



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

February 01, 2023

Kent Scott, Site Vice President
Entergy Operations, Inc.
5485 U.S. Highway 61N
St. Francisville, LA 70775

**SUBJECT: RIVER BEND STATION – INTEGRATED INSPECTION
REPORT 05000458/2022004**

Dear Kent Scott:

On December 31, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at River Bend Station. On January 9, 2023, the NRC inspectors discussed the results of this inspection with Bruce Chenard, General Manager Plant Operations, and other members of your staff. The results of this inspection are documented in the enclosed report.

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

Additionally, in the preceding six months the NRC issued three Severity Level IV traditional enforcement violations associated with impeding the regulatory process, as described in NRC Inspection Reports 05000458/2022003, Dated November 3, 2022; 05000458/2022010, dated December 12, 2022; and in this report. The NRC did note that the identified issues appear to show a gap in the stations process for determining whether prior NRC approval was required for changes being made. The NRC is evaluating whether performance of Inspection Procedure 92723, "Follow up Inspection for Three or More Severity Level IV Traditional Enforcement Violations in the Same Area in a 12-Month Period," is warranted. This decision will be documented in future correspondence.

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 IV; the Director, Office of Enforcement; and the NRC Resident Inspector at River Bend 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 IV; and the NRC Resident Inspector at River Bend Station.

This letter, its enclosure, and your response (if any) will be made available to public and copy at and at the NRC Public Document Room in accordance with Title 10 of the Code of Federal Regulations 2.390, " Public Inspections, Exemptions, Request for Withholding."

Sincerely,



Signed by Josey, Jeffrey
on 02/01/23

Jeffrey E. Josey, Chief
Project Branch C
Division of Operating Reactor Safety

Docket No. 05000458a
License No. NPF-47

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

RIVER BEND STATION – INTEGRATED INSPECTION REPORT 05000458/2022004 - DATED FEBRUARY 01, 2023

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ADAMS ACCESSION NUMBER: **ML23031A228**

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DATE	01/31/2023	01/31/2023	01/31/2023	02/01/2023	2/1/2023

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

Docket Number: 05000458

License Number: NPF-47

Report Number: 05000458/2022004

Enterprise Identifier: I-2022-004-0011

Licensee: Entergy Operations, Inc.

Facility: River Bend Station

Location: St. Francisville, Louisiana

Inspection Dates: October 1, 2022, to December 31, 2022

Inspectors: B. Baca, Health Physicist
L. Flores, Reactor Inspector
S. Hedger, Senior Emergency Preparedness Inspector
R. Kumana, Senior Resident Inspector
D. Livermore, Nuclear Systems Engineer
E. Simpson, Nuclear Systems Engineer
H. Strittmatter, Emergency Preparedness Inspector
C. Wynar, Resident Inspector

Approved By: Jeffrey E. Josey, Chief
Projects Branch C
Division of Operating Reactor Safety

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee’s performance by conducting an integrated inspection at River Bend 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 Manage the Increase in Risk from Maintenance Activities			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000458/2022004-01 Open/Closed	[H.8] - Procedure Adherence	71111.13
<p>The inspectors identified a Green finding and associated non-cited violation of 10 CFR 50.65(a)(4), with two examples, for failing to manage an increase in risk from maintenance activities. Specifically, on October 4, 2022, the licensee failed to manage the increase in risk from planned testing of the reactor core isolation cooling system, and on October 12, 2022, the licensee failed to manage the increase in risk from planned maintenance on the division 1 safety-related battery charger.</p>			
Failure to Evaluate Operability of the Reactor Protection System			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000458/2022004-02 Open/Closed	[H.14] - Conservative Bias	71111.15
<p>The inspectors identified a Green finding and associated non-cited violation of 10 CFR Part 50, appendix B, criterion V, “Instructions, Procedures, and Drawings,” when the licensee failed to follow procedure EN-OP-104, “Operability Determination Process,” revision 17, a quality related procedure. Specifically, the licensee failed to perform a detailed and accurate operability evaluation when required for a failed reactor protection system relay and declared the system operable when it failed to meet all surveillance requirements.</p>			
Failure to Follow Procedures to Assess Airborne Radiological Conditions			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Occupational Radiation Safety	Green NCV 05000458/2022004-04 Open/Closed	[H.14] - Conservative Bias	71124.01
<p>The inspectors reviewed a self-revealed Green non-cited violation of technical specification 5.4.1.a, for failure to follow written procedures to take air samples. Specifically, the licensee failed to follow procedure EN-RP-131, “Air Sampling,” revision 17, which required a work area air sample be taken whenever respiratory protection equipment is worn by workers and when specific activities are performed.</p>			

Failure to Obtain a License Amendment Prior to Implementing a Proposed Change			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000458/2022004-05 Open/Closed	Not Applicable	71152A
<p>The inspectors identified a Severity Level IV non-cited violation of 10 CFR Part 50.59 (c)(2)(ii), "Changes, Test and Experiments," when the licensee did not obtain a license amendment prior to implementing a proposed change which resulted in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component. Specifically, the licensee changed the required operability time of the automatic depressurization system as specified in the updated safety analysis report from 100 days to 30 days without agency approval. The 100-day operability time was a requirement explicitly documented in an agency safety evaluation report.</p>			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000458/2022-001-00	Condition Prohibited by Technical Specifications due to Residual Heat Removal B Pump Motor Bearing Oil Leak	71153	Closed

PLANT STATUS

River Bend Station began the inspection period at 73 percent of rated thermal power due to a rod pattern adjustment begun in the previous quarter. The plant returned to rated thermal power on October 1, 2022. On October 21, 2022, the plant reduced power to approximately 70 percent for a rod pattern adjustment. The plant returned to rated thermal power on October 25, 2022. On October 28, 2022, the plant began their coast down in power to the next refueling outage. The plant ended the inspection period at approximately 82 percent power.

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

71111.04 - 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) division I 125 VDC system on November 3, 2022
- (2) division II standby service water system (specifically ultimate heat sink) on November 17, 2022
- (3) containment hydrogen igniters on December 11, 2022
- (4) diesel generator building ventilation on December 21, 2022

Complete Walkdown Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated system configurations during a complete walkdown of the reactor core isolation cooling system on December 9, 2022.

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (6 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) cable chase, fire area C-1, on November 3, 2022
- (2) cable chase, fire area C-2, on November 3, 2022
- (3) reactor core isolation cooling pump room, fire area AB-4/Z-1 and Z-2, on November 8, 2022
- (4) standby liquid control area, fire area RC-4/Z-4, on November 18, 2022
- (5) cable chase, fire area C-9, on November 20, 2022
- (6) low pressure core spray pump room, fire area AB-6/Z-1, on December 12, 2022

71111.06 - Flood Protection Measures

Inspection Activities - Internal Flooding (IP Section 03.01) (1 Sample)

The inspectors evaluated internal flooding mitigation protections in the:

- (1) reactor core isolation cooling compartment

71111.11Q - Licensed Operator Qualification 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 down power and turbine valve testing on October 21, 2022.

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

- (1) The inspectors observed and evaluated simulator training on November 3, 2022.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (3 Samples)

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

- (1) reactor protection system relay failures on November 3, 2022
- (2) control building fire dampers on November 23, 2022
- (3) standby cooling tower nozzle failures on November 28, 2022

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (4 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 with reactor core isolation cooling out of service on October 4, 2022
- (2) emergent work on 4160 to 490v high pressure core spray transformer E22-S004 on October 25, 2022

- (3) yellow risk during replacement of SWPB45 1X relay on November 7, 2022
- (4) yellow risk during ENB-CHGR1A planned maintenance on November 9, 2022

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (5 Samples)

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

- (1) operability of turbo mounting bolt on October 25, 2022 (CR-RBS-2022-04984 and CR-RBS-2022-05024)
- (2) operability of remote shutdown system due to testing issue on October 31, 2022 (CR-RBS-2022-05769)
- (3) operability of reactor protection system with failed K14 relay on November 3, 2022 (CR-RBS-2022-04572)
- (4) operability of SWP-MOV81B on November 22, 2022 (CR-RBS-2022-04713)
- (5) operability of division III 480V bus with compensatory measures on November 28, 2022 (CR-RBS-2022-05422)

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

- (1) change post-accident operability time duration provided in updated safety analysis report (USAR) section 6.2.1.1.1 to 30 days instead of 100 days on December 2, 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) work order (WO) 00587891, replacement of division I switchgear undervoltage relay, on November 20, 2022
- (2) WO 52920962, replacement of E51-K603 capacitor, on December 9, 2022
- (3) WO 53016300, reactor core isolation cooling outage, on December 12, 2022
- (4) WO 00587051, makeup water pump motor replacement, on December 22, 2022
- (5) WO 00587958, low pressure core spray check valve inspection, on December 23, 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) STP-209-4210, revision 11A, "RSS/RCIC System Flow Channel Calibration," on October 17, 2022
- (2) STP-309-0203, revision 340, "Div III EDG Operability Test," on November 23, 2022
- (3) STP-109-6302, revision 21, "MSIV Quarterly Partial Stroke Operability Test," on December 12, 2022
- (4) STP-203-6305, revision 35, "HPCS Quarterly Pump and Valve Operability Test," on December 20, 2022
- (5) COP-0032, revision 12, "Startup and Operation of the Reactor Sample Panel" and EN-CY-110, revision 4, "Chemistry Gamma Spectroscopy System Operation," on December 20, 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 October 18, 2022. The exercise scenario simulated a main turbine load reduction due to a stator water pump trip, an anticipated transient without scram, reactor fuel damage, a main steam line rupture with a failure to isolate the leak path, and a loss of reactor vessel water level below the top of active fuel.

71114.06 - Drill Evaluation

Drill/Training Evolution Observation (IP Section 03.02) (2 Samples)

The inspectors evaluated:

- (1) simulator training on November 3, 2022
- (2) emergency preparedness drill on September 28, 2022

RADIATION SAFETY

71124.01 - Radiological Hazard Assessment and Exposure Controls

Radiological Hazard Assessment (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated how the licensee identifies the magnitude and extent of radiation levels and the concentrations and quantities of radioactive materials and how the licensee assesses radiological hazards.

Instructions to Workers (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated how the licensee instructs workers on plant-related radiological hazards and the radiation protection requirements intended to protect workers from those hazards.

Contamination and Radioactive Material Control (IP Section 03.03) (2 Samples)

The inspectors observed/evaluated the following licensee processes for monitoring and controlling contamination and radioactive material:

- (1) Observed the licensee conduct surveys of potentially contaminated packages/equipment from the radiologically controlled area for release offsite and workers exiting potential contaminated areas.
- (2) Evaluated the licensee's physical and programmatic controls for highly activated and contaminated non-fuel materials stored within the spent fuel pool.

Radiological Hazards Control and Work Coverage (IP Section 03.04) (3 Samples)

The inspectors evaluated the licensee's control of radiological hazards for the following radiological work:

- (1) low risk radiological work and job coverage of new fuel receipt activities, spent fuel pool area (radiation work permit (RWP) 2022-1220 for WO 53016052)
- (2) medium risk radiological work and job coverage general maintenance for DFR valve 117, breach, clean, and inspect - ASME XI in-service testing (RWP 2022-1204, task 1 for WO 00585540)
- (3) low risk radiological work and job coverage for I&C validation of transmitter conduit plug torque values (RWP 2022-1004, task 1 for WO 00582455)

High Radiation Area and Very High Radiation Area Controls (IP Section 03.05) (4 Samples)

The inspectors evaluated licensee controls of the following High Radiation Areas and Very High Radiation Areas:

- (1) radwaste building six-way valve room, 90-foot elevation, door RW 090-02
- (2) radwaste building north valve gallery, 90-foot elevations, door RW 090-G3
- (3) turbine building north heater bay, 95-foot elevation, door TB 095-19
- (4) fuel building spent fuel pool demineralizer, 98-foot elevation, door FB 098-05

Radiation Worker Performance and Radiation Protection Technician Proficiency (IP Section 03.06) (1 Sample)

- (1) The inspectors evaluated radiation worker and radiation protection technician performance as it pertains to radiation protection requirements.

71124.04 - Occupational Dose Assessment

Source Term Characterization (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated licensee performance as it pertains to radioactive source term characterization.

External Dosimetry (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated how the licensee processes, stores, and uses external dosimetry.

Internal Dosimetry (IP Section 03.03) (2 Samples)

The inspectors evaluated the following internal dose assessments:

- (1) seven individuals assessed for uptakes during insulation removal and residual heat removal "A" injection line testable check valve (E12-AOVF041 A) maintenance
- (2) four individuals' dose assessments based on personnel contamination events associated with eddy current testing, refuel floor activities, and condenser work

Special Dosimetric Situations (IP Section 03.04) (2 Samples)

The inspectors evaluated the following special dosimetric situations:

- (1) five declared pregnant workers' declaration, monitoring, and dose assessment results
- (2) multi-badging for workers in dose gradient fields associated with RWPs 20201294-3, 20211295-3, and 20211753-22

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

BI01: Reactor Coolant System (RCS) Specific Activity Sample (IP Section 02.10) (1 Sample)

- (1) October 1, 2021, through September 30, 2022

BI02: RCS Leak Rate Sample (IP Section 02.11) (1 Sample)

- (1) October 1, 2021, through September 30, 2022

OR01: Occupational Exposure Control Effectiveness Sample (IP Section 02.15) (1 Sample)

- (1) October 1, 2021, through September 30, 2022

PR01: Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual
Radiological Effluent Occurrences (RETS/ODCM) Radiological Effluent Occurrences Sample
(IP Section 02.16) (1 Sample)

- (1) October 1, 2021, through September 30, 2022

EP01: Drill/Exercise Performance (DEP) Sample (IP Section 02.12) (1 Sample)

- (1) April 1, 2021, through September 30, 2022

EP02: Emergency Response Organization (ERO) Drill Participation (IP Section 02.13)
(1 Sample)

- (1) April 1, 2021, through September 30, 2022

EP03: Alert and Notification System (ANS) Reliability Sample (IP Section 02.14) (1 Sample)

- (1) April 1, 2021, through September 30, 2022

71152A - Annual Follow-up Problem Identification and Resolution

Annual Follow-up of Selected Issues (Section 03.03) (2 Samples)

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

- (1) residual heat removal B oil leak on November 23, 2022
- (2) condition report classification on December 12, 2022

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 in risk assessments that might be indicative of a more significant safety issue.

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 05000-458/2022-01-00, "Condition Prohibited by Technical Specifications due to Residual Heat Removal B Pump Motor Bearing Oil Leak," (ADAMS Accession No. ML22137A035)

This LER was submitted and subsequently retracted by licensee correspondence RBG-48186, Retraction of LER 2022-001-00, "Condition Prohibited by Technical Specifications due to Residual Heat Removal B Pump Motor Bearing Oil Leak," dated July 21, 2022 (ML22202A441).

INSPECTION RESULTS

Failure to Manage the Increase in Risk from Maintenance Activities			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000458/2022004-01 Open/Closed	[H.8] - Procedure Adherence	71111.13
<p>The inspectors identified a Green finding and associated non-cited violation of 10 CFR 50.65(a)(4), with two examples, for failing to manage an increase in risk from maintenance activities. Specifically, on October 4, 2022, the licensee failed to manage the increase in risk from planned testing of the reactor core isolation cooling system, and again on October 12, 2022, the licensee failed to manage the increase in risk from planned maintenance on the division 1 safety-related battery charger.</p> <p><u>Description:</u> The inspectors identified two examples of maintenance activities that were assessed as placing the plant in an elevated risk category but were not appropriately managed in accordance with industry guidance and approved licensee procedures.</p> <p>On October 4, 2022, during a control room tour, the inspectors noted that the licensee had declared the reactor core isolation cooling (RCIC) system inoperable but had not assessed online risk as yellow in accordance with station procedure ADM-0096. The inspectors asked the control room supervisor if RCIC was considered available with the controller in manual. The control room supervisor did not recognize that with RCIC unavailable the online risk profile was yellow. The station had been in a yellow risk window for approximately an hour without realizing it. The station updated their risk management program and declared yellow risk. The issue was documented in the licensee’s corrective action program as condition report CR-RBS-2022-05773.</p> <p>Following this discussion, the inspectors returned to the control room to verify the licensee had implemented all required risk management actions (RMAs). The inspector found that the licensee had not protected the high pressure core spray system (HPCS) while RCIC was unavailable. The licensee’s risk management procedure EN-OP-119, “Protected Equipment,” Revision 16 step 5.2.9 states, “During surveillance testing, establish protected equipment postings unless the surveillance meets all the following requirements:</p> <p>Short duration (shift or less), activity is covered by a procedure, system can be promptly restored by operators/technicians on station with a means of communicating with the control room, operators/technicians responsible for restoration of the system are briefed on actions associated with restoration of the component/system.” The operators on shift thought “promptly restored by operators/technicians on station with a means of communicating with the control room.” was met based on a control room operator going to the remote shutdown panel to restore RCIC. The inspectors noted that the control room was not located near the components that would require operation and that the control room operator may not be able to leave the control room during an event that required prompt restoration.</p> <p>The inspectors determined that the failure to declare online yellow risk, update the risk configuration software, make the required announcements, and protect redundant equipment was a failure to implement RMAs required by the licensee’s procedures.</p> <p>On October 12, 2022, the licensee was performing maintenance under WO 52937911-01 on</p>			

the division I battery charger making the division I battery charger inoperable and unavailable for online risk. At the same time, the station was performing maintenance under WO 00572849-01 on the electric transmission and distribution system. If worked individually, each WO would put station online risk at green; however, when the work is performed simultaneously the combined work elevates station online risk to yellow.

The work on the division I battery charger placed the station in a technical specification (TS) two-hour shutdown action statement. The licensee's TS allow the licensee to extend that two-hour shut down time to seven days by utilizing the nonsafety-related back-up charger on the division I battery and protecting the station blackout (SBO) diesel generator. During a control room walkdown that day, the inspectors noticed that the division II battery charger was not protected and was not listed as protected equipment in the narrative log. When the inspectors asked the operators about this condition, they stated that the back-up charger and SBO diesel were protected and that protecting the division II battery charger was not required.

The inspectors reviewed EN-OP-119, revision 16, "Protected Equipment Postings," and noted that:

- Section 5.2.1 states, "When an elevated risk condition (above baseline, such as yellow) exists and loss of the redundant (opposite train) component or system would result in a risk escalation to orange or red then use protected equipment postings"
- Section 5.2.4 states, "When the loss of the redundant component or system would result in a TS action statement that requires an immediate plant shutdown (24 hrs or less) and not performing a surveillance that meets the requirements of step 5.2.9 then protect the component or system."

The inspectors determined that, based on the maintenance that was in progress at the time, the online risk was yellow and a loss of the redundant or opposite train component (the division II charger) would elevate online risk to orange. Additionally, a loss of the division II battery charger would have put the station in TS 3.0.3 a condition requiring a shut down within 12 hours. The licensee met the conditions in both sections of EN-OP-119 that would require them to protect the division II battery charger; therefore, the licensee failed to take the prescribed RMA until questioned by the inspectors. This was documented in the licensee's corrective action program as condition report CR-RBS-2022-05888.

Corrective Actions: The licensee entered these issues into their corrective action program.

Corrective Action References: CR-RBS-2022-05773 and CR-RBS-2022-05888

Performance Assessment:

Performance Deficiency: Title 10 CFR 50.65(a)4 requires the licensee to assess and manage the increase in risk that may result from maintenance activities before performing them. The inspectors determined that during the maintenance on the RCIC system and the maintenance on the division 1 battery charger the licensee failed to assess and manage the increase in risk for maintenance activities by taking required RMAs and was therefore a performance deficiency.

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, the failure to recognize that RCIC was unavailable and protect HPCS, and the failure to protect the redundant train battery charger, adversely affected the Mitigating Systems cornerstone because it increased the likelihood that other mitigating systems could be affected.

Significance: The inspectors assessed the significance of the finding using IMC 0609 Appendix K, "Maintenance Risk Assessment and Risk Management SDP." The inspectors requested that the licensee perform a risk assessment of the specific configurations of both conditions. In their assessments, the licensee estimated the risk deficits and incremental core damage probabilities for each condition were less than 1.0E-6. A regional senior reactor independently reviewed the licensee's assessments and confirmed the licensee's risk estimates. The inspectors applied this information to the flowcharts in appendix K to determine this finding had very low safety significance (Green).

Cross-Cutting Aspect: H.8 - Procedure Adherence: Individuals follow processes, procedures, and work instructions. Specifically, for each example, the licensee failed to follow their risk management procedure and perform required RMAs.

Enforcement:

Violation: Title 10 CFR 50.65(a)4 requires the licensee to assess and manage the increase in risk that may result from maintenance activities.

Contrary to the above, on October 4, 2022, and October 12, 2022, the licensee failed to assess and manage the increase in risk before performing maintenance activities. Specifically, the licensee failed to implement appropriate RMAs to manage the increase in risk that resulted from maintenance on the RCIC system and maintenance on the safety-related battery charger.

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

Failure to Evaluate Operability of the Reactor Protection System			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000458/2022004-02 Open/Closed	[H.14] - Conservative Bias	71111.15
The inspectors identified a Green finding and associated non-cited violation of 10 CFR Part 50, appendix B, criterion V, "Instructions, Procedures, and Drawings," when the licensee failed to follow procedure EN-OP-104, "Operability Determination Process," revision 17, a quality related procedure. Specifically, the licensee failed to perform a detailed and accurate operability evaluation when required for a failed reactor protection system relay and declared the system operable when it failed to meet all surveillance requirements.			
<u>Description:</u> On August 10, 2022, during a planned surveillance test using licensee procedure STP-508-0201, "Manual Scram Channel Functional Test and LSFT," when the licensee attempted to reset the division 2 scram logic for the reactor protection system (RPS) trip system from RPS logic channel B in accordance with step 6.6, the scram solenoid valve indicating light did not reset for control rod group 1, resulting in a condition where one of the four rod groups was in a "half-scram." This meant that an additional trip signal from the			

division 1 trip system would result in 35 of the 145 rods inserting into the core. The licensee determined that the cause was a failed relay, C71A-K14J, and began plans to replace the relay. The licensee documented the issue in the corrective action program as condition report CR-RBS-2022-04572.

The inspectors inquired as to whether the licensee planned to declare the system inoperable or take any additional actions prior to replacing the relay.

The licensee evaluated the condition using station procedure EN-OP-104, "Operability Determination Process."

EN-OP-104, step 8.2, requires the licensee to determine whether a degraded or non-conforming condition exists, and if one does, to perform an evaluation that assesses many aspects of operation.

Step 8.2.1 directs the licensee to perform a review of TS and the current licensing basis and determine the impact of the condition on the TS structure, system, or component (SSC) and the SSC's safety function and refers to Attachment 1 for more specific guidance.

If the licensee concludes no degraded or nonconforming conditions exists that impacts the safety function, the license will declare the SSC operable per step 8.2.3. If the licensee determines that the condition does impact the TS SSC or its safety function, the licensee can either declare the SSC inoperable or perform further evaluation per step 8.2.4.

In this case, the licensee did not identify an impact on the TS SSC or its safety function and declared the RPS operable. The licensee based their conclusion on an assumption that, with channel B in a "half-scam" condition, the RPS channel was in its safety position and therefore it was able to perform its safety function.

The inspectors noted that the TS Surveillance Requirement (SR) 3.3.1.1.15 requires the performance of the logic system functional test, which was the surveillance that was being performed at the time of the failure. The logic system functional test is defined in the TS as being "a test of all required logic components (i.e., all required relays and contacts, trip units, solid state logic elements, etc.) of a logic circuit, from as close to the sensor as practicable up to, but not including, the actuated device, to verify OPERABILITY." Part of the logic system functional test surveillance is to reset the scram. The inspectors determined that, with the failed K14J relay, the scram could not be fully reset, and one of the four rod groups remained in a "half-scam" condition. The inspectors also noted that the licensee's TS bases state that the trip system is able to be reset, and that step 6.6.2.c to verify the solenoid valve indicating lights are on after resetting the scram is identified in procedure STP-508-0201 as a step required to meet SR 3.3.1.1.15.

SR 3.0.1 requires that the licensee be able to demonstrate that each SR can be met at all times. If not, the licensee must consider the limited conditions for operation not met and declare the affected system inoperable. This guidance is also incorporated in station procedure EN-OP-104 Attachment 1.

The inspectors also noted that by maintaining one of the rod groups in a "half-scam" condition, the licensee had significantly increased the potential for an occurrence of an abnormal rod configuration. The licensee had not analyzed the potential safety consequences and impact on the current licensing basis of a single failure resulting in 35 rods inserting into

the core while at power.

The inspectors concluded that because the condition could result in a previously unanalyzed event, that the safety function was not being met. The inspectors discussed the issue with personnel in the Technical Specification Branch of the Office of Nuclear Reactor Regulation to determine whether the channel was operable or inoperable in accordance with the site's TS. The Technical Specification Branch reviewers agreed with the inspectors' conclusion that the TS require the ability to reset the scram during the logic system functional test, and in the conditions described above, the RPS instrumentation was not operable.

Therefore, the inspectors determined that the licensee should have concluded that the condition did affect the TS SSC and its safety function and should have either declared it inoperable or performed additional evaluation to justify operability.

TS 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," requires that the instrumentation for each RPS function be operable. For one or more channels inoperable, the TS requires the licensee to place either the channel or associated trip system in "trip" within 12 hours. If this action is not completed within 12 hours the license would be required to take the action prescribed for each function affected by the inoperable channel. For the conditions that existed at the time, the most limiting of those actions would have been to reduce thermal power to less than 23.8 percent within four hours after the initial 12-hour window.

The licensee operated with the division 2 RPS trip system inoperable for approximately 13 hours before replacing the relay and restoring the system to operable. The inspectors determined that, while the licensee operated for more than 12 hours with the affected channel B functions inoperable, the licensee restored the system prior to exceeding the four-hour requirement to reduce thermal power. TS 3.3.1.1 would have required them to reduce power at the 16-hour point if they had not repaired the relay or placed the channel or trip system in "trip." By declaring the system operable, the licensee could have allowed operation outside of the TS limiting condition outage time for an inoperable trip system.

The inspectors noted that this same condition had occurred in 2019 when a different relay in the same channel failed. During the 2019 event, the licensee declared the system inoperable until the affected relay was replaced.

The inspectors determined that the licensee failed to ensure a conservative bias in performing the operability determination. The licensee only considered the position of the rod group solenoids and failed to consider whether the system could meet all surveillance requirements, or whether the failure represented a degraded or nonconforming condition that impacted the safety function requiring further evaluation.

Corrective Actions: The relay was replaced, and the system restored to its normal configuration.

Corrective Action References: CR-RBS-2022-04572

Performance Assessment:

Performance Deficiency: The inspectors determined that the failure to evaluate operability of the RPS in accordance with station procedure EN-OP-104 was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor

because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, the allowed operation outside of TS could increase the likelihood of events that challenge critical safety functions.

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 used Exhibit 2, "Mitigating Systems Screening Questions," the inspectors determined the finding was of very low safety significance (Green) because it did not prevent a signal to initiate a reactor scram or affect other diverse methods of reactor shutdown.

Cross-Cutting Aspect: H.14 - Conservative Bias: Individuals use decision-making-practices that emphasize prudent choices over those that are simply allowable. A proposed action is determined to be safe in order to proceed, rather than unsafe in order to stop. Specifically, the licensee only considered the position of the group 1 solenoids in assessing the operability of the system, instead of considering the ability of the system to operate correctly.

Enforcement:

Violation: Title 10 CFR 50, appendix B, criterion V, requires that "activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings." EN-OP-104, "Operability Determination Process," a quality related procedure, requires the licensee to determine whether a degraded or non-confirming condition exists, and if one does, to perform an evaluation that assesses all aspects of operation.

Contrary to the above, on August 10, 2022, the licensee failed to accomplish a quality related activity in accordance with documented procedures. Specifically, the licensee failed to perform an operability evaluation for the RPS following the failure of a relay which prevented them from meeting a SR.

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

Failure to Follow Procedures to Assess Airborne Radiological Conditions			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Occupational Radiation Safety	Green NCV 05000458/2022004-04 Open/Closed	[H.14] - Conservative Bias	71124.01
The inspectors reviewed a self-revealed Green non-cited violation of TS 5.4.1.a, for failure to follow written procedures to take air samples. Specifically, the licensee failed to follow procedure EN-RP-131, "Air Sampling," revision 17, which required a work area air sample be taken whenever respiratory protection equipment is worn by workers and when specific activities are performed.			
<u>Description:</u> On February 25, 2021, a work crew was briefed on RWP 2021-1910, task 2, to remove the insulation from the 1-inch steam line at the drywell 125-foot level to reduce elevated dose rates and contamination levels due to an October 2019 known leak from residual heat removal (RHR) check valve E12-AOVF041A. The insulation removal crew wore			

respiratory protection in the form of powered air purifying respirators (PAPRs). However, no work area air samples were documented as having been taken, as required by procedure EN-RP-131. By failing to take the required air sample, the licensee failed to properly assess airborne radioactivity in the drywell associated with the use of respiratory protection, insulation removal activities, and known contamination leaking from RHR check valve E12-AOVF041A.

As a result of this failure, four individuals working in the drywell received radiological uptakes. Two decontamination workers were placing oil cloth in the 82-foot level of the reactor drywell at the time of insulation removal. In addition, four carpenters entered the 118-foot level of the drywell to build a scaffold soon after the insulation removal crew completed their job. Of these six workers in the drywell, four were unable to exit the access control point because of internal contamination that resulted in alarming the portal monitors. Whole body counting confirmed radiological uptakes for the four workers, one of whom received an assigned dose of 22 mrem committed effective dose equivalent.

The inspectors confirmed radiation protection personnel did not follow procedure requirements for assessing airborne radioactivity levels. Three conditions existed within the drywell on February 25, 2021, that would have required air sampling. Procedure EN-RP-131, section 5.2.1.3 required air sampling whenever respiratory protection is used. In addition, section 5.2.1.4 identified the need for air sampling when “removing contaminated insulation.” Further, section 5.2.1.4 stipulates to consider air sampling when working in areas with removable contamination greater than 100,000 dpm/100 cm². Records and survey results showed that all three conditions were present within the reactor drywell when the uptake events occurred. This failure to follow site procedures to assess airborne radiation levels in the reactor drywell was a direct contributing factor to the unplanned internal exposures that occurred on February 25, 2021.

Corrective Actions: The licensee assessed the issue and implemented multiple corrective actions. Immediate actions taken included:

- drywell was evacuated
- posting the drywell, all elevations from 0 to 90 degrees, to restrict access until the areas were decontaminated
- developing lessons learned to ensure all applicable RWPs reference the event
- performed an Adverse Condition Analysis, including corrective actions to preclude repetition

Corrective Action References: CR-RBS-2021-01246, CR-RBS-2021-01994, and CR-RBS-2021-02376

Performance Assessment:

Performance Deficiency: The failure to follow procedures to assess airborne radiological conditions was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Program & Process attribute of the Occupational Radiation Safety cornerstone and adversely affected the cornerstone objective to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Specifically, the failure to

follow procedure requirements for assessing the extent of airborne radioactivity affects the licensee's ability to control and limit radiation exposures. The failure to assess the airborne radiological conditions led to unanticipated internal dose consequences for several workers.

Significance: The inspectors assessed the significance of the finding using IMC 0609 appendix C, "Occupational Radiation Safety SDP." The inspectors determined the finding to be of very low safety significance (Green) because (1) it was not associated with as low as is reasonably achievable (ALARA) planning or work controls, (2) there was no overexposure, (3) there was no substantial potential for an overexposure, and (4) the ability to assess dose was not compromised.

Cross-Cutting Aspect: H.14 - Conservative Bias: Individuals use decision-making-practices that emphasize prudent choices over those that are simply allowable. A proposed action is determined to be safe in order to proceed, rather than unsafe in order to stop. Specifically, the licensee's decision-making did not reflect a bias for conservative decision-making which allowed work to take place without performing an adequate assessment of airborne radioactivity.

Enforcement:

Violation: TS 5.4.1.a, requires, in part, that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in NRC Regulatory Guide 1.33, revision 2, appendix A, February 1978. Appendix A, section 7.e.1 required procedures for "Access Control to Radiation Areas Including a RWP System." The licensee established procedure EN-RP-131, "Air Sampling," revision 17, which required work area air sampling to take place whenever respiratory protection is being used by workers and specific conditions exist such as insulation removal and work within high contamination areas.

Contrary to the above, on February 25, 2021, the licensee failed to follow procedure EN-RP-131 requirements for work area air sampling to take place whenever respiratory protection is being used by workers and specific conditions exist such as insulation removal and work within high contamination areas. Specifically, an insulation removal crew wore PAPRs to perform work in a high contamination area, but work area air samples were not taken, as required by procedure. As a result, adverse airborne radiological conditions were never identified in the reactor drywell and four individuals received unanticipated radiological uptakes because of an unidentified airborne radioactivity area.

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

Failure to Obtain a License Amendment Prior to Implementing a Proposed Change			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000458/2022004-05 Open/Closed	Not Applicable	71152A
<p>The inspectors identified a Severity Level IV non-cited violation of 10 CFR Part 50.59 (c)(2)(ii), "Changes, Test and Experiments," when the licensee failed to obtain a license amendment prior to implementing a proposed change which resulted in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC. Specifically, the licensee changed the required operability time of the automatic depressurization system (ADS) as specified in the USAR from 100 days to 30 days without agency approval. The 100-day operability time was a requirement explicitly documented in an agency safety evaluation report (SER).</p> <p><u>Description:</u> The inspectors reviewed the licensee's corrective actions for CR-RBS-2022-02150, a failure of RHR pump oil level indicator. As part of the corrective actions the licensee documented what they believed to be an inconsistency in specification 245.600, a post-accident operability time document. This specification is incorporated by reference in the USAR as part of chapter 16, section 2. It lists out the mission time of all the licensee safety-related systems. Several of these systems were listed as having a required mission time of 100 days. The licensee considered this to be inconsistent with section 6.2.1.1 of the USAR. The licensee's interpretation was that all the systems listed in specification 245.600 with a 100-day operability time were only required to have a 30-day operability time, based on section 6.2.1.1 stating, "the offsite dose evaluation is based on constant containment leakage at a design rate for the assumed 30-day duration of the accident." The licensee interpreted the 30 days as the required operability time for all SSCs and concluded that the 100-day operability time listed in 245.600 was incorrect.</p> <p>Believing this to be only an administrative change; the licensee generated an administrative change, EC 0000093511, to update specification 245.600 by replacing the 100-day post-accident operating times (POAT) with a 30-day POAT for all systems. The licensee added the statement "PAOT, as noted above and used within this document, is the qualification period for equipment to meet 10CFR50.49 requirements (EQ). For purposes of determining the mission time for equipment, required to mitigate the effects of an accident, 30 days shall be used consistent with USAR 6.2.1.1" to the introduction of 245.600 thereby changing all SSCs with a 100-day POAT to 30 days.</p> <p>The licensee did not review this EC under their screening and evaluation process for changes to the facility because they believed it to be administrative in nature. The licensee failed to recognize this was not an administrative change for one of the systems listed. Specifically, the ADS and its required support system, the penetration valve leakage control system air compressors are explicitly listed in the licensee's SER as being required to operate for 100 days.</p> <p>Section 5.2.2 of the SER states that TMI Action Plan Item II.K.3.28 identifies the need to ensure that air or nitrogen for the ADS valves are designed to withstand a hostile environment and still perform their function for 100 days after an accident.</p> <p>It then refers to section 3.10.2.7.1 of the SER for further evaluation. Section 3.10.2.7.2 states that the commitment to satisfy the requirement of the TMI action plan for River Bend Station</p>			

Unit 1 is discussed in letters dated April 9 and May 13 of 1985. These letters are aligned with section II.K.3.28 of the TMI action plan referenced in the SER and state that ADS will be able to perform its function for 100 days.

The inspectors determined that reducing the operability time of ADS from 100 days to 30 days is a change in the facility as described in the USAR and must be reviewed in accordance with 10 CFR 50.59. Because the reduction in required operability time would allow the system to have reduced reliability or functionality after 30 days, this represented a more than minimal increase in the likelihood of a malfunction to an SSC and would require prior NRC approval for the change to take place.

Performance Assessment: The inspectors determined this violation was associated with a minor performance deficiency. The licensee did not obtain a license amendment prior to implementing a change to the facility in accordance with 10 CFR 50.59(c)(2)(ii), for a change that resulted in more than a minimal increase in the likelihood of a malfunction to an SSC but had not actually impacted the system's function.

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.

The inspectors assessed the severity level using the NRC Enforcement Policy, dated January 13, 2023, Section 6.1.D. and determined that the violation was Severity Level IV because it was a violation of 10 CFR 50.59 that resulted in conditions evaluated as having very low safety significance (Green) by the significance determination process.

Violation: Title 10 CFR 50.59(c)(2)(ii), states in part, that a licensee shall obtain a license amendment pursuant to 10 CFR 50.90 prior to implementing a proposed change that would result in a more than minimal increase in the likelihood of occurrence of a malfunction of a SSC important to safety previously evaluated in the USAR.

Contrary to the above, on July 28, 2022, the licensee failed to obtain a license amendment prior to implemented a change that would result in a more than minimal increase in the likelihood of occurrence of a malfunction of a structure, system or component important to safety. Specifically, EC 000093511, which revised the operability time of ADS and the safety-related air compressors from 100 days to 30 days was implemented without obtaining prior NRC approval via a license amendment.

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

Observation: Semiannual Trend Review

71152S

The inspectors reviewed the licensee's implementation of risk assessment and management processes. The inspectors noticed a trend of failures to follow site processes for assessing, communicating, and managing risk.

The inspectors documented a finding with two examples in this report under section 71111.13. In addition to those examples, the inspectors found other instances that were not violations of NRC requirements, but that represented gaps in the licensee's risk management process.

On October 12, 2022, the licensee was performing maintenance under WO 52937911-01 on the division I battery charger per their work week plan. This made the division I battery charger inoperable and unavailable. At the same time, the station was performing maintenance under WO 00572849-01 on the electric transmission and distribution system. Each WO individually would put the station at green risk; however, when performed simultaneously the combined work elevates the station to yellow risk. The station failed to evaluate the aggregate risk of work for the day and the elevated risk was not documented in the work week schedule or on the plan of the day. The yellow risk window was identified by the control room before the work began.

On October 24, 2022, the licensee had planned work on the standby cooling tower fans 1X relays by the plant's Fix-It-Now team. This work was not scheduled on the weekly risk overview or work week plan, and the announced risk for the plan of the day was green. The actual risk during the maintenance would have been yellow. This was identified prior to commencement of work by the control room supervisor.

On October 25, 2022, the licensee had planned work on the HPCS. The work as planned would have required entry into yellow risk during a specific portion of the procedure. Although this was recognized by the work planning organization, the highest risk for the day was listed as green in the licensee's plan of the day. The requirement to enter yellow risk was caught by the control room personnel prior to entering the yellow risk window.

Licensee procedure EN-WM-104, requires that the work manager include maintenance performed by the Fix-It-Now team in the daily assessment of plant risk. Licensee procedures EN-FAP-OM-022 and EN-FAP-OM-031 require the highest risk to be published in the plan of the day. The inspectors determined that the licensee did not meet the requirements of their risk management processes on multiple occasions, but in each of the documented events, inspectors did not identify any additional findings or violations.

EXIT MEETINGS AND DEBRIEFS

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

- On December 12, 2022, the inspectors presented the occupational radiation safety inspection results to Kimberly Jacobs McDuffie, Senior Manager, Radiation Protection, and other members of the licensee staff.
- On December 12, 2022, the inspectors presented the emergency preparedness exercise inspection results to Bruce Chenard, General Manager, Plant Operations, and other members of the licensee staff.
- On January 9, 2023, the inspectors presented the integrated inspection results to Bruce Chenard, General Manager, Plant Operations, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.13	Corrective Action Documents	CR-RBS-	2022-05773, 2022-05888	
	Procedures	ADM-0096	Risk Management Program Implementation and On-Line Maintenance Risk Assessment	336
		EN-OP-115-09	Maintaining the Station Narrative Log	4
		EN-OP-119	Protected Equipment Postings	16
		EN-WM-104	On Line Risk Assessment	24
Work Orders	WO	00587140, 52937911, 52944547		
71111.15	Corrective Action Documents	CR-RBS-	2022-04572	
	Engineering Changes	EC-0000022498	Updates Required to Cancel EQMSR and Assure PMs Are in Place	05/29/2010
	Miscellaneous	SDC-508	Reactor Protection System Design Criteria - System Number 508	2
	Procedures	EN-OP-104	Operability Determination Process	17
		STP-508-0201	Manual Scram Functional Test and LSFT	20
Work Orders	WO	00584551		
71111.18	Engineering Changes	EC-0000093511	Updated SPEC 245.600 to reflect the correct post-accident operability time duration provided in USAR Section 6.2.1.1.1 of 30 days instead of 100 per CR-RBS-2022-2150 CA 2	07/28/2022
71114.01	Corrective Action Documents	Condition Reports (CR-RBS-)	2020-00091, 2020-01866, 2020-04337, 2020-04825, 2021-03505, 2021-03684, 2021-03687, 2021-03688, 2021-03830, 2021-05632, 2022-00230, 2022-00340, 2022-02007, 2022-03629, 2022-03810, 2022-04455, 2022-04972, 2022-05711, 2022-05712, 2022-05741, 2022-05742, 2022-05743, 2022-05744, 2022-05857, 2022-05867, 2022-05992, 2022-06039, 2022-06138, 2022-06139, 2022-06140, 2022-06141, 2022-06142, 2022-06143, 2022-06144, 2022-06146, 2022-06177	
		Corporate Condition Reports (CR-HQN-)	2022-00080, 2022-00118	

	Miscellaneous	EP-4-ALL	Exposure Authorization Form	4
		EP-8-ALL	Potassium Iodine (KI) Instructions/Briefing Form	2
		RLP-LOR-RADRELEASE	Rad Release	0
		RSMS-OPS-RADRELEASE-DEMO	Radiological Release Demonstration	0
	Procedures	EIP-2-001	Emergency Action Level EAL Chart	30
		EIP-2-001	Classification of Emergencies	30
		EIP-2-002	Classification Actions	37
		EIP-2-006	Notifications	49
		EIP-2-007	Protective Action Recommendations	28
		EIP-2-018	Technical Support Center	39
		EIP-2-020	Emergency Operations Facility	41
		EIP-2-024	Offsite Dose Calculations	26
		EN-EP-306	Emergency Operations Facility (EOF) Operations	6
		EN-EP-306	Drills and Exercises	11
		EN-EP-308	Emergency Planning Critiques	7
		EN-EP-610	Technical Support Center Operations	6
		EN-EP-611	Operations Support Center (OSC) Operations	6
		EN-EP-801	Emergency Response Organization	18
		EN-TQ-201-05	SAT – Evaluation Phase	5
71124.01	ALARA Plans	RWP 2020-1294	RWCU Valve Maintenance	0
		RWP 2021-1295	RWCU Seal replacement Activities	1
		RWP 2021-1621	Operations STP, IST, and LLRT Activities	1
		RWP 2021-1753	RWCU Heat Exchanger Room Activities, including: Replace WCS-004-155 piping, Replace G33-MOVF044, FAC 960 and FAC 1031 Inspection, Install/Remove Temporary Shielding, Install/Remove Scaffolding, Install/Remove Temporary Power and Lighting	0

Corrective Action Documents	CR-RBS-	2020-02975, 2020-03041, 2020-04931, 2021-00445, 2021-00564, 2021-00689, 2021-00694, 2021-00922, 2021-00978, 2021-01024, 2021-01165, 2021-01246, 2021-01296, 2021-01312, 2021-01679, 2021-01725, 2021-01726, 2021-01782, 2021-01910, 2021-01994, 2021-02162, 2021-02236, 2021-02376, 2021-02909, 2021-02913, 2021-03479, 2021-06240, 2022-00635, 2022-02015, 2022-03743	
Operability Evaluations	EN-LI-102	Corrective Action Program	47
Procedures	EN-DC-341	Cobalt Reduction	6
	EN-LI-118	Causal Analysis Process	35
	EN-RP-106	Radiological Survey Documentation	08
	EN-RP-106-01	Radiological Survey Guidelines	06
	EN-RP-110	ALARA Program	14
	EN-RP-131	Air Sampling	17
	EN-RP-141	Job Coverage	10
	EN-RP-202	Personnel Monitoring	15
	EN-RP-208	Whole Body Counting/In-Vitro Bioassay	07
	EN-RP-210	Area Monitoring Program	01
Radiation Surveys	RBS-	1904-02014, 2011-00004, 2011-00007, 2011-00009, 2102-00413, 2102-00420, 2102-00481, 2102-00524, 2102-00525, 2102-00648, 2102-00662, 2102-00671, 2102-00693, 2102-00721, 2102-00726, 2102-00735, 2102-00763, 2102-00786, 2102-00803, 2102-00823, 2102-00828, 2102-00833, 2102-00848, 2102-00853, 2102-00856, 2102-00863, 2102-00865, 2102-00868, 2102-00883, 2102-00889, 2103-00025, 2103-00102, 2103-00282, 2103-00309, 2103-00477, 2103-00717	
	River Bend Station Air Sample (RBS-AS-)	011022-0012, 022321-0310, 022521-0376, 022521-0377, 022521-0380, 030821-0814, 031121-0935, 050222-0183, 060921-1258, 072622-0384, 080222-0395, 110221-0111, 110520-0131, 110520-0132, 120521-1588, 121020-0208, 121520-0237	
Radiation Work Permits (RWPs)	RWP 2022-1004	Maintenance Activities	00
	RWP 2022-1204	Maintenance - Locked High Radiation Area and High Radiation Area Activities	00
	RWP 2022-1220	Pre-Outage Activities	00

	Self-Assessments	LO-RLO-2022-00120	River Bend ALARA Planning & Controls	07/15/2022
		QA-14/15-2021-RBS-1	Combined Radiation Protection and Radwaste Audit	10/28/2021
71124.04	Calculations		Whole Body Count Evaluation Data Sheet, Attachment 9.4 for ID Numbers: 04644, 36826, 37331, 39892, 53810, 76370, 74614, and rhovar7	
		Personnel Contamination Event Record	2020-02, 2021-01, 2021-02, 2021-04, 2021-05, 2021-12, 2021-14, 2021-16, 2021-18	
	Corrective Action Documents	CR-HQN-	2020-02175, 2021-00148, 2021-01668	
		CR-RBS-	2020-01035, 2020-02454, 2020-03595, 2021-00446, 2021-01165, 2021-01246, 2021-01994, 2021-02236, 2021-02376, 2021-03303, 2021-03908, 2021-03909, 2021-04046, 2021-05758, 2021-06100, 2021-06643, 2022-01408, 2022-01968	
	Corrective Action Documents Resulting from Inspection	CR-RBS-	2022-06629, 2022-06641	
	Miscellaneous		Refuel (RF)-21 Post Outage ALARA Report	
			Multipack TLD Assignment Report: Multipack TLD with Exposure between 1/1/2020 and 10/12/2022	10/12/2022
			Fuel Failure Report: Operating Cycle 18 - Operating Cycle 21	11/14/2022
		EN-RPT-20-004R0	Entergy Neutron Monitoring	09/28/2020
		RBS-RPT-11-001R0	Passive Monitor Study	01/13/2011
		RBS-RPT-14-001-R0	Neutron Study	10/15/2014
		RBS-RPT-21-003-R0	Alpha/Plant Characterization Data	09/14/2021
		RBS-RPT-21-004-R0	Site Neutron Dose Assessment Method	09/27/2021
	Procedures	EN-RP-106	Radiological Survey Documentation	8
		EN-RP-131	Air Sampling	17
		EN-RP-203	Dose Assessment	10

		EN-RP-204	Special Monitoring Requirements	11
		EN-RP-205	Prenatal Monitoring	5
	Radiation Surveys	River Bend Station Air Sample (RBS-AS-)	011022-0012, 022321-0310, 022521-0380, 030821-0814, 031121-0935, 050222-0183, 060921-1258, 072622-0384, 080222-0395, 1120220-0111, 110520-0131, 110520-132, 120521-1588, 121020-0208, 121520-0237	
	Self-Assessments	LO-RLO-2021-00085	NIOS audit: Radiation Protection Program	08/17/2021
		RBS-RPT-20-002-R0	2019 Area Monitoring Review	05/20/2020
		RPG-M-22-003	Landauer 2022 NVLAP Scope and Certificate	01/10/2022
71151	Calculations	RSP-0008	Offsite Dose Calculation Manual	15
	Calibration Records	CHPAMDS016	AMS-4 Particulate Detector Calibration	01/21/2021
		CHPDAMS020	AMS-4 Particulate Detector Calibration	11/02/2020
	Corrective Action Documents	Condition Reports (CR-RBS-)	2021-05632	
	Corrective Action Documents Resulting from Inspection	Condition Reports (CR-RBS-)	2022-06063, 2022-06064, 2022-06176	
	Miscellaneous		River Bend Station Alert and Notification System, Siren Warning System Upgrade Project, FEMA REP-10 Design Report Addendum	0
			DEP PI Data 2021Q2 - 2022Q3	
			RCA Exit Dose Report - greater than 100 mrem transaction: October 1, 2021, through September 30, 2022	0
			Technical Requirements Manual	157
			River Bend Station Alert and Notification System, Siren Warning System Upgrade Project, FEMA REP-10 Design Report Addendum	1/4/2013
	Key ERO Member Drill Participation PI Data 2021Q2 - 2022Q3			

71151	Procedures	EN-EP-801	Emergency Response Organization	18
		EN-FAP-EP-005	Emergency Preparedness Performance Indicators	17
		EN-LI-114	Regulatory Performance Indicator Process	19
		EN-LI-114	Regulatory Performance Indicator Process	20
		EPP-2-701	Prompt Notification System Maintenance and Testing	34
		RPP-0097	Manual Method of Determining Cumulative Dose Contributions from Liquid Effluents	303
	RPP-0102	Dose Calculations from Gaseous Effluents	303	
	Work Orders	WO	52963629, 52967228, 52970884, 52980527, 52988601, 52991483, 52994309, 52994412, 52994967, 52996534, 52997289, 52998381, 52999316, 53000677, 53000091, 530002739, 530002744, 530003301, 53004352, 53004958, 53005600, 53006927, 53007969, 53007425	
71152A	Miscellaneous	RBC-34480	Letter to NRC from Grand Gulf Utilities	06/30/1986
		RBG-21378	Letter from Grand Gulf Utilities	06/24/1985