UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, ILLINOIS 60532-4352

August 10, 2022

Mr. David P. Rhoades
Senior Vice President
Constellation Energy Generation, LLC
President and Chief Nuclear Officer (CNO)
Constellation Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION – INTEGRATED INSPECTION REPORT 05000373/2022002 AND 05000374/2022002

Dear Mr. Rhoades:

On June 30, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at LaSalle County Station and discussed the results of this inspection with Mr. J. Van Fleet, Plant Manager, and other members of your staff. The results of this inspection are documented in the enclosed report.

Two findings of very low safety significance (Green) are documented in this report. Two of these findings involved violations of NRC requirements. Two Severity Level IV violations without an associated finding are documented in this report. We are treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violations or the significance or severity of the violations documented in this inspection report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement; and the NRC Resident Inspector at LaSalle County Station.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region III; and the NRC Resident Inspector at LaSalle County Station.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at http://www.nrc.gov/reading-rm/adams.html and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

Signed by Ruiz, Robert
on 08/10/22

Robert Ruiz, Chief
Branch 1
Division of Reactor Projects

Docket Nos. 05000373 and 05000374
License Nos. NPF–11 and NPF–18

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

Letter to David Rhoades from Robert Ruiz dated August 10, 2022.

SUBJECT: LASALLE COUNTY STATION – INTEGRATED INSPECTION REPORT 05000373/2022002 AND 05000374/2022002

DISTRIBUTION:
Jessie Quichocho
Robert Orlikowski
RidsNrrDorlLpl3
RidsNrrPMLaSalle Resource
RidsNrrDroIrib Resource
John Giessner
Mohammed Shuaibi
Diana Betancourt-Roldan
Allan Barker
DRPIII
DRSIII

ADAMS ACCESSION NUMBER: ML22222A091

☒ SUNSI Review		☒ Non-Sensitive ☐ Sensitive		☒ Publicly Available ☐ Non-Publicly Available	
OFFICE	RIII	RIII	RIII		
NAME	DBetancourt-Roldan via email:sw	NShah	RRuiz		
DATE	08/09/2022	08/10/2022	08/10/2022		

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers:	05000373 and 05000374
License Numbers:	NPF-11 and NPF-18
Report Numbers:	05000373/2022002 and 05000374/2022002
Enterprise Identifier:	I-2022-002-0049
Licensee:	Constellation Nuclear
Facility:	LaSalle County Station
Location:	Marseilles, IL
Inspection Dates:	April 01, 2022, to June 30, 2022
Inspectors:	R. Elliott, Resident Inspector W. Schaup, Senior Resident Inspector R. Zuffa, Illinois Emergency Management Agency
Approved By:	Robert Ruiz, Chief Branch 1 Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at LaSalle County Station, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to https://www.nrc.gov/reactors/operating/oversight.html for more information.

List of Findings and Violations

Failure to Report Condition Prohibited by Technical Specifications			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000373,05000374/2022002-01 Open/Closed	Not Applicable	71111.15
The inspectors identified a Severity Level IV (SLIV) non-cited violation (NCV) of 10 CFR 50.73(a)(2)(i)(B) for failing to report, within 60 days of discovery, a condition prohibited by the site's Technical Specifications (TS). Specifically, the licensee failed to notify the NRC where they failed to comply with TS 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," and TS 3.3.4.1, "End of Cycle Recirculation Pump Trip (EOC-RPT) Instrumentation," when the inoperability period was greater than allowed by TS LCO 3.3.1.1 and 3.3.4.1.			

Condition Prohibited by Technical Specifications Due to Turbine Stop Valve Limit Switch Failure			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000373,05000374/2022002-02 Open/Closed	Not Applicable	71111.15
The inspectors identified a SLIV NCV of LaSalle County Station TS for failing to meet/follow LCO 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," and LCO 3.3.4.1, "End of Cycle Recirculation Pump Trip (EOC-RPT) Instrumentation." Specifically, during surveillance testing of the Unit 2 TSV 3 on June 13, 2020, limit switch 2C71-N006G failed to operate and during testing of the Unit 1 TSV 4 on December 4, 2021, limit switch 1C71-N006C failed to operate, rendering the associated RPS and EOC-RPT channels inoperable. For each occurrence, a failure analysis of the limit switch was performed that determined the switch had failed prior to testing on March 24, 2021, for limit switch 2C71-N006G and prior to testing on February 4, 2022, for limit switch 1C71-N006C, rendering the associated RPS and EOC-RPT inoperable. The inoperability period was greater than allowed by TS LCO 3.3.1.1 and 3.3.4.1.			

Failure to Correct a Condition Adverse to Quality			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000373,05000374/2022002-03 Open/Closed	[P.2] - Evaluation	71152A
The inspectors identified a finding of very low safety significance (Green) and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to			

establish measures to ensure conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are corrected. Specifically, the turbine-stop valve limit switches failed multiple times over a period of more than 10 years due to environmental conditions (high temperatures) at the limit switches. During those 10 years, multiple evaluations were performed by the licensee that identified the failure of the limit switches was due to the environmental conditions (high temperature) at the limit switches. The licensee tried measures such as reducing limit switch replacement periodicity or changing the grease used to lubricate the limit switch to prevent switch failures that did not address the environmental conditions (high temperatures) at the switches, resulting in the switches continuing to fail during that period.

Failure to Include Non-Safety Related Valve in 50.49 Program			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Barrier Integrity	Green NCV 05000373,05000374/2022002-04 Open/Closed	None (NPP)	71152A
The inspectors identified a finding of very low safety significance (Green) and an associated NCV of 10 CFR 50.49, "Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants," for the licensee's failure to include a valve important to safety in their environmental qualification program for electrical equipment important to safety and maintain the required documentation that the valve was environmentally qualified. Specifically, during implementation of license amendments 112 and 97 to the site TSs the licensee failed to ensure that non-safety related valves in the main steam drain lines were qualified under the licensee's environmental qualification program when the amendment added a safety function to the non-safety related main steam drain valves, to provide a reliable flow path for leakage past the MSIVs during accidents involving potential core degradation to minimize offsite and control room dose.			

Additional Tracking Items

None.

PLANT STATUS

Unit 1 began the inspection period at rated thermal power. On May 21, 2022, the unit was down powered to approximately 80 percent to perform a rod sequence exchange. The unit was returned to rated thermal power on May 22, 2022, and remained at or near rated thermal power for the remainder of the inspection period.

Unit 2 began the inspection period at rated thermal power. On April 28, 2022, the unit was down powered to approximately 65 percent to perform turbine control valve testing, scram time testing, channel distortion testing and a rod sequence exchange. The unit was returned to full power on April 29, 2022, and remained at or near rated thermal power for the remainder of the inspection period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed activities described in IMC 2515, Appendix D, "Plant Status," observed risk significant activities, and completed on-site portions of IPs. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

Seasonal Extreme Weather Sample (IP Section 03.01) (1 Sample)

(1) The inspectors evaluated readiness for seasonal extreme weather conditions prior to the onset of seasonal hot temperatures for the following systems:

Lake screen house on May 26, 2021
Switchyard on May 26, 2021
Station transformers on May 26, 2021
Flex buildings 22 and 23 on May 26, 2021

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (3 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

(1) Unit 2 reactor core isolation cooling with high-pressure core spray out of service on April 26 and April 27, 2022
(2) Unit common emergency diesel generator with Division 2 emergency diesel generator out of service on May 4, 2022
(3) Unit 1 reactor core isolation cooling with high-pressure core spray out of service on June 24, 2022

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated the implementation of the fire protection program by conducting a walkdown and performing a review to verify program compliance, equipment functionality, material condition, and operational readiness of the following fire areas:

(1) Fire Zone 4C1, auxiliary building, 768' elevation; control room on June 17, 2022
(2) Fire Zone 2I4, reactor building, 673'-4 elevation, Unit 1 low-pressure core spray/reactor core isolation cooling pump cubicle on June 24, 2022
(3) Fire Zone 7B3, diesel generator building, 710' elevation, Unit 1 Division 1 standby diesel generator room on June 24, 2022
(4) Fire Zone 5D1, turbine building, 687' elevation, Unit 1 high-pressure core spray switchgear area on June 30, 2022
(5) Fire Zone 5D2, turbine building, 687' elevation, Unit 2 high-pressure core spray switchgear area on June 30, 2022

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (1 Sample)

(1) Unit 2 downpower for rod sequence exchange and turbine valve testing on April 28 and April 29, 2022

Licensed Operator Requalification Training/Examinations (IP Section 03.02) (2 Samples)

(1) The inspectors observed and evaluated out-of-the-box exam OBE 22-2-2 pilot on April 5, 2022.
(2) The inspectors observed and evaluated out-of-the-box exam OBE 22-2-2 Crew O on April 19, 2022.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (2 Samples)

The inspectors evaluated the effectiveness of maintenance to ensure the following structures, systems, and components (SSCs) remain capable of performing their intended function:

(1) Habitability of control room and auxiliary electrical equipment room (AEER) via control room ventilation and AEER heating, ventilation, and air conditioning; auxiliary equipment room 'A' fan tripped on May 20, 2022, and May 23, 2022
(2) Fuel pool cooling system (a) (1) action plan for removing decay heat and controlling level in the fuel pool

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (3 Samples)

The inspectors evaluated the accuracy and completeness of risk assessments for the following planned and emergent work activities to ensure configuration changes and appropriate work controls were addressed:

(1) Elevated risk during numerous switching operations in the switch yard to support transmission maintenance activities April 10 through April 15, 2022
(2) Emergent work on pressure transmitter 1C22-N701D on April 21, 2022 [Work Order (WO) 1591227]
(3) Unit 2 online risk during Division 3 scheduled work, April 25 through April 27, 2022

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (3 Samples)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

(1) Action Request (AR) 4492333, "Unit 2 'C' Residual Heat Removal Service Water Pump 2E12-C003C Local Test Switch Issue"
(2) Operability Evaluation OE 22-001 Revision 0, VC/VE Return Fan
(3) AR 4464776, "LOS-RP-SA4 1C71A-K10C Did Not De-Energize as Expected"

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated the following post-maintenance testing (PMT) activities to verify system operability and/or functionality:

(1) PMT of the Unit 2 'C' and 'D' residual heat removal service water pump breakers on April 12, 2022
(2) PMT of the Unit 1 standby gas treatment system after filter and hydramotor replacements on April 20, 2022

(3) Unit 2 high pressure core spray post-maintenance tests, April 27, 2022, and May 10, 2022
(4) Unit 1 1A emergency diesel generator post-maintenance tests, May 3, 2022, and May 10, 2022
(5) Unit 2 reactor core isolation cooling post-maintenance tests, May 5, 2022, and May 10, 2022

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance testing activities to verify system operability and/or functionality:

Surveillance Tests (other) (IP Section 03.01) (4 Samples)

(1) Unit 2 turbine valve testing on April 29, 2022
(2) Unit 2 Division 3 safety bus undervoltage relay calibrations on April 27, 2022, and May 10, 2022
(3) Unit 1 and Unit 2 scram discharge valves isolation valve operability check, WOs 5230866 and 5236719
(4) Unit 1 Source range monitor rod block channel B calibration on June 30, 2022

Inservice Testing (IP Section 03.01) (1 Sample)

(1) Unit 1 1C residual heat removal system operability and inservice testing on June 1, 2022

71114.06 - Drill Evaluation

Drill/Training Evolution Observation (IP Section 03.02) (1 Sample)

The inspectors evaluated:

(1) Drill and exercise performance in the training simulator on May 25, 2022

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

BI02: RCS Leak Rate Sample (IP Section 02.11) (2 Samples)

(1) Unit 1 (April 1, 2021, through March 31, 2022)
(2) Unit 2 (April 1, 2021, through March 31, 2022)

71152A - Annual Follow-up Problem Identification and Resolution

Annual Follow-up of Selected Issues (Section 03.03) (3 Samples)

The inspectors reviewed the licensee's implementation of its corrective action program related to the following issues:

(1) AR 4466930, "Mechanical Interlock Found Bound Up On 1AP75E-C5"
(2) AR 4406388, "FAC Inspection On 2RA023 Not Performed"
(3) AR 4464776, "LOS-RP-SA4 1C71A-K10C Did Not De-Energize as Expected"

71152S - Semiannual Trend Problem Identification and Resolution

Semiannual Trend Review (Section 03.02) (1 Sample)

(1) The inspectors reviewed the licensee's corrective action program for potential adverse trends and did not identify any that might be indicative of a more significant safety issue.

INSPECTION RESULTS

<table>
<tr><td colspan="4">Failure to Report Condition Prohibited by Technical Specifications</td></tr>
<tr><td>Cornerstone</td><td>Severity</td><td>Cross-Cutting Aspect</td><td>Report Section</td></tr>
<tr><td>Not Applicable</td><td>Severity Level IV
NCV 05000373,05000374/2022002-01
Open/Closed</td><td>Not Applicable</td><td>71111.15</td></tr>
<tr><td colspan="4">The inspectors identified a Severity Level IV (SLIV) non-cited violation (NCV) of 10 CFR 50.73(a)(2)(i)(B) for failing to report, within 60 days of discovery, a condition prohibited by the site's Technical Specifications (TS). Specifically, the licensee failed to notify the NRC where they failed to comply with TS 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," and TS 3.3.4.1, "End of Cycle Recirculation Pump Trip (EOC-RPT) Instrumentation," when the inoperability period was greater than allowed by TS LCO 3.3.1.1 and 3.3.4.1.</td></tr>
<tr><td colspan="4">Description:

On December 4, 2021, during the performance of LOS-RP-SA4, turbine stop valve (TSV) scram and EOC-RPT functional test, the 1C71A-K10C relay for TSV 3 did not energize as expected. The licensee declared the instrument channel associated with the 1C71A-K10C relay inoperable for TSV 3 closure (TS 3.3.1.1 function 8). The licensee then entered TS 3.3.1.1 and performed the applicable TS-required actions for one or more required channels inoperable. The electrical maintenance department replaced the limit switch 1C71-N006C that activates the 1C71A-K10C relay on TSV 3. TSV 3 was satisfactorily tested in accordance with LOS-RP-SA4, and the licensee declared the instrumentation operable and exited TS 3.3.1.1. The licensee entered this issue into the corrective action program (CAP) as AR 4464776.

The licensee sent limit switch 1C71-N006C to PowerLabs for a failure analysis. On February 4, 2022, the licensee received the failure analysis report that concluded the slide was mechanically stuck in the base plate and that the slide and base plate had considerable</td></tr>
</table>

corrosion products on them. The buildup of corrosion products formed an interference fit that was measured to be 0.002 inches. The components were covered with a black, sticky material of dried out grease and steel corrosion products. The wear and corrosion products along with the degraded black grease was like other failed switches evaluated in prior PowerLabs reports for LaSalle and Quad Cities generating stations. Additionally, AR 4464775, which was another AR for a different limit switch that failed on the same day, stated that the cause of the issue is that these limit switches are enclosed by a blister box, which causes an oven effect on the limit switch due to a lack of air flow. This leads to dried lubricant that causes the limit switch to fail. Limit switch 1C71A-N006G was previously sent off to PowerLabs, which ultimately confirmed dried grease being the cause of the failure.

Based upon the results of the failure analysis the inspectors determined the following.

A past inoperability period existed as far back as the last successful performance of the surveillance on TSV 3 limit switch (1C71-N006) performed on May 2, 2021, until corrective action was taken in response to the surveillance test failure on December 4, 2021. The period of inoperability was greater than that allowed by TS Limiting Conditions for Operations (LCO) 3.3.1.1, "Reactor Protection System (RPS) Instrumentation and 3.3.4.1, End of Cycle Recirculation Pump Trip (EOC-RPT) Instrumentation." The event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by the plant's TS based upon the following.

LCO 3.3.1.1 requires that the RPS instrumentation for each function in Table 3.3.1.1-1 shall be OPERABLE, and Condition A applies to one or more required channels inoperable. The malfunctioning channel was found inoperable during December 2021 surveillance testing.

LCO 3.3.4.1 requires that the EOC recirculation pump trip instrumentation is operable, which includes two channels of turbine stop valve and turbine control valve fast closure or minimum critical power ratio (MCPR) limits are applied and Condition A applies to one or more required channels inoperable since MCPR penalties were not applied as described in the core operating limits report (COLR) for Unit 1. The malfunctioning channel was found inoperable during December 2021 surveillance testing.

The inspectors determined that the failure analysis showed that the TSV 3 limit switch was degraded prior to the point of discovery and was not capable of performing its specified safety function (i.e., inoperable) for a period of time longer than allowed by TSs.

The inspectors monitored the actions of ARs 4464775 and 4464776 to see if the licensee would make the report within the 60 day requirement. On April 27, 2022, the senior resident inspector at the site asked the regulatory assurance manager what the status was of issuing the licensee event report (LER) to the NRC. The regulatory assurance manager was not aware that the failure analysis had been provided to the site, that the analysis had in fact determined that a failure had occurred that affected operability, and that the item tracking the failure analysis had been closed with no further actions required. This was documented in the licensee's CAP as AR 4496351. The licensee has taken action to report the event to the NRC.

As part of the actions taken for AR 4496351, the licensee performed a work group evaluation. As part of the extent-of-condition review, the licensee determined that they had failed to report a similar event that occurred on June 13, 2020, that was documented in AR 4350187. In this case, during performance of LOS-RP-Q2, limit switch 2C71A-N006G failed. The limit

switch was sent to PowerLabs for a failure analysis and was determined to have failed in the same manner as 1C71A-N006G on December 4, 2021.

Corrective Actions: The licensee submitted LER 05000373/2022-001-00 and LER 05000374/2022-002-00 documenting the events described above to the NRC on May 27, 2022, as required by 10 CFR 50.73(a)(2)(i)(B).

Corrective Action References: ARs 4350187 and 4496351

Performance Assessment: The licensee's failure to report to the NRC within 60 days after discovery, a condition prohibited by the site's Technical Specifications was determined to impede the NRCs ability to perform its regulatory function and was dispositioned using the Traditional Enforcement process.

Enforcement: The ROP's significance determination process does not specifically consider the regulatory process impact in its assessment of licensee performance. Therefore, it is necessary to address this violation which impedes the NRC's ability to regulate using traditional enforcement to adequately deter non-compliance.

Severity: Based on the examples provided in Section 6.9 of the Enforcement Policy, dated January 14, 2022, "Inaccurate and Incomplete Information or Failure to Make a Required Report," the performance deficiency was determined to be a SL IV violation. Specifically, example d.9 states that a SL IV violation involves a licensee's failure to make a report required by 10 CFR 50.72 or 10 CFR 50.73.

Violation: Title 10 CFR 50.73 (a)(2)(i)(B) requires, in part, that the licensee report, within 60 days, any operation or condition which was prohibited by the plant's TSs.

Contrary to the above:

- As of May 24, 2021, the licensee failed to report the discovery of a condition prohibited by TSs within 60 days. Specifically, the licensee failed to notify the NRC after determining the cause of the failure of the limit switch could have existed after the completion of the last successful performance of the surveillance on March 14, 2020, when they failed to comply with TSs 3.3.1.1 and 3.3.4.1 by not completing the required LCO action statements.

- As of April 6, 2022, the licensee failed to report the discovery of a condition prohibited by TSs within 60 days. Specifically, the licensee failed to notify the NRC after determining the cause of the failure of the limit switch could have existed after the completion of the last successful performance of the surveillance on May 2, 2021, when they failed to comply with TSs 3.3.1.1 and 3.3.4.1 by not completing the required LCO action statements.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Condition Prohibited by Technical Specifications Due to Turbine Stop Valve Limit Switch Failure			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000373,05000374/2022002-02 Open/Closed	Not Applicable	71111.15

The inspectors identified a SLIV NCV of LaSalle County Station TS for failing to meet/follow LCO 3.3.1.1, “Reactor Protection System (RPS) Instrumentation,” and LCO 3.3.4.1, “End of Cycle Recirculation Pump Trip (EOC-RPT) Instrumentation.” Specifically, during surveillance testing of the Unit 2 TSV 3 on June 13, 2020, limit switch 2C71-N006G failed to operate and during testing of the Unit 1 TSV 4 on December 4, 2021, limit switch 1C71-N006C failed to operate, rendering the associated RPS and EOC-RPT channels inoperable. For each occurrence, a failure analysis of the limit switch was performed that determined the switch had failed prior to testing on March 24, 2021, for limit switch 2C71-N006G and prior to testing on February 4, 2022, for limit switch 1C71-N006C, rendering the associated RPS and EOC-RPT inoperable. The inoperability period was greater than allowed by TS LCO 3.3.1.1 and 3.3.4.1.

Description:

On December 4, 2021, during the performance of LOS-RP-SA4, TSV scram and EOC-RPT functional test, the 1C71A-K10C relay for Unit 1 TSV 3 did not energize as expected. The licensee declared the associated instrument channel inoperable and entered TS 3.3.1.1 for Unit 1 TSV 3 and performed the required actions for one or more required channels inoperable. The licensee identified that the cause for the relay (1C71A-K10C) not energizing was a failure of limit switch 1C71-N006C to operate. The limit switch was replaced. Unit 1 TSV 3 was satisfactorily tested in accordance with LOS-RP-SA4, and the licensee declared the instrumentation operable and exited TS 3.3.1.1. The failed limit switch was quarantined and sent to PowerLabs for a failure analysis. The licensee entered this issue into the CAP as AR 4464776.

On February 4, 2022, the licensee received the failure analysis report that concluded the slide was mechanically stuck in the base plate and that the slide and base plate had considerable corrosion products on them. The buildup of corrosion products formed an interference fit that was measured to be 0.002 inches. The components were covered with a black, sticky material of dried out grease and steel corrosion products. The wear and corrosion products along with the degraded black grease was like other failed switches evaluated in prior PowerLabs reports for LaSalle and Quad Cities generating stations and documented in the licensee's corrective action program. This provided firm evidence to the licensee that a past inoperability period existed.

Concurrent with the Unit 1 TSV 3 limit switch failure, the licensee-initiated AR 4464775, for the failure of limit switch 1C71A-N006G on Unit 1 TSV 4 identified during the same surveillance test on December 4, 2022. The AR stated that these limit switches are enclosed by a blister box, which causes an oven effect on the limit switch due to a lack of air flow. This leads to dried lubricant that causes the limit switch to fail. This was confirmed by PowerLabs after evaluating the failure of limit switch 1C71A-N006G.

During a licensee extent of condition review for the other SLIV violation documented in this report the licensee identified another limit switch failure on June 13, 2020, of the Unit 2 TSV 4

limit switch 2C71-N006G that failed during the performance of surveillance testing in a similar manner that was replaced and sent off for failure analysis and determined the limit switch had failed after the last successful performance of the surveillance test on March 14, 2020.

Based upon the results of the failure analysis the inspectors determined that the associated limit switches for Unit 2 TSV 4 and Unit 1 TSV 3 were inoperable since the last successful performance of the surveillance on March 14, 2020, for Unit 2 TSV 4 and on May 2, 2021 for Unit 1 TSV 3, until the issue was identified and corrected.

As a result of these failures, the required actions for TS 3.3.1.1 and 3.3.4.1 were not met within the allowed outage time. Specifically:

- LCO 3.3.1.1 Condition A requires that for one or more required RPS channels inoperable, the inoperable channel or associated trip system be placed in trip within 12 hours. LCO 3.3.1.1 Condition D requires that if the completion time of Condition A is not met, that reactor thermal power be reduced to less than 25 percent rated thermal power within 4 hours.

- LCO 3.3.4.1 Condition A requires that for one or more required channels inoperable and MCPR limits not applied as described in the COLR for Unit 1, that the inoperable channel is restored or placed in trip within 72 hours. LCO 3.3.4.1 Condition C requires that if the time of Condition A is not met, then the associated recirculation pump fast speed breaker be removed from service within 4 hours or reduce thermal power to less than 25 percent rated thermal power within 4 hours.

Based on the information reviewed by the inspectors, they determined that for the events that occurred in June of 2020 and December of 2021 that a performance deficiency occurred and is being documented in a separate violation in this report. Additionally, as stated, because of the limit switches resulted in the RPS and EOC-RTP functions for the Unit 1 TSV 3 and Unit 2 TSV 4 being inoperable for greater than their allowed outage times, a violation of TSs 3.3.1.1 and 3.3.4.1 had occurred.

Corrective Actions: The limit switches were replaced, and the events were documented in the licensee's corrective action program.

Corrective Action References: AR 4496351

Performance Assessment: The NRC determined that this violation was associated with a previously documented finding assessed using the significance determination process.

Enforcement: The ROP's significance determination process does not specifically consider the regulatory process impact in its assessment of licensee performance. Therefore, it is necessary to address this violation which impedes the NRC's ability to regulate using traditional enforcement to adequately deter non-compliance.

Severity: Traditional Enforcement is being used to disposition this violation with no associated Reactor Oversight Process performance deficiency, per NRC Memorandum *Interim Guidance for Dispositioning Severity Level IV Violations with No Associated Performance Deficiency*, dated June 15, 2018 (ADAMS Accession No. ML18158A220). The inspectors reviewed this issue in accordance with Inspection Manual Chapter (IMC) 612 and the Enforcement Manual. Reactor violations without a performance deficiency are

dispositioned using the traditional enforcement process. The inspectors reviewed Section 6.1.d.1 of the Enforcement Policy and determined this violation was Severity Level IV because it was a failure to comply with a TS action requirement for an LCO in TS Section 3.0.

Violation: LaSalle TS LCO 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," requires that the RPS instrumentation for each function in Table 3.3.1.1-1 shall be OPERABLE.

Condition A, "One or More Required Channels Inoperable," required action A.1, "Place Channel in Trip," completion time, "12 Hours." OR required action A.2, "Place Associated Trip System in Trip," completion time, "12 Hours."

Condition D, "Required Action and Associated Completion Time of Condition A, B or C Not Met," required action D.1, "Enter the Condition Referenced in Table 3.3.1.1-1 for the Channel," completion time, "Immediately."

Table 3.3.1.1-1 Function 8, Turbine Stop Valve - Closure, Conditions Referenced From Required Action D.1, "E."

Condition E, "As Required by Required Action D.1 and Referenced in Table 3.3.1.1-1," required action, "Reduce THERMAL POWER to Less Than 25% Rated Thermal Power," completion time, "4 Hours."

LaSalle TS LCO 3.3.4.1, "End of Cycle Recirculation Pump Trip (EOC-RPT) Instrumentation," requires that two channels per trip system for each EOC-RPT instrumentation Function listed below shall be OPERABLE:

1. Turbine Stop Valve - Closure; and
2. Turbine Control Valve Fast Closure, Trip Oil Pressure- Low

OR

LaSalle TS LCO 3.2.2, "MINIMUM CRITICAL POWER RATIO (MCPR)," limits for inoperable EOC-RPT as specified in the COLR are made applicable.

Condition A, "One or More Required Channels Inoperable," required action A.1, "Restore Channel to Operable Status," completion time, "72 Hours." OR required action A.2, "Place Channel in Trip," completion time, "72 Hours."

Condition C, "Required Action and Associated Completion Time Not Met," required action C.1, "Remove the Associated Recirculation Pump Fast Speed Breaker from Service," completion time, "4 Hours." OR required action C.2, "Reduce THERMAL POWER to Less than 25% Rated Thermal Power," completion time, "4 Hours."

Contrary to the above, on June, 13, 2020, and again on December 4, 2021, when the limit switch failed, the licensee was unable to perform remedial actions for greater than the allowed timeframes in TS LCO 3.3.1.1 and 3.3.4.1 or 3.2.2 until the LCO could be met, resulting in a condition prohibited by TS.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Failure to Correct a Condition Adverse to Quality			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000373,05000374/2022002-03 Open/Closed	[P.2] - Evaluation	71152A

The inspectors identified a finding of very low safety significance (Green) and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to establish measures to ensure conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are corrected. Specifically, the turbine-stop valve limit switches failed multiple times over a period of more than 10 years due to environmental conditions (high temperatures) at the limit switches. During those 10 years, multiple evaluations were performed by the licensee that identified the failure of the limit switches was due to the environmental conditions (high temperature) at the limit switches. The licensee tried measures such as reducing limit switch replacement periodicity or changing the grease used to lubricate the limit switch to prevent switch failures that did not address the environmental conditions (high temperatures) at the switches resulting in the switches continuing to fail during that period.

Description:

On December 4, 2021, during the performance of LOS-RP-SA4, TSV scram and EOC-RPT functional test, the 1C71A-K10C relay for TSV 3 did not energize as expected. The licensee declared the instrument channel associated with the 1C71A-K10C relay inoperable for TSV 3 closure (TS 3.3.1.1 function 8). The licensee then entered TS 3.3.1.1 and performed the applicable TS required actions for one or more required channels inoperable. The electrical maintenance department replaced the limit switch 1C71-N006C that activates the 1C71A-K10C relay on TSV 3. TSV 3 was satisfactorily tested in accordance with LOS-RP-SA4, and the licensee declared the instrumentation operable and exited TS 3.3.1.1. The licensee entered this issue into the CAP as AR 4464776.

The licensee sent limit switch 1C71-N006C to Constellation PowerLabs for a failure analysis. The failure analysis concluded that the slide was mechanically stuck in the in base plate and that the slide and base plate had considerable corrosion products on them. The buildup of corrosion products formed an interference fit that was measured to be 0.002 inches. The components were covered with a black, sticky material of dried out grease and steel corrosion products. The wear and corrosion products along with the degraded black grease was like other failed switches evaluated in prior PowerLabs reports for LaSalle and Quad Cities generating stations. Additionally, a separate AR 4464775 for a different limit switch that failed on the same day, stated that the cause of the issue is that these limit switches are enclosed by a blister box, which causes an oven effect on the limit switch due to a lack of air flow. This leads to dried lubricant that causes the limit switch to fail. Limit switch 1C71A-N006G was previously sent off to PowerLabs, which ultimately confirmed dried grease being the cause of the failure.

The inspectors reviewed the licensee's procedures, work orders and corrective action documents and determined the following:

In 2004, a failure of limit switch 2C71-N006G occurred and after completing an equipment apparent cause evaluation (EACE 246427) it was determined that as a corrective action, the

preventative maintenance (PM) task for limit switch replacement would be changed from a 6-year to 4-year periodicity.

In 2009, the PM task for limit switch replacement was inappropriately retired when a digital electric hydraulic control (EHC) modification was installed. The licensee believed that the newly installed linear variable displacement transducers (LVDTs) installed with the modification provided the same function as the limit switches. The licensee did not recognize that this was not the case at that time.

In 2011, an EACE (1261854) was performed for a different issue associated with the limit switches. It was noted in one of the open corrective actions that a coincident benefit of a proposed modification to the blister boxes would promote more free flow of air around the limit switch potentially reducing switch temperatures through convective cooling.

Late in 2011, the 1C71-N006C limit switch failed. During the investigation into the failure the licensee discovered the PM task for the limit switch was retired. The PM task was reinstated based on the performance centered maintenance template recommendation of replacement every 6 years. This limit switch was replaced during the next refueling outage (L1R14) completed in 2012. The removed limit switch was sent off for a failure analysis (LAS-93383) and the cause of the failure was determined to be degraded lubricant in the pivot area of the limit switch due to chronic exposure to elevated temperatures. Based upon these findings, the PM task for limit switch replacement would be changed from a 6-year to 4-year periodicity.

In 2014, a failure of limit switch 2C71-N006G occurred. The limit switch was removed and sent for a failure analysis. An EACE was completed by the licensee that included the failure analysis results stating that the switch sticking was determined to be the direct result of aged/thickened grease that prevented the switch latch level sliding assembly from properly operating. The grease aging was attributed to high operating temperatures at the limit switch.

The EACE also contained information that the vendor shared those similar problems had occurred at other utilities and industries and that the best solutions were to move the switch location or provide an insulation barrier or thermal break between the thermal sources and the switch and/or between the associated mounting surface and the switch. An action was created (AR 1261854-20) as part of the EACE to revise a plant heath committee (PHC) presentation to include adding insulation between the limit switch and mounting plate like that used on the main steam isolation valve (MSIV) design to reduce limit switch operating temperatures. This action was presented but was not implemented by the licensee.

Additionally, the EACE compared the operating environments between the TSVs and the MSIV that use the same limit switches in a high temperature environment. A significant difference was noted in how the switches were mounted on the valves. The TSV limit switches are mounted in an enclosure that limits air movement around the switch. The MSIV limit switches are mounted to a plate in a manner to promote the flow of air around the switch and the switch mount either incorporated an insulation blanket between the switch and the mounting plate or a stand-off between the switch and the mounting plate to minimize the heat transfer between the switch and the plate.

Finally, the EACE determined that further reduction of the existing PM task for replacing the limit switch every 2 years would not have prevented the failure and that an unidentified cause of lubricant degradation must be responsible for the premature failure. Their investigation

into the unidentified cause was determined to be that the operating environment (temperature) exceeded the design criteria for the limit switch. Actions were generated to further investigate the environmental conditions around the failed switch and to investigate methods to gain additional margin by reducing switch temperatures. The licensee did obtain data that the temperatures were higher than expected (150 degrees F) but within design criteria and developed a modification to the blister box; however, the blister box modification was never completed.

In 2017, a failure of limit switch 1C71-N006C occurred. A work group evaluation (WGE) was performed that stated based upon the most recent failure the PM task for limit switch replacement would be revised to ensure replacement every 2 years (during refueling outages). Additionally, the WGE stated that pervious evaluated failures have been attributed to degradation of the grease in the limit switch due to high temperatures and this was validated by a failure analysis of the limit switch when it was removed and sent off for a failure analysis. An action item associated with the failure was to investigate if there was a safety-related high temperature application limit switch. The vendor provided an alternative limit switch with additional operating temperature margin. The licensee determined this would be the corrective action for the failures.

In 2019, during the Unit 2 refueling outage (L2R17) all four turbine stop valve limit switches that were operating in the known higher temperature environment were replaced with a limit switch with grease that had a higher temperature margin.

In 2020, during the Unit 1 refueling outage (L1R18) all four turbine stop valve limit switches that were operating in the known higher temperature environment were replaced with a limit switch with grease that had a higher temperature margin.

On June 13, 2020, after implementing the measure established to replace the failing limit switches with limit switches with grease that had a higher operating temperature margin, a failure occurred on limit switch 2C71-N006G as documented in AR 4350187 that stated the likely cause of the condition was attributed to heat related degradation of the lubricant in the pivot area of the limit switch. Additionally, the AR stated that this is the first failure of the new model and that the limit switch needed to be removed and sent for failure analysis. The failure analysis LAS-02375 confirmed that the failure occurred due to operating environment (high temperature) and was like the failures that occurred in the old limit switches. No further preventive measures were established or taken because of this failure.

On December 4, 2021, another a failure occurred on limit switch 1C71-N006G as documented in AR 4464775 that stated the cause of the relay to de-energize during the surveillance was due to the limit switch failing to actuate. This condition is likely attributed to heat degradation of the lubricant in the pivot area of the limit switch. This limit switch was re-lubricated and exercised and functioned properly when tested. Additionally, a failure occurred on limit switch 1C71-N006C as documented in AR 4464776 that stated this limit switch required replacement and after a failure analysis, it was determined that the limit switch had failed in the same manner as previous failures. AR 4420708 has an action to develop recommendations to prevent further failures that address the environmental conditions at the limit switches that include evaluating removal of the diamond plate from the heater bay to increase air flow to the turbine deck, evaluating how to change environmental conditions at the limit switches and modifications to the blister boxes to increase air flow around the switches.

After reviewing the above information the inspectors determined that from 2014 until December 4, 2021 the licensee had not established measures to ensure a condition adverse to quality, failures of the TSV limit switches in high temperatures conditions, was corrected based on the following:

The licensee had equipment history and failure evaluations to understand that the grease in the limit switch was degrading under the higher temperatures present at these switches and after the EACE performed in 2014 showed that the cause was the environmental conditions (high temperatures) at the switches as compared to other switches used on the TSVs and the MSIVs. Even with this information the licensee simply replaced the switch, maintained the PM task to replace the limit switch at every 4 years and stated that the current switch was the best switch for the application.

Additionally, from the EACE performed in 2014, the vendor had provided information that other utilities and industries that use the same limit switch would either move the switch or provide an insulation barrier between the limit switch and mounting plate. Although the licensee developed an action to add the insulation barrier, they did not implement it nor did they consider moving the limit switch.

In 2017, after additional failures, the licensee determined that corrective actions would be: (1) to reduce the PM task to replace the limit switches from 4 to 2 years, even though the EACE from 2014 determined that further reduction of the existing PM task for replacing the limit switch every 2 years would not have prevented the failures, and (2) to replace the limit switches with grease that provided additional temperature margin.

In 2021, an additional failure occurred with a limit switch that had been replaced in February 2020, within the 2 year replacement strategy and was a limit switch with an additional temperature margin that failed in the same manner as the previous limit switches without temperature margin.

Therefore the licensee has failed to ensure measures have been established to correct a condition adverse to quality (i.e., localized high operating temperatures at the limit switches), which cause failures of the TSV limits switches.

Corrective Actions: On Unit 1, diamond plating installed in the heater bay below the turbine was preventing cooling air flow to reach the turbine deck. The plating was removed during the refueling outage (L1R19) and during the next Unit 1 down power scheduled for May 21, 2022; thermography will be performed on the limit switches to determine if there is a temperature change. Additionally, a modification package has been developed for the blister boxes that will go through plant health committee for approval based on the results of the thermography performed during the down power on May 21, 2022.

Corrective Action References: ARs 1297044, 2420487, 2490401, 4048633, 4171148, 4171578, 4350187, 4420708, 4464775, and 4464776

Performance Assessment:

Performance Deficiency: Title 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” requires, in part, that measures be established to ensure conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are corrected. The inspectors determined that the failure to correct a condition adverse to quality associated with the TSV limit switches was a

performance deficiency. Specifically, the underlying environmental conditions of the limit switches at high temperatures combined with insufficient air flow was an underlying deficiency which remained.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, with the limit switch failed, making the required reactor protection system channel inoperable and not entering the required actions of the TSs within the allowed outage times allowed operation of the reactor in a condition less capable to respond to a main turbine trip.

Significance: The inspectors assessed the significance of the finding using IMC 0609 Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The inspectors determined that the finding was of very low safety significance (Green) because the finding affected a single RPS trip signal to initiate a reactor scram but did not affect the function of other redundant trips or diverse methods of reactor shutdown (e.g., other automatic RPS trips, alternate rod insertion, or manual reactor trip capacity).

Cross-Cutting Aspect: P.2 - Evaluation: The organization thoroughly evaluates issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. Specifically, the licensee evaluations from 2014 to date contained sufficient information that demonstrated that environmental conditions (high temperatures) were a condition adverse to quality and a cause of the limit switch failures that needed to be addressed to ensure additional failure did not occur, but no resolution was implemented for that cause.

Enforcement:

Violation: Title 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures be established to ensure conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are corrected.

Contrary to the above, from 2011, until June 30, 2022, the licensee failed to establish measures to ensure a condition adverse to quality (i.e., environmental conditions (high temperatures)) at the limit switches, was corrected. Specifically, the TSV limit switches failed multiple times over a period of more than 10 years due to high temperatures.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Failure to Include Non-Safety Related Valve in 50.49 Program			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Barrier Integrity	Green NCV 05000373,05000374/2022002-04 Open/Closed	None (NPP)	71152A
The inspectors identified a finding of very low safety significance (Green) and an associated NCV of 10 CFR 50.49, "Environmental Qualification of Electric Equipment Important to Safety			

for Nuclear Power Plants," for the licensee's failure to include a valve important to safety in their environmental qualification program for electrical equipment important to safety and maintain the required documentation that the valve was environmentally qualified. Specifically, during implementation of license amendments 112 and 97 to the site TSs the licensee failed to ensure that non-safety related valves in the main steam drain lines were qualified under the licensee's environmental qualification program when the amendment added a safety function to the non-safety related main steam drain valves to provide a reliable flow path for leakage past the MSIVs during accidents involving potential core degradation to minimize offsite and control room dose.

Description:

On October 28, 2021, at 0710, the Unit 2 control room operators noted a loss of position indication for 2B21- F072, main steam tunnel stream drain downstream stop valve. The operators changed the light bulb and reset the thermal overloads and the indication remained off. An equipment operator was sent to MCC 2AP80E and breaker 236X-2 F3, 2B21-F072 power supply breaker, was found tripped with the handle not in the trip free position. The breaker was reset and immediately tripped when it was closed. The breaker was left in the open position. The licensee documented this in AR 4456454.

At 1004, technicians commenced troubleshooting of 2B21-F072 in accordance with WO 5199851 and noted an acrid odor in the vicinity of MCC 2AP80E and loss of indication for 2B21-F072. The technicians completed the WO and during the performance of meggering at 2AP80E-F3 discovered a fault to ground between the breaker and the motor actuator for 2B21-F072.

At 1012, an equipment operator entered the steam tunnel and found a steam leak from the packing on 2B21-F072 with condensation dripping into the motor actuator for the valve. This was documented in AR 4456519. At 1607, equipment operators attempted to adjust the packing on 2B21-F-072 to reduce the steam leak. The attempt was unsuccessful and no change in leak rate was observed. On November 5, 2021, the valve packing was replaced on 2B21-F072 with no leakage observed.

The inspectors reviewed the relevant corrective action documents, work orders, procedures and the TRM and determined the following.

Valve 2B21-F072 is a motor-operated valve located in the Unit 2 main steam tunnel which is a harsh environment as defined by station procedure CC-AA-203, "Environmental Qualification Program," Revision 3, step 2.11 as "An environment expected as the result of the postulated service conditions for the design basis and post-design basis accident of the station. Harsh environments are the result of a loss of coolant accident (LOCA)/high energy line break (HELB) inside containment and post LOCA or HELB outside of containment." The valve is designated by the licensee as not safety-related and the valve is not in the stations environmental qualification program.

The stations TRM section B 3.6, "Containment Systems," provides the following information.

Section B.3.6.a states the following:

The original MSIV-LCS was designed to handle up to 100 scfh, and thus was limited in its capabilities for leakage in excess of 100 scfh. The MSIV-LCS routed MSIV leakage back to the secondary containment to be released through the standby gas treatment system

(SBGT). The basis for deletion of the MSIV-LCS required establishing an alternate means of "treating" MSIV leakage. The proposed “treatment” path for the MSIV leakage to the environment as analyzed in order to provide a dose assessment. Based on this dose assessment, the option chosen by LaSalle and the preferred method in the Topical Report (Ref. 16) is the isolated condenser method, which consists of establishing an open pathway for the leakage past the MSIVs to the main condenser through the main steam line drains.

There are two identical ALT Paths (as described above) available to route MSIV leakage to the main condenser; however, only one of these paths is necessary to meet the dose assessment assumptions. During normal plant operation, the operating drains (1(2)B21-F071 and 1(2)B21-F073) are open and the start-up drains are closed. For the ALT Path mode of operation, the two operating drain valves remain open and one of the start-up drains (1(2)B21-F070 or 1(2)B21-F072) is opened. This alignment provides an initial flow path, although restricted, until a start-up drain is open.

The function of the MSIV ALT Paths is to provide a reliable flow path for leakage past the MSIVs during accidents involving potential core degradation such as the design basis accident (DBA) LOCA to minimize offsite and control room dose. The radiological dose model took credit for the path from the reactor vessel, through the 26" main steam lines, through either of the two drain lines downstream of the outboard MSIVs (both paths were analyzed), to the main condenser with leakage from the turbine seals.

In addition, the motor-operated valves (MOVs) utilized as either boundary valves or ALT path control valves are included in the plant inservice testing (IST) program and are required to be stroke tested once per fuel cycle.

Also, as stated in GE topical report NEDC-31858P, revision 2 (BWR Owner's Group supporting basis for the license amendment), the active components in the treatment path will now be performing a safety-related function and reliability commensurate with safety-related components should be demonstrated.

Title 10 CFR 50.49, Environmental qualification of electric equipment important to safety for nuclear power plants provides the following information.

(b) Electric equipment important to safety covered by this section is:
[...]
(2) Non safety-related electric equipment whose failure under postulated environmental conditions could prevent satisfactory accomplishment of safety functions specified in subparagraphs (b)(1) (i) (A) through (C) of paragraph (b)(1) of this section by the safety related equipment.

(d) The applicant or licensee shall prepare a list of electric equipment important to safety covered by this section. In addition, the applicant or licensee shall include the information in paragraphs (d)(1), (2), and (3) of this section for this electric equipment important to safety in a qualification file. The applicant or licensee shall keep the list and information in the file current and retain the file in auditable form for the entire period during which the covered item is installed in the nuclear power plant or is stored for future use to permit verification that each item of electric equipment is important to safely meet the requirements of paragraph (j) of this section.

(1) The performance specifications under conditions existing during and following design

basis accidents.
(2) The voltage, frequency, load, and other electrical characteristics for which the performance specified in accordance with paragraph (d)(1) of this section can be ensured.
(3) The environmental conditions, including temperature, pressure, humidity, radiation, chemicals, and submergence at the location where the equipment must perform as specified in accordance with paragraphs (d)(1) and (2) of this section.

(j) A record of the qualification, including documentation in paragraph (d) of this section, must be maintained in an auditable form for the entire period during which the covered item is installed in the nuclear power plant or is stored for future use to permit verification that each item of electric equipment important to safety covered by this section:

(1) Is qualified for its application; and
(2) Meets its specified performance requirements when it is subjected to the conditions predicted to be present when it must perform its safety function up to the end of its qualified life.

The inspectors asked the licensee why they had excluded the 2B21-F072 valve from the environmental qualification program, documented in action request AR 4496314, and were told because it was not a safety related component. The inspectors pointed out the above information from the licensee's TRM and from Title 10 CFR 50.49 about non-safety related components that should be in the environmental qualification program as required by section (b)(2).

The inspectors have determined that the 2B21- F072 valve should be in the in the licensee's environmental qualification program as required by Title 10 CFR 50.49 based on the following.

The licensee's TRM states that the function of the MSIV ALT Paths is to provide a reliable flow path for leakage past the MSIVs during accidents involving potential core degradation such as the DBA LOCA to minimize offsite and control room dose. Title 10 CFR 50.49 states non-safety-related electric equipment whose failure under postulated environmental conditions could prevent satisfactory accomplishment of safety functions specified in subparagraphs (b)(1) (i) (A) through (C) of paragraph (b)(1) of this section by the safety related equipment. Section (b)(1)(C) states, in part, "that equipment is that relied upon to remain functional during and following design basis events to ensure the capability to prevent or mitigate the consequences of accidents that could result in potential offsite exposures comparable to the guidelines in § 50.34(a)(1), § 50.67(b)(2), or § 100.11 of this chapter." The equipment in the MSIV ALT path, based on its function as a to provide a reliable flow path during accidents involving potential core degradation such as the DBA LOCA to minimize offsite dose, falls under the section (b)(1)(C) requirement and therefore is required to be included in the equipment qualification program.

Corrective Actions: The licensee performed an extent of condition and determined that valves 1(2)B21-F070 and 1(2)B21-072 should have been scoped into the licensee's environmental qualification program. The classification of the valves will be changed to safety related and placed into the environmental qualification program. The licensee performed an evaluation and determined that the valves can perform their design function during a LOCA because the valves are like MOVs qualified in EQ-LS079 and are qualified to the EQ requirements of Zone H5C.

Corrective Action References: ARs 4496314 and 4506670

Performance Assessment:

Performance Deficiency: Title 10 CFR 50.49 (d) requires, in part, "the licensee shall prepare a list of electric equipment important to safety," and "Shall include the information in paragraphs (d)(1), (2), and (3) of this section for this electric equipment important to safety in a qualification file," and "the licensee shall keep the list and information current and retain the file in auditable form for the entire period during which the covered item is installed in the nuclear power plant to permit verification that each item of electric equipment is important to safety meet the requirements of paragraph (j) of this section." The inspectors determined that the licensee's failure to include motor operated valve 2B21-F072, a valve important to safety, in their environmental qualification program for electrical equipment important to safety and maintain the required documentation that the valve was environmentally qualified was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Design Control attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, with valve 2B21-F072 not in the licensee's environmental qualification program for electrical equipment important to safety, which ensures proper operation of the valve in a harsh environment, there is no reasonable assurance that the valve would be able to perform its safety function during accident conditions.

Significance: The inspectors assessed the significance of the finding using IMC 0609 Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” The inspectors determined that the finding was of very low safety significance (Green) because the finding does not represent an actual open pathway in the physical integrity of reactor containment, a failure of the containment isolation system, a failure of containment pressure control equipment, a failure of containment heat removal components, or a failure of the plant's severe accident mitigation features.

Cross-Cutting Aspect: Not Present Performance. No cross-cutting aspect was assigned to this finding because the inspectors determined the finding did not reflect present licensee performance.

Enforcement:

Violation: Title 10 CFR 50.49 (d) states, in part, "the licensee shall prepare a list of electric equipment important to safety," and "Shall include the information in paragraphs (d)(1), (2), and (3) of this section for this electric equipment important to safety in a qualification file," and "the licensee shall keep the list and information current and retain the file in auditable form for the entire period during which the covered item is installed in the nuclear power plant to permit verification that each item of electric equipment is important to safety meet the requirements of paragraph (j) of this section."

Contrary to, as of June 30, 2021, the licensee failed to prepare a complete list of electrical equipment important to safety that included the information in paragraphs (d)(1), (2), and (3) of this section for all electric equipment important to safety in a qualification file and the licensee failed to keep the list and information current and retain the file in auditable form for the entire period during which the covered item is installed in the nuclear power plant to

permit verification that all electric equipment important to safety meet the requirements of paragraph (j) of this section. Specifically, the licensee did not include motor operated valve 2B21-F072, main steam tunnel steam drain downstream stop valve, on the list of electrical equipment important to safety and did not have the information required by paragraphs of section (d)(1), (2) and (3) of 10 CFR 50.49 nor the information required by section (j) of 10 CFR 50.49 for the equipment.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Observation: 1C71A-K10C Relay Did Not De-Energize as Expected	71152A

The inspectors reviewed AR 4464776, "LOS-RP-SA4 1C71A-K10C Did Not De-Energize as Expected," as a sample for annual selected issue(s) for follow-up focusing on the following performance attributes of IP 71152:

- Complete, accurate, and timely documentation in the CAP
- Evaluation and timely disposition of operability and reportability issues
- Consideration of the extent of condition and cause, generic implications, common cause, and previous occurrences
- Evaluation and timely disposition of operability and reportability issues
- Classification and prioritization of the resolution of the problem commensurate with safety significance
- Identification of corrective actions, which were appropriately focused to correct the problem
- Completion of corrective actions in a timely manner commensurate with the safety significance of the issue
- Identification of negative trends associated with human or equipment performance that can potentially impact nuclear safety
- Operating experience is adequately evaluated for applicability and applicable lesson learned are communicated to appropriate organizations and implemented

The inspectors determined that the documentation of the issue contributed to a violation of NRC reporting requirements that is documented under inspection results for IP 71111.15 in this report. A significant contributor to the violation is the licensee's use and documentation of special plant conditions in the corrective action processes. The failure analysis performed on the limit switch was a critical component of the decision-making processes for reportability of the failure to the NRC. The use of the special plant condition resulted in the engineering department receiving the failure analysis, performing a review of the analysis for actions, and then closing the only tie to the corrective action program. The regulatory assurance and operations departments knew there was a reportability tie to the failure analysis but were not informed of the results in a timely manner to ensure the NRC reportability requirements were met by submitting the required LER.

For the other aspects of the CAP for this issue the inspectors determined the licensee had appropriately followed station procedures in the station's CAP to ensure all elements inspected were adequately addressed.

Finally, as part of the review, the inspectors determined that the licensee failed to correct a condition adverse to quality associated with turbine stop valve limit switches. This issue was dispositioned and documented as a violation under inspection results for IP 71152A in this report.

Observation: Wall Thinning in the Unit 2 Reactor Vessel Bottom Head Drain	71152A

The inspectors reviewed AR 4406388, "FAC Inspection on 2RA023 Not Performed," for the following performance attributes of IP 71152:

- Complete, accurate, and timely documentation in the CAP
- Evaluation and timely disposition of operability and reportability issues
- Consideration of the extent of condition and cause, generic implications, common cause, and previous occurrences
- Evaluation and timely disposition of operability and reportability issues
- Classification and prioritization of the resolution of the problem commensurate with safety significance
- Identification of corrective actions, which were appropriately focused to correct the problem
- Completion of corrective actions in a timely manner commensurate with the safety significance of the issue
- Identification of negative trends associated with human or equipment performance that can potentially impact nuclear safety
- Operating experience is adequately evaluated for applicability and applicable lesson learned are communicated to appropriate organizations and implemented

The sample selected was associated with a flow accelerated corrosion component 2RA023, a 4-inch tee in the reactor vessel bottom head drain line 2RR28B-4. The licensee determined the calculated wall thickness of the bottom head drain line had a low predicted remaining service life based on the results from the flow accelerated corrosion computer program. The licensee decided to extend the service life of the bottom head drain line by using an acceptance criterion from their site-specific operability procedure. The acceptance criteria were based on the American Society of Mechanical Engineers (ASME) Section III Appendix F.

The licensee performed an evaluation using the ASME Section III Appendix F criteria to calculate a new wall thickness for the bottom head drain line. Inspection Manual Chapter 0326, Operability Determinations, dated October 1, 2019, states in part, “When a degradation or nonconformance associated with piping or pipe supports is discovered, the licensee may use the criteria in Appendix F of Section III of the ASME Boiler and Pressure Vessel Code for Operability Determinations.” The inspectors reviewed the evaluation and consulted with the Office of Nuclear Reactor Regulation. No findings or violations were identified.

Observation: Mechanical Interlock Found Bound Up On 1AP75E-C5	71152A

The inspectors reviewed AR 4466930, "Mechanical Interlock Found Bound Up On 1AP75E-C5," as a sample for annual selected issue(s) for follow-up focusing on the following performance attributes of IP 71152:

- Complete, accurate, and timely documentation in the CAP
- Evaluation and timely disposition of operability and reportability issues
- Consideration of the extent of condition and cause, generic implications, common cause, and previous occurrences
- Evaluation and timely disposition of operability and reportability issues
- Classification and prioritization of the resolution of the problem commensurate with safety significance

- Identification of corrective actions, which were appropriately focused to correct the problem
- Completion of corrective actions in a timely manner commensurate with the safety significance of the issue
- Identification of negative trends associated with human or equipment performance that can potentially impact nuclear safety
- Operating experience is adequately evaluated for applicability and applicable lesson learned are communicated to appropriate organizations and implemented

The licensee began troubleshooting and failure analysis in conjunction with the vendor (Westinghouse) to determine the cause and any corrective actions required. The licensee performed an operability evaluation for the breakers installed in the plant and performed an extent of condition that identified 206 breakers. While working with vendor, the vendor found that by adjusting the gap in the contactors with a tool that the contactor could be reliably set to prevent binding. The vendor provided the tool and instructions to the site. The site began making the required adjustments during the first opportunities that breaker maintenance could be performed. The vendor issued a Part 21 notice for the 480 V Eaton FVR contactors on April 11, 2022. The vendor has provided an upgrade Eaton bucket contactor mechanical interlock that the licensee has incorporated into EC 636483 for the breakers. The inspectors did not identify any findings or violations associated with this issue.

Observation: Semi-Annual Trend Review	71152S

The inspectors reviewed action requests entered into the corrective action program for the following:

- Complete, accurate, and timely documentation of the issue identified in the CAP
- Evaluation and timely disposition of operability and reportability issues
- Consideration of extent of condition and cause, generic implications, common cause, and previous occurrences
- Classification and prioritization of the problem's resolution commensurate with the safety significance
- Identification of corrective actions that are appropriately focused to correct the problem
- Completion of corrective actions in a timely manner commensurate with the safety significance of the issue
- Identification of negative trends associated with human or equipment performance that can potentially impact nuclear safety
- Operating experience is adequately evaluated for applicability, and applicable lessons learned are communicated to appropriate organizations and implemented

For the inspection period, the inspectors determined that no significant trends were identified in any areas.

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

- On June 30, 2022, the inspectors presented the integrated inspection results to Mr. J. Van Fleet, Plant Manager, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Procedures	EN-LA-402-0005	Extreme Heat Implementation Plan - LaSalle	24
		LOS-ZZ-A2, Attachment B	Summer operation Preparations	61
		WC-AA-107	Seasonal Readiness	24
71111.04	Drawings	RI-1	RCIC System	6
	Procedures	LOP-DG-01	Preparation for Standby Operation of Diesel Generators	41
		LOS-RI-Q3	Unit 2 Reactor Core Isolation Cooling System Pump Operability and Inservice Test in Condition 1, 2, and 3	58
71111.05	Fire Plans	4C1	Aux Building 768 Elevation; Control Room	2
		FZ 2I4	Reactor Building 673' 4" Elevation; Unit 1 Low Pressure Core Spray and Reactor Core Isolation Cooling Cubicle	2
		FZ 5D1	Turbine Building 687' Elevation; Unit 1 High Pressure Core Spray Switchgear Area	2
		FZ 5D2	Turbine Building 687' Elevation; Unit 2 High Pressure Core Spray Switchgear Area	2
		FZ 7B3	Diesel Generator Building 710' Elevation; Unit 1 Division Standby Diesel Generator Room	3
71111.12	Corrective Action Documents	AR 4342918	2FC01PA Found Tripped- LOA-FC-201 Entry	05/13/2022
		AR 4394265	Severe Degradation of Outboard Pump Bearing On 2A FC Pump	01/06/2021
		AR 4413010	2B FC Pump Trip	03/31/2021
		AR 4459892	LOA-FC-201 Entered Due to Trip of 2B FC Pump	11/10/2021
		AR 4500996	0VE02CA Tripped	05/20/2022
		AR 4501492	0VE02CA, A VE Return Fan Tripped	05/23/2022
	Miscellaneous	LAS-0-VC-01	Control Room Ventilation; Maintain the Heat Removal Capability of the Control Room Ventilation Refrigeration Subsystem	
		LAS-0-VC-02	Control Room Ventilation- Maintain Control Room Habitability	
		LAS-0-VE-01	Maintain the Heat Removal Capability of the Auxiliary Electric Equipment Room Refrigeration Subsystem	
		LAS-0-VE-02	Maintain Auxiliary Electric Equipment Room Habitability	
		LAS-2-FC-03	Remove Decay Heat and Control Level in the Fuel Pool	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Procedures	ER-AA-2002	System and Equipment Health Monitoring	23
		MA-AA-716-004-F-03	Support/Refute Template	0
	Work Orders	WO 4584247	0VE08YB: Perform Internal Damper Inspection and Lube Bearings if Necessary	05/13/2022
71111.13	Corrective Action Documents	AR 4494709	1B21-N401D transmitter did not respond under LIS-NB-102B	04/21/2022
	Miscellaneous		Current Installed Protected Pathway List	04/27/2022
		SER 6-06	Main Transformer Failure During Cleaning	10/12/2006
	Procedures	LIP-GM-941	Replacement Procedure for Environmentally Qualified Rosemount 3153 Series N Transmitters	13
		LIS-NB-120B	Unit 1 Reactor Vessel High Pressure ARI/ATWs Instrument Channels B & D Calibration	15
		WC-AA-104	Risk Screening/Mitigation Plan	24
	Work Orders	WO 1591227	Contingency - Replace Transmitter/Trip Unit During LIS-NB-120 A/B	11/14/2012
71111.15	Corrective Action Documents	AR 4350187	2C71A-k010G Relay Did Not Open During LOS-RP-Q2	06/13/2020
		AR 4464775	LOS-RP-SA4 1C71A-K10G Did Not De-Energize as Expected	12/04/2021
		AR 4464776	LOS-RP-SA4 1C71A-K10C Did Not De-Energize as Expected	12/04/2021
		AR 4496447	U2 TCV #4 FA Solenoid "Test Time Exceeded" During LOS-RP-SA2	04/29/2022
		AR 4500940	OVC13YB Partially Open During LOS-VC-SR4	05/20/2022
		AR 4501492	0VE02CA, A VE Return Fan Tripped	05/23/2022
		AR 4501564	0 VC Return Fan Tripped - 0VC02CA	05/23/2022
		AR 4501605	A VC Receiver Level Low	05/24/2022
		AR 4501607	Tuning Issues for 'A' VE Compressor	05/24/2022
	Corrective Action Documents Resulting from Inspection	AR 4496351	NRC Identified - License Event Report Not Submitted Within 60 Day Requirement	04/27/2022
	Operability Evaluations	OP-AA-108-115	Operability Evaluation OE 22-001 Rev. 000, VC/VE Return Fan	24

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Work Orders	WO 1466840-20	1C71A-N006G Reactor Protection System Limit Switch Repair/Replace	05/31/2021
		WO 4901691	1C71-N006C Reactor Protection System Limit Switch Repair/Replace	12/01/2021
		WO 5149318	Operations LOS-RP-SA4 Turbine Stop Valve Scram Functional Attachment 1	11/29/2021
71111.19	Procedures	LOS-AA-W1 Att 2A	LOS-AA-W1 U2 Tech Spec Weekly Att 2A	04/27/2022
		LOS-AA-W1 Att 2F	LOS-AA-W1 Tech Spec Weekly Surv Att 2F	04/27/2022
		LOS-DC-M5 Att H	LOS-DC-M5 U2 125 Vdc Div 3 Batt Att H	04/27/2022
		LOS-FP-D1 Att 2A	(Finish) LOS-FP-D1 Att. 2A FP Door Daily Surveillance	04/27/2022
		LOS-RI-Q6, Att 2A	LOS-RI-Q6 RCIC System Inservice Test in Modes 1, 2, & 3	05/05/2022
	Work Orders	WO 4683013-02	EWP-MM-Inspect DG Air Start Moisture Trap 1DG13MB	05/03/2022
		WO 4683014-02	Inspect 1A Diesel Generator Start Air Moisture Separator	05/03/2022
		WO 4683014-03	Inspect 1A Diesel Generator Start Air Moisture Separator	05/03/2022
		WO 4797255-02	OP PMT: SBGT Train Suction DMPR Cycle Hydramotor 1FZ-VG003	04/20/2022
		WO 4809671-02	Scavenging Air Press	05/03/2022
		WO 4898137-03	Perform LES-GM-132 for HPCS Feed @ SWGR 243 Cub 004 (2AP07E)	04/27/2022
		WO 4899365-02	Perform LES-GM-109 for 1A DG Soak PP @ MCC 136X-2/F6	05/03/2022
		WO 4909020-02	Perform LES-GM-109 for 1A DG Circ PP @ MCC 136X-2/C1	05/03/2022
		WO 4911764-03	OPS PMT for 2E12-S802 SBM for 2C RHR SW PP	04/12/2022
		WO 4937836-02	Perform LES-GM-132 for Sat Feed @ Swgr 243 Cub 001 (2AP07E)	04/27/2022
		WO 4938708-02	2VY02A: Visual Inspection and Cleaning of Air Side Cooling Co.	04/27/2022
		WO 4942268-02	Bench Test for IST	05/06/2022
		WO 4944879-05	EWP-MM Replace Rupture Disc 2E51-D002 Every 5 Years	05/06/2022
		WO 4944880-03	EWP MM Rupture Disc Replace Every 5 Years	05/06/2022

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		WO 4949828-02	EM Switchgear 243 EOC Walkdown	04/27/2022
		WO 4959392-04	Replace Contactor 1AP80E-F6 EC397773	05/03/2022
		WO 4959394-04	Replace Contactor 1AP80E-C1 EC397773	05/03/2022
		WO 4959888-04	Replace Contactor 1AP82E-F3 EC400042	05/03/2022
		WO 5104761	LRA Air Side Flowrate Test	04/27/2022
		WO 5197322-02	EWP MM Repair Oil Leak from Union Next to 1DG089 Check	05/03/2022
		WO 5226948	LOS-DC-Q2 Att B U2 Div 3 Batt Qtly	04/27/2022
		WO 5228889	LRA LOS-RI-Q5 U2 RCIC Cold-Quick Start, Att 2A	05/06/2022
		WO 5231841-03	EWP - 2E51-F019 Digital Point D916 NAVA	05/05/2022
		WO 5242761	LRA LOS-DG-M3 2B DG Idle Start Att 2B-Idle	04/27/2022
		WO 5244564	LRA LOS-DG-M2 Diesel Generator ATT 1A-IDLE	05/03/2022
		WO 5249207	LOS-DC-W1 Att H U2 125 Vdc Div III Battery/Breaker Checks	04/27/2022
71111.22	Procedures	LIS-NR-101B	Unit 1 Source Range Monitor Rod Block Channel B Calibration	7
		LOS-RH-Q1	RHR (LPCI) and RHR Service Water Pump and Valve Inservice Test for Modes 1, 2, 3, 4 and 5	98
		MA-LA-773-402	Relay Calibration for Bus 243 Cubicle 001 Division 3, Undervoltage and Degraded Voltage Relays	7
		MA-LA-773-502	Relay Calibrations for BUS 243, Cubicle 001 SAT FEED	3
	Work Orders	WO 4937837	MA-LA-773-502 Att. 11, 243 Cub. 001, Sat Feed to 243, RLY Cals	04/27/2022
		WO 5017883	Source Range Monitor Rod Block Channel B	06/17/2022
		WO 5055573	MA-LA-773-402 Att. 3, 243 Cub. 001/002, Div. 3 UV/DV RLY Cals.	04/27/2022
		WO 5209931	LOS-RH-Q1 1C RHR System Operability Att 1C	03/19/2022
		WO 5230866	LOS-RD-Q1 SDV ISOL Valve Operability Check Att 2A	05/11/2022
		WO 5236719	LOS-RD-Q1 SDV ISOL Valve Operability Check Att 1A	05/11/2022
		WO 5243406	LOS-RH-Q1 1C RHR System Operability Att 1C	06/01/2022
71114.06	Miscellaneous	Drill Report	LaSalle 3!21 PI Drill Report	08/31/2021
		Exercise Report	LaSalle 2021 NRC Evaluated Exercise Report	06/23/2021
71152A	Corrective Action Documents	AR 1297044	Turbine Stop Valve #3 Reactor Protection System Relay 1C71A-K10C Did Not De-Energize as Required	12/01/2011

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		AR 2420487	2C71A-K010G Relay Did Not Open During LOS-RP-Q2	12/04/2014
		AR 2490401	Results of Failure Analysis on Reactor Protection Limit Switch	12/04/2015
		AR 4048633	1C71A-K10C Failed to De-Energize During LOS-RP-Q2	09/03/2017
		AR 4169660	2B21-F072 No Light Indication	09/03/2021
		AR 4169662	2B21-F072 Breaker Trip	09/03/2021
		AR 4171578	Roll Up Issue Report for Reactor Protection System Turbine Stop Valve Limit Switch Heat-Related Issues	09/10/2018
		AR 4232438	1C71A-K10C Failed to De-Energize During LOS-PR-Q2	03/23/2019
		AR 4406388	FAC Inspection on 2RA023 not Performed	03/03/2021
		AR 4420708	LOS-RP-Q2 1C71A-K10G Did Not De-Energize as Expected	05/01/2021
		AR 4456454	2B21-F072 Loss of Indication	10/28/2021
		AR 4456519	Steam Leak On 2B21-F072	10/28/2021
		AR 4466875	1E12-F064A Did Not Open on Low Discharge Flow	12/15/2021
		AR 4466930	Mechanical Interlock Found Bound Up On 1AP75E-C5	12/15/2021
		AR 4471887	Eaton Contactor Extent of Condition Inspection	01/14/2022
		AR 4472532	Findings of Eaton Bucket Mechanical Interlock Devices	01/18/2022
		AR 4476091	L1R19 MPR Evaluation Report Scope Recommendations	02/04/2022
		AR 4476589	Results of 1AP82E-D4 Eaton Contactor EOC Inspection	02/07/2022
		AR 4478114	Implementation of L1R19 Eaton Contactor Mitigating Actions	02/14/2022
		AR 4492563	Receipt of Part 21 for 480 V Eaton FVR Contactors	04/11/2022
		AR 4496476	Trend - Incorrect IR Significance Level	04/29/2022
	Corrective Action Documents Resulting from Inspection	AR 4496314	NRC Question on Scope of Environmental Qualification Program	04/28/2022
		AR 4506670	NRC Identified - Environmental Qualification of Alternate Leakage Pathway Valves	06/21/2022
	Miscellaneous	PowerLabs Report LAS-54464	Failure Analysis of Switch, Limit, High Temperature +10 to +180 Degree C Ambient	02/04/2022
	Procedures	CC-AA-203	Environmental Qualification Program	16