February 4, 2003

Mr. Jay K. Thayer
Site Vice President - Vermont Yankee
Entergy Nuclear Vermont Yankee, LLC
P.O. Box 0500
185 Old Ferry Road
Brattleboro, VT 05302-0500

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION - ISSUANCE OF AMENDMENT RE: REVISED DEFINITION OF OPERABLE (TAC NO. MB4291)

Dear Mr. Thayer:

The Commission has issued the enclosed Amendment No. 213 to Facility Operating License DPR-28 for the Vermont Yankee Nuclear Power Station, in response to your application dated February 26, 2002, as supplemented on October 9 and 30, 2002. On July 31, 2002, Vermont Yankee Nuclear Power Corporation's (VYNPC) interest in the license was transferred to Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (ENO). On August 6, 2002, ENO requested that the U.S. Nuclear Regulatory Commission (the Commission) continue to review and act on all requests before the Commission which had been submitted by VYNPC before the transfer.

The amendment revises the definition of Operable in Technical Specification (TS) 1.0.K with respect to support system requirements for alternating current power sources. Conforming changes are also made to specific support system TSs in sections 3/4.5, "Core and Containment Cooling Systems," 3/4.7, "Station Containment Systems," and 3/4.10, "Auxiliary Electrical Power Systems," and associated Bases.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/RA/

Robert M. Pulsifer, Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosures: 1. Amendment No. 213 to License No. DPR-28
2. Safety Evaluation

cc w/encls: See next page

Vermont Yankee Nuclear Power Station

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Brattleboro, VT 05302-0500

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION - ISSUANCE OF AMENDMENT RE: REVISE DEFINITION OF OPERABLE (TAC NO. MB4291)

Dear Mr. Thayer:

The Commission has issued the enclosed Amendment No. 213 to Facility Operating License DPR-28 for the Vermont Yankee Nuclear Power Station, in response to your application dated February 26, 2002, as supplemented on October 9 and 30, 2002. On July 31, 2002, Vermont Yankee Nuclear Power Corporation's (VYNPC) interest in the license was transferred to Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (ENO). On August 6, 2002, ENO requested that the U.S. Nuclear Regulatory Commission (the Commission) continue to review and act on all requests before the Commission which had been submitted by VYNPC before the transfer.

The amendment revises the definition of Operable in Technical Specification (TS) 1.0.K with respect to support system requirements for alternating current power sources. Conforming changes are also made to specific support system TSs in sections 3/4.5, "Core and Containment Cooling Systems," 3/4.7, "Station Containment Systems," and 3/4.10, "Auxiliary Electrical Power Systems," and associated Bases.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,
/RA/
Robert M. Pulsifer, Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-271
Enclosures: 1. Amendment No. 213 to License No. DPR-28
2. Safety Evaluation
cc w/encls: See next page

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ENTERGY NUCLEAR VERMONT YANKEE, LLC

ENTERGY NUCLEAR OPERATIONS, INC.

DOCKET NO. 50-271

VERMONT YANKEE NUCLEAR POWER STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 213
License No. DPR-28

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

   A. The application for amendment filed by Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (the licensees) dated February 26, 2002, as supplemented on October 9 and 30, 2002, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-28 is hereby amended to read as follows:

   (B) Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 213, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 90 days.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: February 4, 2003

ATTACHMENT TO LICENSE AMENDMENT NO. 213

FACILITY OPERATING LICENSE NO. DPR-28

DOCKET NO. 50-271

Replace the following page(s) of the Appendix A Technical Specifications with the attached revised page(s). The revised page(s) are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	Insert
2	2
100	100
101	101
103	103
104	104
105	105
106	106
108	108
154	154
215	215
216	216
217	217
217a	217a
-----	217b
220	220
221	221
221a	221a
-----	221b
223	223

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 213 TO FACILITY OPERATING LICENSE NO. DPR-28

ENTERGY NUCLEAR VERMONT YANKEE, LLC

AND ENTERGY NUCLEAR OPERATIONS, INC.

VERMONT YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-271

1.0 INTRODUCTION

By letter dated February 26, 2002 (Reference 1), the Vermont Yankee Nuclear Power Corporation (VYNPC) submitted a request to amend the Vermont Yankee Nuclear Power Station (VY) Technical Specifications (TSs). Subsequently, VYNPC's interest in the license was transferred to Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (ENO), and the new licensees of VY submitted supplements to the application dated October 9 and 30, 2002. (On August 6, 2002, ENO requested that the Nuclear Regulatory Commission (NRC) continue to review and act on all requests before the NRC that VYNPC had submitted before the transfer.) The proposed amendment would revise the TSs to change the definition of Operable in TS 1.0.K with respect to support system requirements for alternating current (AC) power sources. Conforming changes would also be made to specific support system TSs in sections 3/4.5, "Core and Containment Cooling Systems," 3/4.7, "Station Containment Systems," and 3/4.10, "Auxiliary Electrical Power Systems," and associated Bases.

2.0 BACKGROUND

The initial conditions of design basis accident and transient analyses in the Updated Final Analysis Report (UFSAR) assume that emergency safeguard systems are operable. The VY AC electrical power sources are designed to provide sufficient capacity, capability, and redundancy to ensure the availability of the necessary power to emergency safeguard systems. Adequate power can be provided to operate required emergency safeguards equipment by any one of the following AC electrical power sources:

1. An immediate access off-site power source through both startup transformers,
2. Backfeed through the main transformer (delayed access off-site power source), or
3. Either of the two diesel generators.

The immediate access off-site power source is capable of supplying the necessary power to operate emergency safeguards equipment. The immediate access off-site power source is available within seconds following a design basis accident to assure core cooling, containment integrity and other vital functions are maintained.

The delayed access off-site power source is capable of supplying the necessary power to operate emergency safeguards equipment. The delayed access off-site power source is

available within an hour of loss of main generator capability to assure that fuel design limits and design conditions of the reactor coolant pressure boundary are not exceeded.

Each of the diesel generators is capable of supplying 100 percent of the minimum emergency loads required under postulated design basis accident conditions to assure core cooling, containment integrity and other vital functions are maintained. Each diesel generator is physically and electrically independent of the other and of any off-site power source.

The following VY UFSAR sections provide additional background information.

- 8.3 - Station Transmission System
- 8.4 - Station Auxiliary Power System
- 8.5 - Standby Diesel Generator System
- 8.6 - 125 VDC System

The Vermont Yankee definition of "Operable" was modified in License Amendment No. 61, dated December 18, 1980, in response to a Nuclear Regulatory Commission (NRC) Generic Letter (GL), GL-80-30 (Reference 4), to all power reactor licensees dated April 10, 1980. The purpose of the GL was to resolve misunderstandings regarding the use of the term "Operable" as it applied to the single failure criterion for safety systems in power reactors. The GL requested that proposed changes be incorporated into TSs based on model TSs that were attached. The model TSs included a definition of "Operable-Operability" that contained explicit requirements for support systems that were not at that time part of the VY definition of "Operable" (e.g., normal and emergency power was required to be Operable for the supported systems to be considered operable). The model TSs also included a provision stating that when a normal or emergency power source is inoperable, operation would be governed by the time limits of the Action statement associated with the Limiting Condition for Operation (LCO) for the normal or emergency power source, and not the Action statements for each affected system, subsystem, train, component, or device. Each such system, subsystem, component, train, or device would currently be considered inoperable solely because of the inoperability of its normal or emergency power source.

The current VY definition of "Operable" is consistent with the GL and requires that a system, subsystem, train, component, or device have its normal and emergency power supply operable for the component to be considered Operable. The proposed change would revise the definition of "Operable" to require that a system, subsystem, train, component, or device have its normal or emergency power supply operable for the component to be considered operable. This new definition of "Operable" would be consistent with the NUREG-1433, "Standard Technical Specifications General Electric Plants, BWR/4," (Reference 5) definition of "Operable" and is supported by changes to TS 3/4.10, "Auxiliary Electrical Power Systems."

The TSs are formulated to preserve 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 LCOs that require all redundant components of safety-related systems to be operable. When the required redundancy is not maintained, either due to an equipment failure or maintenance outage, action is required, within a specified time, to restore compliance with the LCO or change the operating mode of the plant to place it in a safe condition. The specified time to take action, i.e., allowed outage time, is a temporary relaxation of the single failure criterion,

which is consistent with overall system reliability considerations, and would provide a limited time to fix equipment or otherwise make it operable. If the equipment can be returned to operable status within the specified time, a plant shutdown is not required.

LCOs are specified for systems in the plant and are relied upon in the safety analysis report. With few exceptions, the Action statements address single outages of components, trains or subsystems. For any particular system, the LCO does not normally address multiple outages of redundant components, nor does it address the effects of outages of most support systems, such as cooling water, that is relied upon to maintain the operability of the particular system. This is because of the large number of combinations of these types of outages that are possible. Instead, the TS employs general specifications and an explicit definition of the term Operable to encompass all such cases. These provisions were formulated to assure that no set of equipment outages would be allowed to persist that would result in the facility operating with a loss of safety function.

3.0 REGULATORY EVALUATION

The regulatory requirements which the staff considered in its review of the application include the proposed General Design Criteria (GDC) 39, “Emergency Power for Engineered Safety Features,” dated July 1967. The staff also considered the guidance in GL 80-30 (Reference 4) and NUREG-1433 (Reference 5). Although VY was not licensed to meet the final GDC’s of Appendix A, “General Design Criteria for Nuclear Power Plants,” to 10 CFR, Part 50, GDC 17, “Electric Power Systems” and GDC 18, “Inspection and Testing of Electric Power Systems,” were used to provide additional guidance for the staff’s review.

4.0 TECHNICAL EVALUATION

4.1 Proposed Change No. 1 - Definition of Operable - TS 1.0.K

The current TS definition of “Operable” considers systems, subsystems, trains, components and devices to be operable provided that both normal and emergency AC power sources are operable for these supported systems, subsystems, trains, components and devices. Thus when one source of AC power is inoperable, the current definition requires that the supported systems, subsystems, trains, components and devices be declared inoperable and that the associated Action statements entered. The definition of “Operable” is revised to redefine AC power source needs to allow either a normal or emergency power source to be operable for the supported systems, subsystems, trains, components or devices to be considered operable.

Reducing the need for both normal and emergency AC power sources would provide additional flexibility by allowing redundant systems and subsystems to be considered “operable” within the requirements of their functional operability requirements. To achieve that objective, the licensee proposes to adopt the current definition from the Standard Technical Specifications (STS).

This change is considered acceptable since additional proposed conditions are to be incorporated into Action statements for AC power sources in TS Section 3.10 (see proposed change Nos. 5, 8 and 10) when a normal or emergency AC power source is inoperable. These additional conditions ensure that appropriate actions are taken when there is a loss of safety

function associated with the supported systems, subsystems, trains, components or devices during the period when a normal or emergency AC power source is inoperable. These additional conditions restrict operation when one division's normal or emergency power source is inoperable and a redundant system, subsystem, train, component or device in the other division is inoperable.

Thus, the NRC staff concludes that the proposed change to the definition of "operable" is acceptable and consistent with the STS. The acceptability of this proposed change is supported below as part of proposed change Nos. 5, 8 and 10.

4.2 Proposed Change No. 2 - Deletion of all active component phrase

The licensee proposes to delete the phrase, "all active components of," from the following TS LCO sections; TS 3.5.A.2, 3, and 4, "Core Spray and Low Pressure Coolant Injection"; 3.5.C.2 and 3, "Residual Heat Removal (RHR) Service Water System"; 3.5.D.2 and 3, "Station Service Water and Alternate Cooling Tower Systems"; 3.5.E.2.b, "High Pressure Cooling Injection (HPCI) System"; 3.5.G.2.b, "Reactor Core Isolation Cooling System (RCIC)"; and 3.7.B.3.a and b, "Standby Gas Treatment System." These deletions are being proposed because operability of the other subsystems and systems required to be operable can be adversely affected by both active and passive system components. For example, an inoperable passive component can cause inoperability of a redundant system. This change is proposed to preclude continued plant operation with a loss of safety function or a condition outside the licensing basis due to inoperable passive components. In connection with this change, the licensee also proposes to make various editorial and grammatical changes to enhance readability and clarity. This proposed more restrictive change is acceptable because it maintains the level of protection intended to be provided by the current TS. This change is also consistent with the STS.

4.3 Proposed Change No. 3 - Deletion of diesel generator requirement phrase

TS sections, 3.5.A.2, 3, and 4, "Core Spray and Low Pressure Coolant Injection," and 3.5.C.3, "Residual Heat Removal (RHR) Service Water System," specify the actions that are required when the core spray system, Low Pressure Coolant Injection (LPCI), or RHR service water systems are inoperable. Each of these actions provide an allowed outage time for the subject component if the diesel generators that support the remaining operable components, specified in the actions, are operable.

In its amendment request, VY proposes to delete the phrase "and the diesel generators required for operation of such components if no external source of power were available" from the LCOs. VY also proposes to revise the AC power requirements in TS Section 3.10 following the STS guidelines, and hence, the diesel generator operability requirements are not needed in the TS LCOs for the individual systems. Since TS Section 3.10 contains the majority of the diesel generator requirements, and since the diesel generators support the operability of other systems in addition to the Core and Containment Cooling Systems, it is more appropriate for the diesel generator action requirements to be specified in TS Section 3.10. These additional conditions ensure, during the period when a normal or emergency AC power source is inoperable, appropriate actions when there is a loss of safety function associated with the supported systems, subsystems, trains, components or devices. These additional conditions restrict operation when one division's normal or emergency power source is inoperable and a

redundant system, subsystem, train, component or device in the other division is inoperable. The level of protection is still maintained, therefore, the proposed deletions are acceptable. In addition, the changes are consistent with the STS. The acceptability of this change is supported below as part of proposed change Nos. 5, 8 and 10.

4.4 Proposed Change No. 4

Proposed change No. 4 was removed from this amendment request by letters dated October 9 and 30, 2002 (Reference 2 and 3).

4.5 Proposed Change No. 5 - Diesel generator action requirements

Current TS: Whenever the reactor is in Run Mode or Startup Mode with the reactor not in Cold Shutdown, the requirements of 3.10.A, "Auxiliary Electrical Power Systems," shall be met except diesel generators from and after the date that one of the diesel generators or its associated buses are made or found to be inoperable for any reason and the remaining diesel generator is operable, the requirements of Specification 3.5.H.1, "Minimum Core and Containment Cooling System Availability," shall be satisfied. Specification 3.5.H.1 states: During any period when one of the emergency diesel generators is inoperable, continued reactor operation is permissible only during the succeeding 7 days, provided that all of the LPCI, Core Spray and Containment Cooling Subsystems connecting to the operable diesel generator shall be operable. If this requirement cannot be met, an orderly shutdown shall be initiated and the reactor shall be in the cold shutdown condition within 24 hours.

Proposed new TS: Whenever the reactor is in Run Mode or Startup Mode with the reactor not in Cold Shutdown, the requirements of 3.10.A shall be met except from and after the date that one of the diesel generators is made or found to be inoperable for any reason and the remaining diesel generator is operable, continued operation is permissible only during the succeeding 7 days, provided that either:

a. all required systems, subsystems, trains, components and devices (i.e., required features) supported by the operable diesel generator are operable, or
b. if required feature(s) supported by the operable diesel generator are inoperable, the redundant required feature(s) supported by the inoperable diesel generator are immediately declared inoperable and the applicable Technical Specification action(s) taken.

Otherwise, an orderly shutdown shall be initiated and the reactor shall be in the cold shutdown condition within 24 hours.

Three changes are included in the proposed new TS: (1) Deletion of the reference to inoperable buses, (2) Revising the diesel generator action provisions, and (3) Moving the diesel generator action requirements.

(1) Deletion of the reference to inoperable buses

Part of the proposed change, the phrase "or its associated buses" was deleted. This deletion is considered to be administrative since the TS does not include any specific applicable actions

for inoperable buses. Currently, if required buses are inoperable, the definition of "Operable" requires the supported equipment to be declared inoperable and the associated TS action taken. The deletion of the reference to inoperable buses in TS 3.10.B.1, "Diesel Generators," does not change this requirement of the definition of "Operable." Therefore, the deletion of the TS 3.10.B.1 reference to inoperable buses has no negative impact on plant safety.

The deletion of the reference to inoperable buses has no negative impact on plant safety. With either the old or the proposed new definition for "Operability," an inoperable bus requires that equipment supported by the inoperable bus be considered inoperable and the appropriate TS followed. Required systems, subsystems, trains, components and devices as well as onsite and offsite power sources can be considered supported by the diesel generator's associated buses. The inoperability of associated buses in both the current existing and proposed new TS necessarily results in the inoperability of supported required systems, subsystems, trains, components and devices as well as supported onsite diesel generator and offsite power sources. The deletion of reference to inoperable buses maintains current TS requirements and does not have a negative impact on plant safety. The proposed deletion is, therefore, considered acceptable.

(2) Revising the diesel generator action provisions

Revising the diesel generator action provisions to require all TS required systems, subsystems, trains, components and devices supported by the operable diesel generator to be operable (not just the LPCI, Core Spray and Containment Cooling subsystems supported by the operable diesel generator) are necessary to support the change to the definition of "Operable" discussed in proposed change No. 1. These additional conditions ensure that during the period that a diesel generator is inoperable, a loss of safety function associated with the supported systems, subsystems, trains, components or devices results in appropriate actions being taken. These additional conditions restrict operation when one division's emergency power source is inoperable and a redundant system, subsystem, train, component or device in the other division is inoperable. Specifically, in this condition, the supported equipment is required to be declared inoperable or a plant shutdown is required. By declaring the affected supported equipment inoperable and as a result taking the TS actions of the affected supported equipment, unit operation is maintained within the bounds of the TS and approved actions. Since the AC power sources support the operability of the affected equipment, it is appropriate to declare that affected supported equipment inoperable. This change will provide a positive measure to restrict operation within the bounds of the TS with an inoperable diesel generator if any redundant system that is supported by the operable diesel generator (not just LPCI, Core Spray and Containment Cooling subsystems) is inoperable. These additional provisions are considered an enhancement to plant safety.

On the basis of this assessment, the proposed change is considered acceptable.

(3) Moving the diesel generator action requirements

Moving the diesel generator action requirements from TS Section 3.5 to TS Section 3.10, is done as a presentation preference. The action in TS Section 3.5 is currently referenced by TS Section 3.10. Since TS Section 3.10 contains the majority of the diesel generator requirements and since the diesel generators support the operability of more systems than just the Core and

Containment Cooling Systems (e.g., Standby Gas Treatment System), it is more appropriate for the diesel generator action requirements to be in TS Section 3.10. This change is acceptable since the level of protection is still maintained. In addition, the changes are consistent with the STS. Moving these diesel generator action requirements is an editorial change.

4.6 Proposed Change No. 6

Proposed change No. 6 was removed from this amendment request by letters dated October 9 and 30, 2002 (Reference 2 and 3).

4.7 Proposed Change No. 7 - 125 volt Station Battery Systems

Proposed New TS: Whenever the reactor is in Run Mode or Startup Mode with the reactor not in Cold Shutdown, the requirements of 3.10.A shall be met except Batteries from and after the date that one of the two 125 volt Station Battery Systems is made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding 3 days provided that during such 3 days, all required systems, subsystems, trains, components and devices supported by the operable 125 volt Station Battery Systems are operable, unless such Battery System is sooner made operable. If this requirement cannot be met, an orderly shutdown shall be initiated and the reactor shall be in the cold shutdown condition within 24 hours.

The 125 volt Station Battery System action provisions are revised to require all TS required systems, subsystems, trains, components and devices supported by the operable 125 volt Station Battery System to be operable, not just the LPCI, Core Spray and Containment Cooling subsystems. These additional provisions ensure that during the period when one of the two 125 volt Station Battery Systems is inoperable, continued operation with a loss of safety function associated with the supported systems, subsystems, trains, components or devices is precluded. These additional provisions specifically prohibit continued operation when one division's 125 volt Station Battery System is inoperable and a redundant system, subsystem, train, component or device in the other division is inoperable. This change will provide a positive measure to prevent operation with an inoperable 125 volt Station Battery System if any redundant system that is supported by the operable 125 volt Station Battery System (not just LPCI, Core Spray and Containment Cooling subsystems) is operable. This more restrictive change is considered an enhancement to plant safety.

This proposed change is more restrictive and is an enhancement to plant safety. On the basis of the above described assessment, the proposed change is acceptable.

4.8 Proposed Change No. 8 - Off-site power source action requirements

Current TS: Whenever the reactor is in Run Mode or Startup Mode with the reactor not in Cold Shutdown, the requirements of 3.10.A shall be met except Off-Site Power from and after the date one off-site power source is made or found to be inoperable for any reason. Under this condition, reactor operation may continue for 7 days provided the remaining off-site source, both emergency diesel generators, associated emergency buses and all Low Pressure Core and Containment Cooling Systems are operable. If this requirement cannot be met, an orderly

shutdown shall be initiated and the reactor shall be in cold shutdown within 24 hours unless the conditions of TS 3.10.B.3.b are applicable.

Proposed New TS: Whenever the reactor is in Run Mode or Startup Mode with the reactor not in Cold Shutdown, the requirements of 3.10.A shall be met except Off-Site Power from and after the date one off-site power source is made or found to be inoperable for any reason.

Under this condition, reactor operation may continue for 7 days provided the remaining off-site power source and both diesel generators are operable, and either:

a. all required systems, subsystems, trains, components and devices (i.e., required features) supported by the operable off-site source are operable, or
b. if required feature(s) supported by the operable off-site source are inoperable, the redundant required feature(s) with no off-site power are immediately declared inoperable and the applicable TS action(s) taken.

Otherwise, an orderly shutdown shall be initiated and the reactor shall be in the cold shutdown condition within 24 hours unless the conditions of TS 3.10.B.3.b are applicable.

Revising the off-site power source action provisions to require all TS required systems, subsystems, trains, components and devices supported by the operable off-site power source to be operable, not just the associated emergency buses, and all Low Pressure Core and Containment Cooling Systems, is necessary to support the change to the definition of "Operable" discussed in proposed change No. 1 above. These additional conditions ensure that during the period that an off-site power source is inoperable, a loss of safety function associated with the supported systems, subsystems, trains, components or devices results in appropriate actions being taken. These additional conditions restrict operation when one off-site power source is inoperable and a redundant system, subsystem, train, component or device in the other division is inoperable. Specifically, in this condition, the supported equipment is required to be declared inoperable when no off-site power is available or a plant shutdown is required. By declaring the affected supported equipment inoperable and as a result taking the TS actions specified for the affected supported equipment, unit operation is maintained within the bounds of the TS and approved actions. Since the AC power sources support the operability of the affected equipment, it is appropriate that proper action, in this condition, would be to declare that affected supported equipment inoperable. This change will provide a positive measure to restrict operation to within the bounds of the TS with an inoperable off-site power source if any redundant system that is supported by the operable off-site power source (not just associated emergency buses, and all Low Pressure Core and Containment Cooling Systems) is inoperable.

On the basis of the above described assessment, the proposed change is considered acceptable.

4.9 Proposed Change No. 9. - Verify remaining off-site power sources

Proposed New TS: When one off-site power source is unavailable, the remaining power source shall be verified operable within 1 hour and once per 8 hours thereafter. When either off-site power source and one diesel are unavailable, (1) The other off-site power source shall be

verified operable within 1 hour and once per 8 hours thereafter. (2) The remaining diesel generator shall have been or shall be demonstrated to be operable within 24 hours.

The proposed change removes from TS 4.10.B.3.a the surveillance requirement that both emergency diesel generators, associated buses and all Low Pressure Core and Containment Cooling Systems shall have been or shall be verified operable within 1 hour and once per 8 hours thereafter when one off-site power source is unavailable. Similarly, the proposed change removes from TS 4.10.B.3.b the surveillance requirement that all Low Pressure Core and Containment Cooling Systems shall have been or shall be verified operable within 1 hour and once per 8 hours. These surveillance requirement changes support Action statement provisions (proposed change No. 8) to identify the condition for which the specified allowed outage is applicable in TS 3.10.B.3.a for when one off-site power source is inoperable and in TS 3.10.B.3.b for when one off-site power source and one diesel generator are inoperable.

These Action statement provisions are adequate to ensure that the specified allowed outage time is only utilized if these provisions are satisfied without the need to explicitly require periodic verification that the applicable TS equipment is operable. In general, this type of requirement is addressed by plant-specific processes which continuously monitor plant conditions to ensure that changes in the status of plant equipment that require entry into action statements (as a result of failure to maintain equipment operable) are identified in a timely manner. This verification is an implicit part of using TSs and determining the appropriate action statements to enter in the event of inoperability of TS equipment.

In addition, plant and equipment status is continuously monitored by control room personnel. The results of this monitoring process are documented in records/logs maintained by control room personnel. The continuous monitoring process includes re-evaluating the status of compliance with TS requirements when TS equipment becomes inoperable using the control room records/logs as aids. Therefore, the explicit requirement to periodically verify that the applicable TS equipment is operable is considered to be unnecessary for ensuring compliance with TS 3.10.B.3.a and TS 3.10.B.3.b requirements. The proposed change does not negatively impact plant safety since the status of plant equipment and compliance with TS requirements will continue to be monitored.

TSs 3.10.B.3.a and 3.10.B.3.b direct control room personnel to ensure the operability of equipment without the need for a duplicate explicit TS surveillance requirement to verify the operability of equipment. The proposed revision of the explicit TS surveillance requirement is therefore considered acceptable.

4.10 Proposed Change No. 10 - Operation with inoperable components

Current TS: Whenever the reactor is in Run Mode or Startup Mode with the reactor not in Cold Shutdown, the requirements of 3.10.A shall be met except Off-Site Power from and after the date either off-site power source or one diesel generator is made or found to be inoperable for any reason. Continued operation is permitted for 24 hours as long as the remaining off-site power source, the remaining diesel generator, associated emergency buses and all Low Pressure Core and Containment Cooling Systems are operable. If this requirement cannot be met, an orderly shutdown shall be initiated and the reactor shall be in cold shutdown within 24 hours.

Proposed New TS: Whenever the reactor is in Run Mode or Startup Mode with the reactor not in Cold Shutdown, the requirements of 3.10.A shall be met except Off-Site Power from and after the date either off-site power source and one diesel generator are made or found to be inoperable for any reason. Continued operation is permitted for 24 hours as long as the remaining off-site power source and the remaining diesel generator are operable, and either:

1. all required systems, subsystems, trains, components and devices (i.e., required features) supported by the operable off-site power source are operable and all required features supported by the operable diesel generator are operable, or

2. if required feature(s) supported by the operable off-site power source are inoperable or if required feature(s) supported by the operable diesel generator are inoperable, the redundant required feature(s) with no offsite power and the redundant required features(s) supported by the inoperable diesel generator are immediately declared inoperable and the applicable Technical Specification action(s) taken.

Otherwise, an orderly shutdown shall be initiated and the reactor shall be in the cold shutdown condition within 24 hours.

Revising the inoperable off-site power source and diesel generator action provisions to require all TS required systems, subsystems, trains, components and devices supported by the operable off-site power source, or supported by the operable diesel generator, to be operable, and not just the associated emergency buses, and all Low Pressure Core and Containment Cooling Systems, is necessary to support the change to the definition of “Operable” discussed in proposed change No. 1 above. These additional conditions ensure that during the period that AC power sources are inoperable, a loss of safety function associated with the supported systems, subsystems, trains, components or devices results in appropriate actions being taken.

These additional conditions restrict operation when a normal and an emergency power source are inoperable and a redundant system, subsystem, train, component or device is inoperable. Specifically, in this condition for the inoperable off-site power source, the supported equipment is required to be declared inoperable when no off-site power is available or a plant shutdown is required. In addition, for the inoperable diesel generator, the supported equipment is required to be declared inoperable or a plant shutdown is required. By declaring the affected supported equipment inoperable and as a result taking the TS actions for the affected supported equipment, unit operation is maintained within the bounds of the TS and approved actions.

Since the AC power sources support the operability of the affected equipment, it is appropriate that proper action, in this condition, would be to declare that affected supported equipment inoperable. This change will provide a positive measure to restrict operation to within the bounds of the TS with an inoperable off-site power source and inoperable diesel generator if any redundant system that is supported by the operable off-site power source, or supported by the operable diesel generator, (not just associated emergency buses, and all Low Pressure Core and Containment Cooling Systems) is inoperable.

On the basis of the above described assessment, the proposed change is considered acceptable.

4.11 Proposed Change No. 11 - Delete the phrase “or associated buses”

The proposed change deletes the phrase “or associated buses.” This change is addressed above as part of proposed change No. 5.

4.12 Proposed Change No. 12

Proposed change 12 was removed from this amendment request by letters dated October 9 and 30, 2002 (Reference 2 and 3).

4.13 Proposed Change No. 13 - Bases Changes

These proposed Bases changes revise the sections associated with the above proposed TS changes and are considered administrative. The staff has no objection to these Bases changes.

5.0 EVALUATION REVIEW

The proposed changes clarify the definition of “Operable” and eliminate inconsistency between the Action statement allowed outage times for inoperable AC power sources and the Action statement allowed outage times for the supported systems, subsystems, trains, components and devices. The staff finds the TS with these proposed changes to be an acceptable.

6.0 STATE CONSULTATION

In accordance with the Commission’s regulations, the Vermont State official was notified of the proposed issuance of the amendment. The State official had no comments.

7.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in amounts, and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (67 FR 78519). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

8.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the

Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

9.0 REFERENCE

1. Vermont Yankee Nuclear Power Corporation transmittal of an Application for Amendment to the Vermont Yankee Nuclear Power Station Operating License DPR-28 to NRC from Michael A. Balduzzi, Senior Vise President and Chief Nuclear Officer - Vermont Yankee Nuclear Power Corporation, February 26, 2002, BVY 02-12 (NRC Docket Number 50-271, TAC Number MB4291, ADAMS Accession Number ML020590443)

2. Entergy Nuclear Operations, Inc. transmittal of Supplement 1 to an Application for Amendment to the Vermont Yankee Nuclear Power Station Operating License DPR-28 to NRC from Michael A. Balduzzi, Vice President, Operations, October 9, 2002, BVY 02-81 (NRC Docket Number 50-271, TAC Number MB4291, ADAMS Accession Number ML022890501)

3. Entergy Nuclear Operations, Inc. transmittal of Supplement 2 to an Application for Amendment to the Vermont Yankee Nuclear Power Station Operating License DPR-28 to NRC from Michael A. Balduzzi, Vice President, Operations, October 30, 2002, BVY 02-88 (NRC docket Number 50-271, TAC Number MB4291, ADAMS Accession Number ML023050425)

4. U.S. NRC, Generic Letter 80-30, to all Power Reactor Licensees, April 10, 1980.

5. NUREG-1433, Standard Technical Specifications General Electric Plants, BWR/4, Revision 2, dated April 30, 2001.

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Date: February 4, 2003