

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



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Docket No. 50-245
B18372

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

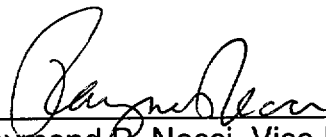
Millstone Nuclear Power Station, Unit 1
10 CFR 50.59 Report for January 1, 2001 Through March 30, 2001

Pursuant to 10 CFR 50.59(b)(2), Dominion Nuclear Connecticut, Inc. (DNC) is submitting the Millstone Unit No. 1 10 CFR 50.59 Report for January 1 through March 30, 2001. Attachment 1 provides summaries for those safety evaluations approved by the Plant Operations Review Committee during this period. The previous 10 CFR 50.59 annual report was submitted on March 8, 2001.⁽¹⁾ Complete copies of the Safety Evaluations are available at the Millstone Unit 1 site.

If you have any questions concerning this information, please contact Mr. David A. Smith, Process Owner - Regulatory Affairs, Millstone Station at 860-437-5840.

Very truly yours,

DOMINION NUCLEAR CONNECTICUT, INC.



Raymond P. Necci, Vice President -
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cc: H. J. Miller, Region I Administrator
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⁽¹⁾ Letter B18346, "Millstone Nuclear Power Station, Unit No. 1; 10 CFR 50.59 Annual Report for 2000," dated March 8, 2001.

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Attachment 1

Millstone Nuclear Power Station, Unit No. 1

10 CFR 50.59 Report for January 1, 2001 Through March 30, 2001

Safety Evaluation Number: S1-EV-00-0026

Revision No.: 0

Subject: Abandonment of Met Tower Data Link to the Unit 1 Plant Process Computer

Description of the Activity

This Safety Evaluation evaluates the abandonment of the data link from the Met Tower to the Plant Process Computer (PPC) and related document changes.

Reason for the Activity

The subject Met Tower link provided display parameters via modem/phone line from the instrument shack at the base of the tower to the control room PPC. The Unit 1 Met Tower display parameters have been abandoned.

Safety Evaluation Summary

The subject Met Tower link is abandoned, because the display parameter link receiver to the Unit 1 PPC has been turned off. The Met Tower display parameter link was used to assess weather conditions and was not designed to protect structures, systems, or components. The abandonment of the Met Tower data link to the Unit 1 PPC cannot credibly influence any accidents or malfunctions. The proposed activity does not involve any unreviewed safety questions.

Safety Evaluation Number: S1-EV-00-0032

Revision No.: 0

Subject: Radwaste Foam Water Sprinkler Abandonment; Maintaining of Hose Stations HS 150 and HS 152 as "Available"

Description of the Activity

This Safety Evaluation evaluates the abandonment of the Radwaste Truck Bay foam water deluge fire suppression system. Hose stations HS 150 and HS 152 in the Solid Radwaste Building are to be maintained as available.

Reason for the Activity

The subject deluge systems protect equipment which is permanently out of service. The hazards associated with operation of this equipment no longer exist.

Safety Evaluation Summary

The subject Radwaste Truck Bay foam water deluge fire suppression system is being abandoned, because the hazards associated with the protected equipment have been removed. A fire in the Radwaste Truck Bay is bounded by the Resin Fire Study which analyzed the worst case fire of three fully loaded High Integrity Containers (HICs) with no credit taken for the fire suppression capabilities of the subject system. This activity cannot credibly influence any accidents or malfunctions since the fire suppression system is physically remote from the spent fuel pool operation, the only credible remaining accident is the fuel handling accident. The proposed activity does not involve an unreviewed safety question.

Safety Evaluation Number: S1-EV-00-0042

Revision No.: 0

Subject: 4160V and 480V Unit 1 Facilities Re-Powering

Description of the Activity

The proposed change provided the design and implementation details for the Unit 1 decommissioning electrical system from the secondary side of the 23kV Emergency Station Service Transformer (ESST) to 4160V BUS 14H and its associated loads and is composed of the following changes:

- ◆ Disconnecting the existing Reserve Station System Transformer (RSST) feed to BUS 14H.
- ◆ Removing the existing ESST feed to BUS 14G.
- ◆ Re-powering 4160V BUS 14H from the secondary side of the ESST transformer.
- ◆ Energizing the new 480V Load Center B2 which feeds facility loads (Turbine Building Crane, HVAC, Lighting and miscellaneous equipment).
- ◆ Disconnecting the existing BUS 14H to BUS 14C/D Tie.
- ◆ Providing a new 125V DC Control Power Feed to BUS 14H and removing the existing 125V DC feed.
- ◆ Redesigning the 125V DC Control Circuitry for BUS 14H cubicle A604 (feed to 480V Load Center B2) to remove the 86 lockout relay circuitry.
- ◆ Redesigning the 125V DC Control Circuitry for BUS 14H cubicle A609 (feed to Spent Fuel Pool Island equipment) to localize controls and remove the 86 lockout circuitry.

Reason for the Activity

This proposed change will provide Unit 1 with the 4160V and 480V electrical power requirements needed to maintain Unit 1 in a "Cold and Dark" condition.

Safety Evaluation Summary

The electrical systems or equipment installed, modified or re-powered by this activity are not safety related. The new feed (ESST) to BUS 14H is a reliable source of power and currently serves as the alternate off-site source to Unit 1. The probability of electrical failures of the new equipment and existing equipment realigned to new power supplies, and their effects on plant systems would be the same as those prior to the implementation of this change.

These systems and equipment are not required to support any remaining Unit 1 safety related SSCs nor are they required to function to prevent or mitigate the consequences of the only remaining accident (fuel handling) or sample releases resulting from this accident or included in the assumptions inherent in the analysis.

During implementation of this design, the work associated with re-powering BUS 14H from the RSST to the ESST and reworking of the 125V DC control circuitry for BUS 14H breaker A609 will result in the temporary interruption of power to the Spent Fuel Pool Cooling/Handling System and the radiological effluent monitoring instrumentation for a brief period. Defueled Safety Analysis Report (DSAR) Sections 3.2.1.3 and 3.2.1.3.3 address the possibility of the loss of external cooling to the spent fuel pool. These sections state that with a complete loss of external cooling, it would take 10 days for the pool temperature to rise to 212°F. This time period is considerably longer than the time it will take to complete the work on BUS 14H. In addition, a portable diesel generator (special design feature of the Spent Fuel Pool Island) will be available in order to provide power to the Spent Fuel Pool Cooling/Handling System and radiological effluent monitoring instrumentation during this time period. As an additional precaution, the work will be coordinated through the control room and the work control process to ensure fuel handling operations are not being conducted while this work is being implemented.

Section III of the REMODCM requires the radiological effluent monitoring instrumentation to be available continuously. Temporarily re-powering the radiological effluent monitoring instrumentation from BUS 14H onto the portable diesel generator and the subsequent re-transfer of power back to BUS 14H will result in the momentary loss of power to this equipment. Consequently, during the transfer and re-transfer of power to this equipment, compensatory measures (grab samples) will be required to continue offsite effluent releases.

All safety aspects of this electrical modification have been evaluated. The proposed design change was safe and did not constitute an unreviewed safety question or require a change to the plant Technical Specifications or Operating License.

Safety Evaluation Number: S1-EV-00-0048

Revision No.: 0

Subject: Traveling Screen Wash SERT Package

Description of the Activity

The proposed change removed the reference to the Traveling Screens from the Defueled Safety Analysis Report (DSAR), section 3.1.7.4.4, "Intake Structure".

Reason for the Activity

The proposed change resulted from the abandonment of the subject screens which provided a support function to the Service Water System. The Traveling Screens System is no longer needed to provide its support function, because the Service Water System was also abandoned.

Safety Evaluation Summary

The Traveling Screens were provided to remove trash and debris from the Intake Structure so that the suction to the Service Water System would not be affected. Since the Service Water System has been abandoned, the Traveling Screens no longer perform any function. Therefore, the abandonment of the Traveling Screens is safe and does not constitute an unreviewed safety question.

Safety Evaluation Number: S1-EV-00-0050

Revision No.: 0

Subject: Abandonment of the Service Water System

Description of the Activity

The proposed change deletes references to the Service Water System from the Defueled Safety Analysis Report (DSAR).

Reason for the Activity

The Service Water System provided cooling to the Reactor Building Component Cooling Water (RBCCW) System which in turn provided cooling to the Spent Fuel Pool Water. With the installation of the Spent Fuel Pool Island, the Spent Fuel Pool Cooling System is no longer dependent on the Service Water System.

Safety Evaluation Summary

The Service Water System was not safety-related, and was not required to mitigate the consequences of the fuel handling accident. The Spent Fuel Pool Cooling System is no longer dependent on the Service Water System. The changes to the DSAR regarding the abandonment of the Service Water System do not create any challenges to fission product barriers or increase the radiation dose to the public and do not introduce any new hazards or accident initiators that may create any malfunctions or accidents. The proposed changes do not constitute an unreviewed safety question.

Safety Evaluation Number: S1-EV-00-0056

Revision No.: 0

Subject: Abandon Fire Detection/Suppression in Boiler/Diesel Generator Rooms and
Related Document Changes

Description of the Activity

The Fire Detection and Suppression Systems in the Diesel Generator and Boiler Rooms are abandoned. The equipment and spaces that the fire detection and suppression systems protected have been abandoned.

Reason for the Activity

The subject fire detection and suppression systems in the Diesel Generator and Boiler Rooms are no longer needed since the equipment and spaces protected have been abandoned and the hazards for which these systems were designed have been removed.

Safety Evaluation Summary

Abandoning the fire detection and suppression systems in the Diesel Generator and Boiler Rooms does not affect hazards, or accident initiators previously evaluated. Any remaining potential fire scenarios associated by abandonment of the subject systems and area equipment is bounded by the Resin Fire Study analysis for three High Integrity Containers on fire which would pose the worst case radiological consequences based upon the activity levels present in the material.

This change does not involve an unreviewed safety question.

Safety Evaluation Number: S1-EV-00-0060

Revision Nos.: 0 and 1

Subject: Millstone Unit 3 Re-powering of Unit 1 Fire Pump House, Stack and Auxiliaries

Description of the Activity

The proposed change re-powers the Unit 1 Fire Pump House, Stack and Auxiliaries via Unit 3 power sources. Additionally, responsibility for fire protection signals associated with the Unit 1 Fire Pump House is being transferred to Unit 3

Reason for the Activity

The decommissioning of Unit 1 created a situation where the existing Unit 1 Fire Pump House, Main Stack and Auxiliaries would no longer be available to Unit 2 and Unit 3 unless supplied by a Unit 3 power source. Since this equipment was transferred to Unit 3, appropriate system indication needs to be annunciated in the Unit 3 Control Room.

Safety Evaluation Summary

The changes proposed for the transfer of the Unit 1 Fire Pump House, Main Stack and Auxiliaries to Unit 3 will not adversely affect any design basis accidents or their consequences. This change provides an acceptable power source from Unit 3, to support continued operation of Unit 2 and Unit 3. This change is safe and does not increase the probability of occurrence of the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report and does not degrade the margin of safety as defined in the basis for any Technical Specification. The change does not constitute an unreviewed safety question.

Safety Evaluation Number: S1-EV-00-0061

Revision Nos.: 0 and 1

Subject: Pre-Abandonment Portion of Balance-of-Plant HVAC Modifications

Description of the Activity

The proposed modifications support the safe occupancy of building structures, prevents the freezing of liquid filled systems in the post Cold and Dark safe storage phase of decommissioning and ensures that ventilation is provided such that radioactive contamination is properly controlled.

The modifications replace an active supply ventilation system in the turbine building with a passive supply by blocking open existing dampers and providing additional openings to allow fresh air inlet flow. Fans which are no longer required in the defueled plant condition are abandoned. Automatic dampers are converted to manual operation. A means is provided to appropriately balance air flow to maintain areas of radioactive contamination at slightly negative pressure.

Reason for the Activity

The balance-of-plant (BOP) ventilation modifications provided in DPR DCN DM1-0X-0201-00 series assumes the Reactor Building, Turbine Building and Radwaste Ventilation Systems had been abandoned by the SERT process. Changes to the decommissioning schedule placed the BOP Ventilation modifications before the abandonment of the subject ventilation systems. Therefore, this safety evaluation addresses modifications to HVAC systems required by the BOP HVAC project which have not yet been abandoned.

Safety Evaluation Summary

The ventilation modifications ensure that radioactive contamination is properly controlled by:

- ◆ maintaining negative pressure in contaminated buildings such that inadvertent unmonitored release is precluded;
- ◆ directing ventilation air flow from areas of low radioactive contamination to areas of progressively greater contamination; and
- ◆ monitoring exhaust flow discharge points for radioactivity.

All safety aspects of these ventilation modifications have been evaluated. These modifications have no impact on the malfunctions or accidents previously evaluated in the DSAR and do not present any new malfunctions or accidents. The modifications are safe and do not constitute an unreviewed safety question.

Safety Evaluation Number: S1-EV-00-0062

Revision No.: 0

Subject: Transfer of Unit 1 Fire Detection to Unit 2

Description of the Activity

The proposed modification will transfer the ownership of fire detectors in Unit 1 fire areas S-1 through S-4 (Unit 1 Computer Room, Chemistry Lab, Cable Vault and Control Room) and the 345 kV Switchyard from Unit 1 to Unit 2. The fire detectors within fire areas S-1 through S-4 will be provided Unit 2 component numbers and will be tested by Unit 2 for the functions provided by Unit 2. A new alarm panel FLP-99 will provide local indication of an alarm/trouble for the S-1 through S-4 fire areas. The alarm/trouble status of the fire areas will also be output from FLP-99 to Unit 2 fire panel C-26, which resides within the Unit 2 Control Room. The Unit 1 Control Room fire detection is not being re-powered by this modification. The 345 kV switchyard fire alarm will be modified by connecting the existing signal, via fiber-optic link, to the Unit 1 Control Room panel CRP 909, and then routed to Unit 2 fire panel C-26, which resides within the Unit 2 Control Room.

Reason for the Activity

Responsibility for the subject fire detectors is being transferred from Unit 1 to Unit 2.

Safety Evaluation Summary

Fire zones S-1, S-3 and S-4 and the 345 kV switchyard do not contain any radiological sources. Fire zone S-2 could contain small amounts of radiological materials undergoing testing and analysis; however, the Unit 1 Fire Hazard Analysis has determined that a fire in the Chemistry Lab would not result in any significant radioactive release. The consequences of a fire in this area are bounded by a large margin by the Resin Fire Study. Therefore, the proposed changes regarding the fire detectors in Unit 1 fire zones S-1, S-2, S-3 and S-4 and the 345 kV switchyard cannot reduce the effectiveness of fire protection for facilities, systems and equipment which could result in a radiological hazard, taking into account the decommissioning plant conditions and activities. The proposed changes do not have any impact on the remaining design basis accident, i.e., the fuel handling accident. The change is safe and does not introduce an unreviewed safety question.

Safety Evaluation Number: S1-EV-00-0064

Revision No.: 0

Subject: Elimination of Unit 1/2 Cross-Tie and Addition of 4160V Cross-tie of Unit 2 to Unit 3

Description of the Activity

Replace the Millstone Unit 1 / 2 4160V cross-tie connection with a Unit 2 / 3 4160V connection. The existing connection is a critical aspect of the Unit 2 licensing and design basis. This connection is provided by a tie from Unit 1 BUS 14H to the Unit 2 swing BUS 24E. The connection will be replaced by a tie from Unit 3 BUS 34A or 34B to the Unit 2 swing BUS 24E.

Additionally, Unit 1 currently supplies non-QA 4160V power from BUS 14E to the Auxiliary Transformer #1 in the 345 kV switchyard to support switchyard auxiliaries. The DCR replaces the power feed with an equivalent feed from Unit 3.

The Unit 1 Technical Requirements Manual contains numerous requirements regarding the Unit 1 electrical systems. The requirements do not support a Unit 1 function. Upon the implementation of the DCR, Unit 2 will no longer rely upon Unit 1 to supply power from the Unit 1 RSST or Normal Station Service Transformer (NSST). Thus, the associated requirements regarding Unit 1 electrical systems will be removed.

Reason for the Activity

Eliminate the currently credited Unit 1 electrical cross-tie as the alternate source of AC power for Unit 2. This activity is necessary to enable the full decommissioning of Unit 1.

Safety Evaluation Summary

The proposed change is required to permit Unit 1 separation from Unit 2. This activity, along with the Unit 2 and Unit 3 design change and safety evaluation eliminates the capability for Unit 1 to supply power to Unit 2. A breaker will be opened to isolate the Unit 1 BUS 14H from Unit 2 BUS 24E, and the electrical modifications will be conducted on the isolated portion of the circuit. This change has no effect on the ability of the Unit 1 system to supply Unit 1 with power.

Re-powering the 345 kV switchyard auxiliaries from Unit 3 allows the abandonment of the Unit 1 BUS 14E which will not be utilized to support the spent fuel pool island or the balance of the plant facilities post- Cold and Dark. The design change will disconnect the associated power and control cables and leave cubicle 11 of bus 14E spared such that the balance of functions currently provided by BUS 14E are unaffected.

The design change disconnecting the associated power and control cables and leaving cubicle 11 of BUS 14E spared does not affect the spent fuel pool island or the balance of the plant. The change is safe and does not introduce an unreviewed safety question.

Safety Evaluation Number: S2-EV-00-0098

Revision No.: 0

Subject: Unit 1/Unit 2 480V Low Voltage Separation Project

Description of the Activity

This modification re-powered loads within administrative areas common to Units 1 and 2 that are required to remain functional following the decommissioning of Unit 1. The majority of these loads were re-powered from a new Flanders 23kV line circuit with a remaining few loads being re-powered from the Unit 2 Electrical Distribution System. A new 23 kV - 480 V transformer was installed by a separate modification to the west of the Unit 2 Turbine Building. Cables from the Flanders line to the primary side of the transformer were also installed by this modification.

The new Flanders line circuit will be a 480V 3-phase, 3-wire grounded system, unlike the Unit 2 Electrical Distribution System, which is an ungrounded system. However, this circuit will not be connected to the Unit 2 Electrical Distribution System and there will be no means provided to interconnect the systems.

Additionally, this modification will install the cable, conduit, conduit supports and electrical equipment necessary to re-power the following loads from Unit 2 sources: the Unit 2 Turbine Building Crane, Lighting Panels LP-20 and HP-1K, and the emergency lighting buses on lighting panels LP-19, LP-20, LP-26 and UP-1P. None of the loads being re-powered by this modification are safety-related.

Reason for the Activity

The power previously provided for the Unit 1 administrative areas is no longer needed for the systems and components that have been abandoned in the post-Cold and Dark condition.

Safety Evaluation Summary

The proposed design changes are safe and do not constitute an unreviewed safety question. The new Flanders line circuit is a stand-alone non-safety related circuit, which does not interface with the Unit 2 electrical distribution system. The loads to be re-powered by this circuit are all non-safety related. The Appendix R Emergency Lighting Units that will be re-powered from this circuit are all battery powered and will function during an Appendix R scenario regardless of the power supply. Being powered from the Flanders line circuit will have no impact on their function. The Unit 2 Turbine Building Crane and Lighting Panels LP-20 and HP-1K will re-powered from non-safety related Unit 2 sources. The addition of these loads to Unit 2 non-safety related sources had no impact on the ability of Unit 2 safety-related electrical distribution system to supply power to safety related equipment. The proposed change was safe and did not constitute an unreviewed safety question.

Safety Evaluation Number: S1-EV-01-0001

Revision No.: 0

Subject: Technical Requirements Manual Changes Regarding Met Tower
Instrumentation and Water Quality Monitor System

Description of the Activity

Tables 1 and 3 of U1-TRM-07 identify that Met Tower instrumentation is a Unit 1 system that is required to support Units 2 and 3, respectively. Table 1 of U1-TRM-07 identifies that certain aspects of the Unit 1 Water Quality Monitor System provide a backup to Unit 2. In the event either of these systems is unable to perform its function, Unit 1 is required to notify Unit 2 or 3 operations, as applicable. These requirements are being eliminated.

Reason for the Activity

The responsibility for the Met Tower Instrumentation and the applicable portions of the Unit 1 Water Quality Monitoring System are being transferred to Unit 2.

Safety Evaluation Summary

The proposed change is a document change to eliminate a requirement in the Unit 1 Technical Requirements Manual (TRM) to notify Units 2 and 3 Operations, as applicable, when the Meteorological Tower (Met Tower) instrumentation or the specified water quality monitoring instrumentation is incapable of performing its function.

The responsibility for the Met Tower instrumentation and the applicable portions of the Unit 1 Water Quality Monitoring System will be transferred to Unit 2. As a result, Unit 1 will no longer control the instrumentation. Thus, the U1-TRM-07 requirements regarding the instrumentation are no longer necessary. These changes are safe, and do not constitute an unreviewed safety question.

Safety Evaluation Number: S1-EV-01-002

Revision No.: 0

Subject: Spent Fuel Pool Water Bulk Temperature

Description of the Activity

The proposed activity modifies OPS Form 273 3/4.10.G, as maintained in the Unit 1 Technical Requirements Manual (TRM) as follows:

1. Increase the acceptance criterion regarding the Spent Fuel Pool (SFP) bulk water temperature from 125°F to 140°F. The revised acceptance criterion will continue to ensure that the high water temperature will not degrade the resin contained in the spent fuel pool demineralizer.
2. Eliminate the action requirement to suspend all operations involving the addition of irradiated fuel to the SFP. Unit 1 has been permanently shutdown and defueled. All of the irradiated fuel is in the SFP, thus, the action is no longer meaningful.
3. Revise the basis to identify that the acceptance criterion ensures that the fuel pool structure, pool liner, fuel racks and external cooling system will remain functional. Unit 1 Defueled Safety Analysis Report (DSAR) section 3.2.1.3.1 identifies that these structures, systems, and components were designed for a temperature of approximately 150°F, and were demonstrated to be adequate for abnormal temperature excursions to 212°F.
4. Revise the basis to eliminate the statement that the limit ensures personnel comfort and safety requirements. The TRM does not need to address occupational safety issues.

Reason for the Activity

The reason for this activity is to increase the acceptance criterion regarding the SFP bulk water temperature from 125°F to 140°F.

Safety Evaluation Summary

The proposed changes do not alter the manner in which the SFP bulk water temperature is measured, involve any physical changes to the plant, or alter the way any structure, system or component functions. The proposed change to increase the Unit 1 TRM acceptance criterion for the SFP bulk water temperature continues to ensure that high water temperature will not degrade the resin contained in the SFP demineralizer. In addition, the proposed acceptance criterion ensures that the SFP structure, pool liner, fuel racks, and external cooling system remain functional and within their design basis. Although this change increases the high temperature limit allowed for SFP bulk water temperature excursions, it does not change the manner in which the SFP is normally maintained. During normal operations, the temperature of the SFP bulk water will continue to be maintained below 100°F. This is consistent with the evaluation of the loss of SFP cooling contained in DSAR section 3.2.1.3. The change is safe and does not constitute an unreviewed safety question.

Safety Evaluation Number: S1-EV-01-003

Revision No.: 0

Subject: Design and Installation of Cold and Dark Waste Processing System

Description of the Activity

A system for the collection, processing and discharge of miscellaneous liquid wastes was proposed for installation in the reactor building. The installation of an atmospheric evaporator will be installed on the 42' elevation of the building to provide for volume reduction of liquid wastes. Limited liquid inventory leakage, liquids generated during maintenance activities and rain water in-leakage may all be collected, processed and discharged with the new system.

Reason for the Activity

The system as installed will provide a method of controlling the miscellaneous liquid inventory in the reactor building inside the primary barrier to the environment. The small amount of vapor discharged from the evaporator (one pound/minute) will be absorbed into the reactor building ventilation system discharge. No liquid discharges to the environment are required. The system will concentrate dissolved and suspended solids and licensed materials into a bottoms (concentrate) drum for disposal as Low Specific Activity (LSA) trash.

The DSAR describes specific systems presently used to collect, process and discharge liquid radwaste in the radwaste, turbine, control and reactor buildings. The fluids are collected, filtered, demineralized and sampled prior to discharge to Long Island Sound. The abandonment of the liquid radwaste system terminates the capability to collect and process with the present equipment and suspend discharges into Long Island Sound.

Safety Evaluation Summary

After Cold and Dark, protection against the migration of licensed material contained in liquid wastes is only required within the confines of the reactor building. Since no new fission, corrosion or activation products are created in the decommissioned and defueled state, the requirements of shielding, partition of solids and ionic contaminants, and sampling holdup are no longer necessary. To maintain exposures ALARA, the unloading of evaporator bottoms may be chosen based on dose rate as well as chemical concentration. The proposed activity does not constitute an unreviewed safety question since the subject equipment and associated procedures will not have an impact on any component or activity which supports the safe storage and handling of nuclear fuel and will not influence initiation or migration of accidents or malfunctions. There are no common power supplies, structural elements or other support equipment in common with safety equipment, and no normal operational or failure modes have been identified which could impact safety-critical activities. The proposed activity has no significant effect on discharge or accumulation of licensed material, does not consume or store large amounts of energy and does not present a special fire hazard.

No failures of this equipment will cause discharge of licensed material which would approach limiting values in 10 CFR 100 or 10 CFR 20.

Safety Evaluation Number: S1-EV-01-0006

Revision No.: 0

Subject: Abandonment of the Control Room Halon System

Description of the Activity

The Halon fire protection system (mechanical portions only) are abandoned in the Unit 1 Control Room. Defueled Safety Analysis Report (DSAR) section 3.2.9.2.2 was changed to reflect that Halon fire suppression systems is now only provided in the Fire Pump House. Additionally, U1-TRM-06 and U1-TRM-07 were also revised to reflect that the only remaining Halon system is in the Fire Pump House since the Unit 1 Control Room was abandoned and to reflect that Unit 1 Control Room Halon system is no longer credited for Unit 2 Appendix R due to the lack of a rated fire barrier between the Control Rooms.

Reason for the Activity

The Unit 1 Control Room has been abandoned. The Halon system was installed for Unit 1 10 CFR 50 Appendix R compliance. Safe shutdown in the event of fire is no longer an issue in the permanently defueled state.

Safety Evaluation Summary

The Halon system in the Control Room was not credited for mitigating loss of spent fuel pool cooling events or any other malfunctions. It was originally designed for compliance to 10 CFR 50, Appendix R, Section III.G, which requires fire detection and suppression in areas for which alternate shutdown in fire is provided. In the permanently defueled state, safe shutdown in a fire is no longer an issue. The Unit 1 Control Room Halon system was previously credited as part of the fire separation between the Unit 1 and Unit 2 Control Rooms, which are not separated by rated fire barriers. However, this evaluation looked strictly at the possibility of a Unit 2 Control Room fire affecting Unit 1. A subsequent technical evaluation has concluded that the Unit 1 Control Room Halon System is not needed for the protection of Unit 2. Since the Unit 1 Control Room has been abandoned, the proposed change is inherently safe and does not involve an unreviewed safety question.

Safety Evaluation Number: S1-EV-01-0007

Revision No.: 0

Subject: Spent Fuel Pool Island (SFPI) Compressed Air Supply Modification

Description of the Activity

The station service air piping in the reactor building has been modified such that compressed air is supplied to selected sections of the reactor building including the fuel preparatory machines and refueling bridge from a portable supply. A portable air compressor was installed to supply the new piping configuration.

The following areas of the Defueled Safety Analysis Report (DSAR) will be modified:

1. DSAR figure 3.2-10 will change as a result of this design change to show the new station air piping configuration.
2. DSAR section 3.2.5.3 Instrument Air System, is changed to reflect that not all services essential to operation of plant equipment requiring air during the permanently defueled condition, are supplied from instrument air headers in the plant.

Reason for the Activity

The current instrument and station air compressors are not being re-powered as part of the decommissioning activities. Therefore, it was necessary to supply air to the fuel preparatory machines and the refueling bridge from a portable supply in the reactor building.

Safety Evaluation Summary

The compressed air for the refueling bridge services among other things, the main fuel grapple, the braking system and auxiliary tools. The main grapple requires air to close and air to open. There is positive indication of grapple closure electrically and once the weight of the fuel assembly is on the grapple, the hooked configuration of the grapple prevents any possible opening of the grapple. The air brakes for the bridge require air to be applied to release the brakes; therefore, loss of air will stop the bridge. Modification of the service air connections will also supply air to the fuel preparatory machine in the same way as the current plant configuration.

The instrument and station service air systems are not required to mitigate the Fuel Handling Accident (the only credible and analyzed event remaining in the defueled and decommissioned state), and a malfunction in the system(s) would not affect any of the equipment important to safety. The modifications proposed to the instrument air and station air systems are safe and do not constitute an unreviewed safety question.

Safety Evaluation Number: S1-EV-01-0009

Revision No.: 0

Subject: Transitioning Unit 1 to Cold and Dark

Description of the Activity

SPROC OPS01-1, "Transitioning Unit 1 to Cold and Dark," provides a systematic process for placing Millstone Unit 1 in a Cold and Dark condition. This process includes the re-powering of the Unit 1 4160V and 480V facilities, including the Spent Fuel Pool Island, and disabling structures, systems and components (SSCs) by removing electric power, securing instrument air and securing HVAC systems and components.

Reason for the Activity

This safety evaluation evaluates the disabling of SSCs that are not required to perform any function in the defueled state, including supporting the operation of Millstone Units 2 and 3. This safety evaluation does not address the repowering of the Unit 1 4160V and 480V facilities. This is addressed in DPR DM1-00-091-00 and Safety Evaluation S1-EV-00-0042.

Safety Evaluation Summary

Prior to the commencement of this procedure, a verification will be conducted to ensure that the prerequisite decommissioning projects have been completed. This verification will ensure that the SSCs disabled by this activity do not perform a function in the defueled state. Thus, the disabling of these systems will not impact the ability to maintain the structural integrity of the Spent Fuel Pool, maintain the water level in the Spent Fuel Pool, operate any of the Spent Fuel Pool island systems, including decay heat removal or Spent Fuel Pool HVAC, monitor the status of the plant from the Central Monitoring Station, or operate the spent fuel handling equipment or reactor building crane. During the transition to Cold and Dark, the procedure will not permit any loads to be lifted over the Spent Fuel Pool. The proposed change does not involve an unreviewed safety question.

Safety Evaluation Number: S1-EV-01-0010

Revision No.: 0

Subject: Revise Defueled Safety Analysis Report (DSAR) to Eliminate References to
Millstone Unit 1 Stack

Description of the Activity

The Millstone Unit 1 DSAR is being revised to eliminate any references to the former Millstone Unit 1 Stack.

Reason for the Activity

The Millstone Stack is no longer utilized by Millstone Unit 1 as a monitored pathway to release gaseous effluents. Further, Millstone Unit 1 is physically separated from the Millstone Stack, thus, it does not have the capability to release any radioactive effluents via the Millstone stack.

Safety Evaluation Summary

Given that Millstone Unit 1 is physically separated from the Millstone Stack, it does not have the capability to release any radioactive effluents via the Millstone stack. The release from the fuel handling accident is considered to be an unfiltered and unmonitored release, thus the Millstone Stack and its radioactivity monitors serve no function in mitigating the sole remaining design basis accident. The Millstone Stack and its radioactivity monitors are not accident or event initiators. Thus, the proposed change does not involve an unreviewed safety question.

Safety Evaluation Number: S1-EV-01-0011

Revision No.: 0

Subject: Fire Detection Systems Abandonment

Description of the Activity

The Technical Requirements Manual U1-TRM-06 and Defueled Safety Analysis Report Section 3.2.9.2.4 are being revised to reflect the abandonment of fire detection systems in Millstone Unit 1 with the exception of those detectors associated with the Spent Fuel Pool Island/Central Monitoring Station, and the Unit 1 Control Room and Fire Pump House detection system which are being transferred to Unit 2 and 3, respectively.

Reason for the Activity

With the decommissioning and permanently defueled status of Millstone Unit 1, fire detection systems protecting safety-related or safe shutdown equipment is no longer necessary. The Fire Detection systems were originally installed to meet the requirements of Branch Technical Position APCSB 9.5-1 which required those systems, structures and components that were required to safely shutdown the plant and maintain it in a safe shutdown condition be protected from fire. This change does not include those detectors associated with the Spent Fuel Pool Island/Central Monitoring Station Modifications. It also does not include the Control Room and Fire Pump House detection systems, these are to be transferred to the Unit 2 and 3, respectively.

Safety Evaluation Summary

There is no unreviewed safety question associated with this activity based upon the fact that the equipment and spaces protected have been abandoned and the hazards for which these systems were designed have been removed. Any remaining potential fire scenario associated with the decommissioning effort would be bounded, by a large margin, by the Resin Fire Study.