Entergy

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185 Old Ferry Road
Brattleboro, VT 05302-0500

September 16, 2003
BVY 03-57

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

Subject: **Vermont Yankee Nuclear Power Station**
License No. DPR-28 (Docket No. 50-271)
Technical Specification Proposed Change No. 261
Missed Surveillances and Adoption of a Technical Specification Bases Control Program using the Consolidated Line Item Improvement Process

Pursuant to 10 CFR 50.90, Vermont Yankee (VY) hereby proposes to amend its Facility Operating License, DPR-28, by incorporating the attached proposed change into the VY Technical Specifications. The proposed change would relocate the current definition of Surveillance Frequency to new Sections 4.0.2 and 4.0.3, and revise the requirements for missed surveillances in Section 4.0.3. This change is consistent with Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) change TSTF-358 Revision 5, as part of the consolidated line item improvement process. In conjunction with the proposed change, VY is adding the requirements for a Bases Control Program which is consistent with Section 5.5 of NUREG 1433. In addition, the current definition of Surveillance Interval (Definition 'Z') is being slightly re-worded and relocated to new Section 4.0.1 consistent with SR 3.0.1 of NUREG 1433. Appropriate Bases, also consistent with NUREG 1433, are being adopted for the new Sections. An editorial change is proposed to TS 6.7.C which references the current definition of Surveillance Frequency to now reference the new Section 4.0.2.

Attachment 1 to this letter provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications. Attachment 2 provides the marked-up version of the current Technical Specification and Bases pages. Attachment 3 provides the retyped Technical Specification and Bases pages.

VY has reviewed the proposed Technical Specification change in accordance with 10 CFR 50.92 and concludes that the proposed change does not involve a significant hazards consideration.

Upon acceptance of this proposed change by the NRC, VY requests that a license amendment be issued by June 30, 2004 for implementation within 30 days of its effective date.

A001

If you have any questions on this transmittal, please contact Mr. Thomas B. Silko at (802) 258-4146.

Sincerely,

Jay K. Thayer
Site Vice President – Vermont Yankee

STATE OF VERMONT)
)ss
WINDHAM COUNTY)

Then personally appeared before me, Jay K. Thayer, who, being duly sworn, did state that he is Site Vice President of Vermont Yankee Nuclear Power Station, that he is duly authorized to execute and file the foregoing document and that the statements therein are true to the best of his knowledge and belief.

Thomas B. Silko, Notary Public
My Commission Expires February 10, 2007

Attachments

cc: USNRC Region 1 Administrator
USNRC Resident Inspector - VYNPS
USNRC Project Manager - VYNPS
Vermont Department of Public Service

Docket No. 50-271
BVY 03-57

Attachment 1

Vermont Yankee Nuclear Power Station

Proposed Technical Specification Change No. 261

Missed Surveillances and Adoption of a Technical Specification Bases Control Program using the Consolidated Line Item Improvement Process

Description of the proposed change, requested confirmation of applicability, and plant-specific verifications

BACKGROUND

Description

Vermont Yankee (VY) proposes to amend the Technical Specifications (TS) to add a requirement for missed surveillances. To facilitate this change, VY would relocate the current definition of Surveillance Frequency (Definition 'Y') to new Sections 4.0.2 and 4.0.3, and revise the requirements for missed surveillances in Section 4.0.3. In conjunction with the proposed change, VY is adding the requirements for a Bases Control Program to Section 6.7.E of the TS. In addition, the current definition of Surveillance Interval (Definition 'Z') is being slightly re-worded and relocated to new Section 4.0.1 consistent with SR 3.0.1 of NUREG 1433. Appropriate Bases, also consistent with NUREG 1433, are being adopted for the new Sections. An editorial change is proposed to TS 6.7.C which references the current definition of Surveillance Frequency to now reference the new Section 4.0.2.

This change is consistent with Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) change TSTF-358 Revision 5[1], as modified by Federal Register Notice 66FR32400, of June 14, 2001, and in response to public comments. The availability of this TS improvement was published in the *Federal Register* on September 28, 2001 as part of the consolidated line item improvement process (CLIIP). The addition of the requirements for a Bases Control Program to TS 6.7.E is consistent with the Bases Control Program contained within Section 5.5 of NUREG 1433.

Proposed Changes

VY is proposing to insert new sections 3.0, "Limiting Condition for Operation Applicability," and 4.0, "Surveillance Requirement (SR) Applicability," into the TS. Sections 3.0 would be identified as "Reserved." The first paragraph of the current definition of Surveillance Frequency would be relocated to new Section 4.0.2 (SR 4.0.2). This wording is very similar to the first paragraph of STS SR 3.0.2, however, since VY's TS do not utilize the term "once," the remaining portions of STS SR 3.0.2 are not applicable and therefore will not be added to TS 4.0.2. The corresponding applicable portions of the STS BASES for SR 3.0.2 will be added to the Bases of SR 4.0.2.

The remaining portions of the current definition of Surveillance Frequency (paragraphs 2, 3 & 4) will be relocated to new Section 4.0.3 (SR 4.0.3) and then modified to recognize the treatment of missed surveillances. The STS BASES, including the wording for the CLIIP item is being added to the Bases for SR 4.0.3. The current definition of Surveillance Frequency will be modified to state that the definition has been relocated to Specifications 4.0.2 and 4.0.3.

The current definition of Surveillance Interval (Definition 'Z') is being slightly re-worded to be consistent with STS SR 3.0.1 and relocated to new Section 4.0.1. The rewording of this definition is administrative only in that it does not revise the content or meaning of the definition. Appropriate Bases, also consistent with NUREG 1433, are being adopted for the new Section. Minor changes to the Bases from that contained within the STS are being made to reflect content, format and usage of the current TS. The current definition of Surveillance Interval will be modified to state that the definition has been relocated to Specification 4.0.1.

An editorial change is proposed to TS 6.7.C which references the current definition of Surveillance Frequency to reference Section 4.0.2. Additionally, VY is adding the requirements for a Bases Control Program as TS Section 6.7.E. This addition is consistent with the STS and is also a change recognized by the CLIIP.

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[1] This TSTF revises, in part, NUREG 1433, "Standard Technical Specifications (STS) General Electric Plants, BWR/4," Revision 2.1 dated March 27, 2002.

ASSESSMENT

Applicability of Published Safety Evaluation

VY has reviewed the safety evaluation dated June 14, 2001 as part of the CLIIP. This review included a review of the NRC staff's evaluation, as well as the supporting information provided to support TSTF-358. We have concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to VY and justify this amendment for the incorporation of the changes to the TS.

Optional Changes and Variations

VY is not proposing any material variations or deviations from the TS changes described in the fully modified TSTF-358 Revision 5 or the NRC staff's model safety evaluation dated June 14, 2001 other than format and wording changes needed to reflect the existing format and wording in the VY TS.

The relocation of the current definition of Surveillance Interval and Surveillance Frequency to new Sections 4.0.1, 4.0.2 and 4.0.3 is administrative only. VY's relocated SR 4.0.3 is comparable to the STS SR 3.0.3 for which TSTF-358 is applicable. In addition, the proposed change to VY's and 4.0.3 (and corresponding Bases) is similar in all material aspects to the revised portion of STS SR 3.0.3 for which this proposed change is modeled.

The Bases being added to SR 4.0.1 and 4.0.2 is administrative and consistent with the applicable portions of STS BASES SR 3.0.1 and 3.0.2. As a final change to the TS's, VY is adding the requirements for a Bases Control Program as TS 6.7.E. This addition is consistent with the STS and is a change recognized by the CLIIP.

REGULATORY ANALYSIS

No Significant Hazards Consideration Determination

VY has reviewed the proposed no significant hazards consideration determination (NSHCD) published in the *Federal Register* as part of the CLIIP. VY has concluded that the proposed NSHCD presented in the Federal Register notice is applicable to this proposed change and is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

Verification and Commitments

As discussed in the notice of availability published in the *Federal Register* on September 28, 2001 for this TS improvement, plant-specific verifications were performed as follows:

VY has established TS Bases for SR 4.0.3 (similar to STS BASES SR 3.0.3) which state that use of the delay period established by SR 4.0.3 is a flexibility which is not intended to be used as an operational convenience to extend surveillance intervals, but only for the performance of missed surveillances.

The modification will also be reflected in the (newly created) Bases for SR 4.0.3 that provide details on how to implement the new requirements. The Bases provide guidance for surveillance frequencies that are not based on time intervals but are based on specified unit conditions, operating situations, or requirements of regulations. In addition, the Bases state that VY is expected to perform a missed surveillance test at the first reasonable opportunity, taking into account appropriate considerations, such as the impact on plant risk and accident analysis assumptions, consideration of unit conditions, planning, availability of personnel, and the time required to perform the surveillance. The Bases will also state that the risk impact should be managed through the program in place to implement 10CFR50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and

Managing Risks Before Maintenance Activities at Nuclear Power Plants," and that the missed surveillance should be treated as an emergent condition, as discussed in Regulatory Guide 1.182. In addition, the Bases state that the degree of depth and rigor of the evaluation should be commensurate with the importance of the component and that missed surveillances for important components should be analyzed quantitatively. The Bases also state that the results of the risk evaluation determine the safest course of action. In addition, the Bases state that all missed surveillances will be placed in the licensee's Corrective Action Program. Finally, VY has, as a part of this proposed change, added a Bases Control Program consistent with Section 5.5 of the STS.

ENVIRONMENTAL EVALUATION

VY has reviewed the environmental evaluation included in the model safety evaluation dated June 14, 2001 as part of the CLIIP. VY has concluded that the staff's findings presented in that evaluation are applicable to this proposed TS change, including the addition of a Bases Control Program, relocation of the definition of Surveillance Frequency to create new TS Sections 4.0.2, 4.0.3 (and corresponding Bases), relocation of the definition of Surveillance Interval to create new TS Section 4.0.1 (and corresponding Bases), and that the environmental evaluation is hereby incorporated by reference for this application.

Docket No. 50-271
BVY 03-57

Attachment 2

Vermont Yankee Nuclear Power Station

Proposed Technical Specification Change No. 261

Missed Surveillances and Adoption of a Technical Specification Bases Control Program using the Consolidated Line Item Improvement Process

Marked-up Version of the Current Technical Specifications

TABLE OF CONTENTS

1.0 DEFINITIONS

4

V. Shutdown - The reactor is in a shutdown condition when the reactor mode switch is in the shutdown mode position and no core alterations are being performed. When the mode switch is placed in the shutdown position a reactor scram is initiated, power to the control rod drives is removed, and the reactor protection system trip systems are de-energized.

1. Hot Shutdown means conditions as above with reactor coolant temperature greater that 212°F.

2. Cold Shutdown means conditions as above with reactor coolant temperature equal to or less than 212°F.

3. Shutdown means conditions as above such that the effective multiplication factor (K_{eff}) of the core shall be less than 0.99.

W. Simulated Automatic Actuation - Simulated automatic actuation means applying a simulated signal to the sensor to actuate circuit in question.

X. Transition Boiling - Transition boiling means the boiling regime between nucleate and film boiling. Transition boiling is the regime in which both nucleate and film boiling occur intermittently with neither type being completely stable.

Relocated to Specifications 4.0.2 and 4.0.3

Y. Surveillance Frequency - Unless otherwise stated in these specifications, periodic surveillance tests, checks, calibrations, and examinations shall be performed within the specified surveillance intervals. These intervals may be adjusted plus 25%. The operating cycle interval is considered to be 18 months and the tolerance stated above is applicable.

Relocate to TS 4.0.2

If it is discovered that a surveillance was not performed within its specified frequency, declaring applicable Limiting Conditions for Operation (LCOs) not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is ~~less~~ Greater. This delay period is permitted to allow performance of the surveillance.

Add Insert 1

If the surveillance is not performed within the delay period, applicable LCOs must immediately be declared not met, and applicable LCOs must be entered.

When the surveillance is performed within the delay period and the surveillance is not met (i.e., acceptance criteria are not satisfied), applicable LCOs must immediately be declared not met, and applicable LCOs must be entered.

Relocate to TS 4.0.3

1.0 DEFINITIONS

(Relocated to specification 4.0.1

Z. Surveillance Interval - The surveillance interval is the calendar time between surveillance tests, checks, calibrations, and examinations to be performed upon an instrument or component when it is required to be operable. These tests unless otherwise stated in these specifications may be waived when the instrument, component, or system is not required to be operable, but these tests shall be performed on the instrument, component, or system prior to being required to be operable.

Re-worded per Insert 2 & Relocated to TS 4.0.1

AA. Deleted

BB. Source Check - The qualitative assessment of channel response when the channel sensor is exposed to a radioactive source.

CC. Dose Equivalent I-131 - The dose equivalent I-131 shall be that concentration of I-131 (microcurie/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134 and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in NRC Regulatory Guide 1.109, Revision 1, October 1977.

DD. Deleted

EE. Deleted

FF. Deleted

GG. Deleted

HH. Deleted

II. Deleted

JJ. Deleted

KK. Deleted

LL. Deleted

MM. Deleted

NN. Core Operating Limits Report - The Core Operating Limits Report is the unit-specific document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Specification 6.6.C. Plant operation within these operating limits is addressed in individual specifications.

INSERT 1

A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

INSERT 2

SR 4.0.1
SRs shall be met during the modes or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified frequency shall be failure to meet the LCO except as provided in SR 4.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

INSERT 3

SR 4.0.1 Bases
SR 4.0.1 establishes the requirement that SRs must be met during the modes or other specified conditions in the Applicability for which the requirements of the LCO apply, unless otherwise specified in the individual SRs. This Specification is to ensure that Surveillances are performed to verify the OPERABILITY of systems and components, and that variables are within specified limits. Failure to meet a Surveillance within the specified frequency, in accordance with SR 4.0.2, constitutes a failure to meet an LCO.

Systems and components are assumed to be OPERABLE when the associated SRs have been met. Nothing in this Specification, however, is to be construed as implying that systems or components are OPERABLE when either:

a. The systems or components are known to be inoperable, although still meeting the SRs or
b. The requirements of the Surveillance(s) are known to be not met between required Surveillance performances.

Surveillances do not have to be performed when the unit is in a mode or other specified condition for which the requirements of the associated LCO are not applicable, unless otherwise specified.

Unplanned events may satisfy the requirements (including applicable acceptance criteria) for a given SR. In this case, the unplanned event may be credited as fulfilling the performance of the SR. This allowance includes those SRs whose performance is normally precluded in a given mode or other specified condition.

Surveillances do not have to be performed on inoperable equipment because the LCO's define the remedial measures that apply. Surveillances have to be met and performed in accordance with SR 4.0.2, prior to returning equipment to OPERABLE status.

Upon completion of maintenance, appropriate post maintenance testing is required to declare equipment OPERABLE. This includes ensuring applicable Surveillances are not failed and their most recent performance is in accordance with SR 4.0.2. Post maintenance testing may not be possible in the current SR 4.0.1 mode or other specified conditions in the Applicability due to the necessary unit parameters not having been established. In these situations, the equipment may be considered

OPERABLE provided testing has been satisfactorily completed to the extent possible and the equipment is not otherwise believed to be incapable of performing its function. This will allow operation to proceed to a mode or other specified condition where other necessary post maintenance tests can be completed.

An example of this process is:

a. High pressure coolant injection (HPCI) maintenance during shutdown that requires system functional tests at a specified pressure. Provided other appropriate testing is satisfactorily completed, startup can proceed with HPCI considered OPERABLE. This allows operation to reach the specified pressure to complete the necessary post maintenance testing.

SR 4.0.2 Bases

SR 4.0.2 permits a 25% extension of the interval specified in the Frequency. This extension facilitates Surveillance scheduling and considers plant operating conditions that may not be suitable for conducting the Surveillance (e.g., transient conditions or other ongoing Surveillance or maintenance activities).

The 25% extension does not significantly degrade the reliability that results from performing the surveillance at its specified frequency. This is based on the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the SRs. The exceptions to SR 4.0.2 are those Surveillances for which the 25% extension of the interval specified in the frequency does not apply. These exceptions are stated in the individual Specifications. The requirements of regulations take precedence over the TS. An example of where SR 4.0.2 does not apply is in the Primary Containment Leakage Rate Testing Program. This program establishes testing requirements and frequencies in accordance with the requirements of regulations. The TS cannot in and of themselves extend a test interval specified in the regulations.

The provisions of SR 4.0.2 are not intended to be used repeatedly merely as an operational convenience to extend surveillance intervals (other than those consistent with refueling intervals).

SR 4.0.3 Bases

SR 4.0.3 establishes the flexibility to defer declaring affected equipment inoperable or an affected variable outside the specified limits when a surveillance has not been completed within the specified frequency. A delay period of up to 24 hours or up to the limit of the specified frequency, whichever is greater, applies from the point in time that it is discovered that the surveillance has not been performed in accordance with SR 4.0.2, and not at the time that the specified Frequency was not met.

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

The basis for this delay period includes consideration of unit conditions, adequate planning, availability of personnel, the time required to perform the surveillance, the safety significance of the delay in completing the required surveillance, and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the requirements. When a surveillance with a frequency based not on time intervals, but upon specified unit conditions, operating situations, or requirements of regulations (e.g., prior to entering Run Mode after each fuel loading, or in accordance with 10CFR50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, SR 4.0.3 allows for the full delay period of up to the specified frequency to perform the surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity. SR 4.0.3

provides a time limit for, and allowances for the performance of, surveillances that become applicable as a consequence of operating condition changes imposed by LCO actions.

Failure to comply with specified surveillance frequencies is expected to be an infrequent occurrence. Use of the delay period established by SR 4.0.3 is a flexibility which is not intended to be used as an operational convenience to extend surveillance intervals. While up to 24 hours or the limit of the specified frequency is provided to perform the missed surveillance, it is expected that the missed surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the surveillance as well as any plant configuration changes required or shutting the plant down to perform the surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." This Regulatory Guide addresses consideration of temporary and aggregate risk impacts, determination of risk management action thresholds, and risk management action up to and including plant shutdown. The missed surveillance should be treated as an emergent condition as discussed in the Regulatory Guide. The risk evaluation may use quantitative, qualitative, or blended methods. The degree of depth and rigor of the evaluation should be commensurate with the importance of the component. Missed surveillances for important components should be analyzed quantitatively. If the results of the risk evaluation determine the risk increase is significant, this evaluation should be used to determine the safest course of action. All missed surveillances will be placed in the licensee's Corrective Action Program.

If a surveillance is not completed within the allowed delay period, then the equipment is considered inoperable or the variable is considered outside the specified limits and the completion times of the Action Statements for the applicable LCO Conditions begin immediately upon expiration of the delay period. If a surveillance is failed within the delay period, then the equipment is inoperable, or the variable is outside the specified limits and the completion times of the Action Statements for the applicable LCO Conditions begin immediately upon the failure of the surveillance.

Completion of the surveillance within the delay period allowed by this Specification, or within the completion time of the ACTIONS, restores compliance with SR 4.0.1.

INSERT 4

6.7.E Technical Specifications (TS) Bases Control Program

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

a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
    1. A change in the TS incorporated in the license, or
    2. A change to the updated FSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.
c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the FSAR.
d. Proposed changes that meet the criteria of Specification 6.7.E.b above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

Creation of New Technical Specification Section 3.0 / 4.0

Pages 19a and 19b

SR 4.0.1 ..... See Insert 2
SR 4.0.2 ..... Relocated from current definition 1.0.Y "Surveillance Frequency"
SR 4.0.3 ..... Relocated from current definition 1.0.Y "Surveillance Frequency"

Pages 19c, 19d, 19e

BASES for SR 4.0.1 ..... Insert 3
BASES for SR 4.0.2 ..... Insert 3
BASES for SR 4.0.3 ..... Insert 3

Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.

C. PRIMARY CONTAINMENT LEAK RATE TESTING PROGRAM

A program shall be established to implement the leak rate testing of the primary containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, entitled "Performance Based Containment Leak-Test Program," dated September 1995, as modified by the following exception to NEI 94-01, Rev. 0, "Industry Guideline for Implementing Performance-Based Option of 10CFR50, Appendix J":

Section 9.2.3: The first Type A test after the April 1995 Type A test shall be performed no later than November 2005.

The peak calculated containment internal pressure for the design basis loss of coolant accident, Pa, is 44 psig.

The maximum allowable primary containment leak rate, La, at Pa, shall be 0.8% of primary containment air weight per day.

Leak rate acceptance criteria are:

1. Primary containment leak rate acceptance criterion < 1.0 La.

2. The as-left primary containment integrated leak rate test (Type A test) acceptance criterion is $\leq$ 0.75 La.

3. The combined local leak rate test (Type B and C tests) acceptance criterion is $\leq$ 0.60 La, calculated on a maximum pathway basis, prior to entering a mode of operation where containment integrity is required.

4. The combined local leak rate test (Type B and C tests) acceptance criterion is $\leq$ 0.60 La, calculated on a minimum pathway basis, at all times when primary containment integrity is required.

5. Airlock overall leak rate acceptance criterion is $\leq$ 0.10 La when tested at $\geq$ Pa.

The provision of ~~the Definition (1.0.Y)~~ SR 4.0.2 for Surveillance Frequency does not apply to the test frequencies specified in the Primary Containment Leak Rate Testing Program.

D. Radioactive Effluent Controls Program

This program conforming to 10 CFR 50.36a provides for the control of radioactive effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably

h. Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from the unit to areas at or beyond the site boundary, conforming to 10 CFR 50, Appendix I;

i. Limitations on the annual and quarterly doses to a member of the public from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half lives greater than 8 days in gaseous effluents released from the unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I; and

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

INSERT 4 (BASES CONTROL PROGRAM)

Docket No. 50-271
BVY 03-57

Attachment 3

Vermont Yankee Nuclear Power Station

Proposed Technical Specification Change No. 261

Missed Surveillances and Adoption of a Technical Specification Bases Control Program using the Consolidated Line Item Improvement Process

Retyped Technical Specification Pages

Listing of Affected Technical Specifications Pages

Replace the Vermont Yankee Nuclear Power Station Technical Specifications pages listed below with the revised pages. The revised pages contain vertical lines in the margin indicating the areas of change.

Remove	Insert
i (TOC)	i (TOC)
4	4
5	5
	19a
	19b
	19c
	19d
	19e
265	265
267	267

TABLE OF CONTENTS

V. Shutdown - The reactor is in a shutdown condition when the reactor mode switch is in the shutdown mode position and no core alterations are being performed. When the mode switch is placed in the shutdown position a reactor scram is initiated, power to the control rod drives is removed, and the reactor protection system trip systems are de-energized.

1. Hot Shutdown means conditions as above with reactor coolant temperature greater that 212°F.

2. Cold Shutdown means conditions as above with reactor coolant temperature equal to or less than 212°F.

3. Shutdown means conditions as above such that the effective multiplication factor (K_{eff}) of the core shall be less than 0.99.

W. Simulated Automatic Actuation - Simulated automatic actuation means applying a simulated signal to the sensor to actuate circuit in question.

X. Transition Boiling - Transition boiling means the boiling regime between nucleate and film boiling. Transition boiling is the regime in which both nucleate and film boiling occur intermittently with neither type being completely stable.

Y. Surveillance Frequency - Relocated to Specifications 4.0.2 and 4.0.3.

Z. Surveillance Interval - Relocated to Specification 4.0.1.

AA. Deleted

BB. Source Check - The qualitative assessment of channel response when the channel sensor is exposed to a radioactive source.

CC. Dose Equivalent I-131 - The dose equivalent I-131 shall be that concentration of I-131 (microcurie/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134 and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in NRC Regulatory Guide 1.109, Revision 1, October 1977.

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MM. Deleted

NN. Core Operating Limits Report - The Core Operating Limits Report is the unit-specific document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Specification 6.6.C. Plant operation within these operating limits is addressed in individual specifications.

3.0 LIMITING CONDITIONS FOR OPERATION APPLICABILITY

3.0.1 RESERVED

4.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

SR 4.0.1

SRs shall be met during the modes or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified frequency shall be failure to meet the LCO except as provided in SR 4.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

SR 4.0.2

Unless otherwise stated in these specifications, periodic surveillance tests, checks, calibrations, and examinations shall be performed within the specified surveillance intervals. These intervals may be adjusted plus 25%. The operating cycle interval is considered to be 18 months and the tolerance stated above is applicable.

SR 4.0.3

If it is discovered that a surveillance was not performed within its specified frequency, declaring applicable Limiting Conditions for Operation (LCOs) not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is greater. This delay period is permitted to allow performance of the surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

3.0 LIMITING CONDITIONS FOR OPERATION APPLICABILITY

4.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

SR 4.0.3 (Continued)

If the surveillance is not performed within the delay period, applicable LCOs must immediately be declared not met, and applicable LCOs must be entered.

When the surveillance is performed within the delay period and the surveillance is not met (i.e., acceptance criteria are not satisfied), applicable LCOs must immediately be declared not met, and applicable LCOs must be entered.

BASES:

TS 3.0 Limiting Conditions for Operation Applicability

Reserved.

TS 4.0 Surveillance Requirement (SR) Applicability

SR 4.0.1 Bases

SR 4.0.1 establishes the requirement that SRs must be met during the modes or other specified conditions in the Applicability for which the requirements of the LCO apply, unless otherwise specified in the individual SRs. This Specification is to ensure that Surveillances are performed to verify the OPERABILITY of systems and components, and that variables are within specified limits. Failure to meet a Surveillance within the specified frequency, in accordance with SR 4.0.2, constitutes a failure to meet an LCO.

Systems and components are assumed to be OPERABLE when the associated SRs have been met. Nothing in this Specification, however, is to be construed as implying that systems or components are OPERABLE when either:

a. The systems or components are known to be inoperable, although still meeting the SRs or
b. The requirements of the Surveillance(s) are known to be not met between required Surveillance performances.

Surveillances do not have to be performed when the unit is in a mode or other specified condition for which the requirements of the associated LCO are not applicable, unless otherwise specified.

Unplanned events may satisfy the requirements (including applicable acceptance criteria) for a given SR. In this case, the unplanned event may be credited as fulfilling the performance of the SR. This allowance includes those SRs whose performance is normally precluded in a given mode or other specified condition.

Surveillances do not have to be performed on inoperable equipment because the LCOs define the remedial measures that apply. Surveillances have to be met and performed in accordance with SR 4.0.2, prior to returning equipment to OPERABLE status.

Upon completion of maintenance, appropriate post maintenance testing is required to declare equipment OPERABLE. This includes ensuring applicable Surveillances are not failed and their most recent performance is in accordance with SR 4.0.2. Post maintenance testing may not be possible in the current SR 4.0.1 mode or other specified conditions in the Applicability due to the necessary unit parameters not having been established. In these situations, the equipment may be considered OPERABLE provided testing has been satisfactorily completed to the extent possible and the equipment is not otherwise believed to be incapable of performing its function. This will allow operation to proceed to a mode or other specified condition where other necessary post maintenance tests can be completed.

An example of this process is:

a. High pressure coolant injection (HPCI) maintenance during shutdown that requires system functional tests at a specified pressure. Provided other appropriate testing is satisfactorily completed, startup can proceed with HPCI considered OPERABLE. This allows operation to reach the specified pressure to complete the necessary post maintenance testing.

SR 4.0.2 Bases

SR 4.0.2 permits a 25% extension of the interval specified in the Frequency. This extension facilitates Surveillance scheduling and considers plant operating conditions that may not be suitable for conducting the Surveillance (e.g., transient conditions or other ongoing Surveillance or maintenance activities).

The 25% extension does not significantly degrade the reliability that results from performing the surveillance at its specified frequency. This is based on the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the SRs. The exceptions to SR 4.0.2 are those Surveillances for which the 25% extension of the interval specified in the frequency does not apply. These exceptions are stated in the individual Specifications. The requirements of regulations take precedence over the TS. An example of where SR 4.0.2 does not apply is in the Primary Containment Leakage Rate Testing Program. This program establishes testing requirements and frequencies in accordance with the requirements of regulations. The TS cannot in and of themselves extend a test interval specified in the regulations.

The provisions of SR 4.0.2 are not intended to be used repeatedly merely as an operational convenience to extend surveillance intervals (other than those consistent with refueling intervals).

SR 4.0.3 Bases

SR 4.0.3 establishes the flexibility to defer declaring affected equipment inoperable or an affected variable outside the specified limits when a surveillance has not been completed within the specified frequency. A delay period of up to 24 hours or up to the limit of the specified frequency, whichever is greater, applies from the point in time that it is discovered that the surveillance has not been performed in accordance with SR 4.0.2, and not at the time that the specified Frequency was not met.

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

The basis for this delay period includes consideration of unit conditions, adequate planning, availability of personnel, the time required to perform the surveillance, the safety significance of the delay in completing the required surveillance, and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the requirements. When a surveillance with a frequency based not on time intervals, but upon specified unit conditions, operating situations, or requirements of regulations (e.g., prior to entering Run Mode after each fuel loading, or in accordance with 10CFR50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, SR 4.0.3 allows for the full delay period of up to the specified frequency to perform the surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity. SR 4.0.3 provides a time limit for, and allowances for the performance of, surveillances that become applicable as a consequence of Mode changes imposed by Action Statements.

Failure to comply with specified surveillance frequencies is expected to be an infrequent occurrence. Use of the delay period established by SR 4.0.3 is a flexibility which is not intended to be used as an operational convenience to extend surveillance intervals. While up to 24 hours or the limit of the specified frequency is provided to perform the missed surveillance, it is expected that the missed surveillance will be performed at the first reasonable opportunity. The determination of the first

SR 4.0.3 Bases (Continued)

reasonable opportunity should include consideration of the impact on plant risk (from delaying the surveillance as well as any plant configuration changes required or shutting the plant down to perform the surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." This Regulatory Guide addresses consideration of temporary and aggregate risk impacts, determination of risk management action thresholds, and risk management action up to and including plant shutdown. The missed surveillance should be treated as an emergent condition as discussed in the Regulatory Guide. The risk evaluation may use quantitative, qualitative, or blended methods. The degree of depth and rigor of the evaluation should be commensurate with the importance of the component. Missed surveillances for important components should be analyzed quantitatively. If the results of the risk evaluation determine the risk increase is significant, this evaluation should be used to determine the safest course of action. All missed surveillances will be placed in the licensee's Corrective Action Program.

If a surveillance is not completed within the allowed delay period, then the equipment is considered inoperable or the variable is considered outside the specified limits and the completion times of the Action Statements for the applicable LCO Conditions begin immediately upon expiration of the delay period. If a surveillance is failed within the delay period, then the equipment is inoperable, or the variable is outside the specified limits and the completion times of the Action Statements for the applicable LCO Conditions begin immediately upon the failure of the surveillance.

Completion of the surveillance within the delay period allowed by this Specification, or within the completion time of the ACTIONS, restores compliance with SR 4.0.1.

Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.

C. PRIMARY CONTAINMENT LEAK RATE TESTING PROGRAM

A program shall be established to implement the leak rate testing of the primary containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, entitled "Performance Based Containment Leak-Test Program," dated September 1995, as modified by the following exception to NEI 94-01, Rev. 0, "Industry Guideline for Implementing Performance-Based Option of 10CFR50, Appendix J":

Section 9.2.3: The first Type A test after the April 1995 Type A test shall be performed no later than November 2005.

The peak calculated containment internal pressure for the design basis loss of coolant accident, Pa, is 44 psig.

The maximum allowable primary containment leak rate, La, at Pa, shall be 0.8% of primary containment air weight per day.

Leak rate acceptance criteria are:

1. Primary containment leak rate acceptance criterion < 1.0 La.

2. The as-left primary containment integrated leak rate test (Type A test) acceptance criterion is $\leq$ 0.75 La.

3. The combined local leak rate test (Type B and C tests) acceptance criterion is $\leq$ 0.60 La, calculated on a maximum pathway basis, prior to entering a mode of operation where containment integrity is required.

4. The combined local leak rate test (Type B and C tests) acceptance criterion is $\leq$ 0.60 La, calculated on a minimum pathway basis, at all times when primary containment integrity is required.

5. Airlock overall leak rate acceptance criterion is $\leq$ 0.10 La when tested at $\geq$ Pa.

The provision of SR 4.0.2 for Surveillance Frequency does not apply to the test frequencies specified in the Primary Containment Leak Rate Testing Program.

D. Radioactive Effluent Controls Program

This program conforming to 10 CFR 50.36a provides for the control of radioactive effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably

h. Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from the unit to areas at or beyond the site boundary, conforming to 10 CFR 50, Appendix I;

i. Limitations on the annual and quarterly doses to a member of the public from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half lives greater than 8 days in gaseous effluents released from the unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I; and

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

E. TECHNICAL SPECIFICATIONS (TS) BASES CONTROL PROGRAM

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

a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.

b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:

1. A change in the TS incorporated in the license, or

2. A change to the updated FSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.

c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the FSAR.

d. Proposed changes that meet the criteria of Specification 6.7.E.b above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).