

July 29, 2003

Mr. David A. Christian  
Sr. Vice President and Chief Nuclear Officer  
Dominion Nuclear Connecticut, Inc.  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

SUBJECT: MILLSTONE POWER STATION, UNIT NO. 2 - ISSUANCE OF AMENDMENT  
RE: ELECTRICAL POWER SYSTEMS - D. C. DISTRIBUTION  
(TAC NO. MB6110)

Dear Mr. Christian:

The Commission has issued the enclosed Amendment No. 279 to Facility Operating License No. DPR-65 for the Millstone Power Station, Unit No. 2, in response to your application dated August 12, 2002, as supplemented on October 21, 2002, and January 15, 2003.

The amendment revises Technical Specification (TS) 3.8.2.3, "Electrical Power Systems, D.C. Distribution - Operating"; TS 3.8.2.4, "Electrical Power Systems, D.C. Distribution - Shutdown"; and TS 3.8.2.5, "Electrical Power Systems, D.C. Distribution Systems (Turbine Battery) - Operating" to use standard TS terminology in order to provide enhanced readability and usability. The proposed amendment also provides additional criteria for determining battery operability upon restoration from a recharge or equalizing charge.

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/**

Richard B. Ennis, Senior Project Manager, Section 2  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosures: 1. Amendment No. 279 to DPR-65  
2. Safety Evaluation

cc w/encls: See next page

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Incoming: ML , Package Number: ML

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\*See previous concurrence

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Unit 2

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DOMINION NUCLEAR CONNECTICUT, INC.

DOCKET NO. 50-336

MILLSTONE POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 279  
License No. DPR-65

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the applicant dated August 12, 2002, as supplemented on October 21, 2002, and January 15, 2003, 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 2.C.(2) of Facility Operating License No. DPR-65 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 279, 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 the date of issuance, and shall be implemented within 90 days of issuance.

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: July 29, 2003

ATTACHMENT TO LICENSE AMENDMENT NO. 279

FACILITY OPERATING LICENSE NO. DPR-65

DOCKET NO. 50-336

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

Remove

3/4 8-8

3/4 8-9

- - -

3/4 8-10

3/4 8-11

3/4 8-12

B 3/4 8-1o

- - -

Insert

3/4 8-8

3/4 8-9

3/4 8-9a

3/4 8-10

3/4 8-11

3/4 8-12

B 3/4 8-1o

B 3/4 8-1p

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 279

TO FACILITY OPERATING LICENSE NO. DPR-65

DOMINION NUCLEAR CONNECTICUT, INC.

MILLSTONE POWER STATION, UNIT NO. 2

DOCKET NO. 50-336

1.0 INTRODUCTION

By application dated August 12, 2002, as supplemented on October 21, 2002, and January 15, 2003, Dominion Nuclear Connecticut, Inc. (the licensee), requested changes to the Millstone Power Station, Unit No. 2 (MP2) Technical Specifications (TSs). The supplements dated October 21, 2002, and January 15, 2003, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on October 1, 2002 (67 FR 61677).

The proposed amendment would revise TS 3.8.2.3, "Electrical Power Systems, D.C. Distribution - Operating"; TS 3.8.2.4, "Electrical Power Systems, D.C. Distribution - Shutdown"; and TS 3.8.2.5, "Electrical Power Systems, D.C. Distribution Systems (Turbine Battery) - Operating" to use standard TS terminology in order to provide enhanced readability and usability. The proposed amendment would also provide additional criteria for determining battery operability upon restoration from a recharge or equalizing charge. The TS Bases would also be revised to address the proposed changes.

2.0 REGULATORY EVALUATION

2.1 General Design Criteria

The Atomic Energy Commission (AEC) issued the construction permit for MP2 on December 11, 1970. The plant was designed and constructed based on the proposed General Design Criteria (GDC) published by the AEC in the *Federal Register* on July 11, 1967 (32 FR 10213). On February 20, 1971, the final rule that added Appendix A to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "General Design Criteria for Nuclear Power Plants," was published by the AEC in the *Federal Register* (36 FR 3255). As discussed in Appendix 1A of the MP2 Final Safety Analysis Report (FSAR), since February 20, 1971, the applicants/licensees for MP2 have attempted to comply with the intent of the newer GDC, to the extent possible, recognizing previous design commitments. The extent to which this has been possible is reflected in the discussions of the 1971 GDC described in Appendix 1A of the FSAR,

and in specific sections of the FSAR, as applicable.

FSAR Section 8.5.1.2 discusses the design criteria applicable to the components of the battery system at MP2. The criteria which the staff applied in its review of the amendment request are GDC 17, GDC 18, and Safety Guide 6 (later published as Regulatory Guide (RG) 1.6).

GDC 17, "Electric power systems," requires, in part, that the onsite electrical power supplies, including the batteries, and the onsite electrical distribution system, have sufficient independence, redundancy, and testability to perform their safety functions assuming a single failure.

GDC 18, "Inspection and testing of electric power systems," requires, in part, that electric power systems important to safety be designed to permit appropriate periodic inspection and testing. In RG 1.129, Revision 1, "Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Nuclear Power Plants," the U.S. Nuclear Regulatory Commission (NRC or the Commission) endorsed the Institute of Electrical and Electronic Engineers Standard 450 (IEEE 450), "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations," dated May 29, 1975, as an acceptable means (subject to conditions on the battery service test) of complying with GDC 18 for direct current (DC) systems. In NUREG-1432, Revision 2, "Standard Technical Specifications - Combustion Engineering Plants," Section 3.8.6, a note indicates that the NRC uses the 1995 revision of IEEE-450 to evaluate TSs for large lead storage batteries. Other revisions of IEEE-450 may be used by the NRC to review license amendments if the licensee has committed to those revisions.

Safety Guide 6, "Independence Between Redundant Standby (Onsite) Power Sources and Between their Distribution Systems," dated March 10, 1971, describes an acceptable degree of independence between redundant standby (onsite) power sources and between their distribution systems consistent with GDC 17.

## 2.2 10 CFR 50.36(c)(2)(ii) Requirements

Section 182a of the Atomic Energy Act of 1954, as amended, requires applicants for nuclear power plant operating licenses to state the TSs to be included as part of the license. The Commission's regulatory requirements related to the content of the TSs are set forth in 10 CFR 50.36. That regulation requires the TSs to include items in five specific categories, including: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCOs); (3) surveillance requirements (SRs); (4) design features; and (5) administrative controls. However, the regulation does not specify the particular requirements to be included in a plant's TSs.

Under 10 CFR 50.36(c)(2)(ii), an LCO must be included in the TSs for any item meeting one or more of the following four criteria:

1. Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary;
2. A process variable, design feature, or operating restriction that is an initial condition of a design-basis accident (DBA) or transient analysis that either assumes the failure of, or

presents a challenge to, the integrity of a fission product barrier;

3. A structure, system, or component (SSC) that is part of the primary success path and which functions or actuates to mitigate a DBA or transient that either assumes the failure of, or presents a challenge to, the integrity of a fission product barrier; and
4. An SSC which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

As a result, existing TS requirements that fall within or satisfy any of the criteria in 10 CFR 50.36 must be retained in the TSs, while those TS requirements that do not fall within or satisfy these criteria may be relocated to other licensee-controlled documents.

### 3.0 TECHNICAL EVALUATION

The staff has reviewed the licensee's justification for the proposed license amendment as described in the licensee's application dated August 12, 2002, as supplemented on October 21, 2002, and January 15, 2003. The NRC staff's detailed evaluation is provided in Safety Evaluation (SE) Sections 3.1 through 3.4.

As discussed in FSAR Section 8.5, the 125-volt DC supply system at MP2 consists of two isolated switchgear bus sections and associated distribution panelboards. Each of the two DC switchgear bus sections is supplied by a separate 60-cell, 2320 ampere-hour (amp-hr) battery and two 400 amp battery chargers, normally connected in parallel to form a single 800 amp charger, plus a pair of standby chargers for use with either of the two batteries. An additional battery/charger/switchgear combination is provided for non-vital loads associated with the turbine and its auxiliaries, for certain non-vital emergency lights, and for backup of selected vital alternating current (AC) panels through DC/AC inverters. This system consists of one 1500 amp-hr battery, two 200 amp chargers, and a DC switchgear assembly.

The staff reviewed and evaluated the proposed license amendment to TS 3.8.2.3, TS 3.8.2.4, and TS 3.8.2.5 as follows:

#### 3.1 TS 3.8.2.3, "Electrical Power Systems, D.C. Distribution - Operating"

The present LCO states:

- 3.8.2.3 The following D.C. bus trains shall be energized and OPERABLE with at least one tie breaker between bus trains open:

TRAIN "A" consisting of 125-volt D.C. bus 201A, 125-volt D.C. battery bank 201A, and at least 400 ampere charging capacity.

TRAIN "B" consisting of 125-volt D.C. bus 201B, 125-volt D.C. battery bank 201B, and at least 400 ampere charging capacity.

The licensee proposes to modify the LCO for TS 3.8.2.3 to read as follows:

3.8.2.3 "125-volt D.C. bus Train A and 125-volt D.C. bus Train B electrical power subsystems shall be OPERABLE."

The phrases "energized and" and "with at least one tie breaker between bus trains open" are part of the conditions that must be met for a D.C. bus to be operable and, therefore, are redundant to the requirement to be operable. This information would be relocated to the TS Bases.

The description of Train "A" and Train "B" is not required to be in the TS by 10 CFR 50.36 nor does NUREG-1432 include such a description. The discussion of what constitutes both trains would be added to the TS Bases.

The licensee proposes to replace the phrase: "The following D.C. bus trains," from the LCO for TS 3.8.2.3 with the phrase "125-volt D.C. bus Train "A" and 125-volt D.C. bus Train "B" electrical power subsystems." This is consistent with the previously discussed changes for relocation of a specific discussion as to the components of an operable D.C. bus train to the TS Bases, such that the LCO focuses on the concept of operability. The resultant LCO would still require both 125-volt D.C. bus Train "A" and Train "B" to be operable.

The present ACTION statement of the LCO for TS 3.8.2.3 states:

- a. With one 125-volt D.C. bus inoperable, restore the inoperable bus to OPERABLE status within 2 hours or be in COLD SHUTDOWN within the next 36 hours.
- b. With a 125-volt D.C. battery and/or its charger inoperable, restore the inoperable battery and/or charger to OPERABLE status within 2 hours or be in COLD SHUTDOWN within the next 36 hours.

The licensee proposes the following ACTION statement for the LCO for TS 3.8.2.3:

With one 125-volt D.C. bus train inoperable, restore the inoperable 125-volt D.C. bus train to OPERABLE status within 2 hours or be in COLD SHUTDOWN within the next 36 hours.

The wording changes are consistent with the LCO terminology. Deleting ACTION "b" is acceptable, as the 125-volt D.C. bus train includes the battery and the charger, and the requirement has been incorporated in the revised ACTION statement.

Upon incorporation of the proposed changes, if one of the required 125-volt D.C. batteries and/or its associated charger are inoperable, the associated 125-volt D.C. bus train would be inoperable, and the ACTION statement would require that the inoperable D.C. battery and/or its associated charger be restored to operable status within 2 hours or be in COLD SHUTDOWN within the next 36 hours.

The present SR 4.8.2.3.1 is as follows:

- 4.8.2.3.1 Each D.C. bus train shall be determined OPERABLE and energized with at least one tiebreaker open at least once per 7 days by verifying correct breaker alignment and indicated power availability.

The licensee proposes the following for SR 4.8.2.3.1:

- 4.8.2.3.1 Each 125-volt D.C. bus train shall be determined OPERABLE at least once per 7 days by verifying correct breaker alignment and indicated power availability.

This change is acceptable since the words “and energized with at least one tiebreaker open” constitute, in part, the definition of an operable D.C. bus and, therefore, are unnecessary. The change is also consistent with the proposed terminology for the LCO for TS 3.8.2.3.

The present SR 4.8.2.3.2 is as follows (in part):

- 4.8.2.3.2 Each 125-volt battery bank and charger shall be demonstrated OPERABLE:
- a. At least once per 7 days by verifying that:
    - 1. The electrolyte level of each pilot cell is between the minimum and maximum level indication marks,
    - 2. The pilot cell specific gravity, corrected to 77 °F, is  $\geq 1.200$ ,
    - 3. The pilot cell voltage is  $\geq 2.08$  volts, and
    - 4. The overall battery voltage is  $\geq 125$  volts.
  - b. At least once per 92 days by verifying that:
    - 1. The voltage of each connected cell is  $\geq 2.08$  volts under float charge, and
    - 2. The specific gravity, corrected to 77 °F, of each cell is  $\geq 1.200$ .
  - c. At least once per 18 months by verifying that:
    - 1. The cells, cell plates and battery racks show no visual indication of physical damage or deterioration.

The licensee proposes the following for SR 4.8.2.3.2:

Revise the wording of SR 4.8.2.3.2 to be consistent with the terminology for the LCO for TS 3.8.2.3, discussed above. Modify SR 4.8.2.3.2.a and SR 4.8.2.3.2.b by reformatting the existing acceptance criteria into a tabular format (Table 4.8-1, "Battery Cell

Parameters") as follows:

Table 4.8-1  
Battery Cell Parameters

Parameter	Category A: Limits For Each Designated Pilot Cell	Category B: Limits For Each Connected Cell
Electrolyte Level	Between the minimum and maximum level indication marks <sup>(a)</sup>	Not required
Cell Voltage	≥ 2.08 Volts	≥ 2.08 Volts under float charge
Specific Gravity <sup>(b)(c)</sup>	≥ 1.200 (Corrected to 77 °F)	≥ 1.200 (Corrected to 77 °F)
Battery Voltage	≥ 125 Volts (Overall voltage)	Not required

Table 4.8-1 identifies four parameters to be surveilled: Electrolyte Level, Cell Voltage, Specific Gravity and Battery Voltage.

Consistent with the reformatting of the existing acceptance criteria for SR 4.8.2.3.2.a and SR 4.8.2.3.2.b into tabular format, SR 4.8.2.3.2 would be reworded as follows (in part):

- 4.8.2.3.2 Each 125-volt D.C. battery bank and charger of Train A and Train B shall be demonstrated OPERABLE:
- a. By verifying at least once per 7 days that the battery cell parameters meet Table 4.8-1 Category A limits.
  - b. By verifying at least once per 92 days the battery cell parameters meet Table 4.8-1 Category B limits.

Proposed Table 4.8-1, "Battery Cell Parameters," and Table 4.8-2, "Turbine Battery Cell Parameters," indicate that verifying the electrolyte level in each connected cell is "not required." In response to the staff's request for additional information (RAI), the licensee, in their letter of January 15, 2003, stated that plant procedures specify a weekly surveillance that verifies the electrolyte levels are within their high and low limits for each connected cell of batteries (201A and 201B) and the Turbine Battery (201D). Also, the licensee confirmed that the MP2 FSAR will be revised to show how current practices and procedures for the batteries comply with the recommendations of IEEE 450-1980, "IEEE Recommended Practice for Maintenance, Testing and Replacement of Large Lead Storage Batteries for Generating Stations and Substations." This is acceptable as the monitoring of electrolyte level of each connected cell provided for by the plant procedure will be described in the FSAR and considered as a routine or preventive maintenance type activity. The licensee may change this procedure only through the process set forth in 10 CFR 50.59 which establishes adequate control with respect to the procedure.

The licensee proposes to add three notes to Table 4.8-1 and to Table 4.8-2. The first note (a) is related to the electrolyte level and would state:

- a. "It is acceptable for the electrolyte level to temporarily increase above the specified maximum during an equalizing charge provided it is not overflowing. Electrolyte level readings will be verified to meet the Category A limits within 7 days of completing an equalizing charge."

This change is consistent with IEEE 450 and industry practice. The 7-day limit is a reasonable time to allow the electrolyte level to stabilize and to provide sufficient time to verify battery electrolyte levels are within Category A limits. In addition, a discussion of the basis for note (a) would be added to the TS Bases.

The second note (b) is related to the specific gravity acceptance criteria of Category A and Category B limits. It will state:

- b. "Corrected for electrolyte temperature and level. Level correction is not required, however, when battery charging is < 5 amps when on float charge."

IEEE 450-1980 Appendix A1 states that "During the recharge of a battery, high specific gravity sulfuric acid is generated. This acid will sink towards the bottom of the cell, resulting in a specific gravity gradient which produces an incorrect low reading at the top of the cell. Therefore it is normal for the state of charge as indicated by the specific gravity at the top of the cell to lag behind that indicated by the ampere-hours of recharge current. Charging voltage limits do not ordinarily allow enough recharge current to provide mixing acting. Therefore this gradient may persist until corrected by diffusion."

A battery charging current of 5 amps when on float charge was selected consistent with the plant's design basis (see justification below).

A discussion of the basis for note (b) would be added to the TS Bases.

The third note (c) is related to specific gravity acceptance criteria of Category "A" and Category "B" limits and the charging current when the battery is on float. It would state:

- c. "A battery charging current of < 5 amps when on float charge is acceptable for meeting specific gravity limits following a battery recharge, for a maximum of 7 days. When charging current is used to satisfy specific gravity requirements, specific gravity of each connected cell shall be measured prior to expiration of the 7 day allowance."

The float current is an acceptable method to determine the state of charge of the battery. This is consistent with industry practice and the recommendation of IEEE 450.

Table 4.8-1 and Table 4.8-2 require monitoring of each connected cell specific gravity. Footnote (c) allows battery charging current to be verified at < 5 amps when on float charge to substitute for specific gravity measurements. Use of float current to determine the state of charge of the battery is consistent with Section 4.5 of IEEE Standard 450-1995. The licensee proposed battery float current limit to be 5 amps.

In response to the staff's RAI, the licensee, in their letter of January 15, 2003, confirmed that the proposed criteria for the battery float charging current is consistent with actual readings taken for the affected batteries. The meter used to measure the current has a range of 0-500 amps, with divisions marked every 10 amps. As such, actual readings can only be taken to an accuracy of 5 to 10 amps. A review of historical data shows that battery charging current on float is recorded as either 0, 5, or 10 amps. Accordingly, the proposed limit of 5 amps is a valid indication that the battery is recharged.

A discussion of the basis for note (c) would be added to the TS Bases.

The licensee proposes to revise SR 4.8.2.3.2.c.1 by adding the phrase, "that could degrade battery performance," after the phrase, "physical damage or deterioration."

The presence of physical damage or deterioration does not necessarily represent a failure of this SR, provided an evaluation determines that the physical damage or deterioration does not affect the operability of the battery or its ability to perform its design function.

The changes to TS 3.8.2.3 and its SRs are consistent with the requirements of GDC-17, GDC-18, Safety Guide 6, and 10 CFR 50.36 and, therefore, the NRC staff finds them acceptable.

### 3.2 TS 3.8.2.4, "Electrical Power Systems, D.C. Distribution - Shutdown"

The present LCO for TS 3.8.2.4 states:

3.8.2.4 As a minimum, the following D.C. electrical equipment and bus shall be energized and OPERABLE:

1- 125-volt D.C. bus, and

1- 125-volt battery bank and at least 400 ampere charging capacity supplying the above D.C. bus.

The licensee proposes to revise the LCO for TS 3.8.2.4 to read as follows:

3.8.2.4 "One 125-volt D.C. bus train electrical power subsystem shall be OPERABLE."

The proposed change to the LCO focuses the requirements of the LCO on operability using standard TS terminology. A specific discussion of what constitutes a 125-volt D.C. bus train is unnecessary within the LCO. A discussion of what constitutes an operable D.C. bus train would be added to the Bases of this specification.

The present ACTION for the LCO for TS 3.8.2.4 states:

"With less than the above complement of D.C. electrical equipment and bus energized and OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes or movement of irradiated fuel assemblies."

The licensee proposes the following ACTION for the LCO for TS 3.8.2.4:

"With no 125-volt D.C. bus trains OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes or movement of irradiated fuel assemblies."

These changes are consistent with the changes to the LCO and with the action required by the existing action statement. Therefore, these changes are acceptable.

The present SR 4.8.2.4.1 states:

4.8.2.4.1 "The above required 125-volt D.C. bus shall be determined OPERABLE and energized at least once per 7 days by verifying correct breaker alignment and indicated power availability."

The licensee proposes the following for SR 4.8.2.4.1:

4.8.2.4.1 "The above required 125-volt D.C. bus train shall be determined OPERABLE at least once per 7 days by verifying correct breaker alignment and indicated power availability."

The present SR 4.8.2.4.2. states:

4.8.2.4.2 "The above required 125-volt battery bank and charger shall be demonstrated OPERABLE per Surveillance Requirement 4.8.2.3.2."

The licensee proposes the following for SR 4.8.2.4.2:

4.8.2.4.2 "The above required 125-volt D.C. bus train battery bank and charger shall be demonstrated OPERABLE per Surveillance Requirement 4.8.2.3.2."

The proposed changes to SR 4.8.2.4.1 and SR 4.8.2.4.2 are consistent with previously discussed changes and with the proposed changes to the LCO such that the terminology used to identify a D.C. bus train is consistent throughout the specification.

The changes to TS 3.8.2.4 and its SRs are consistent with the guidance of Safety Guide 6 and the requirements of GDC-17, GDC-18, and 10 CFR 50.36 and, therefore, the NRC staff finds them acceptable.

### 3.3 TS 3.8.2.5, "Electrical Power Systems, D.C. Distribution Systems (Turbine Battery) - Operating "

The present LCO for TS 3.8.2.5 states:

3.8.2.5 The following D.C. electrical power subsystem shall be OPERABLE and energized:

The Turbine Battery D.C. electrical power subsystem, consisting of

125-volt D.C. bus 201D and 125-volt D.C. battery bank 201D.

The licensee proposes the following for the LCO for TS 3.8.2.5:

3.8.2.5 "The Turbine Battery 125-Volt D.C. electrical power subsystem shall be OPERABLE."

The present ACTION statement for the LCO for TS 3.8.2.5 states:

- a. With the 125-volt D.C. bus inoperable, restore the inoperable bus to OPERABLE status within 7 days or be in HOT SHUTDOWN within the next 12 hours.
- b. With the 125-volt D.C. battery inoperable, restore the inoperable battery to OPERABLE status within 7 days or be in HOT SHUTDOWN within the next 12 hours.

The licensee proposes the following for the ACTION statement for the LCO for TS 3.8.2.5:

With the Turbine Battery 125-volt D.C. electrical power system inoperable, restore the subsystem to OPERABLE status within 7 days or be in HOT SHUTDOWN within the next 12 hours.

These changes to the LCO for TS 3.8.2.5 and its action statement are acceptable as they are consistent with the previous changes to relocate specific discussion of the components to the TS Bases. Also, the deletion of ACTION "b" is acceptable, as the Turbine Battery 125-volt D.C. electrical power system includes the bus and the battery and the requirement has been incorporated in the revised ACTION statement.

The present SR 4.8.2.5.1 states:

4.8.2.5.1 "Verify 125-volt D.C. bus 201D is OPERABLE and energized at least once per 7 days."

The licensee proposes the following for SR 4.8.2.5.1:

4.8.2.5.1 "Verify 125-volt D.C. bus 201D is OPERABLE at least once per 7 days."

The removal of the "and energized" phrase is acceptable, as it is included in the meaning of OPERABLE and, therefore, is redundant.

The present SR 4.8.2.5.2 states (in part):

4.8.2.5.2 The 125-volt battery bank 201D shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying that:
  1. The electrolyte level of each pilot cell is between the minimum and maximum level indication marks,

2. The pilot cell specific gravity, corrected to 77 °F, is  $\geq 1.200$ ,
  3. The pilot cell voltage is  $\geq 2.08$  volts, and
  4. The overall battery voltage is  $\geq 125$  volts.
- b. At least once per 92 days by verifying that:
1. The voltage of each connected cell is  $\geq 2.08$  volts under float charge, and
  2. The specific gravity, corrected to 77° F, of each cell is  $\geq 1.200$ .
- c. At least once per 18 months by verifying that:
1. The cells, cell plates, and battery racks show no visual indication of physical damage or deterioration.

The licensee proposes the following for SR 4.8.2.5.2:

Revise the wording of SR 4.8.2.5.2 to be consistent with other changes. Modify SR 4.8.2.5.2.a and SR 4.8.2.5.2.b by reformatting the existing acceptance criteria into a tabular format (Table 4.8-2, "Turbine Battery Cell Parameters") as follows:

Table 4.8-2  
Turbine Battery Cell Parameters

Parameter	Category A: Limits For Each Designated Pilot Cell	Category B: Limits For Each Connected Cell
Electrolyte Level	Between the minimum and maximum level indication marks <sup>(a)</sup>	Not required
Cell Voltage	$\geq 2.08$ Volts	$\geq 2.08$ Volts under float charge
Specific Gravity <sup>(b)(c)</sup>	$\geq 1.200$ (Corrected to 77 °F)	$\geq 1.200$ (Corrected to 77 °F)
Battery Voltage	$\geq 125$ Volts (Overall voltage)	Not required

Table 4.8-2 identifies the four parameters to be surveilled: Electrolyte Level, Cell Voltage, Specific Gravity and Battery Voltage.

Consistent with the reformatting of the existing acceptance criteria for SR 4.8.2.5.2.a and SR 4.8.2.5.2.b into tabular format, these surveillances would be reworded as follows:

- 4.8.2.5.2 125-volt battery bank 201D shall be demonstrated OPERABLE:
- a. By verifying at least once per 7 days that the battery cell parameters meet Table 4.8-2 Category A limits.
  - b. By verifying at least once per 92 days that the battery cell parameters meet Table 4.8-2 Category B limits.

The licensee proposes to add three notes to Table 4.8-2. The three notes were previously discussed in detail when reviewing Table 4.8-1 (Battery Cell Parameters) and are acceptable for the same reasons set forth there.

The licensee proposes to revise SR 4.8.2.5.2.c.1 by adding the phrase, "that could degrade battery performance," after the phrase, "physical damage or deterioration."

The presence of physical damage or deterioration does not necessarily represent a failure of this SR, provided an evaluation determines that the physical damage or deterioration does not affect the operability of the battery or its ability to perform its design function.

The changes to TS 3.8.2.5 and its SRs are consistent with the guidance of Safety Guide 6 and the requirements of GDC-17, GDC-18, and 10 CFR 50.36 and, therefore, the NRC staff finds them acceptable.

#### 3.4 Technical Evaluation Conclusion/Summary

Based on the considerations discussed in Sections 3.1, 3.2, and 3.3 of this SE, the NRC staff concludes that the proposed changes are acceptable. The NRC staff also concludes that the proposed changes do not affect MP2's compliance with the requirements of GDC 17 and GDC 18, and conformance to the recommendations of Safety Guide 6.

The licensee has also proposed to revise the TS Bases to address the proposed changes. The NRC staff has no objections to these Bases changes.

#### 4.0 STATE CONSULTATION

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

#### 5.0 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 SRs. The NRC staff has determined that the amendment involves no significant increase in the 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 61677). 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.

## 6.0 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.

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