



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

November 4, 2021

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

SUBJECT: RIVER BEND STATION – INTEGRATED INSPECTION
REPORT 05000458/2021003

Dear Mr. Scott:

On September 30, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at River Bend Station. On October 5, 2021, 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. Both 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.

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 205550001; with copies to the Regional Administrator, Region IV; and the NRC Resident Inspector at River Bend Station.

From November 4, 2020, to November 4, 2021, the NRC issued four Severity Level IV traditional enforcement violations, including the one identified in the enclosed report, associated with impeding the regulatory process. These violations did not involve emergent technical issues, were not substantially related to current licensee performance, and did not have sufficient commonalities to warrant additional review under supplemental NRC inspection procedures. Therefore, the NRC has determined that these violations can be appropriately sampled using baseline inspection resources.

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 Kozal, Jason
on 11/05/21

Jason W. Kozal, Chief
Reactor Projects Branch C
Division of Reactor Projects

Docket No. 05000458
License No. NPF-47

Enclosure:
As stated

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RIVER BEND STATION – INTEGRATED INSPECTION REPORT 05000458/2021003 – DATED NOVEMBER 4, 2021

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ADAMS ACCESSION NUMBER: ML21306A220

SUNSI Review ADAMS: Non-Publicly Available Non-Sensitive Keyword:
 By: PJV Yes No Publicly Available Sensitive NRC-002

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

Docket Number: 05000458

License Number: NPF-47

Report Number: 05000458/2021003

Enterprise Identifier: I-2021-003-0130

Licensee: Entergy Operations, Inc.

Facility: River Bend Station

Location: St. Francisville, Louisiana

Inspection Dates: July 1, 2021 to September 30, 2021

Inspectors: R. Alexander, Senior Emergency Preparedness Inspector
D. Antonangeli, Health Physicist
B. Baca, Health Physicist
N. Greene, Senior Health Physicist
R. Kumana, Senior Resident Inspector
E. Simpson, Health Physicist
C. Wynar, Resident Inspector
C. Young, Senior Project Engineer

Approved By: Jason W. Kozal, Chief
Reactor Projects Branch C
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at 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 Operate the Radioactive Effluents Control Program in accordance with the Technical Requirements Manual			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Public Radiation Safety	Green NCV 05000458/2021003-01 Open/Closed	[P.3] - Resolution	71124.06
The inspectors identified a Green, non-cited violation of Technical Specification 5.5.4 for the licensee's failure to operate the Radioactive Effluents Control Program in accordance with the Technical Requirements Manual, resulting in the licensee continuing to release liquid effluent while the effluent monitor, RMS-RE-107, was inoperable for greater than 14 days.			
Failure to Provide Complete and Accurate Information in the 2020 Annual Radioactive Effluent Release Report			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000458/2021003-02 Open/Closed	Not Applicable	71124.06
The inspectors identified a Severity Level IV non-cited violation of 10 CFR 50.9(a) for the licensee providing inaccurate information to the Commission in the 2020 Annual Radioactive Effluent Release Report. Specifically, the licensee failed to identify the requirement to report the inoperability of a liquid effluent monitor, RMS-RE-107, for a period greater than 14 days, as required by their Radioactive Effluents Controls Program. In the licensee's 2020 Annual Radioactive Effluent Release Report, they inaccurately reported that the radioactive liquid effluent monitoring instrumentation was operable within requirements throughout the year.			
Recirculation Flow Control Valve Runback Due to Inadequate Procedure			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Initiating Events	Green NCV 05000458/2021003-03 Open/Closed	[H.12] - Avoid Complacency	71152
The inspectors reviewed a self-revealed, Green finding and associated non-cited violation of Technical Specification 5.4.1.A on May 15, 2021, for the licensee's failure to establish and maintain adequate procedures for restoration of an isolated condensate pump while the plant was at power. As a result of the inadequate procedures, while restoring condensate pump A, operators caused a low suction pressure trip of a reactor feedwater pump, which resulted in a recirculation flow control valve runback to 74 percent power.			

Additional Tracking Items

None.

PLANT STATUS

River Bend Station began the inspection period at rated thermal power. On August 29, 2021, the unit reduced power to 35 percent due to grid loading from Hurricane Ida. The reactor was maintained at approximately 40 percent reactor power until the unit was returned to rated thermal power on September 4, 2021. On September 5, 2021, the unit reduced power to approximately 69 percent for rod pattern adjustment. The unit was returned to rated thermal power on September 6, 2021, and remained at or near rated thermal power for the remainder of the inspection period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors 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.

Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), resident and regional inspectors were directed to begin telework and to remotely access licensee information using available technology. During this time, the resident inspectors performed periodic site visits each week, increasing the amount of time on site as local COVID-19 conditions permitted. As part of their onsite activities, resident inspectors conducted plant status activities as described in IMC 2515, Appendix D; observed risk-significant activities; and completed on site portions of IPs. In addition, resident and regional baseline inspections were evaluated to determine if all or a portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In some cases, portions of an IP were completed remotely and on site. The inspections documented below met the objectives and requirements for completion of the IP.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

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

- (1) The inspectors evaluated readiness for seasonal extreme weather conditions prior to the onset of seasonal hot temperatures for the following systems:
 - Offsite power system and circulating water system on September 24, 2021

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 due to tropical storm conditions from Hurricane Ida on August 30, 2021.

71111.04 - Equipment Alignment

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

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

- (1) Standby liquid control system on August 13, 2021
- (2) Control rod drive hydraulics system on September 8, 2021
- (3) Reactor core isolation cooling system during a Division III outage on September 27, 2021

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) Battery 1A/1B room, fire areas C18/C19, on September 9, 2021
- (2) Containment air lock, fire area AB-15/Z5, on September 13, 2021
- (3) Reactor core isolation cooling pump room, fire area AB-4, on September 21, 2021
- (4) Control room, fire area C-25, on September 27, 2021
- (5) Normal switchgear building room 1B burnout, undesignated fire area, on September 28, 2021
- (6) Diesel generator C control room, fire area DG-5/Z-1, on September 28, 2021

Fire Brigade Drill Performance Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated the onsite fire brigade training and performance during an announced fire drill on turbine building 123-foot elevation on August 24, 2021.

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) Auxiliary building 141-foot elevation

Cable Degradation (IP Section 03.02) (1 Sample)

The inspectors evaluated cable submergence protection in:

- (1) Cable vault EMH604

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 power maneuvering for Hurricane Ida on August 29, 2021.

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

- (1) The inspectors observed and evaluated a simulator evaluation with drill and exercise performance opportunity on August 31, 2021.

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) Main steam safety and relief valve automatic depressurization system air compressors on August 25, 2021
- (2) High pressure core spray system on September 8, 2021
- (3) Reactor core isolation cooling system on September 8, 2021

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (7 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 due to service water and diesel generator maintenance on July 19, 2021
- (2) Elevated risk for reactor core isolation cooling surveillance test procedures STP-209-6310, Revision 41 and STP-209-6601, Revision 301 on August 12, 2021
- (3) Elevated risk for surveillance test procedure STP-201-6310, Revision 315, "SLC Pump and Valve Operational Test," on September 8, 2021
- (4) Elevated risk due to rod 24-29 rod control and information system transponder card replacement on September 14, 2021
- (5) Elevated risk due to service water and containment unit cooler maintenance on September 15, 2021
- (6) Elevated risk due to Division III emergency diesel generator outage on September 27, 2021

- (7) Elevated risk due to Division III battery charger outage on September 27, 2021

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (6 Samples)

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

- (1) Operability of average power range monitor E on September 8, 2021 (CR-RBS-2021-05638)
- (2) Operability of 125 VDC bus ENB-SWG01A on September 20, 2021 (CR-RBS-2021-05750)
- (3) Operability of residual heat removal door time critical action on September 22, 2021 (CR-RBS-2021-04969)
- (4) Operability of turbine bypass valves analyzed with an incorrect loss coefficient for the General Electric fuel side entry orifice on September 23, 2021 (CR-RBS-2021-04506)
- (5) Operability of Division III battery charger on September 23, 2021 (CR-RBS-2021-05495)
- (6) Operability of high pressure core spray minimum flow line fitting on September 28, 2021 (CR-RBS-2021-06001)

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (2 Samples)

The inspectors evaluated the following temporary or permanent modifications:

- (1) HVR-UC5 motor replacement (EC 88864) on August 17, 2021
- (2) Standby liquid control orifice modification (EC 30980) on August 18, 2021

71111.19 - Post-Maintenance Testing

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

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

- (1) Work Order (WO) 00528641, replacement of tunnel door seals, on August 5, 2021
- (2) WO 00551917, Division I inverter ENB-INV1A, on September 16, 2021
- (3) WO 00361290, scram discharge volume trip unit replacement, on September 20, 2021
- (4) WO 00526456, air ejector modules, on September 28, 2021
- (5) WO 00548387, penetration valve leakage control system control air supply, on September 29, 2021

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Surveillance Tests (other) (IP Section 03.01) (3 Samples)

- (1) STP-309-0601, Revision 56, "Division I ECCS Test," on July 15, 2021
- (2) STP-209-6310, Revision 41, "RCIC Quarterly Pump and Valve Operability Test," and STP-209-6601, Revision 301, "RCIC Position Indication Verification Test," on August 11, 2021
- (3) STP-500-0704, Revision 303, "Rod Withdrawal Limiter Test," on September 3, 2021

Inservice Testing (IP Section 03.01) (1 Sample)

- (1) STP-109-6302, Revision 21, "MSIV Partial Stroke Operability Test," on August 28, 2021

FLEX Testing (IP Section 03.02) (1 Sample)

- (1) FPW-P4 quarterly pump run on August 24, 2021

71114.02 - Alert and Notification System Testing

Inspection Review (IP Section 02.01-02.04) (1 Sample)

- (1) The inspectors evaluated the maintenance and testing of the alert and notification system between July 1, 2019, and June 30, 2021.

71114.03 - Emergency Response Organization Staffing and Augmentation System

Inspection Review (IP Section 02.01-02.02) (1 Sample)

- (1) The inspectors evaluated the readiness of the Emergency Preparedness Organization between July 1, 2019, and June 30, 2021.

71114.04 - Emergency Action Level and Emergency Plan Changes

Inspection Review (IP Section 02.01-02.03) (1 Sample)

- (1) The inspectors evaluated the following Emergency Plan and Implementing Procedure changes not previously reviewed in the last 2 years:
 - EIP-2-024, Offsite Dose Calculations, Revision 26 (effective 04/13/2021)
 - EIP-2-023, Joint Information Center, Revision 15 (effective 05/11/2020)

The inspectors also evaluated the licensee's 10 CFR 50.54(q) emergency plan change process and practices between July 1, 2019, and June 30, 2021. This involved review of a selection of additional licensee screening and evaluation documentation. These evaluations and reviews do not constitute NRC approval.

71114.05 - Maintenance of Emergency Preparedness

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

- (1) The inspectors evaluated the maintenance of the emergency preparedness program between July 1, 2019, and June 30, 2021.

71114.06 - Drill Evaluation

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

The inspectors evaluated:

- (1) As-left simulator evaluation (Drill and Exercise Performance Opportunity) on August 3, 2021

RADIATION SAFETY

71124.05 - Radiation Monitoring Instrumentation

Calibration and Testing Program (IP Section 03.02) (15 Samples)

The inspectors evaluated the calibration and testing of the following radiation detection instruments:

- (1) AccuScan Whole Body Counting System: 96-5818 dated January 26, 2021, and FastScan Whole Body Counting System: 96-9762 dated January 27, 2021;
- (2) Canberra ARGOS-5A/B monitors: serial number 1410-184 dated April 13, 2021, serial number 1809-243 dated January 19, 2021, serial number 1812-369 dated January 20, 2021, serial number 1410-186 dated January 14, 2021;
- (3) Canberra GEM-5 monitors: serial number 1410-189 dated September 29, 2020, serial number 1410-190 dated January 20, 2021, serial number 1809-245 dated January 19, 2021;
- (4) Canberra iSOLO counter: CHP-C-012 dated February 11, 2021;
- (5) CRONOS contamination monitors: serial number 1011-060 dated September 24, 2020, serial number 1011-061 dated November 18, 2020, serial number 1809-244 dated May 4, 2021;
- (6) Eberline AMS-4 continuous air monitors: RBS06 dated October 5, 2020, RBS07 dated October 5, 2020;
- (7) Eberline BC-4 scaler counter: HP-CS-008 dated January 20, 2021, and Eberline SAC-4 scaler counters: HP-DS-048 dated May 11, 2021, HP-DS-070 dated January 12, 2021;
- (8) Eberline PM-7 portal monitors: PM7-394 dated February 23, 2021, PM7-395 dated May 20, 2021, PM7-436 dated July 14, 2020;
- (9) General Atomics radiation detectors: RMS-RE5A dated November 21, 2019, per Work Order 00534737-01, RMS-RE5B dated July 19, 2019, RMS-RE13A dated March 9, 2020, RMS-RE16A dated August 6, 2019, RMS-RE20B dated March 10, 2021, RMS-RE192 dated June 29, 2020;
- (10) General Electric radiation detector: D17-K601A dated March 11, 2020;
- (11) High Purity Germanium detectors: Detector 1 dated October 7, 2020, Detector 3 dated October 8, 2020, Detector 4 dated October 13, 2020;

- (12) Ludlum Model 9-3 meters: CHP-DR-512 dated January 18, 2021, CHP-DR-517 dated January 21, 2021;
- (13) Ludlum Model 177 meters: CHP-CR-085 dated July 7, 2021, HP-CR-115 dated March 9, 2021, CHP-CR-211 dated October 8, 2020;
- (14) MGP CPO gamma scintillation tool monitors: 89-0527 dated October 6, 2020, 11719 dated July 10, 2020; and
- (15) Mirion Telepole II meter: CHP-TEL091 dated January 6, 2021; Mirion Wide Range (WR) Telepole meters: CHP-TEL007 dated June 2, 2021, CHP-TEL034 dated November 4, 2020, CHP-TEL039 dated March 22, 2021.

Effluent Monitoring Calibration and Testing Program Sample (IP Sample 03.03) (2 Samples)

The inspectors evaluated the calibration and maintenance of the following radioactive effluent monitoring and measurement instrumentation:

- (1) Gaseous Effluent -
 - Fuel Building Ventilation Exhaust monitors: RMS-RE5A dated November 13, 2019, and associated RMS-FE5A dated May 20, 2021, and RMS-RE5B dated June 18, 2021, and associated RMS-FE5B dated May 26, 2021;
 - Main Plant Exhaust monitors: RMS-RE125 dated April 2, 2020, and RMS-RE126 dated May 7, 2020; and
 - Radwaste Exhaust monitors: RMS-RE6A dated July 13, 2020, and RMS-RE6B dated August 2, 2021.
- (2) Liquid Effluent -
 - Liquid Radwaste Effluent Line monitor: RMS-RE107 dated December 12, 2019 and
 - Cooling Tower Blowdown monitor: RMS-RE108 dated August 15, 2019.

71124.06 - Radioactive Gaseous and Liquid Effluent Treatment

Sampling and Analysis (IP Section 03.02) (4 Samples)

The inspectors evaluated effluent samples, sampling processes and compensatory samples, as available, for the following systems:

- (1) Compensatory liquid effluent samples taken according to procedure COP-0813, "Radioactive Liquid Discharge Process," between the dates of February 21, 2019, and March 24, 2019
- (2) Compensatory liquid effluent samples taken according to procedure COP-0813, "Radioactive Liquid Discharge Process," between the dates of July 19, 2019, and August 14, 2019
- (3) Compensatory liquid effluent samples taken according to procedure COP-0813, "Radioactive Liquid Discharge Process," between the dates of August 24, 2020, and September 17, 2020
- (4) Compensatory gaseous effluent samples taken according procedure COP-0046, "Sampling Gaseous Effluents via the Wide Range Gas Monitors," between the dates of September 15, 2020, and September 29, 2020

Dose Calculations (IP Section 03.03) (3 Samples)

The inspectors evaluated the following dose calculations:

- (1) Weekly Gaseous Dose Rate Calculations for October 10, 2019, to November 6, 2019
- (2) Weekly Gaseous Dose Rate Calculations for September 23, 2020, and September 30, 2020
- (3) Radioactive Liquid Effluent Batch Discharge Dose Calculations for July 7, 2020, July 13, 2020, and July 26, 2020

Abnormal Discharges (IP Section 03.04)

There were no abnormal discharges during this monitoring period.

71124.07 - Radiological Environmental Monitoring Program

Radiological Environmental Monitoring Program (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated the implementation of the licensee's radiological environmental monitoring program.

GPI Implementation (IP Section 03.03) (1 Sample)

- (1) The inspectors evaluated the licensee's implementation of the Groundwater Protection Initiative program to identify incomplete or discontinued program elements. All evaluated elements were being implemented.

71124.08 - Radioactive Solid Waste Processing & Radioactive Material Handling, Storage, & Transportation

Radioactive Material Storage (IP Section 03.01) (2 Samples)

Inspectors evaluated the licensee's performance in controlling, labeling, and securing radioactive materials in the following areas:

- (1) Various drums and dry active waste bags inside the River Bend Station Radwaste Building
- (2) Radioactive sources storage and labeling, including J. L. Shepherd Calibrator Unit, Serial Number 83CS-26, CS-137, Serial Number 10-1833; and AmBe Source, Serial Number C-179

Waste Characterization and Classification (IP Section 03.03) (3 Samples)

The inspectors evaluated the licensee's characterization and classification of radioactive wastes from the following analyses:

- (1) Dry Active Waste smear analyses from 2019 and 2021
- (2) Reactor Water Clean Up Powdex Resin analysis from 2020
- (3) Liquid Waste System, as well as the Suppression Pool Clean Up System, resin analysis from 2021

Shipping Records (IP Section 03.05) (5 Samples)

The inspectors evaluated the following non-excepted radioactive material shipments through a record review:

- (1) Shipment #2019-090, Type A LSA I, Low Power Range Monitor Cask Plug Drum, July 18, 2019
- (2) Shipment #2020-005, SCO II, Ultrasonic Fuel Cleaning Equipment, January 21, 2020
- (3) Shipment #2020-024, Type A, Reactor Water Clean Up, Liquid Radwaste System, and Suspended Solids Collection System Resin Samples, April 13, 2020
- (4) Shipment #2020-065, Type B, Reactor Water Clean Up Powdex Liner PO 665822-5, November 13, 2020
- (5) Shipment #2020-069, Type B, Reactor Water Clean Up Powdex Liner PO 665822-6, November 19, 2020

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

MS05: Safety System Functional Failures (SSFFs) Sample (IP Section 02.04) (1 Sample)

- (1) July 1, 2020 - June 30, 2021

MS09: Residual Heat Removal Systems (IP Section 02.08) (1 Sample)

- (1) July 1, 2020 - June 30, 2021

MS10: Cooling Water Support Systems (IP Section 02.09) (1 Sample)

- (1) July 1, 2020 - June 30, 2021

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

- (1) October 1, 2020 - March 31, 2021

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

- (1) October 1, 2020 - March 31, 2021

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

- (1) October 1, 2020 - March 31, 2021

71152 - Problem Identification and Resolution

Annual Follow-up of Selected Issues (IP Section 02.03) (3 Samples)

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

- (1) Reactor coolant system chemistry out of specification during refueling outage (CR-RBS-2021-01980) on August 17, 2021
- (2) Review of May 15, 2021, flow control valve runback (CR-RBS-2021-03666) on September 21, 2021
- (3) Review of corrective actions for annulus pressure control system isolation (CR-RBS-2020-04899) on September 28, 2021

INSPECTION RESULTS

Failure to Operate the Radioactive Effluents Control Program in accordance with the Technical Requirements Manual			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Public Radiation Safety	Green NCV 05000458/2021003-01 Open/Closed	[P.3] - Resolution	71124.06
<p>The inspectors identified a Green, non-cited violation of Technical Specification 5.5.4 for the licensee’s failure to operate the Radioactive Effluents Control Program in accordance with the Technical Requirements Manual, resulting in the licensee continuing to release liquid effluent while their effluent monitor, RMS-RE-107, was inoperable for greater than 14 days.</p> <p><u>Description:</u> On February 27, 2021, at 1:53pm, the effluent monitor, RMS-RE-107, was found inoperable for releases, resulting in the licensee entering Condition A of Technical Requirements Manual (TRM) Section 3.3.11.2. Condition A.1 requires the licensee to immediately suspend releases, or Condition A.2 requires the licensee to enter the condition or action referenced in Table 3.3.11.2-1 for the channel. This effluent monitor provides an alarm and automatic termination of liquid effluent releases based on calculated setpoint limits for releases.</p> <p>The licensee elected to enter Condition A.2, as stated above, which eventually led to Condition D for TRM 3.3.11.2. Condition D allowed the licensee to continue to release if prior to each release: 1) they perform a second independent set of samples and analyses per Table 3.11.1.1-1; 2) they perform a verification of release calculations and discharge line valving by a second qualified member of the technical staff; and 3) they restore the channel to operable within 14 days. The deadline to restore operability to the channel based on the date of initial discovery for inoperability was March 13, 2021, at 1:53pm. If the monitor was not restored within 14 days, then the TRM directed the licensee to enter Condition E. Condition E.1 requires the licensee to immediately suspend releases, and Condition E.2 initiates an action to explain why this inoperability was not corrected in a timely manner in the next Annual Radioactive Effluent Release Report. However, on March 15 at 5:45pm, past the 14-day mark to restore operability per Condition D.3, the licensee entered the Technical Limiting Condition for Operation (TLCO) 3.0.3 to continue to release liquid effluents under the criteria established actions in Conditions D.1 and D.2 until the effluent monitor was restored to operable status. The monitor was restored to operable status on April 2, 2021, at 7:27pm, after the completion of Work Order 557781.</p>			

Following the 14-day period of inoperability that was allowed by Condition D.3 in TRM 3.3.11.2, between the dates of February 27, 2021, and March 13, 2021, the monitor was inoperable for approximately an additional 20 days based on a return to operable status on April 2, 2021. During this period, the licensee conducted an additional 13 releases under the conditions of TLCO 3.0.3, which they inappropriately entered. TLCO 3.0.3 states that it is only to be entered when a TLCO is not met and the associated ACTIONS are not met, an associated ACTION is not provided, or if directed by the associated ACTIONS. In this case, Condition D of TRM 3.3.11.2 provided required actions and specifically addressed the associated action for inoperability of the monitor. Additionally, Conditions E.1 and E.2 provided required actions, and these conditions were not entered, as required, prior to entering TLCO 3.0.3.

Due to the continuation of liquid effluent releases under TLCO 3.0.3 while the monitor was inoperable, the monitor was unable to meet its intended function to alarm and automatically terminate liquid effluent releases during these 13 occurrences. When the inspectors discussed these actions with the licensee, the licensee stated that TLCO 3.0.3 was entered due to an urgent need to release from the liquid effluent tanks due to them being at full capacity, as well as the challenging chemistry aspects of the releases. Due to the challenging chemistry aspects, the licensee stated they chose not to engage the two alternate pathways for these releases, which were via the Condensate Storage Tank or recycling. Thus, the licensee implemented compensatory sampling and continued releasing via the river pathway. However, when the inspectors reviewed the supporting logs and data to support this position, as provided by the licensee, the inspectors did not agree that Conditions E.1 and E.2 had to be bypassed for entry into TLCO 3.0.3. Additionally, the inspectors reviewed the conditions for implementation of TLCO 3.0.3 and determined that all requirements for implementation were not met. Primarily, implementation of TLCO 3.0.3 required approval of the duty manager within 7 hours post exiting the TRM Section 3.3.11.2 and exiting TLCO 3.0.3 was required to be done without delay and in a controlled manner. In this case, the duty manager approval was not documented until 2 days post exiting TRM 3.3.11.2, Condition D.3, and TLCO 3.0.3 was not exited without delay because the associated Work Order 557781 was prioritized as level 3, and repairs to RMS-RE-107 were not completed for approximately an additional 18 days post entering TLCO 3.0.3. Thus, the inspectors determined that the licensee's documented justification was not adequate.

Corrective Actions: The licensee entered these issues into the corrective action program. The licensee immediately reviewed their TRM entry process for any gaps or deficiencies.

Corrective Action References: CR-RBS-2021-05373, CR-RBS-2021-02356, CR-RBS-2021-06083

Performance Assessment:

Performance Deficiency: The licensee failed to follow the TRM actions to immediately suspend liquid releases after RMS-RE-107 was inoperable for greater than 14 days, as required by Condition E.1 of TRM 3.3.11.2.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Plant Facilities/Equipment and Instrumentation attribute of the Public Radiation Safety cornerstone and adversely affected the cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian nuclear reactor operation. Additionally, the finding was similar to Example 6(c) in Appendix E to Inspection Manual

Chapter 0612, “Power Reactor Inspection Reports – Examples of Minor Issues.” This example states that an issue is more than minor if the effluent monitor with its alarm setpoint would have failed to perform its intended function (i.e., trip or isolation function) to prevent an effluent release in excess of the applicable Technical Specification instantaneous concentration limit for liquids. Specifically, the setpoints reviewed for this period of inoperability had no setpoints entered for these subsequent 13 releases, and thus, the monitor was not set up to perform its intended function during this period of inoperability.

Significance: The inspectors assessed the significance of the finding using Inspection Manual Chapter 0609 Appendix D, “Public Radiation Safety SDP.” The inspectors determined the finding had very low safety significance (Green) because: (1) it was associated with the Effluent Release Program; and (2) it was not a substantial failure to implement the Effluent Program (more of an isolated issue) nor did the public exposure exceed any Appendix I or 10 CFR 20.1301(e) levels.

Cross-Cutting Aspect: P.3 - Resolution: The organization takes effective corrective actions to address issues in a timely manner commensurate with their safety significance. Specifically, in this case it took the licensee 34 days to fix an issue that was required to be fixed within 14 days or immediately suspend releases.

Enforcement:

Violation: Technical Specification 5.5.4 requires, in part, that the licensee operate the Radioactive Effluents Controls Program according to actions in the Technical Requirements Manual (Section 3.3.11.2).

Contrary to the above, on March 13, 2021, the licensee failed to operate the Radioactive Effluents Control Program according to actions in the TRM when they did not enter Section 3.3.11.2, Condition E.1, after 14 days of inoperability of RMS-RE-107. Specifically, Condition E.1 required immediate suspension of releases via this pathway, which did not occur when the licensee conducted 13 liquid effluent releases following a 14-day period of inoperability and before operability of the monitor was restored. Therefore, the monitor was unable to perform its intended function to alarm and automatically terminate the release during these additional releases.

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

Failure to Provide Complete and Accurate Information in the 2020 Annual Radioactive Effluent Release Report

Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000458/2021003-02 Open/Closed	Not Applicable	71124.06

The inspectors identified a Severity Level IV non-cited violation of 10 CFR 50.9(a) for the licensee providing inaccurate information to the Commission in the 2020 Annual Radioactive Effluent Release Report (ARERR). Specifically, the licensee failed to identify the requirement to report the inoperability of a liquid effluent monitor, RMS-RE-107, for a period greater than 14 days, as required by their Radioactive Effluents Controls Program. In the licensee’s 2020

ARERR, they inaccurately reported that the radioactive liquid effluent monitoring instrumentation was operable within requirements throughout the year.

Description: Upon reviewing the operability of the liquid effluent monitor, RMS-RE-107, during the calendar year of 2020, it was found inoperable on August 24, 2020, with the licensee electing to enter Condition A.2 of the TRM, Section 3.3.11.2. This eventually led to entry into Condition D of TRM 3.3.11.2, which allowed the licensee to continue liquid effluent releases, if prior to each release 1) they perform a second independent set of samples and analyses per Table 3.11.1.1-1; 2) they perform a verification of release calculations and discharge line valving by a second qualified member of the technical staff; and 3) they restore the channel to operable within 14 days. When the required restoration period of 14 days passed, the licensee incorrectly reentered Condition A, by entering A.1, which also required them to suspend radioactive liquid effluent releases, but this resulted in the licensee missing an additional requirement to initiate an action to explain why this inoperability was not corrected in a timely manner in the next ARERR, per Condition E.2 of TRM 3.3.11.2.

Due to never entering the Condition E of TRM 3.3.11.2, a search for entering this condition (E.2) at the end of the year for reporting requirements resulted in no indication to licensee personnel who prepared the ARERR. As a result, the licensee made the following statement in the 2020 ARERR:

2.8.1 Radioactive Liquid Effluent Monitoring Instrumentation Operability

The minimum number of channels required to be OPERABLE as described in Table 3.3.11.2-1 of Technical Requirement 3.3.11.2 were, if inoperable at any time in the period January 1, 2020, through December 31, 2020, restored to operable status within the required time.

However, upon review by NRC inspectors, it was found to be inoperable for approximately 24 days from August 24, 2020, to September 17, 2020, when it was restored to operable status upon completion of Work Order 52934180. Thus, the period of September 7 to September 17, 2020, represented an additional 10 days of inoperability past the allowed 14-day restoration period, as noted in Condition D.3 of TRM 3.3.11.2.

This inaccurate information provided to the NRC in the 2020 ARERR impeded the regulatory process due to the fact it impacted the inspection scope and focus of the applicable inspection objectives within this area.

Corrective Actions: The licensee entered these issues into the corrective action program. The licensee immediately reviewed the TRM entry process for any gaps or deficiencies and assigned the Chemistry Department to review for additional corrective actions.

Corrective Action References: CR-RBS-2021-06084

Performance Assessment: The NRC determined this violation was associated with a minor performance deficiency. Specifically, based on the inspectors' review per the Significance Determination Process, the violation associated with the failure to provide complete and accurate information to the NRC did not adversely impact the Public Radiation Safety cornerstone, but did impede the regulatory process, and is being addressed via the Traditional Enforcement process.

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

Severity: This issue was determined to be a Severity Level IV violation using the NRC Enforcement Policy, dated January 15, 2020, Section 2.3.11, “Inaccurate and Incomplete Information,” and Section 6.9, “Inaccurate and Incomplete Information or Failure to Make a Required Report.” The Enforcement Policy, Section 6.9.d.1, states if a licensee fails to make a required report that, had it been submitted, would have resulted in, for instance, increasing the inspection scope of the next regularly scheduled inspection. In this case, had the correct information been reported, it would have impacted the inspection scope and focus of the next regularly scheduled inspection.

Violation: Title 10 CFR 50.9(a) states, in part, that information provided to the Commission by a licensee shall be complete and accurate in all material respects.

Contrary to the above, on April 27, 2021, information was provided to the Commission by the licensee that was not complete and accurate in all material respects. Specifically, the licensee failed to accurately report to the Commission via the 2020 ARERR that the effluent monitor RMS-RE-107 was inoperable for greater than 14 days and provided inaccurate information stating that it was operable within requirements for the annual period.

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

Recirculation Flow Control Valve Runback Due to Inadequate Procedure			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Initiating Events	Green NCV 05000458/2021003-03 Open/Closed	[H.12] - Avoid Complacency	71152
The inspectors reviewed a self-revealed Green finding and associated non-cited violation of Technical Specification 5.4.1.A on May 15, 2021, for the licensee’s failure to establish and maintain adequate procedures for restoration of an isolated condensate pump while the plant was at power. As a result of the inadequate procedures, while restoring condensate pump A, operators caused a low suction pressure trip of a reactor feedwater pump, which resulted in a recirculation flow control valve runback to 74 percent power.			
Description: On May 15, 2021, operations personnel were in the process of removing a tagout following the completion of the replacement of condensate pump A. This was done under the assumption that the system restoration methods utilized during this maintenance activity were consistent with those utilized successfully in the past during other condensate pump work. Prior to tagout removal, the operators were briefed by the field support supervisor. During the brief, the operators were given direction to slowly open valve CNM-V22 (condensate pump suction isolation valve). CNM-V22 is a 36-inch butterfly valve operated via an 8-inch handwheel. Upon the opening of valve CNM-V22, a pressure perturbation occurred that resulted in a reactor feedwater pump low suction pressure trip actuation. This pressure perturbation was sensed by all three reactor feedwater pump suction pressure instruments.			

At 0427, the main Control Room received ALARM NO. 0106, RX FW PUMPS LOW SUCTION PRESS. Operators began lowering recirculation flow. FWS-P1A, reactor feedwater pump A, tripped on low suction pressure, and an automatic recirculation flow control valve (FCV) runback occurred. The licensee entered their abnormal operating procedures when they entered the monitored region of the power-to-flow map.

The licensee conducted a barrier analysis of the event and identified two issues as the primary causal factors. The first was that Procedure SOP-0007, "Condensate System," Revision 313, did not include detailed instructions for filling and venting condensate pumps while online. The second was that an overconfidence existed among personnel due to previous successful performance of similar maintenance activities in the past.

The inspectors agreed with the licensee's conclusions that the procedure used to restore the condensate system was inadequate and that complacency existed among the operators.

Corrective Actions: The licensee recovered from the runback and restored 100 percent reactor power. The inadequate procedure was entered in the licensee's corrective action program.

Corrective Action References: CR-RBS-2021-03666

Performance Assessment:

Performance Deficiency: The inspectors determined that the failure to establish and maintain adequate procedures for restoring the A condensate pump while at power 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 Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The inspectors determined that the finding was of very low safety significance (Green) because it did not result in both a reactor scram and a loss of required mitigating equipment.

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.

Enforcement:

Violation: Technical Specification 5.4.1.a, requires, in part, that procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2. Section 4.N of Appendix A to Regulatory Guide 1.33, Revision 2, requires procedures for filling, venting, draining, startup, shutdown, and mode changes for the condensate system (hotwell to feedwater pumps). The licensee established Procedure SOP-0007, "Condensate System (SYS 104)," Revision 313, to meet the Regulatory Guide 1.33 requirement.

Contrary to the above, prior to May 15, 2021, the licensee failed to establish, implement, and maintain procedures recommended by Appendix A of Regulatory Guide 1.33, Revision 2. Specifically, the licensee did not ensure that Procedure SOP-0007 included steps for restoring an isolated condensate pump while the plant was online. As a result, the licensee relied on a tagout restoration and operator knowledge to return pump CNM-P1A to service, causing a trip of feedwater pump A and a runback from 90 percent to 74 percent reactor power.

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 July 1, 2021, the inspectors presented the emergency preparedness program inspection results to Mr. K. Scott, Site Vice President, and other members of the licensee staff.
- On August 12, 2021, the inspectors presented the radiation safety inspection results to Ms. B. Bryant, General Manager Plant Operations, and other members of the licensee staff.
- On September 29, 2021, the inspectors presented the re-exit radiation safety inspection results to Ms. B. Bryant, General Manager Plant Operations, and other members of the licensee staff.
- On October 5, 2021, the inspectors presented the integrated inspection results to Mr. K. Scott, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71114.02	Corrective Action Documents	CR-RBS-	2019-07544, 2020-01738, 2020-04788, 2021-03504	
	Corrective Action Documents Resulting from Inspection	CR-RBS-	2021-04577, 2021-04608	
	Miscellaneous		River Bend Station Alert and Notification System Siren Warning System Upgrade Project	01/04/2013
			Annual Public Information Flier Distribution Package for RBS	12/2020
Procedures	EPP-2-701	Prompt Notification System Maintenance and Testing	33, 34	
71114.03	Corrective Action Documents	CR-RBS-	2019-04682, 2019-07376, 2020-00091, 2020-01244, 2020-02695, 2020-02733, 2021-02949	
	Miscellaneous		River Bend Station On-Shift Staffing Analysis Report, Rev 1	2017
			ERO Notification Test - 4Q/2019	04/01/2020
			ERO Notification Test - 1Q/2020	04/06/2020
			ERO Notification Test - 2Q/2020	07/15/2020
			ERO Notification Test - 3Q/2020	05/03/2021
			ERO Notification Test - 4Q/2020	05/03/2021
			ERO Notification Test - 1Q/2021	06/09/2021
		ERO Notification Test - 3Q/2019	01/08/2020	
	Procedures	EIP-2-006	Notifications	48
EN-EP-310		Emergency Response Organization Notification System	10	
EPP-2-502		Emergency Communications Equipment Testing	28	
71114.04	Miscellaneous		10 CFR 50.54(Q)(3) Screening - EIP-2-023, Joint Information Center, Revision 15	04/02/2020
			10 CFR 50.54(Q)(2) Review - EIP-2-024, Offsite Dose Calculations, Revision 26	04/01/2021
	Procedures	EIP-2-023	Joint Information Center	15
		EIP-2-024	Offsite Dose Calculations	26
		EN-EP-305	Emergency Planning 10CFR50.54(q) Review Program	8

71114.05	Corrective Action Documents	CR-RBS-	2019-06736, 2020-00496, 2020-00497, 2020-01307, 2020-02352, 2020-02920, 2020-04337, 2020-04470, 2020-04825, 2020-05478, 2021-00525, 2021-01525, 2021-01535, 2021-03279, 2021-03355, 2021-03506, 2021-03687	
		WT-WTRBS-	2019-00208-CA-28, 2020-00020-CA-67, 2020-00022-CA-28, 2020-00022-CA-29	
	Corrective Action Documents Resulting from Inspection	CR-RBS-	2021-04607, 2021-04613	
	Miscellaneous		Team A-B Site Drill 10-8-19 Report	12/04/2019
			Team B and A JIC Drill Report 9-24-19 Rev. 1	02/13/2020
			Team D 11-12-19 Drill Report	12/12/2019
			Annual LOA/Contract Review Certifications for Our Lady of the Lake and West Feliciana Parish Hospitals, and Arcadian and West Feliciana Parish Ambulance Services	11/17/2020 - 12/03/2020
			ERO Team D (10-13-20) Dress Rehearsal Drill Report Rev 1	02/18/2021
			ERO Team D (3-10-20) Practice Drill Report Rev. 1	06/15/2020
			River Bend Station Emergency Plan	45, 46, 47, & 48
			Letter of Agreement between Entergy Operation, Inc. River Bend Station and West Feliciana Parish Hospital of West Feliciana Parish, Louisiana	02/01/2013
			Letter of Agreement between Entergy Operation, Inc. River Bend Station and West Feliciana Parish Ambulance Service	12/12/2013
		Letter of Agreement between Entergy Operation, Inc. River Bend Station and West Feliciana Parish Sheriff's Office	11/19/2020	
	Letter of Agreement between Entergy Operation, Inc. River Bend Station and Our Lady of the Lake Regional Medical Center of East Baton Rouge Parish, Louisiana	01/27/2003		
	Change Order No. 001 Pursuant to Agreement No. 10272707 between Entergy Operation, Inc. River Bend Station and Arcadian Ambulance Service, Inc.	02/04/2020		

		EIP-2-103, Att. 2	EP Equipment Inventories (Quarterly) for Main Control Room, EOF, TSC, and OSC	03/2021
		EIP-2-501, Att. 2	Facility Readiness Checks (Quarterly) for Control Room, EOF, TSC, and OSC	03/2021
		EP-M-19-023	Radiological Monitoring Drill (2019) Report	12/03/2019
		EP-M-20-002	2019 Onsite Medical Drill Report (12/19/2019)	01/13/2020
		EP-M-20-003	2019 Off-Hours Accountability Report	01/13/2020
		EP-M-20-010	Radiological Monitoring Drill (2020) Report	04/02/2020
		EP-M-20-040	2020 Off-Hours Accountability Report	01/20/2021
		EP-M-21-004	2020 Medical Drill Report	02/10/2021
		KLD TR – 1096	River Bend Station 2019 Population Update Analysis	09/18/2019
		KLD TR – 1112	River Bend Station Evacuation Time Estimate Sensitivity Study, Thompson Creek Bridge Lane Closures on U.S. Highway 61	10/03/2019
		KLD TR – 1184	River Bend Station 2020 Population Update Analysis	09/16/2020
		KLD TR – 523	River Bend Station Development of Evacuation Time Estimates	12/2012
		Memo 19-021	November 13, 2019 Health Physics Drill Report	02/03/2020
		Memo 20-013	April 28, 2020 Health Physics Drill	05/07/2020
		Memo 20-037	December 10, 2020 Health Physics Drill	12/21/2020
		QA-7-2020-RBS-1	Emergency Preparedness [10CFR50.54(t)]	05/21/2020
		QA-7-2021-RBS-1	Emergency Preparedness [10CFR50.54(t)]	05/10/2021
	Procedures	EIP-2-007	Protective Action Recommendation Guidelines	28
		EIP-2-018	Technical Support Center	38
		EIP-2-020	Emergency Operations Facility	41
		EIP-2-022	Alternate EOF - Activation and Transfer of Functions	33
		EN-EP-610	Technical Support Center (TSC) Operations	5
		EPP-2-503	River Bend Station Equipment Important to Emergency Response (EITER)	5
	Self-Assessments	LO-RLO-2019-0030	2020 Pre-NRC Evaluated Exercise Assessment	
		LO-RLO-2019-0077	2021 Pre-NRC Emergency Planning Program Inspection Assessment	03/04/2021

Calibration Records	SRC1993001	Source Verification - Reference Point Verification Data Sheets: Model-89 (400)	12/23/2021	
	SRC1993003	Source Verification - Reference Point Verification Data Sheets: Model-89 (400)	10/21/2021	
	WO 52757184-01	RMS-Primary Containment Purge Isolation Radiation-High Activity Monitor, Channel Calibration Test and Logic System Functional Test (RMS-RE21A)	02/19/2019	
	WO 529297-01	DRMS Liquid Radiation Monitor Calibration: RMS-RE108	08/15/2019	
	Corrective Action Documents	CR-RBS-	2019-04695, 2019-04740, 2019-04909, 2019-05199, 2019-05905, 2019-06145, 2019-06334, 2019-06826, 2019-07019, 2019-07058, 2019-07247, 2019-07312, 2019-07493, 2019-07726, 2019-07738, 2020-00549, 2020-00611, 2020-00648, 2020-00721, 2020-01100, 2020-01263, 2020-01670, 2020-01808, 2020-02354, 2020-02728, 2020-03184, 2020-03190, 2020-03280, 2020-03554, 2020-04093, 2020-04366, 2020-04480, 2020-05212, 2020-05390, 2020-05475, 2021-00148, 2021-00325, 2021-00482, 2021-00668, 2021-00719, 2021-00744, 2021-00794, 2021-01523, 2021-02394, 2021-02642, 2021-02674, 2021-02766, 2021-02857, 2021-03822, 2021-04477, 2021-04549, 2021-04854, 2021-04897, 2021-05571	
	Miscellaneous		RMS Health Report - 24 Months	08/05/2021
	Procedures	EIP-2-001	Classification of Emergencies	30
		EN-DC-324	Preventative Maintenance Program	25
		MCP-4205	DRMS Liquid Radiation Monitor Calibration	8
		RHP-0106	Calibration of the Canberra Fastscan and Accuscan II Whole Body Counters	4
STP-257-4207		RMS-Primary Containment Purge Isolation Radiation-High Activity Monitor, Channel Calibration Test and Logic System Functional Test (RMS-RE21A)	305	
STP-511-4205		SCIS/RMS Fuel Building Ventilation Exhaust Radiation High Channel Calibration RMS-RE5A	13	
STP-511-4206		SCIS/RMS Fuel Building Ventilation Exhaust Radiation High Channel Calibration RMS-RE5B	304	
STP-511-4216		RMS-Radwaste Building Ventilation Exhaust Duct Noble Gas Activity Monitor Channel Calibration RMS-RE6A	13	

	Procedures	STP-511-4217	RMS-Radwaste Building Ventilation Exhaust Duct Noble Gas Activity Monitor Channel Calibration RMS-RE6B	303	
		STP-511-4233	Fuel Building Exhaust Duct Monitoring System Flow Rate Monitor Channel Calibration RMS-FE5A	303	
		STP-511-4234	Fuel Building Exhaust Duct Monitoring System Flow Rate Monitor Channel Calibration RMS-FE5B	304	
		STP-511-4280	RMS-Liquid Radwaste Effluent Line Radiation Monitor Channel Calibration RMS-RE107	304	
	Self-Assessments	LO-RLO-2020-00018	RP Pre-NRC Focused Self-Assessment Plan: IP 71124.05 – Radiation Monitoring Instrumentation, IP 71124.08 – Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation, and IP 71152 - Problem Identification and Resolution	02/16/2021	
	QA-14/15-2019-RBS-1	Combined Radiation Protection and Radwaste	10/28/2019		
71124.06	Corrective Action Documents	CR-RBS-	2019-02258, 2019-02475, 2019-03633, 2019-05905, 2019-07213, 2019- 07247, 2019-07346, 2020-00286, 2020-00543, 2020-05390, 2021- 02356, 2021-02394, 2021-02546, 2021-02586, 2021-02710, 2021-04318, 2021-05373		
	Corrective Action Documents Resulting from Inspection	CR-RBS-	2021-06083, 2021-06084		
	Miscellaneous			River Bend Station- Technical Requirements Manual	115
		L-20190313-021-B		Non-Routine Radioactive Liquid Effluent Discharge	03/13/2019
		L-20200710-097-B		Radioactive Liquid Effluent Discharge	07/10/2020
		L-20200712-101-B		Radioactive Liquid Effluent Discharge	07/13/2020
		L-20200725-110-B		Radioactive Liquid Effluent Discharge	07/26/2020
		LCOTR #1-TS2-20-RMS-RE107-022		Technical Requirements Manual entry for RMS-RE107	08/24/2020

Miscellaneous	LCOTR #1-TS2-21-RMS-RE-107-002	Technical Requirements Manual entry for RMS-RE107	02/27/2021	
	lws-bd-201903	March 2019- Radioactive liquid effluent discharges from L-20190301-015-B to L-20190330-031-B	03/2019	
	lws-bd-201907	July 2019- Radioactive liquid effluent discharges from L-20190702-098-B to L-20190731-126-B	07/2019	
	lws-bd-201908	August 2019- Radioactive liquid effluent discharges from L-20190803-127-B to L-20190831-158-B	08/2019	
	lws-bd-202008	August 2020 - Radioactive liquid effluent discharges from L-20200801-120-B to L-20200831-142-B	08/2020	
	lws-bd-202009	September 2020- Radioactive liquid effluent discharges from L-20200904-143-B to L-20200930-162-B	09/2020	
	lws-bd-202103	March 2021- Radioactive liquid effluent discharges from L-20210301-024-B to L-20210328-043-B	03/2021	
	RBG-48013	Annual Radioactive Effluent Release Report	2019	
	RBG-48081	Annual Radioactive Effluent Release Report	2020	
	Procedures	ADM-0054	Radioactive Liquid Effluent Batch Discharge	6A
		COP-0001	Sampling via Various Balance of Plant Systems	24
		COP-0046	Sampling Gaseous Effluents via the Wide Range Gas Monitors	16
		COP-0050	Grab Sampling Gaseous Streams	15
		COP-0813	Radioactive Liquid Discharge Permit Process	4
		CSP-0110	Radioactive Liquid Effluent Batch Discharge	22
		EN-CY-108	Monitoring of Non-radioactive Systems	7
		EN-CY-110	Chemistry Gamma Spectroscopy System Operation	4
		EN-CY-110-1	Apex-Gamma Counting Operations	1
		RHP-0032	Dose Rate Calculation from Gaseous Effluents	11
		RHP-0036	40CFR190 Dose Determinations	303
RPP-0027		Gaseous Effluents Monitor Setpoint Determination	3A	
RPP-0097		Manual Method of Determining Cumulative Dose Contributions from Liquid Effluents	303	
RPP-0102	Dose Calculations from Gaseous Effluents	303		
RSP-0008	Offsite Dose Calculation Manual (ODCM)	15		

		SOP-0113	Liquid Radwaste Processing/Recovery Sample Tank System (SYS #603)	32
		STP-511-4850	RMS Liquid Radwaste Effluent Line Radiation Monitor Channel Function Test RMS-RE107	11
	Self-Assessments	LO-RLO-2020-00018	Pre-NRC Self-Assessment: Radioactive Gaseous and Liquid Effluent Treatment IP71124.06 & Radioactive Environmental Monitoring Program IP 71124.07	05/05/2021
	Work Orders	WO 00557781	FIN/RMS-RE107 failing to control from digital remote monitoring (DRM) console - Troubleshooting/Fix	04/15/2021
		WO 52878193	Completion of the Land Use Census	05/10/2021
		WO 52903659	Dose rate calculation from gaseous effluent	10/17/2019
		WO 52904495	Dose rate calculation from gaseous effluents	10/24/2019
		WO 52905349	Dose rate calculation from gaseous effluent	10/31/2019
		WO 52905599	Dose rate calculation from gaseous effluent	11/06/2019
		WO 52934180	Performance of STP-511-4580, Liquid Radwaste Effluent Line Radiation Monitor RMS-RE107 Functional Test	09/17/2020
		WO 52945819	Dose rate calculation from gaseous effluents	09/23/2020
		WO 52946113	Dose rate calculation from gaseous effluent	09/30/2020
71124.07		Calibration Records	FO1900592	Digital Air Sampler Record: Serial # 26088
	FO1900592		Digital Air Sampler Record: Serial # 26090	08/06/2019
	FO1900865		Digital Air Sampler Record: Serial # 26086	11/11/2019
	FO1900999		Digital Air Sampler Record: Serial # 26089	01/13/2020
	FO2000553		Digital Air Sampler Record: Serial # 26090	08/10/2020
	FO2000635		Digital Air Sampler Record: Serial # 26089	09/16/2020
	FO2000635		Digital Air Sampler Record: Serial # 26088	09/16/2020
	FO2100376		Digital Air Sampler Record: Serial # 26086	05/20/2021
	Corrective Action Documents	CR-RBS-	2019-05614, 2019-05635, 2019-08035, 2020-02081, 2020-04496, 2020-04497, 2020-04842, 2020-04901, 2020-09005, 2021-00066, 2021-00210, 2021-00252, 2021-00293, 2021-00457, 2021-00672, 2021-02004, 2021-02927, 2021-03279, 2021-03827, 2021-03840	
	Corrective Action Documents Resulting from Inspection	CR-RBS-	2021-05318	
	Engineering	EC 41004	Temporary Equipment and Process Required to Pump and	0

	Changes		Store Ground Water from Well # MW-125	
	Engineering Evaluations	RBS-CS-19-00004	5.23 - Meteorological Tower Maintenance and Structural Inspection	09/17/2019
	Miscellaneous		IC and Met Tower Qualifications	08/09/2021
			River Bend Station USAR - Chapter 12	27
			Environmental Dosimetry Company: 2020 Annual Quality Assurance Status Report	03/22/2021
			River Bend Groundwater Protection Program Tritium Mitigation Project Presentation	08/2019
		20210511	RBS Tritium Plume Map - 2Q21	07/14/2021
		FTN 06045-0030-002	RBS Groundwater Protection Program Second Quarter 2021 Results Comments	07/30/2021
		FTN R06045-0030-021	2020 Land Use Census Report	11/20/2020
		RBG-48016	RBS Annual Radiological Environmental Operating Report	2019
		RBG-48082	RBS Annual Radiological Environmental Operating Report	2020
	Procedures	EN-CY-102-01	Quality Control for Analytical Laboratory Interlab and Intralab Cross-Check Programs	2
		EN-CY-108	Monitoring of Non-Radioactive Systems	7
		EN-CY-111	Radiological Groundwater Protection Program	11
		EN-CY-127	Land Use Census	2
		EN-CY-130	Radiological Environmental Monitoring Program	0
		EN-CY-132	Annual Radiological Environmental Operating Report	0
		RSP-0008	OFFSITE DOSE CALCULATION MANUAL (ODCM)	15
	Self-Assessments	LO-RLO-2020-00018	Pre-NRC Self-Assessment: Radioactive Environmental Monitoring Program IP 71124.07	05/05/2021
	Work Orders	WO 00485598	Epoxy Coat Floor at Turbine Building 59' and 67' Elevations at Heater Bays	05/03/2019
		WO 00504120	De-Term and Re-Term Fiber Optic Cables at the Met Tower	12/12/2018
		WO 52927966	Report Results of Interlaboratory Comparison - REMP-22	05/10/2021

71124.08	Corrective Action Documents	CR-RBS-	2019-04730, 2019-04732, 2019-04734, 2019-04035, 2019-04815, 2019-04823, 2019-04988, 2019-05485, 2019-06208, 2019-06245, 2019-06260, 2019-06392, 2019-06454, 2019-06542, 2019-06545, 2019-06606, 2019-07163, 2019-07409, 2019-07769, 2020-00518, 2020-05379, 2021-03837, 2021-03983, 2021-04520, 2021-04722, 2021-05020, 2021-05029, 2021-05067, 2021-05126	
		WT-WTRBS-2020-00028	Corrective Action	04/27/2020
	Corrective Action Documents Resulting from Inspection	CR-RBS-	2021-05320	
	Fire Plans		Security 2021 Cycle 2 Training	
	Miscellaneous		River Bend Station Part 37 Security Plan for the Protection of Category 1 and Category 2 Quantities of Radioactive Material	1
			Cumulative History Training Report	N/A
			Security 2020 Cycle 2 Training	
			Security 2021 Cycle 1 Training	
		EN-RP-121, Attachment 5	Radioactive Material Category 1 and 2 Accountability	11/19/2020
		EN-RP-121, Attachment 5	Radioactive Material Category 1 and 2 Accountability	12/07/2020
		EN-RP-121, Attachment 5	Radioactive Material Category 1 and 2 Accountability	07/01/2021
		EN-RP-121, Attachment 5	Radioactive Material Category 1 and 2 Accountability	08/02/2021
		FCBT-RPI-10CFR37	10CFR37, Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material	4
		RCBT-SEC-PART37	10 CFR Part 37 Training	0
	Procedures	EN-RP-121	Radioactive Material Control	17
		EN-RP-143	Source Control	14
		EN-RW-101	Radioactive Waste Management	3
		EN-RW-102	Radioactive Shipping Procedure	19

		EN-RW-103	Radioactive Waste Tracking Procedure	4
		EN-RW-104	Scaling Factors	14
		EN-RW-106	Integrated Transportation Security Plan	7
		RN-RW-105	Process Control Program	5
	Radiation Surveys	RBS-	S&W Warehouse	12/16/2020
		RBS-2103-01055	Low Level Radioactive Waste Storage Facility	03/30/2021
		RBS-2106-00158	Main Warehouse	06/16/2021
		RBS-2107-00081	OS Inside The Protected Area	07/08/2021
	Shipping Records	2019	Radioactive Shipping Log	12/31/2019
		2020	Radioactive Shipping Log	12/31/2020
		2021	Radioactive Shipping Log	08/01/2021
		Shipment #2019-090	Type A LSA-I, Low Power Range Monitor Cask Plug Drum	07/18/2019
		Shipment #2020-005	SCO II, Ultrasonic Fuel Cleaning Equipment	01/21/2020
		Shipment #2020-024	Type A, Reactor Water Clean Up, Liquid Radwaste System, and Suspended Solids Collection System Resin Samples	04/13/2020
Shipment #2020-065		Type B, Reactor Water Clean Up Powdex Liner PO 665822-5	11/13/2020	
Shipment #2020-069		Type B, Reactor Water Clean Up Powdex Liner PO 665822-6	11/19/2020	
Shipment #2021-011		LSA-II, Mixed Bed Ion-Exchange Media	02/10/2021	
71151		Corrective Action Documents Resulting from Inspection	CR-RBS-	2021-04606, 2021-04609
	Miscellaneous		NRC PI Technique Data Sheet - ERO Performance PI (4Q/2020)	01/13/2021
			Siren Audible Activation Tests - ANS PI Test Results	10/07/2020, 11/04/2020, 12/02/2020, 02/03/2021

			Siren Silent Activation Tests - ANS PI Test Results	10/22/2020, 11/12/2020, 11/18/2020, 12/09/2020, 02/10/2021, 03/10/2021
			Ops DEP Data Collection Form for Scenario RSES-OPS-814-07	10/1/2020
			DEP PI Summary - EOF Drill (Team B), Scenario RDRL-EP-FD02	12/10/2020
			DEP PI Summary - EOF Drill (Team A), Scenario RDRL-EP-FD02	12/16/2020
			DEP PI Summary - EOF Drill (Team B), Scenario RDRL-EP-FD07	03/30/2021
			DEP PI Summary - EOF Drill (Team A), Scenario RDRL-EP-FD07	03/30/2021
			NRC PI Technique Data Sheet - ERO Performance PI (1Q/2021)	04/08/2021
		RDRL-EP-FD07	Scenario Messages for EOF Focused Drills	03/30/2021
71152	Corrective Action Documents	CR-RBS-	2021-03666	
	Procedures	SOP-0007	Condensate System (SYS 104)	314