



April 4, 2018

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

Serial No. 18-085
NSSL/MLC R0
Docket No. 50-423
License No. NPF-49

DOMINION ENERGY NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3
LICENSE AMENDMENT REQUEST TO REVISE TECHNICAL SPECIFICATION
ACTION STATEMENT FOR LOSS OF CONTROL BUILDING INLET
VENTILATION RADIATION MONITOR INSTRUMENTATION CHANNELS

In accordance with the provisions of 10 CFR 50.90, Dominion Energy Nuclear Connecticut, Inc. (DENC) is submitting a license amendment request to amend Operating License No. NPF-49 for Millstone Power Station Unit 3 (MPS3). DENC proposes to revise ACTION 18 in Technical Specification (TS) Table 3.3-3, Functional Unit 7.e, "Control Building Inlet Ventilation Radiation," when one or both radiation monitor instrumentation channel(s) are inoperable.

Currently, with one Control Building Inlet Ventilation Radiation monitor channel inoperable for greater than 7 days, or if both radiation monitor channels are inoperable, TS Table 3.3-3, Functional Unit 7.e, ACTION 18 requires that movement of recently irradiated fuel assemblies be suspended, if applicable, and the unit be placed in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. DENC has evaluated this requirement and determined that it is overly restrictive. Therefore, with one Control Building Inlet Ventilation Radiation monitor channel inoperable for greater than 7 days, or if both radiation monitor channels are inoperable, DENC proposes to revise and reformat ACTION 18 to allow control room operators to manually place one train of the Control Room Emergency Ventilation System (CREVS) in the emergency mode of operation (i.e., filtered pressurization whereby outside air is diverted through the filters to the control room envelope to maintain a positive pressure), to provide additional time to restore one channel of Control Building Inlet Ventilation Radiation monitoring to OPERABLE status. This proposed change is consistent with the requirements of the standard TSs for Westinghouse plants (NUREG-1431).

Operation of the CREVS is credited in the current MPS3 radiological analyses of record for mitigation of design basis accidents with dose consequences to the control room operators. The automatic function of each radiation monitor channel is to place its associated train of CREVS in the emergency mode of operation. The proposed TS change ensures that one train of CREVS will be placed in the emergency mode of operation after 7 days if one radiation monitor channel is inoperable or immediately if both radiation monitor channels are inoperable. With

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one train of CREVS in the emergency mode of operation, MPS3 is in compliance with the assumption/results of the current radiological analysis of record for design basis accidents with dose consequences to the control room operators. Therefore, this proposed change will continue to provide sufficient protection for control room operators during and following a design basis accident event.

Attachment 1 to this letter describes the proposed changes and provides justification for the changes. Attachments 2 and 3 provide the marked-up TS and TS Bases pages, respectively. The marked-up TS Bases page is provided for information only. The change to the affected TS Bases page will be incorporated in accordance with the TS Bases Control Program after this LAR is approved.

The proposed amendment does not involve a Significant Hazards Consideration under the standards set forth in 10 CFR 50.92. The Facility Safety Review Committee has reviewed and concurred with the determinations herein.

DENC requests approval of this license amendment request by April 3, 2019.

In accordance with 10 CFR 50.91(b), a copy of this license amendment request is being provided to the State of Connecticut.

Should you have any questions in regard to this submittal, please contact Wanda Craft at (804) 273-4687.

Sincerely,



Gerald T. Bischof
Senior Vice President – Nuclear Operations & Fleet Performance

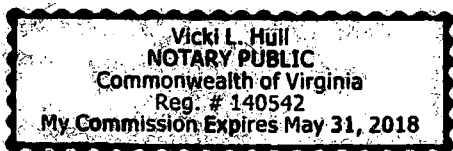
COMMONWEALTH OF VIRGINIA)

COUNTY OF HENRICO)

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Gerald T. Bischof, who is Senior Vice President – Nuclear Operations & Fleet Performance of Dominion Energy Nuclear Connecticut, Inc. He has affirmed before me that he is duly authorized to execute and file the foregoing document on behalf of that company, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 4TH day of April, 2018.

My Commission Expires: MAY 31, 2018




Notary Public

Attachments:

1. Evaluation of Proposed License Amendment
2. Marked-Up Technical Specification Pages
3. Marked-up Technical Specification Bases Page

Commitments made in this letter: None

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ATTACHMENT 1

EVALUATION OF PROPOSED LICENSE AMENDMENT

**DOMINION ENERGY NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3**

EVALUATION OF PROPOSED LICENSE AMENDMENT

1.0 SUMMARY DESCRIPTION

In accordance with the provisions of 10 CFR 50.90, Dominion Energy Nuclear Connecticut, Inc. (DENC) is submitting a license amendment request (LAR) to amend Operating License No. NPF-49 for Millstone Power Station Unit 3 (MPS3). DENC proposes to revise ACTION 18 in Technical Specification (TS) Table 3.3-3, Functional Unit 7.e, "Control Building Inlet Ventilation Radiation," when one or both radiation monitor instrumentation channel(s) are inoperable:

Currently, with one Control Building Inlet Ventilation Radiation monitor channel inoperable for greater than 7 days, or if both radiation monitor channels are inoperable, TS Table 3.3-3, Functional Unit 7.e, ACTION 18 requires that movement of recently irradiated fuel assemblies be suspended, if applicable, and the unit be placed in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. DENC has evaluated this requirement and determined that it is overly restrictive. Therefore, with one Control Building Inlet Ventilation Radiation monitor channel inoperable for greater than 7 days, or if both radiation monitor channels are inoperable, DENC proposes to revise and reformat ACTION 18 to allow control room operators to manually place one train of the Control Room Emergency Ventilation System (CREVS) in the emergency mode of operation (i.e., filtered pressurization whereby outside air is diverted through the filters to the control room envelope to maintain a positive pressure), to provide additional time to restore one channel of Control Building Inlet Ventilation Radiation monitoring to OPERABLE status. This proposed change is consistent with the requirements of the standard TSs for Westinghouse plants (NUREG-1431).

Operation of the CREVS is credited in the current radiological analyses of record for mitigation of design basis accidents with dose consequences to the control room operators. The automatic function of each radiation monitor channel is to place its associated train of CREVS in the emergency mode of operation. The proposed TS change ensures that one train of CREVS will be placed in the emergency mode of operation after 7 days if one radiation monitor channel is inoperable or immediately if both radiation monitor channels are inoperable. With one train of CREVS in the emergency mode of operation, MPS3 is in compliance with the assumptions/results of the current radiological analysis of record for design basis accidents with dose consequences to the control room operators. Therefore, this proposed change will continue to provide sufficient protection for control room operators during and following a design basis accident event.

2.0 DESCRIPTION OF THE PROPOSED CHANGE

DENC proposes to revise and reformat ACTION 18 in TS Table 3.3-3, Functional Unit 7.e, "Control Building Inlet Ventilation Radiation," as follows:

- ACTION 18 will be divided into two parts. ACTION 18.a will specify the action requirements when one Control Building Inlet Ventilation Radiation monitor channel is inoperable. ACTION 18.b will specify the action requirements when two (or both) Control Building Inlet Ventilation Radiation monitor channels are inoperable.
- With one Control Building Inlet Ventilation Radiation monitor channel inoperable for greater than 7 days, ACTION 18.a will allow control room operators to manually place the associated train of the CREVS in the emergency mode of operation as an alternative to requiring an immediate plant shutdown, as is currently required by ACTION 18. The requirement to manually place the "associated train" of CREVS in the emergency mode of operation in ACTION 18.a (instead of either train of CREVS) is necessary to prevent a loss of safety function due to MPS3's train dependent design for automatic actuation.
- A note (*) will be added to ACTION 18.a to allow required surveillance testing of the non-affected or non-associated CREVS train when in the action statement.
- With two Control Building Inlet Ventilation Radiation monitor channels inoperable, ACTION 18.b will require the following: immediately place one train of the CREVS in the emergency mode of operation, declare one train of CREVS inoperable, and comply with the ACTION requirements of TS 3.7.7. Action 18.b will allow 7 days to restore one channel of Control Building Inlet Ventilation Radiation monitoring to operable status instead of requiring an immediate plant shutdown as is currently required by ACTION 18.

The proposed changes summarized above are shown below (Note: Deleted text is struck-through and added text is italicized and bolded).

Current ACTION 18:

~~With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 7 days. After 7 days, or if no channels are OPERABLE, immediately suspend movement of recently irradiated fuel assemblies, if applicable, and be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

Proposed ACTION 18:

- a. With one Control Building Inlet Ventilation Radiation Monitor channel inoperable, either restore the inoperable channel to operable status within 7 days or place the associated train of Control Room Emergency Ventilation System in the emergency mode of operation.* Otherwise, immediately suspend movement of recently irradiated fuel assemblies, if applicable, and be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.***

- b. With two Control Building Inlet Ventilation Radiation Monitor channels inoperable, immediately place one train of Control Room Emergency Ventilation System in the emergency mode of operation, declare one Control Room Emergency Ventilation System train inoperable, and comply with the ACTION requirements of Technical Specification 3.7.7. Otherwise, immediately suspend movement of recently irradiated fuel assemblies, if applicable, and be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.***
- + Operation of the non-affected train of the Control Room Emergency Ventilation System, instead of the affected train, is permitted to perform required Technical Specifications 3.3.2 and 3.7.7 surveillance testing.***

A markup of the proposed TS change is provided in Attachment 2. Attachment 3 contains the associated TS Bases mark-ups. The TS bases markups are provided for information only.

3.0 DETAILED DESCRIPTION AND BACKGROUND

3.1 Description of Control Room Emergency Ventilation System

The CREVS provides for filtration of outside air delivered to the control room by the ventilation system in the event of radioactive releases of particulates or iodine following an accident involving fuel failures. In addition, the operation of the system pressurizes the control room. Both functions assure that control room personnel are protected from potential radiation exposures in excess of regulatory limits.

CREVS is comprised of the control room emergency air filtration system (CREFS) and a temperature control system. It provides a protected environment from which operators can control the unit following an uncontrolled release of radioactivity, hazardous chemicals, or smoke. Additionally, the system provides temperature control for the control room envelope (CRE) during normal and post-accident operations.

CREFS consists of two redundant systems that recirculate and filter the air in the CRE and a CRE boundary that limits the inleakage of unfiltered air. Each CREFS consists of a moisture separator, electric heater, prefilter, upstream high efficiency particulate air (HEPA) filter, charcoal adsorber, downstream HEPA filter, and fan. Additionally, ductwork, valves, dampers, and instrumentation form part of the system.

Normal Operation

During normal operation, the temperature control portion of the CREVS is required to operate to ensure the temperature of the control room is maintained at or below 95°F. Normally one train is running and one train is in standby. The CREFS portion of CREVS is not in service during normal plant operation.

Post-Accident Operation

The CREVS is required to operate during post-accident operations to ensure the temperature of the CRE is maintained and to ensure the CRE will remain habitable during and following accident conditions.

Redundant safety-related radiation monitors (3HVC*RE16A/B) are located in the MPS3 control building air supply duct. These radiation monitors are single channel instruments. As required by TS Table 3.3-3, Functional Unit 7.e, "Control Building Inlet Ventilation Radiation," both radiation monitors (i.e. both radiation monitor instrument channels) are required to be OPERABLE in MODES 1, 2, 3, and 4, and during movement of recently irradiated fuel assemblies.

The CREVS is train dependent for automatic Control Building Isolation (CBI) actuation on either a High Radiation or a Safety Injection (SI) signal on Hi-1 Containment Pressure. For example, when the Train 'A' Control Building Inlet Ventilation radiation monitor (i.e., 3HVC*RE16A) senses a high radiation condition, Train 'A' of CREVS train will start. Similarly, if the Train 'B' radiation monitor (i.e., 3HVC*RE16B) senses a high radiation condition, Train 'B' of CREVS will start.

The CREVS is train independent for manual actuation. When a manual CBI actuation signal is received, both CREVS trains will receive a start signal. CREVS Train A (the preferred train) will start first. After a 60 second delay, CREVS Train B will start on low system flow (if CREVS Train A fails to start or establish flow). Manual actuation of the CREVS will occur by initiation of a manual SI by the control room from either Main Board 2 or 4. Manual actuation of the CREVS will also occur by initiation of a manual CBI by the control room operator from either Main Board 2 or Ventilation Panel 1.

3.2 Background

On June 29, 2000, Northeast Nuclear Energy Company (NNECO), the former owner of MPS3, submitted a LAR for MPS3 to revise several TSs as a result of a revised MPS3 Fuel Handling Accident Inside Containment (FHAIC) analysis (Reference 7.1). ACTION 18 for MPS3 TS Table 3.3-3, Functional Unit 7.e allowed CREVS to be manually placed and maintained in the recirculation mode of operation with less than the required minimum number of OPERABLE radiation monitor channels. At the time, an automatic CBI actuation signal resulted in control room isolation and actuation of the control room envelope pressurization system (CREPS), which used bottled air to pressurize the control room for the first hour following isolation. Also, the nomenclature associated with operation of the CREVS was different. CREVS had two distinct operating modes ('recirculation' and 'pressurization'). After one hour, either the recirculation mode or the pressurization mode was actuated manually depending on radiological conditions outside the control room. Pressurization mode included damper alignments that routed outside air through the CREFS to the CRE to maintain positive pressure.

At the time of the June 29, 2000 submittal, since NNECO had not verified that ACTION 18 would provide sufficient protection for control room operators to allow continued plant operation in recirculation mode, NNECO proposed removal of this allowance until an evaluation was completed. Instead, with one channel inoperable for greater than 7 days or if no channels are operable, NNECO proposed an action to immediately suspend movement of recently irradiated fuel (if applicable) and shutdown the unit. The NRC staff found this proposed change to be more restrictive and conservative since it placed the plant in a condition in which the CREFS and CREVS specifications were not required. The NRC approved the proposed change in February 2002 under License Amendment 203 (Reference 7.2).

In September 2006, under License Amendment 232 (Reference 7.3) which approved full implementation of alternate source term (AST) for MPS3, the CREPS was removed from the MPS3 TSs since it was not credited in any accident analysis. Therefore, the CBI signal to actuate the air bottle outlet control valves for the CREPS was also removed.

As part of the MPS3 stretch power uprate (SPU), approved by the NRC under License Amendment 242 on August 12, 2008 (Reference 7.4), DENC modified the control building ventilation system and the CREVS for automatic operation. For the CREVS, upon receipt of a CBI signal, one train would automatically start in the emergency mode, providing both filtered recirculation and filtered pressurization. At this time, operation of the CREVS in the emergency mode was verified to provide adequate protection to control room operators from the radiological consequences of design basis accident events to allow continued plant operation.

Specifically, the modification included changing the failure mode position of the control building ventilation system outside air inlet valves from their fail closed mode to fail open, and revising the CBI signal to open the valves should they be closed when the CBI signal is received. The emergency ventilation system dampers that required manual alignment to initiate the emergency mode of operation were also modified to automatically align upon receipt of a CBI signal. The CREVS fan control circuits were modified to ensure proper operation upon receipt of the CBI signal, after the required dampers were properly aligned for the filtered pressurization mode.

The automatic initiation of the CREVS upon receipt of a CBI signal provided additional margin to the analysis for the control room dose consequences of a fuel handling accident since the analysis credits filtered recirculation after 30 minutes and filtered pressurization after 1.685 hours. With implementation of the described changes, both filtered recirculation and filtered pressurization are now initiated upon receipt of a CBI signal. In addition, the changes to the CREVS provided additional margin to the remainder of the SPU dose consequence analyses since they do not credit automatic initiation of the CREVS.

4.0 TECHNICAL EVALUATION

DENC proposes to revise and reformat ACTION 18 for Technical Specification (TS) Table 3.3-3, Functional Unit 7.e, "Control Building Inlet Ventilation Radiation" when one or both radiation monitor instrumentation channels are inoperable.

Currently, with one Control Building Inlet Ventilation Radiation monitor channel inoperable for greater than 7 days, or if both radiation monitor channels are inoperable, TS Table 3.3-3, Functional Unit 7.e, ACTION 18 requires that movement of recently irradiated fuel assemblies be suspended, if applicable, and the unit be placed in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Before this action requirement was implemented by License Amendment 203 (Reference 7.2), ACTION 18 allowed the CREVS to be manually placed and maintained in the recirculation mode of operation with less than the required minimum number of channels OPERABLE. However, at the time License Amendment 203 was issued, operation in the recirculation mode had not been verified to provide sufficient protection for the control room operators. Therefore, the current action was submitted to ensure unanalyzed actions were not being credited in the safety analyses.

Since the implementation of License Amendment 203, system design, analyses, and surveillance testing (e.g., unfiltered inleakage testing) have been changed such that operation in the emergency mode from the start of a design basis event has been verified to provide sufficient protection for the control room operators. As a result, the current ACTION 18 requirements are overly restrictive.

The proposed TS changes do not affect the design basis analyses. Control room ventilation performance is a direct input to design basis radiological dose consequence analyses. The Fuel Handling, Loss of Coolant, Rod Ejection, Locked Rotor, Main Steam Line Break, and Steam Generator Tube Rupture accidents were reviewed considering the proposed changes. For each existing radiological dose consequence accident analysis, the CREVS is assumed to be placed in service at a designated time after the CBI signal is received. This is modeled as a delay in the filtration and pressurization effects of the operation of the system. By delaying the start of the system, the design basis calculations conservatively model reduced filtration and increased unfiltered inleakage from the environment, resulting in increased control room radiological dose consequences. Due to increased filtration and reduced unfiltered inleakage, the early initiation of CREVS provides a benefit to radiological dose consequences, reducing the calculated dose for all events.

DENC has confirmed that with one train of CREVS in the emergency mode of operation MPS3 is in compliance with the existing analyses for design basis accidents with radiological dose consequences to the control room. Therefore, DENC proposes to revise ACTION 18 to allow continued plant operation when one or both Control Building Inlet Ventilation radiation monitor channels are inoperable provided a train of CREVS is placed in the emergency mode of operation.

ACTION 18.a

Proposed ACTION 18.a will specify the action requirements with one Control Building Inlet Ventilation Radiation monitor channel inoperable. If the inoperable channel cannot be restored within 7 days, control room operators will be required to either place the associated train of CREVS in the emergency mode of operation, or suspend movement of recently irradiated fuel, if applicable, and shutdown. This proposed change is consistent with the requirements of the standard TSs (i.e., TS 3.3.7.A REQUIRED ACTION A.1) for Westinghouse plants (NUREG-1431) since it provides the actuation instrumentation function to place the unit in a conservative mode of operation.

In proposed ACTION 18.a, the requirement to place the "associated train" of CREVS in service (instead of either train of CREVS) is necessary to prevent a loss of safety function due to MPS3's train dependent design for automatic actuation. For the scenario that assumes 3HVC*RE16A is inoperable and the associated Train A CREVS has been placed in operation after 7 days; consider the following events:

- Steam Generator Tube Rupture (SGTR) – Automatic SI (Low Pressurizer Pressure)
- Loss of Offsite Power (LOP)
- Train B Emergency Diesel Generator (EDG) fails to start (single failure)

The loss of Train B EDG will prevent operation of Train B CREVS. After Train A EDG restores power, Train A CREVS will start again because the associated VP1 control switch will have been placed in the ON position (maintained position) when Train A CREVS was placed in service after 7 days with 3HVC*RE16A inoperable. The CREVS components are not shed from the associated 480 VAC bus when a loss of offsite power occurs. NOTE: If Train B CREVS was placed in service after 7 days with 3HVC*RE16A inoperable and the above scenario occurred, the loss of the B EDG would prevent Train B CREVS from operating and the previous loss of 3HVC*RE16A would prevent automatic actuation of Train A CREVS on high radiation.

DENC also proposes to add a note (*) to Action 18.a to allow required surveillance testing of the non-affected or non-associated CREVS train when in Action 18.a. This testing includes a monthly filter test of each CREVS train for at least 10 hours. Since only one CREVS train is operated at a time (except for swapping operating trains), this provision will provide an exception to the action requirement to allow the associated CREVS train to be stopped while the non-associated CREVS train is operated for the required surveillance testing.

ACTION 18.b

For both radiation monitor channels inoperable, DENC proposes to add ACTION 18.b which requires operators to immediately place one train of the CREVS in the emergency mode of operation, declare one train of CREVS inoperable, and comply with the ACTION requirements of TS 3.7.7. This will allow 7 days to restore one channel of Control Building Inlet Ventilation Radiation monitoring to operable status instead of requiring an

immediate plant shutdown. If one channel of radiation monitoring is not restored within 7 days, movement of recently irradiated fuel will be immediately suspended, if applicable, and the unit would be placed in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. This proposed change is consistent with the requirements of the standard TSs (i.e., TS 3.3.7.A REQUIRED ACTION B.1.1 and B.1.2) for Westinghouse plants (NUREG-1431) since it provides the actuation instrumentation function to place the unit in a conservative mode of operation and limits the time in this configuration. Since MPS3 does not operate both CREVS trains at the same time, REQUIRED ACTION B.2 of NUREG-1431 is not applicable.

With both radiation monitors inoperable, the channels are not capable of generating a CBI signal due to high radiation levels in the control building ventilation inlet. The lack of a CBI signal results in the inability to automatically actuate the CREVS. The proposed ACTION 18.b will allow the control room operators to manually place one train of CREVS in the emergency mode of operation and provide additional time to restore one channel of Control Building Inlet Ventilation Radiation monitoring to OPERABLE status. DENC has verified that the change to allow continued plant operation with CREVS in the emergency mode of operation when both radiation monitor channels are inoperable will provide sufficient protection for control room operators during and following a design basis accident event (assuming no single failure).

With both radiation monitors inoperable, proposed Action 18.b requires that one train of CREVS be declared inoperable. This limits the time MPS3 can operate with both radiation monitor channels (i.e., 3HVC*RE16A and 3HVC*RE16B) inoperable to 7 days. The 7-day allowed outage time is the same as is allowed if one train of the mechanical portion of the CREVS is inoperable. For the scenario described in Action 18.a above, (SGTR/Automatic SI/LOP) and assuming the EDG that fails is associated with the CREVS train that was placed in service, with both radiation monitor channels inoperable, the results would be no CREVS and no radiation monitor channels to actuate on high radiation. Since this configuration is not single-failure proof, time in this configuration is limited (i.e., 7 days).

5.0 REGULATORY EVALUATION

In accordance with the provisions of 10 CFR 50.90, Dominion Energy Nuclear Connecticut, Inc. (DENC) is submitting a license amendment request to amend Operating License No. NPF-49 for Millstone Power Station Unit 3 (MPS3). DENC proposes to revise ACTION 18 in Technical Specification (TS) Table 3.3-3, Functional Unit 7.e, "Control Building Inlet Ventilation Radiation," when one or both radiation monitor instrumentation channel(s) are inoperable.

Currently, with one Control Building Inlet Ventilation Radiation monitor channel inoperable for greater than 7 days, or if both radiation monitor channels are inoperable, TS Table 3.3-3, Functional Unit 7.e, ACTION 18 requires that movement of recently irradiated fuel assemblies be suspended, if applicable, and the unit be placed in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30

hours. DENC has evaluated this requirement and determined that it is overly restrictive. Therefore, with one Control Building Inlet Ventilation Radiation monitor channel inoperable for greater than 7 days, or if both radiation monitor channels are inoperable, DENC proposes to revise and reformat ACTION 18 to allow control room operators to manually place one train of the Control Room Emergency Ventilation System (CREVS) in the emergency mode of operation (i.e., filtered pressurization whereby outside air is diverted through the filters to the control room envelope to maintain a positive pressure), to provide additional time to restore one channel of Control Building Inlet Ventilation Radiation monitoring to OPERABLE status. This proposed change is consistent with the requirements of the standard TSs for Westinghouse plants (NUREG-1431).

Operation of the CREVS is credited in the current MPS3 radiological analyses of record for the mitigation of design basis accidents with dose consequences to the control room operators. The automatic function of each radiation monitor channel is to place its associated train of CREVS in the emergency mode of operation. The proposed TS change ensures that one train of CREVS will be placed in the emergency mode of operation after 7 days if one radiation monitor channel is inoperable or immediately if both radiation monitor channels are inoperable. With one train of CREVS in the emergency mode of operation, MPS3 is in compliance with the assumptions/results of the current radiological analyses of record for design basis accidents with dose consequences to the control room operators. Therefore, this proposed change continues to provide sufficient protection for control room operators during and following a design basis accident event.

DENC has determined that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c). This determination is based on an evaluation with respect to the specific criteria of 10 CFR 50.92(c) as follows:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

Operation of MPS3 in accordance with the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed change removes an overly restrictive requirement and adds a conservative requirement for actions to be taken when there is a loss of operability of the CREVS actuation instrumentation. This does not increase the probability of an accident previously evaluated since the CREVS actuation itself is not an accident initiator. The proposed change is consistent with standard TSs for Westinghouse plants (NUREG-1431) and provides assurance that the CREVS is in the conservative mode of operation for a response to an accident. Analysis demonstrates that with one train of the CREVS in the emergency mode of operation, control room operators are adequately protected from the radiological consequences of design basis accident events. Therefore, the probability or consequences of an accident previously evaluated is not significantly increased.

Based on the above, the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

Operation of MPS3 in accordance with the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change does not involve a physical alteration of the plant or change in the methods governing normal plant operation. The proposed change replaces the overly restrictive shutdown requirement with a conservative action to be taken upon loss of CREVS actuation instrumentation operability, thereby avoiding the risk associated with an immediate controlled shutdown. Therefore, the possibility of a new or different kind of accident from any accident previously evaluated is not created.

With one train of CREVS in the emergency mode of operation, DENC has confirmed that MPS3 is in compliance with the current radiological analyses of record for design basis accidents with dose consequences to the control room. Therefore, the proposed change does not affect the design basis analyses and does not alter the assumptions made in the MPS3 accident analysis.

Based on the above, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in the margin of safety?

Response: No.

Operation of MPS3 in accordance with the proposed change does not involve a significant reduction in the margin of safety. The proposed change revises and reformats the Control Building Inlet Ventilation Radiation TS to place the CREVS in the conservative mode of operation for a response to an accident. The proposed change provides additional time to restore an inoperable radiation monitor channel instead of requiring an immediate controlled plant shutdown and suspension of movement of recently irradiated fuel assemblies, if applicable. A plant shutdown is a transient that may be avoided by providing a limited time to make repairs. In addition, the control room operators are adequately protected from the radiological consequences of design basis accident events with one train of the CREVS in the emergency mode of operation. The potential to avoid a plant transient in conjunction with protecting control room operators offsets any risk associated with the proposed

change. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, the proposed amendment does not involve a significant reduction in the margin of safety.

Based on the above, DENC concludes that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of "no significant hazards consideration" is justified.

The proposed amendment does not represent a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite, nor does it introduce a significant increase in individual or cumulative occupational radiation exposure.

6.0 ENVIRONMENTAL CONSIDERATION

10 CFR 51.22(c) provides criteria for, and identification of, licensing and regulatory actions eligible for categorical exclusion from performing an environmental assessment. 10 CFR 51.22 (c)(9) identifies a proposed amendment to an operating license for a facility as a categorical exclusion not requiring an environmental assessment if operation of the facility, in accordance with the proposed amendment, would not: (1) involve a significant hazards consideration, (2) result in a significant change in the types or significant increase in the amount of any effluents that may be released off-site, or (3) result in an increase in individual or cumulative occupational radiation exposure.

DENC has reviewed the proposed license amendment and concludes that it meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). The following is the basis for this determination.

1. The proposed license amendment does not involve a significant hazards consideration as described previously in the No Significant Hazards Consideration Evaluation.
2. The proposed change will not result in a significant increase in radiological doses for any design basis accident. This proposed change does not result in a significant change in the types or significant increase in the amounts of effluents that may be released off-site. DENC has concluded that there will not be a significant increase in the types or amounts of effluents that may be released off-site and these changes do not involve irreversible environmental consequences beyond those already associated with normal operation.
3. The proposed change will not result in any increase in individual or cumulative occupational radiation exposure.

Therefore, pursuant to 10 CFR 51.22(c), no environmental impact statement or environmental assessment needs to be prepared in connection with issuance of the proposed license changes.

7.0 REFERENCES

- 7.1 Northeast Nuclear Energy letter B18116, "Millstone Nuclear Power Station, Unit No. 3, Technical Specifications Change Request 3-6-00, Fuel Handling Accidents and Ventilation Systems," dated June 29, 2000 (ADAMS Accession No. ML003729499).
- 7.2 NRC letter to Dominion Nuclear Connecticut, Inc., "Millstone Nuclear Power Station, Unit No. 3 – Issuance of Amendment Re: Fuel Handling Accidents Inside Containment and Ventilations Systems (TAC No. MA9364)," dated February 20, 2002 (ADAMS Accession No. ML020520225).
- 7.3 NRC letter to Dominion Nuclear Connecticut, Inc., "Millstone Power Station, Unit No. 3, - Issuance of Amendment Re: Alternate Source Term (TAC No. MC3333)," dated September 15, 2006 (ADAMS Accession Nos. ML061990025, ML061990135, and ML062640464).
- 7.4 NRC letter to Dominion Nuclear Connecticut, Inc., "Millstone Power Station, Unit No. 3, - Issuance of Amendment Re: Stretch Power Uprate (TAC No. MD6070)," dated August 12, 2008 (ADAMS Accession Nos. ML082180137 ML081610585, and ML081640535).

ATTACHMENT 2

MARKED-UP TECHNICAL SPECIFICATION PAGES

**DOMINION ENERGY NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3**

For Information Only

TABLE 3.3-3 (Continued)
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

| MILESTONE - UNIT 3 | FUNCTIONAL UNIT | TOTAL NO. OF CHANNELS | CHANNELS TO TRIP | MINIMUM CHANNELS OPERABLE | APPLICABLE MODES | ACTION |
|--------------------------------|--|---|------------------|---------------------------|------------------|--------|
| | 6. Auxiliary Feedwater (Continued) | | | | | |
| | f. Containment Depressurization Actuation (CDA) Start Motor-Driven Pumps | See Item 2. above for all CDA functions and requirements. | | | | |
| 3/4-3-22 | 7. Control Building Isolation | | | | | |
| | a. Manual Actuation | 2 | 1 | 2 | * | 19 |
| | b. Manual Safety Injection Actuation | 2 | 1 | 2 | 1, 2, 3, 4 | 19 |
| | c. Automatic Actuation Logic and Actuation Relays | 2 | 1 | 2 | 1, 2, 3, 4 | 14 |
| | d. Containment Pressure--High-1 | 3 | 2 | 2 | 1, 2, 3 | 16 |
| | e. Control Building Inlet Ventilation Radiation | 2/intake | 1 | 2/intake | * | 18 |
| Amendment No. 14, 57, 203, 220 | 8. Loss of Power | | | | | |
| | a. 4 kV Bus Undervoltage-Loss of Voltage | 4/bus | 2/bus | 3/bus | 1, 2, 3, 4 | 27 |
| | b. 4 kV Bus Undervoltage-Grid Degraded Voltage | 4/bus | 2/bus | 3/bus | 1, 2, 3, 4 | 27 |

September 14, 2004

For Information Only

November 30, 2015

TABLE 3.3-3 (Continued)

TABLE NOTATIONS

- # The Steamline Isolation Logic and Safety Injection Logic for this trip function may be blocked in this MODE below the P-11 (Pressurizer Pressure Interlock) Setpoint.
- * MODES 1, 2, 3, and 4.
During movement of recently irradiated fuel assemblies.
- **** Trip function automatically blocked above P-11 and may be blocked below P-11 when Safety Injection on low steam line pressure is not blocked.

ACTION STATEMENTS

- ACTION 14 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.
- ACTION 14A - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.
- ACTION 15 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.
- ACTION 16 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed until performance of the next required ANALOG CHANNEL OPERATIONAL TEST provided the inoperable channel is placed in the tripped condition within 1 hour.
- ACTION 17 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the bypassed condition within 72 hours and the Minimum Channels OPERABLE requirement is met. One additional channel may be bypassed for up to 12 hours for surveillance testing per Specification 4.3.2.1.

MILLSTONE - UNIT 3

3/4,3-24

Amendment No. ~~57, 70, 89, 129, 203,~~
~~219, 221, 242, 243, 266~~

November 30, 2015

TABLE 3.3-3 (Continued)

ACTION STATEMENTS

- ACTION 18 - ~~With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 7 days. After 7 days, or if no channels are OPERABLE, immediately suspend movement of recently irradiated fuel assemblies, if applicable, and be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~
- ACTION 19 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

a. With one Control Building Inlet Ventilation Radiation Monitor channel inoperable, either restore the inoperable channel to operable status within 7 days or place the associated train of Control Room Emergency Ventilation System in the emergency mode of operation.* Otherwise, immediately suspend movement of recently irradiated fuel assemblies, if applicable, and be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With two Control Building Inlet Ventilation Radiation Monitor channels inoperable, immediately place one train of Control Room Emergency Ventilation System in the emergency mode of operation, declare one Control Room Emergency Ventilation System train inoperable, and comply with the ACTION requirements of Technical Specification 3.7.7. Otherwise, immediately suspend movement of recently irradiated fuel assemblies, if applicable, and be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

* Operation of the non-affected Control Room Emergency Ventilation System train, instead of the affected Control Room Emergency Ventilation System train, is permitted to perform required Technical Specifications 3.3.2 and 3.7.7 surveillance testing.

ATTACHMENT 3

MARKED-UP TECHNICAL SPECIFICATION BASES PAGE

**DOMINION ENERGY NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3**

FOR INFORMATION ONLY

LBDCR 12 MP3 010
September 20, 2012

INSTRUMENTATION

BASES

3/4.3.1 and 3/4.3.2 REACTOR TRIP SYSTEM INSTRUMENTATION and ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION (Continued)

The methodology, as defined in WCAP-10991 to derive the Nominal Trip Setpoints, is based upon combining all of the uncertainties in the channels. Inherent in the determination of the Nominal Trip Setpoints are the magnitudes of these channel uncertainties. Sensors and other instrumentation utilized in these channels should be capable of operating within the allowances of these uncertainty magnitudes. Occasional drift in excess of the allowance may be determined to be acceptable based on the other device performance characteristics. Device drift in excess of the allowance that is more than occasional, may be indicative of more serious problems and would warrant further investigation.

The above Bases does not apply to the Control Building Inlet Ventilation radiation monitors ESF Table (Item 7E). For these radiation monitors the allowable values are essentially nominal values. Due to the uncertainties involved in radiological parameters, the methodologies of WCAP-10991 were not applied. Actual trip setpoints will be reestablished below the allowable value based on calibration accuracies and good practices.

The OPERABILITY requirements for Table 3.3-3, Functional Units 7.a, "Control Building Isolation, Manual Actuation," and 7.e, "Control Building Isolation, Control Building Inlet Ventilation Radiation," are defined by table notation "**". These functional units are required to be OPERABLE at all times during plant operation in MODES 1, 2, 3, and 4. These functional units are also required to be OPERABLE during movement of recently irradiated fuel assemblies, as specified by table notation "*". The Control Building Isolation Manual Actuation and Control Building Inlet Ventilation Radiation are required to be OPERABLE during movement of recently irradiated fuel assemblies (i.e., fuel that has occupied part of a critical reactor core within the previous 350 hours*). Table notation "**" of Table 4.3-2 has the same applicability.

INSERT

The verification of response time provides assurance that the reactor trip and the engineered safety features actuation associated with each channel is completed within the time limit assumed in the safety analysis. No credit is taken in the analysis for those channels with response times indicated as not applicable (i.e., N.A.). The surveillance frequency is controlled under the Surveillance Frequency Control Program.

Required ACTION 4. of Table 3.3-1 is modified by a Note to indicate that normal plant control operations that individually add limited positive reactivity (e.g., temperature or boron fluctuations associated with RCS inventory management or temperature control) are not precluded by this ACTION provided they are accounted for in the calculated SDM. The proposed change permits operations introducing positive reactivity additions but prohibits the temperature change or overall boron concentration from decreasing below that required to maintain the specified SDM or required boron concentration.

* During fuel assembly cleaning evolutions that involve the handling or cleaning of two fuel assemblies coincidentally, recently irradiated fuel is fuel that has occupied part of a critical reactor core within the previous 525 hours.

INSERT

Required ACTION 18.a of Table 3.3-3 applies when one Control Building Inlet Ventilation Radiation monitor is inoperable. If one Control Building Inlet Ventilation Radiation monitor is inoperable, 7 days are permitted to restore it to OPERABLE status. The 7 day Allowed Outage Time (AOT) is the same as is allowed if one train of the mechanical portion of the Control Room Emergency Ventilation System (CREVS) is inoperable. If the Control Building Inlet Ventilation Radiation monitor cannot be restored to OPERABLE status within 7 days, the associated CREVS train (same train as inoperable radiation monitor) must be placed in the emergency mode of operation (i.e., filtered pressurization whereby outside air is diverted through the filters to the Control Room Envelope to maintain a positive pressure). This accomplishes the actuation instrumentation function and places the unit in a conservative mode of operation. The associated CREVS train is specified to ensure the CREVS function is performed even in the presence of a single failure.

This ACTION is modified by a Note (+) to allow operation of the non-affected CREVS train, instead of the affected CREVS train, to perform required Technical Specifications 3.3.2 and 3.7.7 surveillance testing. This allowance is necessary since only one train of the CREVS is run at a time. Without this allowance, the required surveillance testing of the non-affected train could lapse resulting in the train becoming inoperable.

Required ACTION 18.b of Table 3.3-3 applies when both Control Building Inlet Ventilation Radiation monitors are inoperable. Since both Control Building Inlet Ventilation Radiation monitors are inoperable, immediate action is required to place one CREVS train in the emergency mode of operation. This accomplishes the actuation instrumentation function and places the unit in a conservative mode of operation. The applicable ACTIONS of Technical Specification 3.7.7 must also be entered for one of the CREVS trains made inoperable by the inoperable actuation instrumentation. This ensures appropriate limits (7 days) are placed on plant operation with both Control Building Inlet Ventilation Radiation monitor channels inoperable. The 7 day AOT is based on the low probability of a DBA occurring during this time period.

With both Control Building Inlet Ventilation Radiation monitors inoperable, either CREVS train can be declared inoperable. If during this 7 day time period, the remaining operable CREVS train becomes inoperable, it is acceptable to consider that to be the inoperable CREVS train for compliance with ACTION 18.b instead of the previously declared inoperable CREVS train (declared inoperable only because both Control Building Inlet Ventilation Radiation monitors are inoperable). However, the total time plant operation is allowed to continue with both Control Building Inlet Ventilation Radiation monitors inoperable cannot exceed 7 days.