 Action a does not specify when the plant is to be in HOT STANDBY, only HOT SHUTDOWN. Thus this change involves a technical change which is a More Restrictive (M) change (be in HOT STANDBY within 6 hours).

Comment: Provide a discussion and justification for this More Restrictive (M) change.

Response

The proposed change to CTS Action a. will resolve a discrepancy between the action requirement and the applicability of the specification. Action a. currently requires the plant to be placed in Hot Shutdown (MODE 4) within 12 hours after the current AOT of 48 hours expires. However, the applicability of Technical Specification 3.5.2 only extends to Hot Standby (MODE 3) with pressurizer pressure ≥ 1750 psia. As a result, it

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[6] Regulatory Guide 1.177, "An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications," dated August 1998.

is only necessary to bring the plant in MODE 3 with pressurizer pressure < 1750 psia within 12 hours after the AOT expires.

The proposed change to Action a, divides the original 12 hours into two equal six-hour blocks. The first six-hour block is the time to reach Hot Standby, and the second six-hour block is the time to reduce pressurizer pressure to < 1750 psia. The total time of 12 hours to clear the applicability of Technical Specification 3.5.2 has not changed. However, dividing the 12 hour block by adding an interim step, be in Hot Standby within six hours, is a more restrictive change.

The proposed interim step is consistent with the standard action time provided in numerous Technical Specifications (e.g., Technical Specifications 3.0.3, 3.4.1.1, and 3.8.1.1) to reach Hot Standby from a power operating condition. It will not result in a new approach to plant operation with respect to compliance with Technical Specifications. This change will provide additional assurance the plant will reach the desired conditions within the time allowed, in an orderly manner, with the least impact on plant systems. It will have no adverse impact on plant safety because it allows for a controlled shutdown.

Question 8 3/4.5.2 ECCS Subsystems - Tavg ≥ 300°F

CTS 4.5.2.a
PTS 4.5.2.c, d, e, f, and g

CTS 4.5.2.a requires that specified components of each ECCS subsystem be demonstrated OPERABLE on a frequency of "at least once per 31 days on a STAGGERED TEST BASIS." PTS 4.5.2.c, d, e, f, and g changes the 31 day frequency to either "pursuant to specification 4.0.5" (92 day frequency) or 18 months. The justification in Attachment 1, CTS 3.5.2 and in the "Safety Summary" base the changes on consistency with the STS, industry standards and CTS (see RAI number 2).

Comment: Provide a discussion and justification based on the technical merits of the change and its applicability to the MP2 specifications.

Response

The proposed changes to CTS 4.5.2.a that resulted in PTS 4.5.2.c, d, e, f, and g are associated with the ECCS pumps (HPSI, LPSI, and charging) and automatically actuated valves. These changes can be combined together into two different groups.

The first group (PTS 4.5.2.c, d, and e) proposes to change the frequency of the HPSI, LPSI, and charging pump operability test from monthly to a frequency controlled by the IST Program (Technical Specification 4.0.5). These changes are expected to result in a reduction in the testing frequency since the IST Program specifies a quarterly testing

frequency, unless pump performance indicates more frequent testing is required. These are less restrictive changes.

The current Technical Specification requirements to test ASME Class 1, 2, and 3 pumps at a monthly frequency were contained in the original Millstone Unit No. 2 Technical Specifications issued in 1975. This was consistent with the ASME Code Section XI criteria that remained in effect through the winter of 1979. Beginning with the 1980 edition of the ASME Code, the testing of these type of pumps and their associated valves is required only once per quarter.

In 1984, the NRC initiated a Technical Specification Improvement Program. One of the recommendations that came out of this program, as put forth in NUREG-1366, was that the amount of testing at power should be reduced. In particular, NUREG-1366 recommended that "...safety related pump testing that is done more often (e.g. monthly) than required in the current versions of the ASME Code be performed quarterly."[7]

Testing the ECCS pumps on a monthly frequency increases the unavailability of these pumps since they must be removed from service to test. Even though the monthly testing frequency may lead to earlier detection of inoperable equipment, the additional pump starts will cause more equipment degradation. Based on historical pump performance, the benefit of monthly surveillance testing to detect inoperable equipment earlier is not expected to be significant enough to override the reduction in equipment degradation from less frequent testing. In addition, the IST Program does contain provisions to trend equipment performance and require more frequent testing if equipment degradation is detected.

Testing of these ECCS pumps on a quarterly frequency will also result in a significant reduction in personnel radiation exposure.

The expected improvement in plant safety, reduction in equipment degradation, and reduction in personnel radiation exposure is supported by current industry practices. As previously indicated, the ASME Code Section XI quarterly testing frequency has been in effect since 1980 and is incorporated in the Improved Standard Technical Specifications. The majority of the U.S. nuclear facilities follow this quarterly testing schedule. There have been no indications, based on operating experience, that quarterly testing has had an adverse impact on equipment reliability or plant safety. Therefore, this less restrictive change will not adversely impact public health and safety.

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(7) G. F. Wunder (NRC) letter to Power Authority of the State of New York, "Issuance of Amendment for Indian Point Nuclear Generating Unit No. 3 (TAC No. M97672)," dated March 2, 1998.

The second group (PTS 4.5.2.f and g) proposes to change the frequency of testing the automatic operation of the ECCS pumps and valves from monthly to 18 months. The operation of the affected pumps and valves will be tested on the proposed quarterly basis in accordance with the IST Program, and the automatic actuation logic circuitry will continue to be tested in accordance with Technical Specification 3.3.2.1, "Instrumentation - Engineered Safe Feature Actuation System Instrumentation." Only the verification of the affected components to respond to an automatic signal will be changed. These are less restrictive changes. A review of the past performance of the associated pumps and valves to automatically actuate has not indicated a failure rate that would warrant a monthly testing frequency. The proposed frequency reduction for automatic actuation testing will provide the same benefits (improved plant safety, reduced equipment degradation, reduced burden on personnel, and reduced personnel radiation exposure) as the proposed change to a quarterly frequency for ECCS pump testing. In addition, the proposed frequency is supported by current industry practices as is indicated by consistency with the Improved Standard Technical Specifications. The majority of the U.S. nuclear facilities follow this quarterly testing schedule. There have been no indications, based on operating experience, that automatic actuation testing at an 18-month frequency has had an adverse impact on equipment reliability or plant safety. Therefore, this less restrictive change will not adversely impact public health and safety.

Question 9 3/4.5.2 ECCS Subsystems - Tavg ≥ 300°F

CTS 4.5.2.a
PTS 4.5.2.a, b, c, d, e, f, and g

CTS 4.5.2.a requires that specified components of each ECCS subsystem be demonstrated OPERABLE on a frequency of "at least once per 31 days on a STAGGERED TEST BASIS." PTS 4.5.2 a through g deletes the requirement for testing on a "STAGGERED TEST BASIS." The justification in Attachment 1, CTS 3.5.2 is based on the premise that there is little or no benefit in specifying performance of the surveillance on a staggered test basis. This justification is inadequate. The advantage of testing on a staggered test basis is that the chances of a common mode failure and equipment unavailability are reduced.

Comment: Provide a discussion and justification for this Less Restrictive (L) change.

Response

The proposed change to Surveillance Requirement (SR) 4.5.2.a will remove the

with the historical definition, which is contained in the Millstone Unit No. 2 Technical Specifications as Definition 1.21 and in the NUREG-0212 (Rev. 2 Fall 1980).

A staggered test basis shall consist of:

a. A test schedule for *n* systems, subsystems, trains or other designated components obtained by dividing the specified test interval into *n* equal subintervals, and

b. The testing of one system, subsystem, train or other designated component at the beginning of each subinterval.

The benefit of testing on a staggered test basis to the prevention of common mode failures was not significant enough to justify the additional administrative burden associated with scheduling the surveillance tests. As a result, the requirement to test on a staggered test basis was not carried forward for most of the surveillance requirements during the development of the Improved Standard Technical Specifications. In addition the definition was changed significantly during this conversion process. NUREG-1432 (Rev. 2 April 2001) provides the following current definition for staggered test basis:

A STAGGERED TEST BASIS shall consist of the testing of one of the systems, subsystems, channels, or other designated components during the interval specified by the Surveillance Frequency, so that all systems, subsystems, channels, or other designated components are tested during *n* Surveillance Frequency intervals, where *n* is the total number of systems, subsystems, channels, or other designated components in the associated function.

The proposed change will remove the requirement to test two train systems (e.g., ECCS) on a staggered test basis. This is a less restrictive change. It is acceptable because the proposed testing on a non-staggered frequency will continue to verify the system performs as required. It is common practice at Millstone Unit No. 2, as well as most other nuclear facilities, to test the safety systems by trains. For example, ECCS Train A would be tested with CS Train A during the same work window, although not necessarily at the exact same time. Normally, different components on different trains are not tested on the same day. This is a good operating practice because it prevents components from opposite trains from being inoperable at the same time. In addition, testing on a non-staggered frequency will provide increased flexibility in the scheduling of surveillance testing while not changing the overall surveillance frequency (any surveillance frequency changes are addressed separately). Therefore, this less restrictive change will not adversely impact public health and safety.

Question 10 3/4.5.2 ECCS Subsystems - Tavg ≥ 300°F

CTS 4.5.2.a.1.a, and a.2.a
PTS 4.5.2.g

CTS 4.5.2.a.1.a and 4.5.2.a.2.a specify that the high-pressure safety injection pumps and low-pressure safety injection pumps start on an automatic test signal, respectively. Attachment 1, CTS 3.5.2, items 4.b and 5.b, state that these two surveillances will be deleted. This is incorrect. The discussion associated with these two items state that this requirement now becomes PTS 4.5.2.g. See RAI numbers 2, 8, 9, and 11.

Comment: Provide a discussion and justification for this Less Restrictive (L) change.

Response

The proposed removal of CTS SRs 4.5.2.a.1.a and 4.5.2.a.2.a, which required monthly automatic test signal starts of the high pressure safety injection (HPSI) and low pressure safety injection (LPSI) pumps was classified as a less restrictive deletion since a monthly start of these pumps would no longer be required. However, this type of change can be classified as a less restrictive (i.e., LR - removal of certain details) since the requirement for the automatic pump start will be retained in PTS SR 4.5.2.g, but the frequency will be increased from 31 days to 18 months.

Operation of the HPSI and LPSI pumps will be tested on the proposed quarterly basis in accordance with the IST Program, and the automatic actuation logic circuitry will continue to be tested in accordance with Technical Specification 3.3.2.1, "Instrumentation - Engineered Safe Feature Actuation System Instrumentation." Only the verification of the affected components to respond to an automatic signal will be changed. A review of the past performance of the associated pumps to automatically actuate has not indicated a failure rate that would warrant a monthly testing frequency.

The proposed frequency reduction for automatic actuation testing will provide the same benefits (improved plant safety, reduced equipment degradation, reduced burden on personnel, and reduced personnel radiation exposure) as the proposed change to a quarterly frequency for ECCS pump testing. In addition, the proposed frequency is supported by current industry practices as indicated by consistency with the Improved Standard Technical Specifications. There have been no indications, based on operating experience, that automatic actuation testing at an 18-month frequency has had an adverse impact on equipment reliability or plant safety. Therefore, this less restrictive change will not adversely impact public health and safety.

Question 11 3/4.5.2 ECCS Subsystems - Tavg ≥ 300°F

CTS 4.5.2.a.1.a, a.2.a, a.5, and c.1
PTS 4.5.2.f, g, h, and k

CTS 4.5.2.a.1.a, a.2.a, and c.1 require that the ECCS pumps and automatic valves start, open, close or restrict opening on a simulated or test actuation signal. CTS 4.5.2.a.5 requires that the containment sump isolation valves open on a sump re-circulation actuation signal. The corresponding surveillances in the PTS (PTS 4.5.f, g, h, and k) verify the component actuation by an actual or simulated actuation signal. While the requirements of CTS 4.5.2.a.5 would allow the use of an actual or simulated actuation signal (an Administrative (A) change), the justification in Attachment 1, CTS 3.5.2 for this change, as well as the other Less Restrictive (L) changes is that the change "will provide additional flexibility in test performance." Additional flexibility is not an acceptable justification for these Administrative (A) and Less Restrictive (L) changes.

Comment: Provide a discussion and justification for these Administrative (A) and Less Restrictive (L) changes.

Response

The proposed wording change was from requiring the use of a test signal (CTS SRs 4.5.2.a.1.a and 4.5.2.a.2.a), simulated RCS pressure signal (CTS SR 4.5.2.c.1), or sump recirculation actuation signal (CTS SR 4.5.2.a.5) to demonstrate automatic component actuation, to allowing the use of either an actual or simulated actuation signal to demonstrate automatic component actuation. A test signal is technically equivalent to a simulated signal. Both are generated either within the instrumentation, or by an external device that simulates the monitored parameter. As a result of this artificial signal and the subsequent generation of an actuation signal, the control circuit for the affected component will cause the component to respond as designed (e.g., pump start/stop, valve open/close, or valve operation prevented). The automatic actuation of the components addressed by these surveillance requirements is currently checked by use of the installed test features of the associated instrumentation systems or by inserting test signals from external test equipment. However, the control circuitry for the actuated components responds the same way to an actuation signal generated by the test equipment as to an actuation signal generated in response to actual plant conditions. The same control contact is actuated regardless of the source of the actuation signal (simulated or actual). As a result, the justification for the proposed wording change is that it would not result in any technical change to the verification of the automatic actuation feature (Attachment 1, Pages 10, 11, 13, and 16). This is a non-technical or administrative change (per NEI 96-06). A benefit of the proposed wording change is that it will provide additional flexibility in test performance such that credit can be taken for equipment actuation in response to an actual signal in addition

to a simulated signal. In addition, the ability to credit equipment actuation in response to an actual signal is consistent with the Millstone Unit No. 2 Bases for Technical Specification 4.0.1 as recently changed by License Amendment No. 271.[8] Therefore, this administrative change will not adversely impact public health and safety.

Question 12 3/4.5.2 ECCS Subsystems - Tavg ≥ 300°F

CTS 4.5.2.a.3.a, a.6, c.5 and d

Attachment 1, CTS 3.5.2, items 6.b, 9, 18, and 19 state that CTS 4.5.2.a.3.a, a.6, c.5. and d. respectively, are deleted. This is incorrect. The discussions associated with these items state that they are to be relocated to the TRM, Inservice Testing (IST) Program. or CTS 6.13. Thus the changes to CTS 4.5.2.a.3.a, a.6 and d would be considered a Less Restrictive (LA) changes since these requirements are relocated to licensee controlled documents, and the change to CTS 4.5.2.c.5 would be considered an Administrative (A) change since the requirement is still in the Technical Specifications.

Comment: Revise the discussions and justifications associated with these Administrative and Less Restrictive (LA) changes.

Response

The proposed changes to CTS SRs 4.5.2.a.3.a (monthly charging pump automatic start on a test signal), 4.5.2.a.6 (monthly cycling of testable automatic valves), 4.5.2.c.5 (verification of leakage rates from part of system potentially containing highly radioactive post accident fluids outside containment), and 4.5.2.d (18 month cycle of non-testable power operated valves) were classified as deletions since the specific surveillance requirements would not be retained. However, these changes are being classified as relocation since the changes credit the Technical Requirements Manual (TRM), the IST Program (Technical Specification 4.0.5), or the program for Systems Integrity (Technical Specification 6.13) for continued performance.

The proposed relocation of the charging pump automatic start test to the TRM is consistent with the proposed relocation of the Boration System (BS) Technical Specifications 3.1.2.1 through 3.1.2.8 to the TRM. As explained in the original submittal (Attachment 1, Page 2), DNC has revised the Millstone Unit No. 2 accident analyses so that no credit is taken for flow from the charging pumps for design basis accident mitigation. As a result, most of the charging pump ECCS requirements (Technical

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[8] R B. Ennis (NRC) letter to Dominion Nuclear Connecticut, Inc, "Millstone Power Station, Unit No. 2 - Issuance of Amendments RE: Missed Surveillances Using Consolidated Line Item Improvement Process (TAC No. MB5676)," dated October 15, 2002

Specification 3.5.2) have been relocated to the TRM. This includes the automatic start of the charging pumps on a test signal as currently tested by SR 4.5.2.a.3.a. The relocation of SR 4.5.2.a.3 is acceptable because the automatic start feature does not meet any of the 10 CFR 50.36c(2)(ii) criteria for features that must be included in the Technical Specifications. Any changes to the relocated requirement will be done in accordance with 10 CFR 50.59. This approach provides an effective level of regulatory control and provides for a more effective change control process. This is a less restrictive movement of information change (LA) with no impact on safety.

The proposed removal of SR 4.5.2.a.6 (monthly cycling of testable automatic valves) and SR 4.5.2.d (18 month cycling of non-testable power operated valves) will relocate these requirements to the IST Program (Technical Specification 4.0.5), which will determine the required test frequency. This change will result in a reduction in the testing frequency for the valves currently tested by SR 4.5.2.a.6 since the IST Program specifies a quarterly testing frequency for valves testable at power. No reduction in the testing frequency for the valves currently tested by SR 4.5.2.d will occur since the IST Program specifies a cold shutdown (assumed to be 18 months) frequency for valves not testable at power. In addition, the valve population subject to cycle testing may be reduced since not all automatic or power operated valves are required to change position to mitigate design basis events or support safe shutdown conditions. Automatic and power operated valves that are not required to change position are classified as passive valves by the IST Program and are not required to be cycled. The reduction in testing frequency and the potential reduction in valve population are less restrictive changes.

The current Technical Specification requirement to cycle testable system valves at a monthly frequency was contained in the original Millstone Unit No. 2 Technical Specifications issued in 1975. However the ASME Code only requires a quarterly cycle test for safety related valves testable at power. For safety related valves not testable at power, a cold shutdown frequency is specified.

Testing of these valves on a monthly frequency increases the unavailability of the associated system since the flowpath must be removed from service to test. This reduces plant safety during the time these flowpaths are unavailable. Even though the monthly testing frequency may lead to earlier detection of inoperable equipment, the additional valve cycling will cause more equipment degradation. Based on historical valve performance, the benefit of monthly surveillance testing to detect inoperable equipment earlier is not expected to be significant enough to override the reduction in equipment degradation from less frequent testing. In addition, the IST Program does contain provisions to trend equipment performance and require more frequent testing if equipment degradation is detected.

Testing of these valves on a quarterly frequency will significantly reduce personnel radiation exposure when compared to the current monthly testing frequency.

The expected improvement in plant safety, reduction in equipment degradation, and reduction in personnel radiation exposure is supported by current industry practices. As previously indicated, the ASME Code Section XI quarterly testing frequency has been in effect since 1980 and is incorporated in the Improved Standard Technical Specifications. The majority of the U.S. nuclear facilities follow this quarterly testing schedule. There have been no indications, based on operating experience, that quarterly testing has had an adverse impact on equipment unavailability or plant safety. In addition, the potential reduction in valve population will have no adverse impact on plant safety since a valve can only be excluded if it performs no safety function. The elimination of unnecessary valve testing will provide the same benefits as the reduction in testing frequency from monthly to quarterly. Therefore, these less restrictive changes will not adversely impact public health and safety.

The proposed removal of SR 4.5.2.c.5 will not result in any technical change since the requirement to prevent excessive leakage from portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident (e.g., post LOCA recirculation phase) is already addressed by Technical Specification 6.13, "Systems Integrity." This specification requires a program to be implemented "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." Millstone Unit No. 2 has implemented the program required by Technical Specification 6.13. This program, which is currently contained in the Millstone Unit No. 2 TRM, does address the HPSI System as currently specified in SR 4.5.2.c.5. This program is used to ensure that the leakage rates assumed in the determination of the radiological consequences of the design basis accidents are not exceeded. The level of safety of facility operation is unaffected by the proposed change because there is no change in the requirement to prevent excessive leakage outside containment of highly radioactive fluids following a serious transient or accident. Therefore, the removal of SR 4.5.2.c.5 is a non-technical (administrative) change, which will have no adverse impact on public health and safety.

Question 13 3/4.5.2 ECCS Subsystems - Tavg ≥ 300°F

CTS 4.5.2.a.7 and a.8
PTS 4.5.2.a

CTS 4.5.2.a.7 and a.8 are combined into PTS 4.5.2.a. The justification and discussion provided in Attachment 1, CTS 3.5.2 item 11 for convening CTS 4.5.2.a.8 to PTS 4.5.2 a states the following: "Therefore, relocation of this requirement is not expected to result in a reduction in the number of valves tested." This statement is incorrect. CTS 4.5 2.a.8 verifies the correct position of each remote or automatically operated valve regardless of whether the valve is locked, sealed or otherwise secured in position. PTS 4.5.2.a does not require position verification of locked, sealed or otherwise secured in

position remote and automatic valves. This Less Restrictive (L) change has not been justified.

Comment: Provide a discussion and justification for this Less Restrictive (L) change.

Response

The proposed relocation of SR 4.5.2.a.7 (monthly verification of manual valve position except for valves locked sealed or otherwise secured in position) and SR 4.5.2.a.8 (monthly verification of remote or automatically valve position) to PTS SR 4.5.2.a (monthly verification of valve position for all types of valves except for valves locked sealed or otherwise secured in position) is not expected to reduce the number of valves subject to monthly verification of valve position. Automatic or remote valves are not typically locked, sealed or otherwise secured in position. This provision is typically used for manual valves, and this provision already is contained in CTS SR 4.5.2.a.7. In addition, the initial change in the current associated surveillance procedure upon approval of the proposed change is only expected to be the reference to the appropriate Technical Specification Surveillance Requirement. However, the proposed change to SR 4.5.2.a.8 will allow remote and automatic valves that are locked sealed or otherwise secured in position to be excluded from the monthly valve position check. This is a less restrictive change.

Excluding remote and automatic valves that are locked sealed or otherwise secured in position from the monthly valve position check will not adversely affect the probability of valve misalignment. The additional administrative controls necessary to exclude a remote or automatic valve from the monthly check will ensure the valve is initially placed in the correct position, and then prevented from inadvertent operation to the wrong position. The validity of these administrative controls to prevent valve misalignment has been demonstrated to be effective by industry experience. Therefore, this less restrictive change will not adversely impact public health and safety.

Excluding automatic valves that are locked sealed or otherwise secured in position from the automatic actuation check will not adversely affect the probability of automatic valve misalignment. If an automatic valve is locked in a position other than the automatic actuation position, that valve is not operable. If an automatic valve is locked in the automatic actuation position, that valve is already in the correct position and the automatic actuation signal is not required. The additional administrative controls necessary to exclude an automatic valve from the automatic actuation check will ensure the valve is initially placed in the correct position, and then prevented from inadvertent operation to the wrong position. The use of administrative controls to prevent valve misalignment has been demonstrated to be effective by industry experience. Therefore, this less restrictive change will not adversely impact public health and safety.

Question 14 3/4.5.2 ECCS Subsystems - Tavg ≥ 300°F

CTS 4.5.2.e.2 and f

CTS 4.5.2.e.2 and f specify post maintenance testing for safety injection valves and system modifications respectively. These specifications are to be deleted or relocated to the TRM respectively. The justification provided in Attachment 1, CTS 3.5.2 items 20.b and 21 for these Less Restrictive (L and LA) changes is that the "approach is consistent with NUREG-1432, which does not contain a requirement..." for post maintenance testing or system modifications. This is an incorrect statement. The Bases for STS SR 3.0.1 states the following: "Upon completion of maintenance, appropriate post maintenance testing is required to declare equipment OPERABLE." The corresponding surveillance in the CTS is CTS 4.0.1. Also see RAI number 2.

Comment Revise the discussion and justification for this Administrative (A) change.

Response

The proposed removal of SR 4.5.2.e.2 (ECCS throttle valve position) and the relocation of SR 4.5 2.f (ECCS flow balance) to the TRM will remove these post maintenance testing (PMT) requirements from the Millstone Unit No. 2 Technical Specifications. As stated in the original submittal (Attachment 1, Pages 17 and 18), the removal of PMT requirements from Technical Specifications is consistent with the Improved Technical Specifications. This is a correct statement since the Bases are not part of the Technical Specifications as specified in 10 CFR 50.36(a). The Technical Specifications and Bases are integrally related, but they are distinctly different as illustrated by the requirement for NRC approval of all Technical Specification changes in contrast to the ability of the utility to change the Bases in accordance with 10 CFR 50.59.

The current Millstone Unit No. 2 Bases for Technical Specification 4.0 1 (License Amendment No. 271) does contain the same discussion of PMT as in the Improved Technical Specification Bases for SR 3.0.1. A similar change to remove the PMT associated with containment isolation valves was approved for Millstone Unit No. 3 by License Amendment No. 200.[9]

The proposed changes to SRs 4.5.2.e.2 and 4.5.2.f were classified as less restrictive changes in the original submittal. This is a more conservative change classification than the administrative category indicated by the NRC reviewer. As a result, the justifications provided for the proposed changes based on the less restrictive

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(9) V. Nerses (NRC) letter to Dominion Nuclear Connecticut, Inc., "Millstone Power Station, Unit No. 3 – Revision to Technical Specifications to Delete Post-Maintenance Testing Surveillance Requirements of Containment Isolation Valves (TAC No. MB2319)," dated December 21, 2001.

classification are valid for the administrative classification. Post maintenance testing following maintenance activities (e.g., equipment repair, modification, or replacement) is already required to the extent necessary to ensure the activity has not adversely affected component and/or system operability. It is implicit in the definition of operability and does not need to be restated in the surveillance requirement section of Technical Specification. The determination of the appropriate post maintenance testing will be based on the work performed. By allowing flexibility in determining the appropriate testing, based on the work performed, unnecessary post maintenance testing can be avoided. The level of safety of facility operation is unaffected by the proposed change because there is no change in the requirement for the respective equipment and system to be operable. This is a less restrictive change with no impact on safety.

Question 15 3/4 5.3 ECCS Subsystems - Tavg < 300°F

CTS 3.5.3 a and b
PTS 3.5.3 and Associated Bases

The requirements of CTS 3.5.3 which describe what constitutes an OPERABLE high-pressure safety injection subsystem (CTS 3.5.2 a and b) are relocated in PTS 3.5.3 to the Bases. The justification provided in Attachment 1, CTS 3.5.3 item 1 only states that the Bases is the appropriate location for this information. The justification did not provide any reason as to why it is acceptable to relocate this information to the Bases other than the implied consistency with the STS (see RAI number 2).

Comment: Provide a discussion and justification for this Less Restrictive (LA) change.

Response

The proposed relocation of the extra detail and information from the LCO for CTS 3.5.3 (what constitutes an operable ECCS subsystem) can be classified as a Removed Detail or LA change in accordance with NEI 96-06. This is a subset of the Less Restrictive (L) change category in which certain details and information from otherwise retained specifications are removed from the specification and placed in the Bases, FSAR, or other Licensee controlled documents. These changes include details of system design and function, procedural details or methods of conducting surveillances, or alarm or indication-only instrumentation.

The relocation of this extra detail from the LCO for CTS 3.5.3 to the associated Bases is acceptable because it will not affect the requirement for one of the two ECCS trains to be operable. The details of what constitutes an operable ECCS subsystem can be adequately controlled in the Bases, which require change control in accordance with 10 CFR 50.59. In addition, changes to the Technical Specification Bases are now controlled by the Bases Control Program, Technical Specification 6.23, which was recently approved for Millstone Unit No. 2 by License Amendment No. 270. This

approach provides an effective level of regulatory control and provides for a more effective change control process. The level of safety of facility operation is unaffected by the proposed change because there is no change in the requirement to have two ECCS trains operable. This is a less restrictive movement of information change with no impact on safety.

Question 16 3/4.5.3 ECCS Subsystems - Tavg < 300°F

CTS 3.5.3 Action a
PTS 3.5.3 Action a

CTS 3.5.3 Action a requires that if an inoperable high-pressure safety injection subsystem cannot be restored to OPERABLE status within 1 hour, then the plant must be in COLD SHUTDOWN within the next 20 hours. PTS 3.5.3 Action a changes the 20 hours to 24 hours based on the premise that this is the standard time interval used in most Technical Specifications, including CTS 3.0.3 and consistency with the STS (Attachment 1, CTS 3.5.3 item 3). Additional justification was also provided in Attachment 1 "Safety Summary- LCO and Action Requirement Changes which stated that "As specified in Regulatory Guide (RG) 1.177, Licensee initiated Technical Specification changes (surveillance frequencies and allowed outage times) that are consistent with currently approved staff positions (e.g., NUREG-1432) do not require the submittal of risk information in support of the proposed changes." While the RG does not require a risk evaluation for proposed surveillance frequency and AOT changes that are consistent with approved staff positions, it does not alleviate the licensee's responsibility to provide an adequate justification for the change as implied by the submittal. These justifications are unacceptable for this Less Restrictive (L) change. See RAI number 2.

Comment Provide a discussion and justification for this Less Restrictive (L) change

Response

The proposed change in the shutdown time for an inoperable ECCS subsystem from 20 hours to 24 hours is a less restrictive change. The purpose of the shutdown times specified in Technical Specifications is to provide reasonable time periods to shut down the plant if the LCO requirements are not restored within the AOT. No change in the time to restore one ECCS subsystem to an operable status (AOT of 1 hour) was proposed

The change from 20 hours to 24 hours to reach Cold Shutdown (MODE 5) for an inoperable ECCS subsystem was proposed since this time frame is consistent with the time period already specified in the Millstone Unit No. 2 Technical Specifications for the transition from Hot Shutdown (MODE 4) to Cold Shutdown (e.g., Technical Specifications 3.0.3 and 3.4.1.3). This change is reasonable based on operating

experience to reach Cold Shutdown in an orderly manner, without challenging plant systems. In addition, the proposed change will eliminate any confusion for the plant operators associated with a non-standard shutdown time requirement.

As previously stated in Attachment 1, page 33 of the original submittal, DNC has performed a qualitative evaluation of the proposed change and determined it would not adversely impact plant safety. Allowing an additional 4 hours to reach Cold Shutdown if the required ECCS subsystem is not restored to operable status is expected to reduce plant risk by providing the operators with additional time to complete a controlled shutdown. Therefore, this less restrictive change will not adversely impact public health and safety.

Question 17 3/4.6.2 1 Containment Spray and Cooling Systems

CTS 3.6 2.1 Action a
PTS 3.6.2.1 Action a

CTS 3.6.2.1 Action a requires that if the inoperable containment spray train cannot be restored to OPERABLE status within the specified AOT, then the plant must be in HOT SHUTDOWN within the next 12 hours." PTS 3.6.2.1 Action a changes the shutdown requirement to "HOT STANDBY" within the next six hours and reduce pressurizer pressure to less than 1750 psia within the following six hours. The justification in Attachment 1, CTS 3.6.2.1 item 1 provided for this change states that "The current requirement to be in HOT SHUTDOWN is not consistent with the applicability of this specification (Mode 3 with pressurizer pressure ~ 1750 psia). The justification further states a consistency argument (see RAI number 2) and states that there is no technical change since it is consistent with the current applicability and the total shutdown time of 12 hours. This is incorrect. CTS 3.6.2.1 Action a does not specify when the plant is to be in HOT STANDBY only HOT SHUTDOWN. Thus this change involves a technical change which is a More Restrictive (M) change (be in HOT STANDBY within six hours).

Comment: Provide a discussion and justification for this More Restrictive (M) change.

Response

The proposed change to CTS Action a. will resolve a discrepancy between the action requirement and the applicability of the specification. Action a. currently requires the plant to be placed in Hot Shutdown (MODE 4) within 12 hours after the current AOT of 72 hours expires. However, the applicability of Technical Specification 3.6.2.1 for the Containment Spray System only extends to Hot Standby (MODE 3) with pressurizer pressure $\geq$ 1750 psia. As a result, it is only necessary to bring the plant to MODE 3 with pressurizer pressure < 1750 psia within 12 hours after the AOT expires.

The proposed change to Action a. divides the original 12 hours into two equal six-hour blocks The first six-hour block is the time to reach Hot Standby, and the second six-hour block is the time to reduce pressurizer pressure to < 1750 psia. The total time of 12 hours to clear the applicability of Technical Specification 3.6.2.1 has not changed. However, dividing the 12 hour block by adding an interim step to be in Hot Standby within six hours, is a more restrictive change.

The proposed interim step is consistent with the standard action time provided in numerous Technical Specifications (e.g., Technical Specifications 3.0.3, 3.4.1.1, and 3.8.1.1) to reach Hot Standby from a power operating condition. It will not result in a new approach to plant operation with respect to compliance with Technical Specifications. This change will provide additional assurance the plant will reach the desired conditions within the time allowed, in an orderly manner, with the least impact on plant systems. It will have no adverse impact on plant safety because it allows for a controlled shutdown.

Question 18 3/4.6.2.1 Containment Spray and Cooling Systems

CTS 4.6.2 1.1 a and 4.6.2.1.2
PTS 4.6.2.1.1.b and c

CTS 4.6.2.1.1.a requires that specified components of each containment spray train be demonstrated OPERABLE on a frequency of "at least once per 31 days on a STAGGERED TEST BASIS." PTS 4.6.2.1.1.b and c changes the 31 day frequency to either "pursuant to specification 4.0.5" (92 day frequency) or 18 months. The justification in Attachment 1, CTS 3.6.2.1 and in the "Safety Summary" base the changes on consistency with the STS, industry standards and CTS (see RAI number 2).

Comment: Provide a discussion and justification based on the technical merits of the change and its applicability to the MP2 specifications.

Response

The proposed changes to CTS 4.6.2.1.1.a that resulted in PTS 4.6.2.1.1.b and c are associated with the containment spray (CS) pumps and automatically actuated valves. These changes can be combined together into two different groups.

The first group (PTS 4.6.2.1.1.b) proposes to change the frequency of the CS pump operability test from monthly to a frequency controlled by the IST Program (Technical Specification 4.0.5). These changes are expected to result in a reduction in the testing frequency since the IST Program specifies a quarterly testing frequency, unless pump performance indicates more frequent testing is required. These are less restrictive changes.

The current Technical Specification requirements to test ASME Class 1, 2, and 3 pumps at a monthly frequency were contained in the original Millstone Unit No 2 Technical Specifications issued in 1975. This was consistent with the ASME Code Section XI criteria that remained in effect through the winter of 1979. Beginning with the 1980 edition of the ASME Code, the testing of these type of pumps and their associated valves is required only once per quarter.

In 1984, the NRC initiated a Technical Specification Improvement Program. One of the recommendations that came out of this program, as put forth in NUREG-1366, was that the amount of testing at power should be reduced. In particular, NUREG-1366 recommended that "...safety related pump testing that is done more often (e.g. monthly) than required in the current versions of the ASME Code be performed quarterly."[10]

Testing of these CS pumps on a monthly frequency increases the unavailability of these pumps since they must be removed from service to test. Even though the monthly testing frequency may lead to earlier detection of inoperable equipment, the additional pump starts will cause more equipment degradation. Based on historical pump performance, the benefit of monthly surveillance testing to detect inoperable equipment earlier is not expected to be significant enough to override the reduction in equipment degradation from less frequent testing. In addition, the IST Program does contain provisions to trend equipment performance and require more frequent testing if equipment degradation is detected.

Testing of these CS pumps on a quarterly frequency will also result in a significant reduction in personnel radiation exposure.

The expected improvement in plant safety, reduction in equipment degradation, and reduction personnel radiation exposure is supported by current industry practices. As previously indicated, the ASME Code Section XI quarterly testing frequency has been in effect since 1980 and is incorporated in the Improved Standard Technical Specifications. There have been no indications, based on operating experience, that quarterly testing has had an adverse impact on equipment unavailability or plant safety. Therefore, this less restrictive change will not adversely impact public health and safety.

The second group proposes to change the frequency of cycling testable automatic valves cycle from monthly to quarterly, as controlled by the IST Program, and to change the automatic valve actuation on a containment sump actuation signal from monthly to 18 months (PTS 4.6.2.1.1.c). The operation of the affected valves will be tested on the proposed quarterly basis in accordance with the IST Program, and the automatic

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[10] G. F. Wunder (NRC) letter to Power Authority of the State of New York, "Issuance of Amendment for Indian Point Nuclear Generating Unit No. 3 (TAC No. M97672)," dated March 2, 1998.

actuation logic circuitry will continue to be tested in accordance with Technical Specification 3.3.2.1, "Instrumentation - Engineered Safety Feature Actuation System Instrumentation." The verification of the affected valves to respond to an automatic signal will be changed. These are less restrictive changes. A review of the past performance of the associated valves to automatically actuate has not indicated a failure rate that would warrant a monthly testing frequency. The proposed frequency reduction for testable automatic valve stroke testing and automatic actuation testing will provide the same benefits (improved plant safety, reduced equipment degradation, and reduced personnel radiation exposure) as the proposed change to a quarterly frequency for CS pump testing. There have been no indications, based on operating experience, that automatic actuation testing at an 18-month frequency has had an adverse impact on equipment reliability or plant safety. Therefore, this less restrictive change will not adversely impact public health and safety.

Question 19 3/4.6.2.1 Containment Spray and Cooling Systems

CTS 4.6.2.1.1.a and 4.6.2.1.2
PTS 4.6.2.1.1 a, b, and c, and 4.6.2.1.2.a and b

CTS 4.6.2.1.1.a and 4.6.2.1.2 require that specified components of each containment spray train and each containment air re-circulation cooling unit be demonstrated OPERABLE on a frequency of "at least once per 31 days on a STAGGERED TEST BASIS." PTS 4.6.2.1.1.a. b, and c and 4.6.2.1.2.a and b delete the requirements for testing on a "STAGGERED TEST BASIS." The justification is in Attachment 1.

CTS 3.6.2.1 is based on the premise that there is little or no benefit in specifying performance of the surveillance on a staggered test basis. This justification is inadequate. The advantage of testing on a staggered test basis is that the chances of a common mode failure and equipment unavailability are reduced.

Comment: Provide a discussion and justification for this Less Restrictive (L) change.

Response

The proposed change to SRs 4.6.2.1.1.a and 4.6.2.1.2 will remove the requirement to perform the required testing on a staggered test basis. Many of the older Technical Specifications specified testing on a staggered basis to reduce the potential for common mode failures since the testing of each train would be staggered at a frequency equal to one half of the specified interval. This approach was consistent with the historical definition, which is contained in the Millstone Unit No. 2 Technical Specifications as Definition 1.21 and in the NUREG-0212 (Rev. 2 Fall 1980).

A staggered test basis shall consist of:

a. A test schedule for *n* systems, subsystems, trains or other designated components obtained by dividing the specified test interval into *n* equal subintervals, and
b. The testing of one system, subsystem, train or other designated component at the beginning of each subinterval.

The benefit of testing on a staggered test basis to the prevention of common mode failures was not significant enough to justify the additional administrative burden associated with scheduling the surveillance tests. As a result, the requirement to test on a staggered test basis was not carried forward for most of the surveillance requirements during the development of the Improved Standard Technical Specifications. In addition the definition was changed significantly during this conversion process. NUREG-1432 (Rev. 2 April 2001) provides the following current definition for staggered test basis:

> A STAGGERED TEST BASIS shall consist of the testing of one of the systems, subsystems, channels, or other designated components during the interval specified by the Surveillance Frequency, so that all systems, subsystems, channels, or other designated components are tested during *n* Surveillance Frequency intervals, where *n* is the total number of systems, subsystems, channels, or other designated components in the associated function.

The proposed change will remove the requirement to test two train systems (e.g., CS) on a staggered test basis. This is a less restrictive change. It is acceptable because the proposed testing on a non-staggered frequency will continue to verify the system performs as required. It is common practice at Millstone Unit No. 2, as well as most other nuclear facilities, to test the safety systems by trains. For example, ECCS Train A would be tested with CS Train A during the same work window, although not necessarily at the exact same time. Normally, different components on different trains are not tested on the same day. This is a good operating practice because it prevents components from opposite trains from being inoperable at the same time. In addition, testing on a non-staggered frequency will provide increased flexibility in the scheduling of surveillance testing while not changing the overall surveillance frequency (any surveillance frequency changes are addressed separately). Therefore, this less restrictive change will not adversely impact public health and safety.

Question 20 3/4 6 2.1 Containment Spray and Cooling Systems

CTS 4.6.2.1.1.a.1 and 4.6.2.1.2.a

CTS 4.6.1.1.1.a.1 and 4.6.2.1.2.a specify that each containment spray pump and each containment air re-circulation and cooling unit be started from the control room.

Attachment 1, CTS 3.6.2.1 items 2 and 10 a state that these requirements are to be deleted since this is where these components are normally started, and that removal will not adversely impact test performance. The staff agrees that this is a detail which may not be required to be in the technical specifications, but it does not agree that it can be deleted. Since the discussion in Attachment 1, CTS 3.6.2.1 states that these components are normally started from the control room, it is implied that there are other locations at the plant where these components can be started. The staff does not know why this particular test detail was included in the MP2 CTS other than to possibly demonstrate the ability to start the components from the control room under accident conditions. The staff believes that this detail should be relocated to a licensee controlled document (i.e., the Bases for 3/4.6.2.1).

Comment: Revise the Bases for 3/4.6.2.1 to include this detail and provide a discussion and justification for this Less Restrictive (L) change.

Response

The CS pumps and the containment air recirculation (CAR) fans can be started locally at the respective breaker and remotely from the main control room. Plant operators normally operate these components from the control room using the main control board switches. Local operation of the associated breakers is not the preferred method to start these components. There are no other locations where these components can be operated.

The current Technical Specification requirements to start the CS pumps and the CAR fans from the control room were contained in the original Millstone Unit No. 2 Technical Specifications issued in 1975. This was before the issuance of NUREG-0212, "Standard Technical Specifications for Combustion Engineering Pressurized Water Reactors." A review of NUREG-0212, Rev. 2 Fall 1980, and NUREG-1432, Rev. 2, April 2001 indicates no requirement to start these components from the control room. A review of historical correspondence did not produce any documentation to support why this was added to the original Technical Specifications. It appears this requirement was added to the original Millstone Unit No. 2 Technical Specifications consistent with the historical practice to include additional detail in the surveillance requirement, not to demonstrate the ability to operate this equipment from the control room under accident conditions.

The purpose of the proposed tests (SR 4.6.2.1.1.b and SR 4.6.2.1.2.a) is to verify proper operation of the component and to detect equipment degradation. The detail of how to start the CS pumps for the quarterly operability test and the CAR fans for the monthly operability test can be adequately controlled by the respective surveillance procedures. It is not necessary to include specific details related to starting these components in the Technical Specifications or the associated Bases. The proposed removal of this detail from the surveillance requirements is acceptable because it will

not affect the requirement for two CS trains and two containment cooling trains to be operable. The level of safety of facility operation is unaffected by the proposed changes because there is no change in the requirement to have two CS trains and two containment cooling trains operable. This is a less restrictive change with no impact on safety.

Question 21 3/4.6.2.1 Containment Spray and Cooling Systems

CTS 4.6.2.1.1.a.5
PTS 4.6.2.1.1.c, 4.6.2.1.1.d, and 4.6.2.1.2.c

CTS 4.6.2.1.1.a.5 requires that the containment sump isolation valves open on a sump re-circulation actuation signal, and that a re-circulation mode flow path via an OPERABLE shutdown cooling heat exchanger is established. The corresponding surveillance in the PTS (PTS 4.6 2.1. 1.c) verifies the valve actuation by an actual or simulated actuation signal. In addition, two new surveillances are added which verify that each containment spray pump and containment air re-circulation and cooling unit automatically starts on an actual or simulated actuation signal (PTS 4.6.2.1.1.d and 4.6.2.1.2.c respectively). While the requirements of CTS 4.6.2.1.1.a.5 would allow the use of an actual or simulated actuation signal (an Administrative (A) change), the justification in Attachment 1 provided for this change as well as the other More Restrictive (M) changes is that change "will provide additional flexibility in test performance." Additional flexibility is not an acceptable justification for allowing an actual actuation signal to be used for these Administrative (A) and More Restrictive (M) changes.

Comment: Provide a discussion and justification for these Administrative (A) and More Restrictive (M) changes.

Response

The proposed wording change was from requiring the use of a sump recirculation actuation signal (CTS SR 4.6.2.1.1.a.5) to demonstrate automatic component actuation, to allowing the use of either an actual or simulated actuation signal to demonstrate automatic component actuation (PTS SR 4.6.2.1.1.c). A test signal is technically equivalent to a simulated signal. Both are generated either within the instrumentation, or by an external device that simulates the monitored parameter. As a result of this artificial signal and the subsequent generation of an actuation signal, the control circuit for the affected component will cause the component to respond as designed (e.g., valve open/close). The automatic actuation of the valves addressed by this surveillance requirement is currently checked by use of the installed test features of the associated instrumentation system. However, the control circuitry for the actuated components responds the same way to an actuation signal generated by the test equipment as to an actuation signal generated in response to actual plant conditions.

The same control contact is actuated regardless of the source of the actuation signal (simulated or actual). As a result, the justification for the proposed wording change is that it would not result in any technical change to the verification of the automatic actuation feature (Attachment 1, Page 21). This is a non-technical or administrative change (per NEI 96-06). Therefore, this administrative change will not adversely impact public health and safety.

Proposed SR 4.6.2.1.1.c will change the frequency of the testing the automatic operation of the containment sump isolation valves from monthly to 18 months. The proposed 18-month frequency is appropriate since the operation of the affected valves will be tested on the proposed quarterly basis in accordance with the IST Program, and the automatic actuation logic circuitry will continue to be tested in accordance with Technical Specification 3.3.2.1, "Instrumentation - Engineered Safety Feature Actuation System Instrumentation." Only the verification of the affected components to respond to an automatic signal will be changed. A review of the past performance of the associated valves to automatically actuate has not indicated a failure rate that would warrant a monthly testing frequency. The proposed frequency reduction for automatic actuation testing will provide the same benefits (improved plant safety, reduced equipment degradation, and reduced personnel radiation exposure) as the proposed change to a quarterly frequency for CS pump testing. In addition, the proposed frequency is supported by current industry practices as is indicated by consistency with the Improved Standard Technical Specifications. There have been no indications, based on operating experience, that automatic actuation testing at an 18-month frequency has had an adverse impact on equipment reliability or plant safety. Therefore, this less restrictive change will not adversely impact public health and safety.

Proposed SRs 4.6.2.1.1.d and 4.6.2.1.2.c will add requirements to periodically verify automatic operation of the CS pumps and CAR fans. The automatic operation of these components is an important accident mitigation feature that is credited in the respective safety analyses. Even though this capability is already tested periodically, it is appropriate to add surveillance requirements. The use of an actual or simulated signal to demonstrate automatic actuation is appropriate for the same reasons previously provided. The proposed 18 month frequency is appropriate since CS pump operation will be tested on the proposed quarterly basis in accordance with the IST Program, CAR fan operation will continue to be tested monthly, and the automatic actuation logic circuitry will continue to be tested in accordance with Technical Specification 3.3.2.1, "Instrumentation - Engineered Safety Feature Actuation System Instrumentation." A review of the past performance of the associated pumps and fans to automatically actuate has not indicated a failure rate that would warrant a shorter testing frequency. The proposed frequency for automatic actuation testing, when compared to a shorter frequency, will improve plant safety with no adverse impact on equipment degradation and personnel radiation exposure. In addition, the proposed frequency is supported by current industry practices as is indicated by consistency with the Improved Standard Technical Specifications. The majority of the U.S. nuclear facilities follow this 18-month

testing schedule for automatic equipment actuation. There have been no indications, based on operating experience, that automatic actuation testing at an 18-month frequency has had an adverse impact on equipment unavailability or plant safety. Therefore, these more restrictive changes, which will provide additional assurance of proper CS pump and the CAR fan operation for design basis accident mitigation, will not adversely impact public health and safety.

Question 22 3/4.6.2.1 Containment Spray and Cooling Systems

CTS 4.6.2 1.1.a.4, 4.6.2.1.1.b, 4.6.2.1.1.c

Attachment 1, CTS 3.6.2.1 items 3, 6, and 7 state that CTS 4.6.2.1.1.a.4, 4.6.2.1.1.b and 4.6.2.1.1.c respectively, are deleted. This is incorrect. The discussions associated with these items state that they are to be relocated to the IST Program, or CTS 6.13. Thus, the changes to CTS 4.6.2.1.1.a.4, and 4.6.2.1.1.c would be considered a Less Restrictive (LA) change since these requirements are relocated to licensee controlled documents, and the change to CTS 4.6.2.1. 1.c would be considered an Administrative (A) change since the requirement is still in the technical specifications.

Comment: Revise the discussions and justifications associated with these Administrative and Less Restrictive (LA) changes.

Response

The proposed changes to CTS SRs 4.6.2.1.1.a.4 (monthly cycling of testable automatic valves), 4.6.2.1.1.b (18 month cycle of non-testable power operated valves), and 4 6.2.1.1.c (verification of leakage rates from part of system potentially containing highly radioactive post accident fluids outside containment) were classified as deletions since the specific surveillance requirements would not be retained. However, these changes are being classified as relocation since the changes credit the IST Program (Technical Specification 4.0.5) or the program for Systems Integrity (Technical Specification 6.13) for continued performance.

The proposed removal of SR 4.6.2.1.1.a.4 (monthly cycling of testable automatic valves) and SR 4.6.2.1.1.b (18 month cycling of non-testable power operated valves) will relocate these requirements to the IST Program (Technical Specification 4.0.5), which will determine the required test frequency. This change will result in a reduction in the testing frequency for the valves currently tested by SR 4.6.2.1.1.a.4 since the IST Program specifies a quarterly testing frequency for valves testable at power. No reduction in the testing frequency for the valves currently tested by SR 4.6.2.1.1.b will occur since the IST Program specifies a cold shutdown (assumed to be 18 months) frequency for valves not testable at power. In addition, the valve population subject to cycle testing may be reduced since not all automatic or power operated valves are required to change position to mitigate design basis events or support safe shutdown

conditions Automatic and power operated valves that are not required to change position are classified as passive valves by the IST Program and are not required to be cycled. The reduction in testing frequency and the potential reduction in valve population are less restrictive changes.

The current Technical Specification requirement to cycle testable system valves at a monthly frequency was contained in the original Millstone Unit No. 2 Technical Specifications issued in 1975. However the ASME Code only requires a quarterly cycle test for safety related valves testable at power. For safety related valves not testable at power, a cold shutdown frequency is usually specified.

Testing of these valves on a monthly frequency increases the unavailability of the associated system since the flowpath must be removed from service to test. Even though the monthly testing frequency may lead to earlier detection of inoperable equipment, the additional valve cycling will cause more equipment degradation. Based on historical valve performance, the benefit of monthly surveillance testing to detect inoperable equipment earlier is not expected to be significant enough to override the reduction in equipment degradation from less frequent testing. In addition, the IST Program does contain provisions to trend equipment performance and require more frequent testing if equipment degradation is detected.

Testing of these valves on a quarterly frequency will also result in a significant reduction in personnel radiation exposure.

The expected improvement in plant safety, reduction in equipment degradation, and reduction in personnel radiation exposure is supported by current industry practices As previously indicated, the ASME Code Section XI quarterly testing frequency has been in effect since 1980 and is incorporated in the Improved Standard Technical Specifications. The majority of the U.S. nuclear facilities follow this quarterly testing schedule. There have been no indications, based on operating experience, that quarterly testing has had an adverse impact on equipment unavailability or plant safety. In addition, the potential reduction in valve population will have no adverse impact on plant safety since a valve can only be excluded if it performs no safety function. The elimination of unnecessary valve testing will provide the same benefits as the reduction in testing frequency from monthly to quarterly. Therefore, these less restrictive changes will not adversely impact public health and safety.

The proposed removal of SR 4.6.2.1.1.c will not result in any technical change since the requirement to prevent excessive leakage from portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident (e.g., post LOCA recirculation phase) is already addressed by Technical Specification 6.13, "Systems Integrity." This specification requires a program to be implemented "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." Millstone Unit No. 2 has implemented the program required by Technical Specification 6.13. This program, which is currently contained in the Millstone Unit No. 2 TRM, does address the CS System as currently specified in SR 4.6.2.1.1.c. This program is used to ensure that the leakage rates assumed in the determination of the radiological consequences of the design basis accidents are not exceeded. The level of safety of facility operation is unaffected by the proposed change because there is no change in the requirement to prevent excessive leakage outside containment of highly radioactive fluids following a serious transient or accident. Therefore, the removal of SR 4.6.2.1.1.c is a non-technical (administrative) change, which will have no adverse impact on public health and safety.

Question 23 3/4.6.2.1 Containment Spray and Cooling Systems

CTS 4.6.2.1.1.a.5 and a.6
PTS 4.6.2.1.1.a and 4.6.2.1.1.c

CTS 4.6.2 1.1.a.5 and a.6 are converted to PTS 4.6.2.1.1.a and 4.6.2.1.1.c. The justification and discussion provided in Attachment 1, CTS 3.6.2.1 item 5 for converting CTS 4.6.2.1.1.a.6 to PTS 4.6.2.1.1.a states the following: "Relocation of this requirement will not result in a reduction in the number of valves tested. This statement is incorrect. CTS 4.6.2.1.1.a.6 verifies the correct position of each remote or automatically operated valve regardless of whether the valve is locked, sealed or otherwise secured in position. No justification is provided to the similar change to CTS 4.6.2.1.1.a.5 PTS 4.6.2.1.1.a and 4.6.2.1.1.c do not require position verification or actuation of locked, sealed or otherwise secured in position remote and automatic valves. This Less Restrictive (L) change has not been justified.

Comment: Provide a discussion and justification for this Less Restrictive (L) change.

Response

The proposed relocation of SR 4.6.2.1.1.a.6 (monthly verification of accessible manual valve position except for valves locked sealed or otherwise secured in position and all remote or automatically operated valve position) to PTS SR 4.6.2.1.1.a (monthly verification of valve position for all types of valves except for valves locked sealed or otherwise secured in position), is not expected to reduce the number of valves subject to monthly verification of valve position. Automatic or remote valves are not typically locked, sealed or otherwise secured in position. This provision is typically used for manual valves, and this provision already is contained in CTS SR 4.6.2.1.1.a.6 for manual valves. In addition, the initial change in the current associated surveillance procedure upon approval of the proposed change is only expected to be the reference to the appropriate Technical Specification Surveillance Requirement. However, the proposed change to SR 4.6.2.1.1.a.6 will allow remote and automatic valves that are

locked sealed or otherwise secured in position to be excluded from the monthly valve position check. This is a less restrictive change.

Excluding remote and automatic valves that are locked sealed or otherwise secured in position from the monthly valve position check will not adversely affect the probability of valve misalignment. The additional administrative controls necessary to exclude a remote or automatic valve from the monthly check will ensure the valve is initially placed in the correct position, and then prevented from inadvertent operation to the wrong position. This validity of these administrative controls to prevent valve misalignment has been demonstrated by industry experience and the incorporation in the Improved Technical Specifications. Therefore, this less restrictive change will not adversely impact public health and safety.

The proposed relocation of SR 4.6.2.1.1.a. (monthly verification of the automatic actuation of the containment sump isolation valves) to PTS SR 4.6.2.1.1.c (18 month verification of automatic valve actuation for all CS valves except for valves locked sealed or otherwise secured in position), is not expected to reduce the number of valves subject to monthly verification of valve position. Automatic valves are not typically locked, sealed or otherwise secured in position. In addition, the initial change in the current associated surveillance procedure upon approval of the proposed change is only expected to be the reference to the appropriate Technical Specification Surveillance Requirement. However, the proposed change to SR 4.6.2.1.1.c will allow automatic valves that are locked sealed or otherwise secured in position to be excluded from the automatic actuation check. This is a less restrictive change.

Excluding automatic valves that are locked sealed or otherwise secured in position from the automatic actuation check will not adversely affect the probability of automatic valve misalignment. If an automatic valve is locked in a position other than the automatic actuation position, that valve is not operable. If an automatic valve is locked in the automatic actuation position, that valve is already in the correct position and the automatic actuation signal is not required. The additional administrative controls necessary to exclude an automatic valve from the automatic actuation check will ensure the valve is initially placed in the correct position, and then prevented from inadvertent operation to the wrong position. This validity of these administrative controls to prevent valve misalignment has been demonstrated by industry experience and the incorporation in the Improved Technical Specifications. Therefore, this less restrictive change will not adversely impact public health and safety.

Question 24 3/4.6.2.1 Containment Spray and Cooling Systems

CTS 4.6.2.1.1.d
PTS 4.6 2.1.1.e and Associated Bases

CTS 4.6.2.1.1.d specifies that unobstructed flow through the spray nozzles be demonstrated by an air or smoke flow test. Attachment 1, CTS 3.6.2.1 item 8 states that the details on the air or smoke flow test will not be retained in the TS. No justification is provided as to why they should not be retained or why they have been relocated to the Bases for PTS 3.6.2.1.

Comment: Provide a discussion and justification for this Less Restrictive (LA) change.

Response

The proposed removal of the extra detail and information from CTS SR 4.6.2.1.1.d (air or smoke flow test) was classified as a deletion since this information would no longer appear in the respective surveillance requirement. However, following the guidance contained in NEI 96-06, this type of change is classified as "Removed Detail." This is a subset of the Less Restrictive (L) change category in which certain details and information from otherwise retained specifications are removed from the specification and placed in the Bases, FSAR, or other Licensee controlled documents. Removed detail changes are designated as LA (generic). These changes include details of system design and function, procedural details or methods of conducting surveillances, or alarm or indication-only instrumentation.

The relocation of this extra detail from CTS SR 4.6.2.1.1.d to the associated Bases is acceptable because it will not affect the requirement for the containment spray nozzles to be operable (unobstructed). The details of test performance can be adequately controlled in the Bases, which require change control in accordance with 10 CFR 50.59. In addition, changes to the Technical Specification Bases are now controlled by the Bases Control Program, Technical Specification 6.23, which was recently approved for Millstone Unit No. 2 by License Amendment No. 270. This approach provides an effective level of regulatory control and provides for a more effective change control process. The level of safety of facility operation is unaffected by the proposed change because there is no change in the requirement to have the containment spray nozzles operable. This is a less restrictive movement of information change (LA) with no impact on safety.

Question 25 3/4.6.2.1 Containment Spray and Cooling Systems

CTS 4 6.2.1.1.d
PTS 4.6.2.1.1.e

CTS 4.6.2.1. 1.d specifies that the unobstructed spray nozzle flow test be performed on a frequency of "at least once per 5 years." PTS 4.6. 1.1.e changes this frequency to "at least once per 10 years." The justification given for this Less Restrictive (L) change is consistency with Generic Letter 93-05 and the STS (see RAI number 2).

Comment: Provide a discussion and justification based on the technical merits of the change and its applicability to the MP2 specifications.

Response

In 1984 the NRC initiated Technical Specification Improvement Program One of the recommendations that came out of that program, as put forth in NUREG-1366, was that the amount of testing at power should be reduced. Specific recommendations from that program were contained in Generic Letter (GL) 93-05.[11] One of the recommended Technical Specification changes contained in that GL was to increase the frequency of containment spray nozzle testing from 5 years to 10 years. The proposed change to CTS 4.6.2.1.1.d, which will increase the test frequency from 5 years to 10 years is based on the recommendations of GL 93-05.

Included in the GL 93-05 discussion of the spray nozzle testing frequency change was a reference to an event at San Onofre Unit No. 1 where the spray nozzles became clogged due to the use of a sodium silicate coating material on the associated carbon steel piping The NRC stated in GL 93-05, the San Onofre event does not alter the recommendation to change the frequency to 10 years However, plants with carbon steel piping must justify any frequency change because of the San Onofre event. In the original submittal, DNC stated the associated piping and nozzles are stainless steel (Attachment 1, Page 23). Therefore the proposed 10-year surveillance frequency is consistent with the recommendations of GL 93-05.

DNC has reviewed historical performance of the containment spray nozzles. No historical issues were identified that would warrant continued testing at the current 5 year frequency. The proposed increase to a 10-year frequency will also result in a reduction in personnel radiation exposure. There have been no indications, based on operating experience, that changing the frequency to 10 years will have an adverse

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[11] Generic Letter 93-05, "Line-Item Technical Specifications Improvements To Reduce Surveillance Requirements For Testing During Power Operation," dated September 27, 1993

impact on equipment reliability or plant safety. Therefore, this less restrictive change will not adversely impact public health and safety.

Question 26 3/4.7.1.2 Auxiliary Feedwater Pumps

CTS 4.7.1.2.a
PTS 4.7.1.2.b

CTS 4.7.1.2.a requires that each auxiliary feedwater pump be demonstrated OPERABLE on a frequency of "at least once per 31 days." PTS 4.7 .1.2.b changes the 31 day frequency to "pursuant to specification 4.0.5" (92 day frequency). The justifications in Attachment 1, CTS 3.7.1.2 item 1.a and in the "Safety Summary" base the changes on consistency with the STS and industry standards (see RAI number 2).

Comment: Provide a discussion and justification based on the technical merits of the change and its applicability to the MP2 specifications.

Response

The proposed changes to CTS SR 4.7.1.2.a will revise frequency of the auxiliary feedwater (AFW) pump operability test from monthly to a frequency controlled by the IST Program (Technical Specification 4.0.5). These changes are expected to result in a reduction in the testing frequency since the IST Program specifies a quarterly testing frequency, unless pump performance indicates more frequent testing is required. These are less restrictive changes.

The current Technical Specification requirements to test ASME Class 1, 2, and 3 pumps at a monthly frequency were contained in the original Millstone Unit No. 2 Technical Specifications issued in 1975. This was consistent with the ASME Code Section XI criteria that remained in effect through 1979. Beginning with the 1980 edition of the ASME Code, the testing of these type of pumps and their associated valves is required only once per quarter.

In 1984, the NRC initiated a Technical Specification Improvement Program. One of the recommendations that came out of this program, as put forth in NUREG-1366, was that the amount of testing at power should be reduced. In particular, NUREG-1366 recommended that "...safety related pump testing that is done more often (e.g. monthly) than required in the current versions of the ASME Code be performed quarterly "[12]

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(12) G F. Wunder (NRC) letter to Power Authority of the State of New York, "Issuance of Amendment for Indian Point Nuclear Generating Unit No. 3 (TAC No. M97672)," dated March 2, 1998.

Even though the monthly testing frequency may lead to earlier detection of inoperable equipment, the additional pump starts will cause more equipment degradation. Based on historical pump performance, the benefit of monthly surveillance testing to detect inoperable equipment earlier is not expected to be significant enough to override the reduction in equipment degradation from less frequent testing. In addition, the IST Program does contain provisions to trend equipment performance and require more frequent testing if equipment degradation is detected.

Testing the AFW pumps on a quarterly frequency will also result in a significant reduction in personnel radiation exposure.

The expected improvement in plant equipment availability, reduction in equipment degradation, elimination of burden on personnel, and reduction personnel radiation exposure is supported by current industry practices. As previously indicated, the ASME Code Section XI quarterly testing frequency has been in effect since 1980 and is incorporated in the Improved Standard Technical Specifications. The majority of the U S. nuclear facilities follow this quarterly testing schedule. There have been no indications, based on operating experience, that quarterly testing has had an adverse impact on equipment reliability or plant safety. Therefore, this less restrictive change will not adversely impact public health and safety.

Question 27 3/4.7.1.2 Auxiliary Feedwater Pumps

CTS 4.7.1.2.a.1

CTS 4.7.1.2.a. 1 specifies that each auxiliary feedwater pump be started from the control room. Attachment 1, CTS 3.7.1.2 item 1.b states that this requirement is to be deleted since this is where this component is normally started, and that removal will not adversely impact test performance. The staff agrees that this is a detail which may not be required to be in the technical specifications, but it does not agree that it can be deleted. Since the discussion in Attachment 1, CTS 3.7.1.2 states that this component is normally started from the control room, it is implied that there are other locations at the plant where this component can be started. The staff does not know why this particular test detail was included in the MP2 CTS other than to possibly demonstrate the ability to start the component from the control room under accident conditions. The staff believes that this detail should be relocated to a licensee controlled document, i.e., the Bases for 3/4.7.1.2.

Comment. Revise the Bases for 3/4.7.1.2 to include this detail and provide a discussion and justification for this Less Restrictive (L) change.

Response

The motor driven AFW pumps can be started locally at the respective breaker, remotely from the main control room, and remotely from the hot shutdown panel (C-21). The turbine driven AFW pump can be started locally at the pump, and remotely from the main control room. Plant operators normally operate these pumps from the control room using the main control board switches. Local operation of the motor driven pump breakers, remote operation of the motor driven pumps from the hot shutdown panel, and local operation of the turbine driven pump are not the preferred methods to start these pumps. There are no other locations where these pumps can be operated.

The current Technical Specification requirements to start the AFW pumps from the control room were contained in the original Millstone Unit No. 2 Technical Specifications issued in 1975. This was before the issuance of NUREG-0212, "Standard Technical Specifications for Combustion Engineering Pressurized Water Reactors." A review of NUREG-0212, Rev. 2 Fall 1980, and NUREG-1432, Rev. 2, April 2001 indicates no requirement to start these pumps from the control room. A review of historical correspondence did not produce any documentation to support why this was added to the original Technical Specifications. It appears this requirement was added to the original Millstone Unit No. 2 Technical Specifications consistent with the historical practice to include additional detail in the surveillance requirement, not to demonstrate the ability to operate this equipment from the control under accident conditions.

The purpose of the proposed test (SR 4.7.1.2.b) is to verify proper operation of the pumps and to detect equipment degradation. The detail of how to start the AFW pumps for the quarterly operability test can be adequately controlled by the respective surveillance procedures. It is not necessary to include specific details related to starting these pumps in the Technical Specifications or the associated Bases. The proposed removal of this detail from the surveillance requirements is acceptable because it will not affect the requirement for three AFW pumps to be operable. The level of safety of facility operation is unaffected by the proposed changes because there is no change in the requirement to have three AFW pumps operable. This is a less restrictive change with no impact on safety.

Question 28 3/4.7.1.2 Auxiliary Feedwater Pumps

CTS 4.7 1.2.a. 1, a.2 and a.3
PTS 4.7.1.2.b

In converting CTS 4.7.1.2.a.1, a.2 and a.3 to PTS 4.7.1.2.b, the following statement was added: "Not required to be performed for the steam turbine driven auxiliary feedwater pump until 24 hours after reaching 800 psig in the steam generators." The justification provided in Attachment 1, CTS 3.7.1.2 item 1.d for this statement and in particular the 24 hour time limit is consistent with Generic Letter (GL) 87-09 and the

STS (see RAI number 2). GL 87-09 is not the appropriate justification for the 24 hour time limit. The 24 hours used and justified in GL 87-09 was for time allowed to perform a missed surveillance, and had nothing to do with the time needed to reach steady-state/test conditions for a surveillance that could not be performed until after entering the applicability of a specification.

Comment: Provide a discussion and justification for this Less Restrictive (L) change.

Response

This proposed modification will restrict the previously requested Specification 4.0.4 exception for testing of the engineered safety features (ESF) automatic actuation logic to fewer ESF functions, and will require the deferred surveillance tests be performed within 24 hours of establishing the appropriate plant conditions.

The proposed change to add an exception to Technical Specification 4.0.4 now includes a requirement to perform the deferred surveillance tests within 24 hours after establishing the necessary MODE 3 plant conditions. The exception to Technical Specification 4.0.4 will allow a mode change with equipment that would be considered inoperable in accordance with Technical Specification 4.0.3 only because conditions cannot be established to perform the associated surveillance tests until after the MODE is entered. All other equipment operability requirements must be met. There is every expectation that the deferred surveillance tests will be completed successfully after the required plant conditions have been established. In addition, the deferred tests must be performed prior to entering MODE 2.

Millstone Unit No. 2 has evaluated operations associated with a plant startup when the proposed exception to Technical Specification 4.0.4 would be used, and has determined a 24 hour time limit will not adversely impact plant operations.

During plant startup, after entry into MODE 3 ($\geq$300 °F), heatup of the Reactor Coolant System (RCS) will continue as a result of operating three reactor coolant pumps (RCPs) and any decay heat input. After RCS temperature exceeds 350°F, pressurizer pressure can be increased to approximately 2200 psia. The blocks associated with pressurizer pressure safety injection, containment isolation, and enclosure building filtration system ESF actuations will be automatically removed when pressurizer pressure exceeds approximately 1850 psia. After the blocks have been removed, instrumentation and control technicians can perform the surveillance test to verify the automatic actuation logic for the associated pressurizer pressure ESF actuations. However, it is not expected that plant conditions would support performance of the deferred surveillance tests for the ESF actuation associated with steam generator pressure.

RCS heatup will continue using three RCPs and decay heat until RCS temperature exceeds 500°F. After an RCS temperature of 500°F is reached, the fourth RCP can be

started. Although the maximum RCS heatup rate allowed by Technical Specifications is 100°F/hr, a heatup rate of only 20 to 25°F/hr is expected. Therefore, the steam generator block of the main steamline isolation ESF actuation, which will be automatically removed when RCS temperature exceeds approximately 500°F, may not be removed until six to twelve hours after the pressurizer pressure ESF blocks have been removed. After the ESF actuation block on steam generator pressure is removed, instrumentation and control technicians can perform the surveillance test to verify the automatic actuation logic for the associated steam generator pressure ESF actuation. By allowing a time limit of 24 hours to perform the deferred surveillance tests, it is expected that pressurizer pressure and steam generator pressure will be raised enough to remove the associated blocks. As a result, it is expected that the instrumentation and control technicians will be able to perform all of the deferred tests at the same time, instead of performing the deferred tests at different times.

Question 29 3/4.7.1.2 Auxiliary Feedwater Pumps

CTS 4.7.1.2.c
PTS 4 7.1.2.c and 4.7.1 2 d

CTS 4.7 1.2.c.1 and 4.7.1.2.c.2 require that the auxiliary feedwater pumps and automatic valves start, open, or close on a simulated or test actuation signal. The corresponding surveillances in the PTS (PTS 4.7.1.2.c and 4.7.1.2.d respectively) verify the component actuation by an actual or simulated actuation signal. The justification in Attachment 1, CTS 3.7.1.2 for this change is that the change "will provide additional flexibility in test performance." Additional flexibility is not an acceptable justification for this Less Restrictive (L) change.

Comment: Provide a discussion and justification for this Less Restrictive (L) change.

Response

The proposed wording change was from requiring the use of an auxiliary feedwater actuation test signal (CTS SRs 4.7.1.2.c.1 and 4.7.1.2.c.2) to allowing the use of either an actual or simulated actuation signal to demonstrate automatic component actuation. A test signal is technically equivalent to a simulated signal. Both are generated either within the instrumentation, or by an external device that simulates the monitored parameter. As a result of this artificial signal and the subsequent generation of an actuation signal, the control circuit for the affected component will cause the component to respond as designed (e.g., pump start/stop or valve open/close). The automatic actuation of the components addressed by these surveillance requirements is currently checked by use of the installed test features of the associated instrumentation systems or by inserting test signals from external test equipment. However, the control circuitry for the actuated components responds the same way to an actuation signal generated by the test equipment as to an actuation signal generated in response to actual plant

conditions. The same control contact is actuated regardless of the source of the actuation signal (simulated or actual). As a result, the justification for the proposed wording change is that it would not result in any technical change to the verification of the automatic actuation feature (Attachment 1, Page 26). This is a non-technical or administrative change (per NEI 96-06). Therefore, this administrative change will not adversely impact public health and safety.

Excluding automatic valves that are locked, sealed or otherwise secured in position from the automatic actuation check will not adversely affect the probability of automatic valve misalignment. If an automatic valve is locked in a position other than the automatic actuation position, that valve is not operable. If an automatic valve is locked in the automatic actuation position, that valve is already in the correct position and the automatic actuation signal is not required. The additional administrative controls necessary to exclude an automatic valve from the automatic actuation check will ensure the valve is initially placed in the correct position, and then prevented from inadvertent operation to the wrong position. The validity of these administrative controls to prevent valve misalignment has been demonstrated by industry experience and the incorporation in the ITS. Therefore, this less restrictive change will not adversely impact public health and safety.

Question 30 3/4.7.1.2 Auxiliary Feedwater Pumps

CTS 4.7.1.2.a 4

Attachment 1, CTS 3.7.1.2 item 2 states that CTS 4.7.1.2.a.4 is deleted. This is incorrect. The discussion associated with this item states that it is to be relocated to the IST Program. Thus the changes to CTS 4.7.1.2.a.4 would be considered a Less Restrictive (LA) change since this requirement is relocated to a licensee controlled document.

Comment: Provide discussions and justifications associated with these Administrative and Less Restrictive (LA) changes.

Response

The proposed change to CTS SR 4.7.1.2.a.4 (monthly cycling of testable remote operated valves) was classified as a deletion since the specific surveillance requirement would not be retained. However, these changes are being classified as relocation since the change credits the IST Program (Technical Specification 4.0.5) for continued performance.

The proposed removal of SR 4.7.1.2.a.4 (monthly cycling of testable remote operated valves) will relocate these requirements to the IST Program (Technical Specification 4.0.5), which will determine the required test frequency. This change will result in a

reduction in the testing frequency for the valves currently tested by SR 4.7.1.2.a.4 since the IST Program specifies a quarterly testing frequency for valves testable at power. In addition, the valve population subject to cycle testing may be reduced, since not all remote operated valves are required to change position to mitigate design basis events or support safe shutdown conditions. Remote operated valves that are not required to change position are classified as passive valves by the IST Program and are not required to be cycled. The reduction in testing frequency and the potential reduction in valve population are less restrictive changes.

The current Technical Specification requirement to cycle testable remote operated valves at a monthly frequency was contained in the original Millstone Unit No. 2 Technical Specifications issued in 1975. However the ASME Code only requires a quarterly cycle test for safety related valves testable at power. For safety related valves not testable at power, a cold shutdown frequency is usually specified.

Testing of these valves on a monthly frequency increases the unavailability of the associated system since the flowpath must be removed from service to test. Even though the monthly testing frequency may lead to earlier detection of inoperable equipment, the additional valve cycling will cause more equipment degradation. Based on historical valve performance, the benefit of monthly surveillance testing to detect inoperable equipment earlier is not expected to be significant enough to override the reduction in equipment degradation from less frequent testing. In addition, the IST Program does contain provisions to track equipment performance and require more frequent testing if equipment degradation is detected.

Testing of these valves on a quarterly frequency will also result in a significant reduction in personnel radiation exposure.

The expected improvement in plant safety, reduction in equipment degradation, and reduction in personnel radiation exposure is supported by current industry practices. As previously indicated, the ASME Code Section XI quarterly testing frequency has been in effect since 1980 and is incorporated in the Improved Standard Technical Specifications. The majority of the U.S. nuclear facilities follow this quarterly testing schedule There have been no indications, based on operating experience, that quarterly testing has had an adverse impact on equipment reliability or plant safety. In addition, the potential reduction in valve population will have no adverse impact on plant safety since a valve can only be excluded if it performs no safety function. The elimination of unnecessary valve testing will provide the same benefits as the reduction in testing frequency from monthly to quarterly. Therefore, these less restrictive changes will not adversely impact public health and safety.

Question 31 3/4 7.1.2 Auxiliary Feedwater Pumps

CTS 4.7.1.2.a 5, 4.7 1.2.a.6. and 4.7.1.2.c.1
PTS 4.7.1.2 a and 4.7.1.2.C

CTS 4.7.1.2.a.5 and a.6 are combined into PTS 4.7 .1.2.a. CTS 4.7 .1.2.a.6 verifies the correct position of each remotely operated valve regardless of whether the valve is locked, sealed or otherwise secured in position. PTS 4.7.1.2.a does not require position verification of locked, sealed or otherwise secured in position remote and automatic valves. A similar change is made in converting CTS 4.7. 1.2.c.1 to PTS 4.7. 1.2.c. This Less Restrictive (L) change has not been justified.

Comment: Provide a discussion and justification for this Less Restrictive (L) change.

Response

The proposed relocation of SR 4.7.1.2.a.5 (monthly verification of manual valve position except for valves locked, sealed or otherwise secured in position and all remote or automatically operated valve position) to PTS SR 4.7.1.2.a (monthly verification of valve position for all types of valves except for valves locked, sealed or otherwise secured in position), is not expected to reduce the number of valves subject to monthly verification of valve position. Automatic or remote valves are not typically locked, sealed or otherwise secured in position. This provision is typically used for manual valves, and this provision already is contained in CTS SR 4.7.1.2.a.5 for manual valves. In addition, the initial change in the current associated surveillance procedure upon approval of the proposed change is only expected to be the reference to the appropriate Technical Specification Surveillance Requirement. However, the proposed change to SR 4.7.1.2.a.6 will allow remote valves that are locked sealed or otherwise secured in position to be excluded from the monthly valve position check. This is a less restrictive change.

Excluding remote and automatic valves that are locked, sealed or otherwise secured in position from the monthly valve position check will not adversely affect the probability of valve misalignment. The additional administrative controls necessary to exclude a remote or automatic valve from the monthly check will ensure the valve is initially placed in the correct position, and then prevented from inadvertent operation to the wrong position. This validity of these administrative controls to prevent valve misalignment has been demonstrated by industry experience and the incorporation in the Improved Technical Specifications. Therefore, this less restrictive change will not adversely impact public health and safety.

The proposed relocation of SR 4.7.1.2.c.1 (verification of the automatic actuation of the AFW valves) to PTS SR 4.7.1.2.c (verification of automatic valve actuation for all AFW valves except for valves locked, sealed or otherwise secured in position), is not

expected to reduce the number of valves subject to monthly verification of valve position. Automatic valves are not typically locked, sealed or otherwise secured in position. In addition, the initial change in the current associated surveillance procedure upon approval of the proposed change is only expected to be the reference to the appropriate Technical Specification Surveillance Requirement. However, the proposed change to SR 4.7.1.2.c will allow automatic valves that are locked, sealed or otherwise secured in position to be excluded from the automatic actuation check. This is a less restrictive change.

Excluding automatic valves that are locked, sealed or otherwise secured in position from the automatic actuation check will not adversely affect the probability of automatic valve misalignment. If an automatic valve is locked in a position other than the automatic actuation position, that valve is not operable. If an automatic valve is locked in the automatic actuation position, that valve is already in the correct position and the automatic actuation signal is not required. The additional administrative controls necessary to exclude an automatic valve from the automatic actuation check will ensure the valve is initially placed in the correct position, and then prevented from inadvertent operation to the wrong position. This validity of these administrative controls to prevent valve misalignment has been demonstrated by industry experience and the incorporation in the Improved Technical Specifications. Therefore, this less restrictive change will not adversely impact public health and safety.