Constellation Energy
Nine Mile Point Nuclear Station

P.O. Box 63
Lycoming, NY 13093

August 25, 2009

U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

ATTENTION: Document Control Desk

SUBJECT: Nine Mile Point Nuclear Station
Unit No. 2; Docket No. 50-410

Third 10-Year Inservice Testing Program - Request for Alternative Number MSS-VR-02 Regarding Testing of Main Steam Safety Relief Valves

REFERENCE: (a) Letter from M. G. Kowal (NRC) to K. J. Polson (NMPNS) dated December 29, 2008, Nine Mile Point Nuclear Station – Safety Evaluation of Relief Requests for the Unit No. 1 Fourth 10-Year and Unit No. 2 Third 10-Year Pump and Valve Inservice Testing Program (TAC Nos. MD9202 and MD9203)

Pursuant to 10 CFR 50.55a(a)(3)(ii), Nine Mile Point Nuclear Station, LLC (NMPNS) requests NRC authorization of 10 CFR 50.55a request MSS-VR-02 for use at Nine Mile Point Unit 2 (NMP2) for the third 10-year inservice testing interval. This proposed alternative involves the test interval for 14 main steam safety relief valves (SRVs).

By letter dated December 29, 2008 (Reference a), the NRC authorized 10 CFR 50.55a request MSS-VR-01 for NMP2 to increase the SRV test interval from 5 years to 3 refueling cycles (approximately 6 years). The alternative described in request MSS-VR-02 (Attachment) would extend the test interval beyond 6 years for 14 SRVs, on a one-time basis, to allow the testing to be performed during the next refueling outage, which is scheduled to begin in April 2010. The basis for the request is that compliance with the previously authorized alternative (request MSS-VR-01) would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

NMPNS requests authorization of this proposed request for alternative by October 1, 2009 to enable continued plant operation until the April 2010 refueling outage. Without the requested authorization, preparations would need to commence to shut down the plant by October 9, 2009, at which time the first of the subject SRVs will exceed the currently authorized 3-refueling-cycle (approximately 6-year) test interval.

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NRR

Should you have any questions regarding the information in this submittal, please contact T. F. Syrell, Licensing Director, at (315) 349-5219.

Very truly yours,

8/25/09

Joseph E. Pacher
Manager Engineering Services

JEP/DEV

Attachment: Nine Mile Point Unit 2 - 10 CFR 50.55a Request Number MSS-VR-02

cc: S. J. Collins, NRC
R. V. Guzman, NRC
Resident Inspector, NRC

ATTACHMENT

NINE MILE POINT UNIT 2

10 CFR 50.55a REQUEST NUMBER MSS-VR-02

Nine Mile Point Nuclear Station, LLC
August 25, 2009

Constellation Energy
Pump & Valve Inservice Testing Program Plan
Nine Mile Point Nuclear Station - Unit 2

10 CFR 50.55a Request Number: MSS-VR-02 (Unit 2)

Proposed Alternative
In Accordance with 10 CFR 50.55a(a)(3)(ii)

-- Hardship or Unusual Difficulty without Compensating Increase in Level of Quality or Safety --

ASME Code Component(s) Affected:

The following Main Steam Safety Relief Valves (SRVs) are affected:

Component ID	Class	Cat.	Label
2MSS*PSV120	1	C	MAIN STEAM SRV
2MSS*PSV121	1	C	MAIN STEAM SRV (ADS*)
2MSS*PSV122	1	C	MAIN STEAM SRV
2MSS*PSV123	1	C	MAIN STEAM SRV
2MSS*PSV124	1	C	MAIN STEAM SRV
2MSS*PSV125	1	C	MAIN STEAM SRV
2MSS*PSV126	1	C	MAIN STEAM SRV (ADS)
2MSS*PSV128	1	C	MAIN STEAM SRV
2MSS*PSV129	1	C	MAIN STEAM SRV (ADS)
2MSS*PSV130	1	C	MAIN STEAM SRV (ADS)
2MSS*PSV133	1	C	MAIN STEAM SRV
2MSS*PSV134	1	C	MAIN STEAM SRV (ADS)
2MSS*PSV136	1	C	MAIN STEAM SRV
2MSS*PSV137	1	C	MAIN STEAM SRV (ADS)

*ADS = Automatic Depressurization System

Applicable Code Edition and Addenda:

American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code-2004 Edition, No Addenda

Applicable Code Requirement:

Nile Mile Point Unit 2 (NMP2) 10 CFR 50.55a Request Number MSS-VR-01, authorized by Reference 1, provides an alternative to ASME OM Code-2004, Mandatory Appendix I, paragraph I-1320. The alternative requires that Class 1 pressure relief valves be tested at least once every three refueling cycles. A minimum of 20% of the valves from each valve group shall be tested within any 24-month interval. This 20% shall consist of valves that have not been tested during the current three cycle interval, if they exist. The test interval for any individual valve shall not exceed three refueling cycles.

Reason for Request:

OM Code-2004, Section ISTC-3200, "Inservice Testing," states the inservice testing shall commence when the valves are required to be operable to fulfill their required function(s). Section ISTC-5240, "Safety and Relief Valves," directs that safety and relief valves shall meet the inservice test

requirements of Mandatory Appendix I. The alternative to Mandatory Appendix I, paragraph I-1320, in NMP2 10 CFR 50.55a Request Number MSS-VR-01, requires that the test interval for any individual Class 1 pressure relief valve shall not exceed three refueling cycles. The required testing ensures that the Main Steam SRVs will open at the pressures assumed in the safety analysis. These valves are located on the main steam lines between the reactor vessel and the inboard main steam isolation valves within the drywell.

Pursuant to 10 CFR 50.55a(a)(3)(ii), NMP2 requests a one-time relief from (modification to) the requirements of the approved alternative described in relief request MSS-VR-01 for fourteen (14) of the eighteen (18) NMP2 Main Steam SRVs. Relief is requested until the completion of refueling outage 12 (RF12) scheduled to begin in April 2010.

During a review of the NMP2 Inservice Testing Program with respect to an ASME OM Code inquiry interpretation, a discrepancy was identified relative to compliance with the 10 CFR 50.55a Request Number MSS-VR-01 maximum test interval for an individual SRV of three refueling cycles. The ASME OM Code interpretation (01-18) indicated that implementation of the test interval should be based upon a "test-to-test" duration. The historical NMP2 method has been to use an "installation-to-test" duration and to ensure that all installed Main Steam SRVs would not exceed the three refueling cycle duration (assuming a 24 month period for each of the refueling cycles). However, utilizing the "test-to-test" interpretation, the three-refueling-cycle interval has expired (assuming a 24 month period for the refueling cycle) for four currently installed Main Steam SRVs. For these four SRVs (see Table 1, valve serial numbers 160952, 160914, 160906, and 160950), the failure to complete the testing within the specified frequency has been addressed in accordance with the provisions of Technical Specification (TS) Surveillance Requirement (SR) 3.0.3. This SR allows compliance with the requirement to declare the limiting condition for operation (LCO) for the SRVs (LCO 3.4.4) not met to be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is greater. For a delay period greater than 24 hours, a risk evaluation must be performed and the risk impact managed in accordance with 10 CFR 50.65(a)(4). NMPNS has performed a risk evaluation and determined that delaying the next test for these four SRVs until RF12 was well below the acceptability threshold of 1E-06 for incremental conditional core damage probability (ICCDP). Thus, it is permissible to delay completion of the testing for these four SRVs until RF12 before complying with Required Actions of TS 3.4.4.

In addition to the four SRVs discussed above, the three-refueling-cycle interval will expire for ten additional Main Steam SRVs prior to the next scheduled NMP2 refueling outage (RF12). These ten SRVs are also listed in Table 1. The provisions of TS SR 3.0.3 cannot be applied to these ten SRVs since the surveillance interval has not yet been exceeded. Refueling outage 12 is the earliest opportunity to address the discrepancy without requiring NMP2 to enter a forced shutdown to perform these SRV tests.

The basis for this request is that compliance with the requirements in 10 CFR 50.55a request MSS-VR-01 would result in a hardship without a compensating increase in the level of quality or safety. Technical Specification (TS) 3.4.4 requires that if one or more required SRVs are inoperable, actions must be taken to shut down the reactor. NMP2 is equipped with eighteen (18) SRVs, of which 16 are required. Without approval of this relief request, ten (10) SRVs will need to be declared inoperable approximately six months prior to the start of the 2010 refueling outage (when they are scheduled to be

replaced) for failure to comply with TS SR 3.4.4.1. This would necessitate a forced shutdown of the unit for testing and replacement of the SRVs.

The Main Steam SRVs are located inside the drywell, a high radiation area. The estimated dose for the removal, testing, and re-installation of an SRV, including scaffolding erection/removal and insulation removal/re-installation, is estimated to be approximately 2 rem. As discussed below, six of the 18 SRVs are removed and tested during each refueling outage. If NMPS were shutdown before RF12 to perform SRV testing, at least six SRVs would need to be re-tested during RF12 to meet the requirement of request MSS-VR-01 that a minimum of 20% of the valves from each valve group be tested within any 24-month interval, and to re-establish the schedule of removing and testing six SRVs each refueling outage. Thus, an additional radiation exposure of approximately 12 rem would be realized if the proposed alternative is not authorized.

Based on the above discussion, and consistent with the guidance in NUREG-1482, Revision 1, Section 2.5, authorization of this one-time request will avoid undue hardship in the form of an unnecessary plant shutdown per TS 3.4.4 and the additional dose incurred for the replacement and testing of the SRVs.

Proposed Alternative and Basis for Use:

For the fourteen Main Steam SRVs impacted, Nine Mile Point Nuclear Station, LLC (NMPNS) proposes to extend the maximum test interval by varying amounts beyond the specified three refueling cycles (listed in Table 1) to allow testing to be performed during RF12. During RF12, NMPNS will remove and test all fourteen impacted Main Steam SRVs. The removed valves will be replaced with recently tested valves such that their "test-to-test" interval, based on their scheduled future replacement per the NMPNS testing methodology, will remain within three refueling cycles as required by authorized 10 CFR 50.55a request MSS-VR-01.

Additionally, as required by the Code, if the as-found set-pressure of any SRV is found to be > 3% above or below the nameplate set-pressure, two additional SRVs from the same valve group will be tested. If the as-found set-pressure of any of these additional SRVs is found to be > 3% above or below the nameplate set-pressure, then all remaining SRVs of that same valve group shall be tested.

The basis for this request is as follows:

A review of the set-point testing results for the time period from initial operation to the present, which comprises 103 data points, shows that the average set-point change is 0.86%. This slight deviation is well within the requirement specified in NMP2 TS SR 3.4.4.1 that the as-left setpoint be within 1% of the nameplate, and well within the as-found Code requirement of plus or minus 3%. The testing of SRVs at NMP2 was taken over by the onsite test facility in 1997. There is no significant difference in the average change between the Wyle Labs data and the onsite test facility data. A significant number of the as-found setpoints were greater than 1% above the nameplate set pressure. However, only 11 were greater than 2% above the nameplate, and only 4 were greater than the Code tolerance of +3% for the as-found setpoint test, requiring testing of additional SRVs.

One valve as-found test was more than 3% below the nameplate set pressure. Note that there is a slight tendency toward higher as-found setpoints, but this tendency is well within both the Technical Specification and the Code requirements. The testing data indicates that set-point history has been good

with only infrequent need for Code required additional testing. The SRV as-found set pressure test data for the last five NMP2 refueling outages is summarized in Table 2. Data on the five Main Steam SRV as-found set-point test failures identified above is summarized in Attachment 1 to this 10 CFR 50.55a request.

A 24-month fuel cycle has been implemented at NMP2. Each refueling outage, NMPNS removes and tests six of the eighteen Main Steam SRVs so that all valves are removed and tested every three refueling outages. Subsequent to completion of as-found testing, each SRV in the removed complement is disassembled to perform an inspection and maintenance activities, including disc and seat inspection for evidence of degradation such as leakage or misalignment. Any SRV that failed the as-found set pressure test is inspected to determine the cause. In the event the as-found test or the visual inspections indicate that spring pack degradation may be present, a set pressure load test is performed to determine the amount of friction present and hysteresis characteristics. The results of this test are evaluated by the test supervisor to identify irregularities in operation that might be indicative of subcomponent degradation. Based upon the results of the test review, a determination is made by the test supervisor to perform full or partial valve overhaul.

All adverse conditions are corrected, the disc and seats are lapped, and the valve is reassembled. Each SRV is then recertified for service through inspection and testing consistent with ASME OM Code requirements, including set pressure, seat tightness, stroke time and disc lift verifications, solenoid coil pick up/drop out, and air actuator integrity tests.

After recertification testing, the SRVs are stored near the test location for future use, maintaining class B cleanness requirements in accordance with station administrative procedures. The SRVs are stored in an area of the NMP2 Radwaste building that is fire resistant, weather-tight, well ventilated, and not subject to flooding. The Radwaste building ventilation system, described in NMP2 Updated Safety Analysis Report Section 9.4.3, provides filtered outside air to various areas of the Radwaste building. The building temperature is maintained between 65°F and 110°F, in accordance with the system operating procedure. Maintaining the SRVs in a controlled environment during storage minimizes the potential for any valve degradation. Table 1 provides both the storage time (time period from the last test to the installation date) and the inservice time for the fourteen affected Main Steam SRVs.

The SRV as-found set pressure test data in Table 2 demonstrates that the current maintenance practices outlined above have been effective, and that pre-installation SRV storage in the Radwaste building has had no significant impact on SRV test results. Only one as-found setpoint test failure has been experienced during the time period encompassed by the data in Table 2. Note that testing performed on SRVs removed during these refueling outages utilized nitrogen, with a correlated set pressure. The data in Table 2 also illustrates that SRVs that have exceeded 6 years between tests have still demonstrated acceptable as-found setpoint test results.

Based on the above cited valve performance history, SRV maintenance practices and the controlled storage environment for the stored SRVs, there is continued assurance of valve operational readiness, as required by ASME OM Code-2004, Mandatory Appendix I, paragraph I-1310(b) and request MSS-VR-01, even given the requested one-time extension of the test interval as outlined in this request. Therefore, NMPNS has concluded that compliance with the ASME OM Code requirements would result in a hardship or unusual difficulty (in the form of an unnecessary plant shutdown per TS 3.4.4 and the

additional dose incurred to replace and test the SRVs) without a compensating increase in the level of quality or safety.

Duration of Proposed Alternative:

This proposed alternative is requested until the completion of NMP2 refueling outage 12, which is currently scheduled to begin in April, 2010.

Precedents:

Similar relief requests have been approved for other plants as listed below:

- Letter from H. Chernoff (USNRC) to C. Pardee (Exelon), "Peach Bottom Atomic Power Station, Units 2 and 3 – Requests for Relief Associated with the Fourth Inservice Testing Interval (TAC Nos. MD7461 and MD7462)," dated September 3, 2008 (Relief Request Number 01A-VRR-1).

- Letter from R. Gibbs (USNRC) to C. Crane (Exelon), "Dresden Nuclear Power Station, Unit 2 – Request for Relief from ASME OM Code 5-Year Test Interval Requirements (TAC No. MD5959)," dated September 20, 2007 (Relief Request Number RV-02B).

References:

1. Letter from M. Kowal (USNRC) to K. Polson (NMPNS), "Nine Mile Point Nuclear Station – Safety Evaluation of Relief Requests for the Unit No.1 Fourth 10-Year and Unit No. 2 Third 10-Year Pump and Valve Inservice Testing Program (TAC Nos. MD9202 and MD9203)," dated December 29, 2008.

Constellation Energy
Pump & Valve Inservice Testing Program Plan
Nine Mile Point Nuclear Station - Unit 2

10 CFR 50.55a Request Number: MSS-VR-02 (Unit 2)

Table 1: Currently Installed Main Steam SRVs at NMP2, Including Storage Time and Inservice Time

Serial #	Comp ID - Location	Date Last Certification Test Performed	Storage Time (Years)	Date Installed	Inservice Time at RF12 Shutdown (Years)	Total Time from Last Test to RF12 (4/2010) (Years)	Test-to-Test Due Date	Requested Test Interval Extension
160953	2MSS*PSV120 - LOOP - A	10/16/2003	2.46	4/2006 - RF10	4	6.47	10/15/2009	6 months
160967	2MSS*PSV121 - LOOP - A (ADS)	11/10/2003	2.39	4/2006 - RF10	4	6.40	11/9/2009	5 months
160952	2MSS*PSV122 - LOOP - A	6/22/2001	4.78	4/2006 - RF10	4	8.79	6/21/2007	2 years 10 months
160914	2MSS*PSV123 - LOOP - A	2/27/1998	6.10	4/2004 - RF09	6	12.10	2/26/2004	6 years 2 months
160906	2MSS*PSV124 - LOOP - B	6/24/2001	2.77	4/2004 - RF09	6	8.78	6/23/2007	2 years 10 months
160950	2MSS*PSV125 - LOOP - B	6/25/2001	4.77	4/2006 - RF10	4	8.78	6/24/2007	2 years 10 months
160939	2MSS*PSV126 - LOOP - B (ADS)	10/17/2003	4.46	4/2008 - RF11	2	6.47	10/15/2009	6 months
160905	2MSS*PSV127 - LOOP - B (ADS)	12/7/2005	2.32	4/2008 - RF11	2	4.32	12/6/2011	None
160903	2MSS*PSV128 - LOOP - B	10/10/2003	4.48	4/2008 - RF11	2	6.48	10/9/2009	6 months
160904	2MSS*PSV129 - LOOP - C (ADS)	10/10/2003	2.48	4/2006 - RF10	4	6.48	10/9/2009	6 months
160976	2MSS*PSV130 - LOOP - C (ADS)	10/14/2003	0.47	4/2004 - RF09	6	6.47	10/13/2009	6 months

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Pump & Valve Inservice Testing Program Plan
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Serial #	Comp ID - Location	Date Last Certification Test Performed	Storage Time (Years)	Date Installed	Inservice Time at RF12 Shutdown (Years)	Total Time from Last Test to RF12 (4/2010) (Years)	Test-to-Test Due Date	Requested Test Interval Extension
160974	2MSS*PSV131 - LOOP - C	12/9/2005	2.31	4/2008 - RF11	2	4.32	12/8/2011	None
160969	2MSS*PSV132 - LOOP - C	12/4/2007	0.33	4/2008 - RF11	2	2.33	12/2/2013	None
160959	2MSS*PSV133 - LOOP - C	10/17/2003	2.46	4/2006 - RF10	4	6.47	10/16/2009	6 months
160955	2MSS*PSV134 - LOOP - D (ADS)	10/14/2003	0.47	4/2004 - RF09	6	6.47	10/13/2009	6 months
160936	2MSS*PSV135 - LOOP - D	12/5/2005	2.32	4/2008 - RF11	2	4.33	12/4/2011	None
160962	2MSS*PSV136 - LOOP - D	10/11/2003	0.47	4/2004 - RF09	6	6.48	10/10/2009	6 months
160970	2MSS*PSV137 - LOOP - D (ADS)	11/16/2003	0.38	4/2004 - RF09	6	6.38	11/15/2009	5 months

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Pump & Valve Inservice Testing Program Plan
Nine Mile Point Nuclear Station - Unit 2

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Table 2: Main Steam SRVs Test Results for the Last Five NMP2 Refueling Outages

SRV Tested	Serial No.	Setpoint (psig)	As Found Setpoint Test Results (psig)	Correlated Set Pressure (psig)	Correlated Max Set Pressure +3% (psig)	Correlated Min Set Pressure -3% (psig)	Accept/ Reject	Time from Last Test (Years)
Refueling Outage 11, April 2008								
2MSS*PSV126	160965	1195	1212	1215	1248	1181	Accept	6.77
2MSS*PSV127	160956	1205	1220	1224.9	1258.7	1190.9	Accept	6.79
2MSS*PSV128	160972	1165	1162	1184	1217	1151	Accept	8.42
2MSS*PSV131	160961	1175	1200	1194	1227	1161	Accept	6.77
2MSS*PSV132	160915	1185	1182	1205	1238	1171.4	Accept	6.77
2MSS*PSV135	160964	1195	1197	1215	1248	1181	Accept	10.1
Refueling Outage 10, April 2006								
2MSS*PSV120	160935	1185	1203	1205	1238	1171	Accept	6.44
2MSS*PSV121	160966	1195	1224	1215	1248	1181	Accept	6.40
2MSS*PSV122	160951	1185	1222	1204	1238	1171	Accept	8.11
2MSS*PSV125	160968	1185	1194	1205	1238	1171	Accept	8.12
2MSS*PSV129	160971	1205	1225	1225	1258	1191	Accept	6.42
2MSS*PSV133	160958	1165	1176	1184	1217	1151	Accept	4.78
Refueling Outage 9, April 2004								
2MSS*PSV123	160960	1175	1191	1195.2	1228	1162	Accept	7.19
2MSS*PSV124	160974	1175	1193	1195.2	1228	1162	Accept	4.43
2MSS*PSV130	160936	1195	1193	1215.5	1249	1181	Accept	7.21
2MSS*PSV134	160954	1205	1225	1225	1259	1191.6	Accept	7.92
2MSS*PSV136	160973	1175	1189	1195.2	1228	1162	Accept	6.11
2MSS*PSV137	160905	1205	1239	1225.7	1259.7	1191.6	Accept	6.12
Refueling Outage 8, March 2002								
2MSS*PSV121	160939	1195	1219	1214	1248	1180	Accept	4.09
2MSS*PSV126	160967	1195	1189	1214	1247	1180	Accept	5.88
2MSS*PSV127	160955	1205	1201	1224	1258	1190	Accept	5.90
2MSS*PSV128	160903	1165	1176	1184	1216	1151	Accept	4.08
2MSS*PSV129	160904	1205	1220	1224	1258	1190	Accept	4.08
2MSS*PSV132	160953	1185	1181	1204	1237	1171	Accept	5.16
2MSS*PSV134	160970	1205	1192	1224	1258	1190	Accept	5.18
2MSS*PSV135[1]	160976	1195	1170	1214	1247	1180	Reject	5.16
2MSS*PSV131[1]	160962	1175	1186	1194	1227	1161	Accept	5.17
2MSS*PSV133[1]	160959	1165	1169	1184	1216	1151	Accept	5.18
Refueling Outage 7, March 2000								
2MSS*PSV120	160915	1185	1219	1204	1238	1171	Accept	3.90
2MSS*PSV121	160965	1195	1231	1215	1248	1181	Accept	3.90
2MSS*PSV122	160950	1185	1222	1204	1238	1171	Accept	3.94
2MSS*PSV123	160963	1175	1208	1194	1227	1161	Accept	3.92
2MSS*PSV124	160906	1175	1189	1194	1227	1161	Accept	3.92

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Pump & Valve Inservice Testing Program Plan
Nine Mile Point Nuclear Station - Unit 2

10 CFR 50.55a Request Number: MSS-VR-02 (Unit 2)

Table 2: Main Steam SRVs Test Results for the Last Five NMP2 Refueling Outages

SRV Tested	Serial No.	Setpoint (psig)	As Found Setpoint Test Results (psig)	Correlated Set Pressure (psig)	Correlated Max Set Pressure +3% (psig)	Correlated Min Set Pressure -3% (psig)	Accept/ Reject	Time from Last Test (Years)
2MSS*PSV125	160952	1185	1220	1204	1238	1171	Accept	3.90
2MSS*PSV128	160958	1165	1193	1184	1217	1151	Accept	3.94
2MSS*PSV129	160956	1205	1214	1225	1258	1191	Accept	3.16
2MSS*PSV135	160975	1195	1244	1215	1248	1181	Accept	3.88
2MSS*PSV136	160961	1175	1221	1194	1227	1161	Accept	3.93
2MSS*PSV137	160954	1205	1222	1225	1259	1191	Accept	3.88

Note: (1) SRV 2MSS*PSV135 (SN 160976) failed the as-found set pressure test (relieved early) during Refueling Outage 8. Two additional valves (2MSS*PSV131 (SN 160962) and 2MSS*PSV133 (SN 160959)) were tested per Code requirements, and both passed.

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Pump & Valve Inservice Testing Program Plan
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Attachment 1: Summary of As-Found Set-Point Failures Since Initial Operation

The data for the five failed Main Steam SRV as-found set-point tests (i.e., the Code tolerance of ±3% was exceeded) is summarized below:

- One SRV as-found set-point test failed on the low side (set-point less than the -3% tolerance). The following summarizes the test data for this SRV:

SRV Tested	Serial No.	Set Point (psig)	When Tested	Test Results (psig)	Test Medium	Correlated Set Pressure (psig)	Max Set Pressure +3% (psig)	Min Set Pressure -3% (psig)
2MSS*PSV135[1]	160976	1195	Mar-02	1170	Nitrogen	1214	1247	1180

Note: (1) The cause for this failure was determined to be set-point drift. Minor adjustments were made to restore the set pressure to the acceptance range. No additional causes for the set-point drift were found during valve maintenance. The valve was refurbished and re-certified.

- Four SRV as-found set-point tests failed on the high side (set-point greater than the +3% tolerance). The following summarizes the test data for these SRVs:

SRV Tested	Serial No.	Set Point (psig)	When Tested	Test Results (psig)	Test Medium	Correlated Set Pressure (psig)	Max Set Pressure +3% (psig)	Min Set Pressure - 3% (psig)
2MSS*PSV122[1]	160969	1185	Oct-90	1228	Steam	n/a	1221	1149
2MSS*PSV121[2]	160966	1195	Apr-92	1234	Steam	n/a	1230.8	1159.1
2MSS*PSV123[3]	160960	1175	Oct-96	1219	Steam	n/a	1210.2	1139.7
2MSS*PSV125[3]	160953	1185	Oct-96	1228	Steam	n/a	1220	1149

Notes: (1) The cause for this failure was attributed to corrosion-induced frictional forces in the close tolerance kinematic parts. The valve was refurbished and re-certified.

(2) The cause for this failure was determined to be set-point drift most likely caused by corrosion of the set point spring kinematic part surfaces subject to relative motion. The valve was refurbished and re-certified.

(3) The cause for this failure was attributed to be use of a cleaning agent by the third-party test facility that was applied prior to as-found testing to reduce inlet nozzle contamination levels. The valves were refurbished and re-certified. The SRV test procedure was revised to assure that cleaning agents are not introduced into the SRV inlet during performance of as-found testing.