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Dominion

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U.S. Nuclear Regulatory Commission
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DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNITS 1, 2, 3, AND ISFSI
10 CFR 50.59, 10 CFR 72.48 CHANGE REPORT FOR 2010 AND 2011,
AND COMMITMENT CHANGE REPORT FOR 2010 AND 2011

Pursuant to the provisions of 10 CFR 50.59(d)(2), the report for changes made to the facility for Millstone Power Station Unit 2 (MPS2) and Unit 3 (MPS3) are submitted via Attachments 1 and 2 respectively for the years 2010 and 2011. There were no changes made to the facility for Millstone Power Station Unit 1 (MPS1) and the Independent Spent Fuel Storage Installation (ISFSI).

During 2010 and 2011, there were no commitment changes for MPS1, MPS2, MPS3 or the ISFSI. This constitutes the annual Commitment Change Report consistent with the Millstone Power Station's Regulatory Commitment Management Program.

If you have any questions or require additional information, please contact Mr. William D. Bartron at (860) 444-4301.

Sincerely,

R. K. MacManus
Director, Nuclear Station Safety and Licensing

ISME20
IE47
NMSS26

Attachments: 2

Commitments made in this letter: None.

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Attachment 1

10 CFR 50.59 REPORT FOR 2010 AND 2011

Millstone Power Station Unit 2
Dominion Nuclear Connecticut, Inc. (DNC)

Millstone Power Station Unit 2

S2-EV-10-0001	Revision 0
SIA File 0901238.301	Revision 0
SIA File 0901238.302	Revision 0
SIA File 0901238.303	Revision 0
SIA Report 0901238.401	Revision 0
ETE-MP-2010-0004	Revision 0

Leak Before Break (LBB) Analysis for Alloy 82/182 Weld Overlays

The above referenced documents form the new basis for the LBB analysis of the shutdown cooling, safety injection, and pressurizer surge line nozzles at Millstone Power Station Unit 2 (MPS2). These nozzles are dissimilar metal welds (DMWs) that have been overlaid in order to arrest and/or prevent primary water stress corrosion cracking (PWSCC) at these DMWs.

The original MPS2 LBB analyses were performed for the safety injection / shutdown cooling reactor coolant loop nozzles in 1998 and for the pressurizer surge line / nozzle in 1988. The analyses were revised to address the installed weld overlay (WOL) modification (circa 2008 and 2009) of the aforementioned nozzles. Previous NRC approval of the MPS2 WOLs for the mitigation of PWSCC did not include approval of LBB considerations (reference Regulatory Issue Summary 2010-007). This evaluation was to determine whether a submittal of a License Amendment was necessary in order to comply with NRC regulations with respect to the LBB considerations.

The analysis performed by Structural Integrity Associates (SIA) used a methodology consistent with the methodology used in NRC approved LBB evaluation of an overlaid DMW (reference Davis-Besse Amendment Number 281 issued by the NRC on March 24, 2010). This included consideration of the surface roughness and the number of turns in the postulated PWSCC crack and the effects of the two-layered pipe section. The results of the revised LBB analysis are acceptable.

The new LBB credited leak detection capability of 0.25 gpm is more sensitive than the previous credited LBB leak detection capability of 1.0 gpm. Compliance to Regulatory Guide 1.45, Revision 0 is unchanged. Guidance from Regulatory Guide 1.45, Revision 1 is justified and utilized to support the LBB leakage detection capability change from 1.0 gpm to 0.25 gpm.

The referenced documents are an analysis, not a modification to the facility. As such, it does not affect the frequency of occurrence of an accident, does not change the likelihood of occurrence of a malfunction of a system, structure, or component important to safety, and does not introduce an accident of a different type nor change the consequences of an accident previously evaluated in the Updated Final Safety Analysis Report (UFSAR). The evaluation does not result in exceeding or altering a design limit for a fission product barrier nor constitute a departure from a method of evaluation described in the UFSAR.

Millstone Power Station Unit 2

S2-EV-11-0005 Revision 0

Surveillance Procedure
SP 2604Z Revision 001-02

ECCS, SDC, and CS System Gas Accumulation Verification

Revision 001-02 of Surveillance Procedure SP 2604Z for Emergency Core Cooling System (ECCS), Shutdown Cooling System (SDC) and Containment Spray System (CS) Gas Accumulation Verification credits action by a dedicated operator to maintain system operability during manual venting activities. The attributes of the dedicated operator are derived from Generic Letter 91-08.

The surveillance procedure uses the dedicated operator to open and close vent valves in the High Pressure Safety Injection (HPSI), Low Pressure Safety Injection (LPSI) and CS pump suction or discharge lines to extract accumulated gas voids and restore the system, respectively. Opening a vent in the suction line of a pump would not result in air entrainment since the suction line is not under a vacuum and opening a three-quarter inch vent line on a discharge line would not result in pump run-out. The three-quarter inch vent line is smaller than the standard two-inch minimum flow line for the HPSI, LPSI and CS pumps, therefore no malfunction occurs from opening a vent valve in the pump suction or discharge line while the pump is running.

For the scenario where the system is not operating as would be the normal case during the surveillance, there is the possibility of disabling a piece of equipment important to safety due to water splashing on the equipment. However, equipment in the auxiliary building important to safety is qualified for harsh environments such as High Energy Line Breaks (HELB). Water at the Refueling Water Storage Tank temperature and a low pressure would not cause environments as severe as a HELB scenario. The same conclusion would be true for an operating component in that, although the water from the three-quarter inch vent line might be at a higher pressure, it would only be at the temperature of the Refueling Water Storage Tank.

One of the attributes of the dedicated operator is to be able to close the vent valve in an accident situation. This attribute would ensure the opened vent valve would be closed before the recirculation of highly radioactive water following a Sump Recirculation Actuation Signal (SRAS). The minimum time to SRAS has been calculated to be 27.5 minutes with a best estimate time to SRAS of 37 minutes. Given the position of a dedicated operator, isolation of the vent in this time frame is reasonable to prevent the release of the noble gases and iodines from the recirculated water from the sump.

Therefore, this evaluation concluded that the activities of SP 2604Z using a dedicated operator can be performed without prior NRC approval.

Attachment 2

10 CFR 50.59 REPORT FOR 2010 AND 2011

Millstone Power Station Unit 3
Dominion Nuclear Connecticut, Inc. (DNC)

Millstone Power Station Unit 3

S3-EV-10-0003	Revision 0
MP3-11-01006	Revision 00
MP3-UCR-2011-007	Revision 00
EOP 35 E-1	Revision 25
EOP 35 ES-1.2	Revision 18

Operator Action: Charging Alternate Minimum Flow Line Class Deviation

A 2009 modification to the Millstone Power Station Unit 3 (MPS3) Charging Pump Alternate Minimum Flow (AMF) line resulted in the removal of relief valves which previously served as the boundary between the Class 2 Emergency Core Cooling System (ECCS) piping and the downstream Class 4 piping. Removing these valves and rerouting the piping such that a multistage breakdown orifice was introduced into each charging pump's alternate minimum flowpath changed the function of the discharge piping from carrying relief valve discharge under a limited set of conditions where the charging pumps were deadheaded, to always carrying ECCS water inventory when a safety injection signal (SIS) is received and the AMF is aligned to the Refueling Water Storage Tank (RWST).

This modification resulted in a discrepancy between the MPS3 Updated Final Safety Analysis Report (UFSAR) and the plant field configuration. Specifically, the UFSAR identified the ECCS piping as ASME Code Class 2/ANS Safety Class 2 piping. With the removal of relief valves 3CHS*RV8510A and 3CHS*RV8510B, there was no longer an adequate class break boundary between the Class 2 and Class 4 piping. The Class 4 piping meets ASME III Code Service Level D Allowables, which ensures inherent seismic pressure boundary structural integrity. However, the lines are not fully qualified, and as such, could no longer be credited in the hydraulic analysis to remain intact during an accident that initiates a SIS. Operator action to isolate the Class 4 section of the AMF line within 90 minutes of safety injection initiation following a Loss of Coolant Accident (LOCA) is being credited to resolve this deficiency.

The change in class break potentially impacts post-accident ECCS sump level, because a postulated break in the line would potentially divert ECCS inventory away from the RWST and consequentially away from the containment sump following a LOCA. New RWST level switches with lower uncertainty have been installed to recover analytical margin to support the 90 minute operator action time.

This evaluation examined the changes to emergency operating procedures (EOP) which now credit operator action for isolation of the Charging Pump AMF path, and update of the UFSAR documenting the Code Class non-conformance and the credited operator actions. This change did not create a new type of accident or result in a malfunction with a different result. It had no negative impact on any fission product

barrier, did not increase the consequences of an accident or malfunction and did not result in any departure from any evaluation methodology described in the UFSAR.

Millstone Power Station Unit 3
S3-EV-10-0004 Revision 0

LBDCR 07-MP3-018 Revision 0

License Basis Document Change Request (LBDCR) 07-MP3-018, Millstone Power Station Unit 3 (MPS3) Technical Requirements Manual (TRM) Adoption of Functionality Definition and Elimination of Shutdown Requirements

This change to the MPS3 TRM introduced parallel yet distinct terminology to distinguish the terms for TRM requirements, surveillances and functional equipment from the terms used in plant Technical Specifications (TS). This substitution was a non-intent change.

Technical Specification Term	Technical Requirements Manual Term
Technical Specification (TS)	Technical Requirement Manual (TRM)
Limiting Condition for Operation (LCO)	Technical Requirement (TR)
Surveillance (SR)	Technical Surveillance Requirement (TSR)
Specification	Requirement
Operable/Operability	Functional/Functionality

Additionally, this TRM change replaced the requirement to submit special reports to the NRC for instances where specific monitoring equipment was non-functional for a specified period of time. The TRM now requires this non-functionality be addressed by the corrective action process. The affected instrumentation systems do not directly interact with systems used to control the plant or to respond in the event of an accident, therefore the 50.59 questions were answered in the negative.

The shutdown requirement contained in TRM Section 3.3.4, Turbine Overspeed Protection, was replaced by direction to follow the actions specified in the Turbine Overspeed Protection and Maintenance Program. Attachment 6 of this program contains required shutdown actions. The acceptable level of risk of damage from a turbine overspeed event has been expressed by the NRC as a probability in Regulatory Guide 1.115. This level of risk has been captured in the Updated Final Safety Analysis Report (UFSAR) and in the MPS3 Turbine Overspeed program. An assessment consistent with this program will ensure the probability targets are not more adverse than the quantified probability targets. Consequently, this change does not create the possibility for a malfunction of a system, structure, or component with a different result than that previously evaluated in the UFSAR.

The TRM change also contained instances where shutdown requirements for degraded equipment was replaced by managing risk via the 50.65(a)(4) assessment process. As 50.65 encompasses systems that will ensure the safe shutdown of the plant, the 50.65(a)(4) assessment is an acceptable method of handling the risk of the non-conforming condition. In some cases, it was identified that plant TS provided its own shutdown restrictions on the degraded plant equipment. To the extent in which the

subject plant equipment is credited in a Chapter 15 analysis, there is a governing TS unaffected by this change. Therefore, the substitution of a TRM mode reduction requirement with a 50.65(a)(4) assessment has no impact as the TS is the governing configuration.

Millstone Power Station Unit 3

S3-EV-11-0001 Revision 0

LBDCR 11-MP3-001 Revision 0

License Basis Document Change Request (LBDCR) 11-MP3-001, Technical Requirements Manual (TRM) Change Regarding Plant Systems, Service Water System

This LBDCR changed the Allowed Outage Time (AOT) for Millstone Power Station Unit 3 (MPS3) Service Water System Technical Requirement 3.7.4 Action a.2.c. The original language stipulated with one service water (SW) pump not operable (functional), the plant was to be brought to COLD SHUTDOWN if the inoperable (non-functional) pump was not restored within 14 days. This change extended the AOT to 30 days.

As noted in Section 9.2.1.3 of the Updated Final Safety Analysis Report (UFSAR), a single SW pump can supply the minimum cooling water flow requirements to mitigate all design basis accidents (DBA). The necessary redundancy for the DBA response to pipe breaks is ensured by the SW requirements contained in plant Technical Specifications. This redundancy was unchanged. After the automatic response to a Loss of Coolant Accident DBA terminates Reactor Plant Component Cooling Water flow, it is necessary to reestablish cooling of the Spent Fuel Pool (SFP) by starting a second SW pump. This safety function related to the SW pump was the subject of this analysis. The safety related function of the SFP in the 30 day AOT is met by ensuring that 24 hours are available to the operators to align alternate sources of SFP cooling water. The increase in allowed SW pump outage time has no impact on the 24 hour time period for operator response.

The change in AOT does not increase the probability of an accident previously analyzed in the UFSAR. The change does not result in more than a minimal increase in the likelihood of a malfunction previously evaluated. The change does not introduce any new failure modes that create the possibility of an accident of a different type or a malfunction with a different result than previously analyzed. These activities do not increase the dose consequences or the challenges to the fission product barriers for any previously analyzed accident. The UFSAR Chapter 15 accident analyses are unaffected by this change, and remain bounding.