



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

May 8, 2022

Mr. John Ferrick
Site Vice President
Entergy Operations, Inc.
17265 River Road
Killona, LA 70057

**SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 – INTEGRATED
INSPECTION REPORT 05000382/2022001**

Dear Mr. Ferrick:

On March 31, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Waterford Steam Electric Station, Unit 3. On April 12, 2022, the NRC inspectors discussed the results of this inspection with you 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. One of these findings involved a violation of NRC requirements. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violation or the significance or severity of the violation 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 IV; the Director, Office of Enforcement; and the NRC Resident Inspector at Waterford Steam Electric Station, Unit 3.

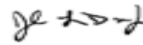
If you disagree with a cross-cutting aspect assignment or a finding not associated with a regulatory requirement in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; and the NRC Resident Inspector at Waterford Steam Electric Station, Unit 3.

J. Ferrick

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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 Dixon, John
on 05/08/22

John L. Dixon, Jr, Chief
Projects Branch D
Division of Operating Reactor Safety

Docket No. 05000382
License No. NPF-38

Enclosure:
Inspection Report 05000382/2022001

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WATERFORD STEAM ELECTRIC STATION, UNIT 3 – INTEGRATED INSPECTION
 REPORT 05000382/2022001 DATED – MAY 8, 2022

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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Number: 05000382

License Number: NPF-38

Report Number: 05000382/2022001

Enterprise Identifier: I-2022-001-0010

Licensee: Entergy Operations, Inc.

Facility: Waterford Steam Electric Station, Unit 3

Location: Killona, LA 70057

Inspection Dates: January 1, 2022, to March 31, 2022

Inspectors: N. Brown, Resident Inspector
D. Childs, Resident Inspector
S. Hedger, Sr Emergency Preparedness Inspector
D. Holman, Sr Physical Security Inspector
A. Patz, Sr Resident Inspector
S. Sanchez, Sr Emergency Preparedness Inspector
C. Stott, Acting Sr Resident Inspector

Approved By: John L. Dixon, Jr., Chief
Projects Branch D
Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee’s performance by conducting an integrated inspection at Waterford Steam Electric Station, Unit 3, 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

Inadequate Work Instructions to Verify Availability of Temporary Emergency Diesel Generator			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green FIN 05000382/2022001-01 Open	[H.11] - Challenge the Unknown	71152A
The inspectors identified a Green finding associated with the licensee’s failure to provide adequate procedures for declaring the availability of the temporary emergency diesel generator (TEDG). Specifically, Procedure OP-006-010, “TEDG Operations,” Revision 1 did not include steps to verify the TEDG enclosure fire dampers open to ensure the availability of the TEDG. With the fire dampers closed, the TEDG radiator could not provide its cooling function and the TEDG would be unable to meet its 24-hour mission time.			

Failure to Follow Startup Procedure Results in Discharge of Safety Injection Tank into Vessel			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000382/2022001-02 Open/Closed	[H.12] - Avoid Complacency	71152A
A self-revealed Green finding and associated non-cited violation of Technical Specification 6.8.1.a, “Procedures and Programs,” was identified when the licensee failed to properly implement Procedure OP-010-003, “Plant Startup,” Revision 356, as required by Regulatory Guide 1.33, “Quality Assurance Program Requirements (Operation),” Revision 2, Appendix A, Section 2, “General Plant Operating Procedures.” Specifically, the licensee failed to follow steps in the startup procedure to open the safety injection tank 1A isolation valve breaker. The associated isolation valve opened as designed via interlock when a valid actuation signal was received as pressure increased above 515 psia which resulted in an unplanned emergency core cooling system discharge into the reactor coolant system.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000382/2021-002-00	Loss of Offsite Power Due to Hurricane Ida	71153	Closed

PLANT STATUS

The unit began the inspection period at rated thermal power. On March 27, 2022, the unit began coast down operation in preparation of a scheduled refueling outage.

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

Impending Severe Weather Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated the adequacy of the overall preparations to protect risk-significant systems from impending severe weather during a tornado watch on March 22, 2022.

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (4 Samples)

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

- (1) Low pressure safety injection system train B while train A was inoperable due to planned maintenance on January 14, 2022
- (2) Instrument air system train B while train A was inoperable due to planned maintenance on January 25, 2022
- (3) Auxiliary component cooling water system train A while train B was inoperable due to planned maintenance on February 15, 2022
- (4) Essential chilled water system train A while train B was inoperable due to emergent maintenance on February 23, 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 Area NS-TB-001, elevation +15.00' turbine building east general area on January 13, 2022
- (2) Fire Area RAB 24-001, elevation +21.00' reactor auxiliary building decontamination room on February 10, 2022
- (3) Fire Area RAB 44-001, elevation +41.00' reactor auxiliary building flex diesel generator enclosure on February 8, 2022
- (4) Fire Area FHB-001, all elevations fuel handling building on February 24, 2022
- (5) Fire Area LLRWSF, grade elevation low level radwaste storage facility on March 24, 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) The inspectors observed and evaluated licensed operator performance in the control room during troubleshooting efforts following a containment spray pump B failure to start on March 21, 2022.

Licensed Operator Requalification Training/Examinations (IP Section 03.02) (1 Sample)

- (1) The inspectors observed and evaluated licensed operator performance in the simulator that involved two dropped control element assemblies and subsequent manual reactor scram and a small loss of coolant accident inside containment on February 14, 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) Essential services chilled water system on March 5, 2022
- (2) Chemical volume control charging pump during week of March 7, 2022

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (5 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) Unplanned action statement entry for Technical Specification 3.8.1.1 for emergency diesel generator B outage following failure to reach required max load test as required by the quarterly diesel run during the week of October 29, 2021
- (2) Planned yellow risk due to low pressure safety injection pump A and control room emergency filtration unit A outages during the week of January 10, 2022
- (3) Planned yellow risk due to emergency ventilation outages during the week of January 31, 2022
- (4) Planned yellow risk due to auxiliary component cooling water train B outage during week of February 14, 2022
- (5) Planned yellow risk during shutdown cooling heat exchanger inlet valve relay maintenance on February 28, 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) Essential services chilled water chiller B operability following a plant service air leak from the hot gas bypass actuator on February 23, 2022
- (2) Auxiliary component cooling water pump B operability following a failure to actuate during a simulated test actuation on March 21, 2022
- (3) Component cooling water pump B after discovery of oil leakage from motor inboard bearing on March 29, 2022

71111.19 - Post-Maintenance Testing

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

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

- (1) Auxiliary component cooling water throttle valve, ACC-126B, following valve controller maintenance on February 15, 2022
- (2) Essential services chilled water chiller B following emergent maintenance after finding low refrigerant on February 23, 2022
- (3) Control room air handling unit train A following planned maintenance on recirculation damper on March 2, 2022
- (4) Chemical volume control charging pump train A following planned overhaul maintenance on March 10, 2022
- (5) Essential services chilled water chiller B following trip due to high chiller compressor temperature on March 17, 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) (5 Samples)

- (1) High pressure safety injection pump B on January 26, 2022
- (2) Low pressure safety injection pump B on March 14, 2022
- (3) Emergency diesel generator B on March 21, 2022
- (4) Emergency feedwater pump AB on March 24, 2022
- (5) Main steam safety valves train A on March 30, 2022

Inservice Testing (IP Section 03.01) (1 Sample)

- (1) Essential services chilled water train B inservice valve test on March 23, 2022

71114.01 - Exercise Evaluation

Inspection Review (IP Section 02.01-02.11) (1 Sample)

- (1) The inspectors evaluated the biennial emergency plan exercise conducted on March 15 and 16, 2022. The exercise scenario simulated a release of asphyxiant gas in the condenser polisher building, a steam generator tube leak necessitating a reactor plant shutdown, a steam generator tube rupture, a stuck open main steam safety valve, indication of fuel failure, and a release of radioactive materials offsite requiring the issuance of Protective Action Recommendations. The exercise also included demonstration of one of the station's extensive damage mitigation guideline strategies per the requirements of 10 CFR 50.155(b)(2).

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

IE01: Unplanned Scrams per 7000 Critical Hours Sample (IP Section 02.01) (1 Sample)

- (1) January 1, 2021, through December 31, 2021

IE03: Unplanned Power Changes per 7000 Critical Hours Sample (IP Section 02.02) (1 Sample)

- (1) January 1, 2021, through December 31, 2021

IE04: Unplanned Scrams with Complications (USwC) Sample (IP Section 02.03) (1 Sample)

- (1) January 1, 2021, through December 31, 2021

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 issue:

- (1) Main steam isolation valve No. 2 actuator piston ring hydraulic fluid leak by since June 16, 2021
- (2) Temporary emergency diesel generator (TEDG) availability after fire suppression system actuations within TEDG enclosure since August 29, 2021
- (3) Safety injection tank 1A injection into RCS during plant heat up on September 5, 2021

71153 - Follow Up of Events and Notices of Enforcement Discretion

Event Report (IP Section 03.02) (1 Sample)

The inspectors evaluated the following licensee event reports (LERs):

- (1) LER 05000382/2021-002-00, Loss of Offsite Power Due to Hurricane Ida (ADAMS Accession No. ML21327A021). The inspectors determined that it was not reasonable to foresee or correct the cause discussed in the LER therefore no performance deficiency was identified. The inspectors did not identify a violation of NRC requirements.

INSPECTION RESULTS

Inadequate Work Instructions to Verify Availability of Temporary Emergency Diesel Generator			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green FIN 05000382/2022001-01 Open	[H.11] - Challenge the Unknown	71152A
The inspectors identified a Green finding associated with the licensee’s failure to provide adequate procedures for declaring the availability of the temporary emergency diesel generator (TEDG). Specifically, Procedure OP-006-010, “TEDG Operations,” Revision 1 did not include steps to verify the TEDG enclosure fire dampers open to ensure the availability of the TEDG. With the fire dampers closed, the TEDG radiator could not provide its cooling function and the TEDG would be unable to meet its 24-hour mission time.			
<u>Description:</u> The TEDG is a permanently installed 4MW, 4kV diesel generator installed in an environmental enclosure located at the southeast side of the turbine building. The enclosure also contains the TEDG switchgear and fire protection system. The purpose of the TEDG is to extend the technical specification (TS) allowed outage time for either of the emergency diesel generators from 72 hours to 10 days, as allowed by TS 3.8.1.1.			
On August 29, 2021, high winds and rain during Hurricane Ida damaged a TEDG enclosure door allowing water intrusion into the space. This led to a fire suppression system actuation resulting in the closure of the associated fire dampers. The inspectors determined that an operator opened the east and west suppression dampers for visibility purposes but did not			

know about the south end damper, which remained closed. The south end damper is directly in front of the TEDG radiator which provides a cooling function to the diesel.

Prior to planned surveillance testing of emergency diesel generator B, questions arose during licensee daily status meetings regarding the ability to credit the TEDG due to the fire suppression system discharge. On two separate occasions, the response from site leadership was that the TEDG can still be credited because the fire suppression system is not required to be operable when crediting the TEDG to extend the allowed outage time. On October 29, 2021 at 0910, emergency diesel generator B was declared inoperable after failing a max load test. The licensee readded the TEDG in accordance with Procedure OP-06-0010, "TEDG Operations," Revision 1, to extend the allowed outage time for emergency diesel generator B from 72 hours to 10 days, consistent with TS 3.8.1.1. Later that day at 1605, the licensee declared the TEDG available to extend the allowed outage time. On November 1, work was completed on the emergency diesel generator B, and it was tested satisfactory at 1440.

The inspectors questioned the functionality of the temporary emergency diesel generator and any potential impacts from closed fire dampers. The licensee determined that closing the south fire suppression damper of the TEDG enclosure would prevent the TEDG from meeting its 24-hour mission time. Therefore, the licensee should not have credited the TEDG to extend the allowed outage time of an inoperable emergency diesel generator.

The licensee did not properly establish procedures appropriate to the circumstances for verifying that the TEDG was available to be credited for the technical specification allowed outage time. Procedure OP-06-0010, "TEDG Operations," did not include steps to verify the position of the fire dampers prior to declaring the TEDG available. Consequently, on October 29, 2021, the TEDG was determined to be available during the emergency diesel generator B outage at a time when it would not be able to meet its 24-hour mission time.

Corrective Actions: The licensee updated Procedure OP-006-010, "TEDG Operations," to include verification that the east and west dampers in the engine room and the single set of dampers in the south damper room of the TEDG enclosure are verified in the open position to ensure functionality. The licensee also included language to ensure the correct indication is referenced for fire protection system status on the fire panel and verify that the gravity dampers on the south side are passing air after the TEDG is running.

Corrective Action References: Condition Report CR-WF3-2021-6180

Performance Assessment:

Performance Deficiency: The inspectors determined that the failure to provide adequate procedures for declaring the availability of the TEDG was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Procedure Quality 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, Procedure OP-006-010, "TEDG Operations," Revision 1, did not adequately provide the steps required to ensure TEDG availability.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." dated November 30, 2020.

Specifically, using Exhibit 2, “Mitigating Systems Screening Questions,” the inspectors determined that this finding is of very low safety significance (Green), because it did not represent a loss of a probabilistic risk assessment (PRA) function greater than its allowed TS allowed outage time, a loss of PRA function for two separate TS systems for greater than 24 hours, a loss of a PRA system or function defined in the Plant Risk Information e-Book or licensee’s PRA for greater than 24 hours, or loss of the PRA function of one or more non-TS trains of equipment designated as risk-significant in accordance with the licensee’s maintenance rule program for greater than 3 days.

Cross-Cutting Aspect: H.11 - Challenge the Unknown: Individuals stop when faced with uncertain conditions. Risks are evaluated and managed before proceeding. Specifically, although site leadership questioned the impact of the fire suppression system discharge on the availability of the TEDG, the question was quickly dispositioned because the fire suppression system is not required to be operation for the TEDG to perform its design function. The licensee did not fully understand or further challenge the impacts of the fire suppression system discharge and subsequent closure of the TEDG fire protection dampers on the cooling function of the TEDG radiator. This resulted in an extension of the emergency diesel generator B allowed outage time when it would not be able to meet its 24-hour mission time.

Enforcement: Inspectors did not identify a violation of regulatory requirements associated with this finding.

Failure to Follow Startup Procedure Results in Discharge of Safety Injection Tank into Vessel

Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000382/2022001-02 Open/Closed	[H.12] - Avoid Complacency	71152A

A self-revealed Green finding and associated non-cited violation of Technical Specification 6.8.1.a, “Procedures and Programs,” was identified when the licensee failed to properly implement Procedure OP-010-003, “Plant Startup,” Revision 356, as required by Regulatory Guide 1.33, “Quality Assurance Program Requirements (Operation),” Revision 2, Appendix A, Section 2, “General Plant Operating Procedures.” Specifically, the licensee failed to follow steps in the startup procedure to open the safety injection tank 1A isolation valve breaker. The associated isolation valve opened as designed via interlock when a valid actuation signal was received as pressure increased above 515 psia which resulted in an unplanned emergency core cooling system discharge into the reactor coolant system.

Description: Procedure OP-010-003, “Plant Startup,” Revision 356, requires at least three of the four safety injection tank isolation valves to be open prior to reaching 392 psia in the reactor coolant system when transitioning from cold shutdown to hot standby. The safety injection tanks with open isolation valves are kept at a lower pressure than reactor coolant system during this transition. A series of two check valves per safety injection tank injection line prevents the rising reactor coolant system pressure from backflowing into the safety injection tanks. The startup procedure includes steps that allow the isolation of a single safety injection tank in Modes 3 and 4 if desired, such as a safety injection tank experiencing in-leakage when a lower differential pressure exists across the check valves. Normally, the licensee shuts the associated isolation valve and breaker via the startup procedure to ensure the isolation valve of the isolated safety injection tank does not open upon receipt of the expected interlock signal as reactor coolant system pressure increases above 515 psia.

Additionally, the safety injection tank pressure is raised to within the normal operating band as required by technical specification 3.5.1, "Safety Injection Tanks," for Modes 1 and 2.

On September 5, 2021, the licensee opened all four-safety injection tank isolation valves prior to entering Mode 4 per the startup procedure. Each safety injection tank isolation valve breaker was then verified unlocked and shut by the licensee as indicated by the initials in step 9.1.50 of Attachment 9.1, "Heatup to 195°F," of the startup procedure denoting that all safety injection tank isolation valve breakers were verified unlocked and shut. In a case where one of the safety injection tank isolation valves was shut, the licensee would have marked "N/A."

While maneuvering the plant toward Mode 4, the licensee identified that safety injection tank 1A did have in-leakage. The licensee then decided to isolate safety injection tank 1A after the step was already performed to verify the isolation was open. Step 9.2.21.4.8 of Attachment 9.2, "Heatup to Hot Shutdown (Mode 5 to Mode 4)," of the startup procedure states to lock open all safety injection tank isolation valves except if one was previously shut, in which case that valve should be maintained in the shut position. The licensee inappropriately used this step to shut the safety injection tank 1A isolation valve; however, this step did not give instructions to manipulate the valve or to open the associated breaker. Additionally, there is a caution before step 9.2.21.4.8 which states that pressure in one safety injection tank may have been raised in Attachment 9.1, and "the associated safety injection tank outlet isolation breaker for this safety injection tank must remain open to prevent an inadvertent opening of the associated safety injection tank outlet valve when RC pressure is raised above 515 psia."

After the plant entered Mode 4, reactor coolant system pressure was being raised by the licensee. When the pressure reached approximately 515 psia, the safety injection tank 1A isolation valve received a valid open signal from the designed interlock and repositioned open. Approximately 5.5 percent of its volume, or about 75 gallons, discharged into the reactor coolant system before the operating crew took control of the valve from the control room and shut the valve.

Corrective Actions: The licensee created a new step in Attachment 9.2 of Procedure OP-010 003, "Plant Startup," for the intent of ensuring the breaker is open for a safety injection tank that has been isolated prior to exceeding 515 psia. The licensee also communicated the event throughout the operating crews and required observations to ensure procedure use and adherence met expectations.

Corrective Action References: Condition Reports 2021-05242 and 2021-05244

Performance Assessment:

Performance Deficiency: The failure to properly implement Procedure OP-010-003, "Plant Startup," Revision 356, when starting up the reactor was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Human 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, the licensee did not open the breaker for the associated isolation valve for safety injection tank 1A as the pressure of the reactor coolant system was raised to 515 psia. As a result, the safety injection tank isolation valves all received signals to open,

which caused safety injection tank 1A to reposition and inadvertently discharge into the reactor coolant system.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using Exhibit 2, "Mitigating Systems Screening Questions," the inspectors determined the finding to be of very low safety significance (Green), because it did not represent a loss of a probabilistic risk assessment (PRA) function greater than its allowed technical specification allowed outage time, a loss of PRA function for two separate TS systems for greater than 24 hours, a loss of a PRA system or function defined in the Plant Risk Information e-Book or licensee's PRA for greater than 24 hours, or loss of the PRA function of one or more non-TS trains of equipment designated as risk-significant in accordance with the licensee's maintenance rule program for greater than 3 days.

Cross-Cutting Aspect: H.12 - Avoid Complacency: Individuals recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes. Individuals implement appropriate error reduction tools. Specifically, the licensee performed the startup procedure with all the safety injection tanks operable but failed to recognize and properly plan for the possibility of isolating one safety injection tank in the middle of the procedure.

Enforcement:

Violation: Technical Specification 6.8.1.a requires, in part, that written procedures shall be established, implemented, and maintained in accordance with Appendix A of Regulatory Guide 1.33, Revision 2, February 1978, Section 2, "General Plant Operating Procedures." The licensee established Procedure, OP-010-003, "Plant Startup," Revision 356, to meet Regulatory Guide 1.33 requirements.

Contrary to the above, on September 5, 2021, the licensee failed to properly implement Procedure OP-010-003, "Plant Startup." Specifically, the licensee failed to follow the appropriate steps in the startup procedure to open the breaker for the associated safety injection tank 1A isolation valve prior to reaching 515 psia which caused an emergency core cooling system discharge into the reactor coolant system.

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

EXIT MEETINGS AND DEBRIEFS

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

- On March 31, 2022, the inspectors presented the emergency preparedness exercise inspection results to Mr. J. Ferrick, Site Vice President and other members of the licensee staff.
- On April 12, 2022, the inspectors presented the integrated inspection results to Mr. J. Ferrick, Site Vice President and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Procedures	OP-901-521	Severe Weather and Flooding	338
71111.04	Miscellaneous	SD-AIR	Air Systems System Description	15
71111.04	Procedures	OP-002-001	Auxiliary Component Cooling Water	317
		OP-002-004	Chilled Water System	323
		OP-003-106	Instrument Air	32
		OP-009-008	Safety Injection System	47
71111.05	Fire Plans	FHB-001	Fuel Handling Building +46.00', +21.00', +1.00', -35.00' Elevations	10
		LLRWSF	Low Level Radwaste Storage Facility	3
		NS-TB-001	Turbine Building +15.00' Elevation	16
		RAB 24-001	RAB +21 Decon Area	8
		RAB 3A-001	Reactor Auxiliary Building +69.00' Elevation	16
		RAB 3A-002	Reactor Auxiliary Building +46.00' Elevation	4
		RAB 3A-003	Reactor Auxiliary Building +21.00' Elevation	4
		RAB 44-001	Flex Diesel Generator Enclosure	2
71111.11Q	Procedures	EP-001-001	Recognition and Classification of Emergency Conditions	36
71111.12	Corrective Action Documents	CR-WF3-YYYY-NNNN	2022-1235, 2022-1242	
71111.12	Miscellaneous	TD-G045.0025	Charging Pumps Technical Instruction Manual	6
71111.12	Procedures	EN-DC-203	Maintenance Rule Program	5
		EN-DC-204	Maintenance Rule Scope and Basis	7
		EN-DC-205	Maintenance Rule Monitoring	8
71111.13	Procedures	EN-WM-104	On Line Risk Assessment	23
		ME-003-410	Motor-Operated Valve Thermal Overload Channel Calibration	311
		OI-037-000	Operations' Risk Assessment Guideline	317
		OP-100-009	Control of Valves and Breakers	43
71111.13	Work Orders		535719	
		Work orders for emergency diesel generator A	52927408, 52869231, 52919526	

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		outage		
		Work orders for emergency ventilation outages	52946441, 52741847, 52936697, 52930193, 52950675, 52925848	
71111.15	Corrective Action Documents	CR-WF3-YYY-NNNN	2022-1562, 2022-1041, 2022-1720	
71111.15	Procedures	EN-OP-104	Operability Determination Process	17
		OP-903-068	Emergency Diesel Generator and Subgroup Relay Operability Verification	326
71111.19	Procedures	OP-002-004	Chilled Water System	323
		OP-002-005	Chemical and Volume Control	70
		OP-003-014	Control Room Heating and Ventilation (HVC)	310
		OP-903-003	Charging Pump Operability Check	313
		OP-903-118	Primary Auxiliaries Quarterly IST Valve Tests	61
		OP-903-118	Primary Auxiliaries Quarterly IST Valve Tests	61
		STA-001-005	Leakage Testing of Air and Nitrogen Accumulators for Safety Related Valves	326
71111.19	Work Orders	Work Orders	535719, 574913	
71111.22	Procedures	MM-007-015	Main Steam Safety Valve Test	330
		OP-009-002	Emergency Diesel Generator	360
		OP-903-030	Safety Injection Pump Operability Verification	41
		OP-903-030	Safety Injection Pump Operability Verification	41
		OP-903-046	Emergency Feed Pump Operability Check	323
		OP-903-118	Primary Auxiliaries Quarterly IST Valve Tests	61
71111.22	Work Orders	Work Orders	52945674, 52991737, 52992666	
71114.01	Corrective Action Documents	Condition Reports CR-WF3-YYYY-NNNN	2020-5153, 2020-5154, 2020-1325, 2020-7333, 2021- 0040, 2021-1825, 2021-2170, 2021-2171, 2021-2287, 2021-4678, 2021-4805, 2021-7125, 2022-00651, 2022-0930, 2022-01454, 2022-01478, 2022-01512, 2022-01513, 2022-01675, 2022-1430	
71114.01	Procedures	EN-EP-202	Equipment Important to Emergency Response (EITER)	3
		EN-EP-306	Drills and Exercises	11

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		EN-EP-308	Emergency Planning Critiques	7
		EN-EP-313	Offsite Dose Assessment Using the Unified RASCAL Interface	4
		EN-EP-603	Emergency Notifications	1
		EN-EP-609	Emergency Operations Facility (EOF) Operations	6
		EN-EP-611	Operations Support Center (OSC) Operations	6
		EP-002-050	Offsite Dose Assessment	308
		EP-002-052	Protective Action Guidelines	27
		EP-7-ALL	Emergency Preparedness Forms	2
		S-SAMG-01	Loss of Large Areas of the Plant Due to Fire/Explosion	23
71151	Corrective Action Documents	CR-WF3-YYYY-NNNN	2021-1172, 2021-1629, 2021-1682, 2021-2201, 2021-2347	
71151	Miscellaneous	W3F1-2021-0033	NRC Performance Indicator (PI) Data - QR (Quarterly Report) ROP 1st Quarter 2021	4/15/2021
		W3F1-2021-0052	NRC Performance Indicator (PI) Data - 2nd Quarter 2021	7/22/2021
		W3F1-2021-0066	NRC Performance Indicator (PI) Data - 3rd Quarter 2021	10/19/2021
		W3F1-2022-0002	NRC Performance Indicator (PI) Data - 4th Quarter 2021	1/19/2022
71152A	Corrective Action Documents	CR-WF3-YYYY-NNNN	2005-01836, 2022-00049, 2022-00223, 2022-00334, 2022-00464, 2022-02846, 2021-03182, 2021-04165, 2021-04210, 2021-04231, 2021-04522, 2021-04874, 2021-04902, 2021-04922, 2021-05071, 2021-05102, 2021-05128, 2021-05146, 2021-05423, 2021-05481, 2021-05879, 2021-05901, 2021-05916, 2021-05957, 2021-05919, 2021-06369, 2021-06383, 2021-06397, 2021-06573, 2021-06635, 2021-06660, 2021-07129, 2021-07189, 2021-07224, 2022-00095, 2021-5242	
71152A	Engineering Changes	EC-0000090407	Operability Input for CR-WF3-2021-03182	06/16/2021
71152A	Procedures	OP-009-005	Shutdown Cooling	44
		OP-009-008	Safety Injection System	46
		OP-010-003	Plant Startup	356