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

October 31, 2019

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

SUBJECT: RIVER BEND STATION – INTEGRATED INSPECTION REPORT 05000458/2019003

Dear Mr. Vercelli:

On September 30, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at River Bend Station. On October 9, 2019, the NRC inspectors discussed the results of this inspection with Mr. Bruce Chenard, Director, Engineering, and other members of your staff. The results of this inspection are documented in the enclosed report.

Four findings of very low safety significance (Green) are documented in this report. Three of these 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.

A licensee-identified violation which was determined to be of very low safety significance is documented in this report. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

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

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

Sincerely,

/RA/

Christopher W. Newport, Acting Chief
Reactor Projects Branch C
Division of Reactor Projects

Docket No. 05000458
License No. NPF-47

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

SUBJECT: RIVER BEND STATION – INTEGRATED INSPECTION REPORT 05000458/2019003 – October 31, 2019

DISTRIBUTION:
SMorris, RA
MShaffer, DRA
AVegel, DRP
TInverso, DRP
RLantz, DRS
GMiller, DRS
DCylkowski, RC
JQuichocho, RIV/OEDO
VDricks, ORA
JWeil, OCA
MO'Banion, NRR
AMoreno, RIV/OCA
BMaier, RSLO
RAzua, IPAT
CNewport, DRP
CYoung, DRP
DProulx, DRP
LFlores, DRP
RKumana, DRP
BParks, DRP
LDay, DRP
PJayroe, IPAT
MHerrera, DRMA
R4Enforcement
ROP Reports

DOCUMENT NAME: RBS2019003-RP-RJK
ADAMS ACCESSION NUMBER: ML19305A694

☒ SUNSI Review			☒ Non-Sensitive ☐ Sensitive		☒ Publicly Available ☐ Non-Publicly Available	
OFFICE	SRI:DRP/C	RI:DRP/C	C:DRS/EB1	C:DRS/EB2	C:DRS/OB	C:DRS/RCB
NAME	RKumana *RK*	BParks *BP*	VGaddy, *VGG*	NTaylor *NHT*	GWerner *GEW*	MHaire *MSH*
DATE	10/30/2019	10/30/2019	10/29/19	10/29/19	10/29/2019	10/29/19
OFFICE	ATL:DRS:IPAT	C:DNMS/RxIB	SPE:DRP/C	AC:DRP/C		
NAME	RAzua ***RVA***	GWarnick *GW*	DProulx:*DLP*	CNewport		
DATE	10/29/2019	10/29/2019	10/22/19	10/31/2019		

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number:	05000458
License Number:	NPF-47
Report Number:	05000458/2019003
Enterprise Identifier:	I-2019-003-0009
Licensee:	Entergy Operations, Inc.
Facility:	River Bend Station
Location:	St. Francisville, Louisiana
Inspection Dates:	July 1, 2019 to September 30, 2019
Inspectors:	B. Baca, Health Physicist L. Carson, Senior Health Physicist P. Elkmann, Senior Emergency Preparedness Inspector N. Greene, Senior Health Physicist R. Kumana, Senior Resident Inspector J. O'Donnell, Health Physicist B. Parks, Resident Inspector
Approved By:	Christopher W. Newport, Acting 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. A licensee-identified non-cited violation is documented in report section 71111.05Q.

List of Findings and Violations

Failure to Maintain Ability of a Fire Door to Close			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000458/2019003-01 Open/Closed	[H.5] - Work Management	71111.05Q
The inspectors identified a Green non-cited violation of Facility Operating License, Section C(10), when the licensee failed to implement the fire protection program. Specifically, the licensee degraded a fire barrier by obstructing a fire door without implementing adequate compensatory measures. The licensee entered this issue into their corrective action program as CR-RBS-2019-05128.			

Failure to Preventively Maintain Circuit Component in Unmonitored System Leads to Inoperability of Containment Unit Cooler			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000458/2019003-02 Open/Closed	None (NPP)	71111.12
A self-revealed Green non-cited violation of 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," was identified when the licensee failed to monitor the condition of a safety-related component whose condition was not being controlled through the performance of appropriate preventive maintenance (PM). Specifically, the licensee failed to monitor the condition of the Division II containment unit cooler even though the condition of a critical relay in the control circuitry for the cooler was not being preventively maintained. Consequently, the relay was left to fail in place on two separate occasions, rendering the cooler incapable of performing its specified safety function of automatically starting on a loss-of-coolant accident. The licensee entered this issue into their corrective action program as CR-RBS-2019-05416.			

Failure to Follow the Corrective Action Process Procedure			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Initiating Events	Green FIN 05000458/2019003-04 Open/Closed	None (NPP)	71153
A self-revealed Green finding was identified when the licensee failed to follow the requirements of Entergy Nuclear Procedure EN-LI-102, "Corrective Action Process," Revision 19. Specifically, station personnel failed to issue appropriate corrective actions to			

preclude repetition (CAPRs) for a 2012 failure of turbine control valve 3, a Category A condition. The failure to issue appropriate CAPRs led to a repeat failure of the turbine control valve 3 on November 10, 2018, which resulted in a reactor scram. The licensee entered this issue into their corrective action program as CR-RBS-2018-06018.

Inadequate Design Change Leads to Division III Undervoltage Relay Setpoints Drifting Outside of Technical Specification Allowable Values			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000458/2019003-05 Open/Closed	[H.3] - Change Management	71153
A self-revealed Green non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," was identified when the licensee failed to establish measures to assure that the design basis is correctly translated into plant specifications. Specifically, after determining that existing technical specification allowable values for Division III undervoltage relays were insufficient to maintain the operability of safety-related equipment in a design basis grid transient, and after receiving approval for a license amendment to change those values, the licensee continued to use relays with measured drift tendencies that exceeded the values. Consequently, the Division III electrical bus was rendered inoperable. The licensee entered this issue into their corrective action program as CR-RBS-2019-05709.			

Failure to Notify the NRC of a Valid Actuation of a Specified System			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000458/2019003-03 Open/Closed	Not Applicable	71153
The inspectors identified a Severity Level IV non-cited violation of 10 CFR 50.72(b)(3) when the licensee failed to report a valid reactor protection system actuation. Following an unplanned manual reactor scram and actuation of reactor core isolation cooling on May 31, 2019, the licensee was unable to maintain level control and received a subsequent actuation of the reactor protection system on June 1, 2019. The licensee reported the manual reactor scram, but failed to report the additional actuations of the specified systems. The licensee entered this issue into their corrective action program as CR-RBS-2019-03961.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000458/2018-010-00	Reactor Scram due to Turbine Control Valve Failure	71153	Closed
LER	05000458/2018-011-00	Condition Prohibited by Technical Specifications due to Inadequate Design Change of Under Voltage Relay Trip Set Point Range	71153	Closed

PLANT STATUS

River Bend Station began the inspection period at rated thermal power. On August 2, 2019, the unit was down powered to 61 percent to conduct a control rod sequence exchange. The unit was returned to rated thermal power on August 3, 2019. The unit remained at rated thermal power for the remainder of the inspection period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met, consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed plant status activities described in IMC 2515, Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

Impending Severe Weather Sample (IP Section 03.03) (1 Sample)

(1) The inspectors evaluated readiness for impending adverse weather conditions in advance of Hurricane Barry on July 12, 2019.

71111.04Q - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (2 Samples)

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

(1) Division I control building chillers HVK-CHL1A and HVK-CHL1C on August 22, 2019
(2) Division I standby switchgear on September 17, 2019

71111.04S - Equipment Alignment

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

(1) The inspectors evaluated system configurations during a complete walkdown of the standby service water system on September 26, 2019.

71111.05Q - Fire Protection

Quarterly Inspection (IP Section 03.01) (4 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas:

(1) Reactor core isolation cooling pump room, fire area AB-4, on July 11, 2019
(2) Control building chilled water system chiller 1A room, fire area C-13W, on July 25, 2019
(3) Water chiller equipment 1B room, fire area C-13E, on August 22, 2019
(4) Standby switchgear 1A room, fire area C-15, on September 17, 2019

71111.06 - Flood Protection Measures

Inspection Activities - Internal Flooding (IP Section 02.02a.) (1 Sample)

The inspectors evaluated internal flooding mitigation protections in the:

(1) Residual heat removal pump C room and the reactor core isolation cooling pump room on September 29, 2019

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

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

(1) The inspectors observed and evaluated licensed operator requalification training on July 23, 2019.

71111.12 - Maintenance Effectiveness

Routine Maintenance Effectiveness Inspection (IP Section 02.01) (3 Samples)

The inspectors evaluated the effectiveness of routine maintenance activities associated with the following equipment and/or safety significant functions:

(1) Functional failure review of Division II containment unit cooler on September 9, 2019
(2) Functional failure review of standby service water system on September 27, 2019
(3) Review of a(1) corrective actions for main turbine system on September 30, 2019

71111.13 - Maintenance Risk Assessments and Emergent Work Control

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

The inspectors evaluated the risk assessments for the following planned and emergent work activities:

(1) Yellow risk during surveillance testing of Division II emergency diesel generator on July 22, 2019
(2) Yellow risk during maintenance on reactor core isolation cooling system on August 15, 2019

(3) Elevated risk due to containment unit cooler 6 out of service on September 4, 2019

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 02.02) (5 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

(1) Gaitronics system inaudibility during merged operation on August 2, 2019 (CR-RBS-2019-04601)
(2) Offsite power circuit after system operations center determined that grid voltages were briefly below River Bend Station post-trip voltage limits on August 8, 2019 (CR-RBS-2019-05192)
(3) Postaccident monitoring instrument for suppression pool level, CMS-LT23A, after failed surveillance testing on September 19, 2019 (CR-RBS-2019-05442)
(4) Reactor coolant system leakage detection instrument with blocked floor drain on September 26, 2019 (CR-RBS-2019-02961)
(5) Fuel building exhaust radiation detection instrumentation, review of calibration frequency, on September 30, 2019 (CR-RBS-2019-05199)

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 permanent modification:

(1) Control building chiller system to eliminate a single failure vulnerability associated with the automatic start feature on August 15, 2019

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (3 Samples)

The inspectors evaluated the following post-maintenance tests:

(1) Work Order 00524648-01 following troubleshooting of intermediate range monitor C on July 9, 2019
(2) Work Order 00501568 following oil change on reactor core isolation cooling line fill pump on August 20, 2019
(3) Work Order 00530509 following replacement of Division III battery charger on September 5, 2019

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Surveillance Tests (other) (IP Section 03.01) (2 Samples)

(1) STP-552-4202, Revision 303, “Post Accident Monitoring /Remote Shutdown Systems - Suppression Pool Water Level Channel Calibration (CMS-LT23B, CMS-ESX23B, CMS-LI23B, CMS-TR40B, CMS-LIX23B),” on July 23, 2019
(2) STP-309-0201, Revision 63, “Division I Diesel Generator Operability Test,” on August 8, 2019

71114.02 - Alert and Notification System Testing

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

(1) The inspectors evaluated the licensee's program for maintaining and testing the alert and notification system using the current FEMA-approved alert and notification system design report. The inspectors observed a test of the alert and notification system conducted on July 23, 2019.

71114.03 - Emergency Response Organization Staffing and Augmentation System

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

(1) The inspectors evaluated the licensee's methods for staffing the Emergency Preparedness Organization and reviewed surveillance records to determine whether the licensee was capable of staffing their emergency response facilities in accordance with the commitments of their Emergency Plan.

71114.05 - Maintenance of Emergency Preparedness

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

(1) The inspectors evaluated the licensee's programs for maintaining their emergency preparedness program.

71114.06 - Drill Evaluation

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

The inspectors evaluated:

(1) Simulator-based licensed operator requalification training evolution on July 23, 2019

RADIATION SAFETY

71124.05 - Radiation Monitoring Instrumentation

Walk Downs and Observations (IP Section 02.01) (1 Sample)

(1) The inspectors evaluated radiation monitoring instrumentation during plant walkdowns, calibrations, and source checks for the following:

Portable Survey Instruments

- RAM GAM-1 (CHP-DR-027 and CHP-DR-053)
- Telepole II (CHP-TEL035, CHP-TEL091 and CHP-TEL093)
- ASP-1 Frisker (CHP-MF-033)
- BC-4 (HP-CS-003)
- SAC-4 (HP-DS-033 and 11048)
- LM-177 (CHP-CR-166 and CHP-CR-175)
- Lulum 9-3 (CHP-DR-200, CHP-DR-381, and CHP-DR-530)
- RAM ION Digilog (CHP-DR-200)
- Air Sampler Pumps (0148, 0506, 4506, and 11108)

Source Check Demonstration

- Chronos 4 (1011-060)
- MGP Small Tool Monitor (89-0527)
- Agros 5AB (1410-186)
- PM-7 (394 and 395)
- AMS4 (CHP-AMSD-0214)

Area Radiation Monitors and Continuous Air Monitors

- RE-139 Fuel Building Transfer Tube/Canal
- RE-146 Reactor Building Airlock
- RE-181 Radwaste Sample Room
- RE-186 Radwaste Floor Drain
- RE-193 Refuel Platform
- RE-196 Fuel Building Equipment Sump
- AMS4 (CHP-AMSD-0214)

Personnel Contamination Monitors, Portal Monitors, and Small Article Monitors

- Chronos 4 (1011-060 and 1412-364)
- Gem 5 (14110-188 and 1410-189)
- PM-7 (394 and 395)

Calibration and Testing Program (IP Section 02.02) (1 Sample)

The inspectors evaluated the calibration and testing program implementation.

(1) The inspectors reviewed the following:

Alarm Setpoint and Calibration Method Check of Personnel Contamination Monitors, Portal Monitors and Small Article Monitors

- Chronos 4 (1412-364)
- Agros (1410-186)
- PM7 (394 and 395)

Failure to Meet Calibration or Source Check Acceptance Criteria

The inspectors observed during walk downs and reviewed corrective action documents and log book records, since the last inspection, for instruments failing to meet the source check acceptance criteria per procedures and for instruments which failed to be calibrated. The inspectors did not identify an instrument which failed to be calibrated since the last inspection. The inspectors reviewed records for the following instruments failing the source check criteria: small tool monitor (89-0527), GEM 5 (1410-190), and Argos (1410-185). The inspectors observed a source check on the small tool monitor (89-0527) which failed the source check acceptance criteria. The instrument was taken out of service until adjustments were made per procedure to bring the monitor back into the acceptance criteria range. The monitor passed the second performance of the source check process.

71124.06 - Radioactive Gaseous and Liquid Effluent Treatment

Walk Downs and Observations (IP Section 02.01) (1 Sample)

(1) The inspectors walked down the following gaseous and liquid radioactive effluent monitoring and filtered ventilation systems to assess the material condition and verify proper alignment according to plant design:

- Liquid Radwaste Effluent Discharge System
- Cooling Tower Blowdown Line System
- Temporary Above-Ground Liquid Waste System
- Radwaste Building Ventilation Exhaust System
- Fuel Building Ventilation Exhaust System

Calibration and Testing Program (Process & Effluent Monitors) (IP Section 02.02) (1 Sample)

(1) The inspectors reviewed the following liquid effluent monitor instrument calibrations and tests:

- WO 52667744, RMS-RE5A, Fuel Building Ventilation Exhaust Radiation Monitor
- WO 52706487, RMS-RE6A, Radwaste Building Ventilation Exhaust Radiation Monitor

- WO 52644521, RMS-RE125, Main Plant Exhaust Duct Radiation Monitor
- WO 52684743, RMS-RE107, Liquid Radwaste Effluent Discharge Radiation Monitor

Sampling and Analysis (IP Section 02.03) (1 Sample)

(1) The inspectors reviewed the following radioactive effluent sampling and analysis activities:

- Sampling particulate and charcoal for gaseous effluents of RMS-RE6A, Radwaste Building Ventilation Exhaust
- Sampling Tritium for gaseous effluents of RMS-RE5A, Fuel Building Ventilation Exhaust

The inspectors reviewed the following liquid effluent discharges via the following permits:

- L-20170815-152B
- L-20170925-201B
- L-20170927-202B
- L-20180509-052B
- L-20180831-134B
- L-20190111-003B

There were no gaseous effluent discharge permits available for review because the licensee utilizes a continuous gaseous discharge process.

Instrumentation and Equipment (IP Section 02.04) (1 Sample)

(1) The inspectors reviewed the following radioactive effluent discharge system surveillance test results:

- WO-RBS-52724879, 05/16/2018
- WO-RBS-52736644, 01/03/2019
- WO-RBS-52736646, 06/10/2019
- WO-RBS-52771768, 09/14/2017
- WO-RBS-52822872, 06/05/2019
- WO-RBS-52825650, 06/12/2019

Dose Calculations (IP Section 02.05) (1 Sample)

(1) The inspectors reviewed the following liquid discharge permits to evaluate public dose calculations:

- L-20170815-152B
- L-20170925-201B
- L-20170927-202B
- L-20180509-052B
- L-20180831-134B

- L-20190111-003B

There were no gaseous effluent discharge permits available for review because the licensee utilizes a continuous gaseous discharge process.

The inspectors reviewed the following annual radiological effluent release reports:

- Annual Radioactive Effluent Release Report for 2017
- Annual Radioactive Effluent Release Report for 2018

There were no documented abnormal gaseous or liquid tank discharges for the inspectors to review for the monitoring period.

71124.07 - Radiological Environmental Monitoring Program

Site Inspection (IP Section 02.01) (1 Sample)

(1) The inspectors evaluated the radiological environmental monitoring program implementation:

Walkdowns, Calibrations, and Maintenance Record Review

- Air sampling station TA1
- Air sampling station AP1
- Air sampling station AN1
- Thermoluminescent dosimeter (TLD) monitoring station TP1
- TLD monitoring station TA1
- TLD monitoring station TN1

Environmental Sample Collections and Preparation Observation

- Environmental samples: None were available for review and observation during this inspection.

Licensee Actions in Response to Missed Sample, Inoperable Sampler, Lost TLD, or Anomalous Measurement

- CR-RBS-2017-03696: air samplers AN1 & AP1 power outage 04/18/2017
- CR-RBS-2017-04339: air sampler AQS2 power outage 05/16/2017
- CR-RBS-2017-05049: air samplers AGC, AN1 & AP1 power outage 05/30/2017
- CR-RBS-2018-06124: air samplers AN1 & AP1 power outage 11/01/2018
- CR-RBS-2018-06429: air sampler AGC power outage 11/21/2018

Sampling Program for the Potential of Licensed Material Entering Groundwater

- Turbine building
- Independent spent fuel storage installation
- Heater bay building
- Radwaste building

- Condensate Storage Tank
- Monitoring Wells (MW): PZ-01, 110, 116, 124, 125, 137, 146, 147, 155, 157, 158, and 179

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

Radioactive Material Storage (IP Section 02.01) (1 Sample)

(1) The inspectors evaluated radioactive material storage in the follow areas:

- Low Level Radioactive Waste Storage Facility
- Radwaste Building 106' Truck Bay
- Radwaste Building 106' Liner Bay Storage

The inspectors performed a container check (e.g., swelling, leakage and deformation) on the following containers:

- 2090987 Suppression Pool Equipment
- LPRM Box1 LPRM Equipment
- 10 Shielding
- 14-210H-023 Shipping Cask
- 200L-18015 Liner
- 200L-17018 Liner

Radioactive Waste System Walkdown (IP Section 02.02) (1 Sample)

(1) The inspectors evaluated the following radioactive waste processing systems and processes during plant walkdowns:

Liquid or Solid Radioactive Waste Processing Systems

- Liquid Waste System

Radioactive Waste Resin and/or Sludge Discharges Processes

- Waste Resin Processing System

Waste Characterization and Classification (IP Section 02.03) (1 Sample)

(1) The inspectors evaluated the radioactive waste characterization and classification for the following waste streams:

- Dry Active Waste (DAW Smears)
- Liquid Waste System (LWS-CND Resin)
- Liquid Waste System Tank Sludge
- Spent Fuel Pool Cleanup (SFC Resin)
- Tri Nuke Filter Waste Stream

Shipment Preparation (IP Section 02.04) (1 Sample)

(1) The inspectors evaluated and observed the following radioactive material shipment preparation processes:

- The inspectors were not able to evaluate and observe radioactive material shipment preparation processes. This sample was not available. However, the inspectors did review numerous shipment packages that included surveys, pictures, and assessments as preparation for shipment.

Shipping Records (IP Section 02.05) (1 Sample)

(1) The inspectors evaluated the following non-excepted package shipment records:

- RBS-2017-133 14 Drums of HR DAW
- RBS-2017-139 Resin Liner 200L-16008
- RBS-2018-014 Sealands of DAW
- RBS-2018-060 LWS Sludge Liner 200L-17015
- RBS-2018-076 CFFF Filter Liner 200L-18043
- RBS-2019-075 CRDMs

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

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

(1) March 2018 through June 2019

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

(1) March 2018 through June 2019

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

(1) March 2018 through June 2019

MS08: Heat Removal Systems (IP Section 02.07) (1 Sample)

(1) July 1, 2018 - June 30, 2019

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

(1) July 1, 2018 - June 30, 2019

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

(1) July 1, 2018 - June 30, 2019

71152 - Problem Identification and Resolution

Annual Follow-up of Selected Issues (IP Section 02.03) (1 Sample)

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

(1) Inadvertent initiation of reactor core isolation cooling due to personnel error under Condition Report CR-RBS-2018-05854 on September 23, 2019

71153 - Followup of Events and Notices of Enforcement Discretion

Event Report (IP Section 03.02) (2 Samples)

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

(1) LER 05000458/2018-010-00, Reactor Scram due to Turbine Control Valve Failure on November 10, 2018 (ADAMS Accession: ML19009A412)

The circumstances surrounding this LER are documented in the Inspection Results section.

(2) LER 05000458/2018-011-00, Condition Prohibited by Technical Specifications due to Inadequate Design Change of Under Voltage Relay Trip Set Point on November 29, 2018 (ADAMS Accession: ML19023A542)

The circumstances surrounding this LER are documented in the Inspection Results section.

Reporting (IP Section 03.05) (1 Sample)

(1) Specified system actuation of the reactor protection system and reactor core isolation cooling system on June 1, 2019

INSPECTION RESULTS

Failure to Maintain Ability of a Fire Door to Close			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000458/2019003-01 Open/Closed	[H.5] - Work Management	71111.05Q
The inspectors identified a Green non-cited violation of Facility Operating License, Section C(10), when the licensee failed to implement the fire protection program. Specifically, the licensee degraded a fire barrier by obstructing a fire door without implementing adequate compensatory measures. The licensee entered this issue into their corrective action program as CR-RBS-2019-05128.			

Description: On July 19, 2019, during a plant tour, the inspectors observed that fire door CB98-032 was obstructed. This fire door is between fire area C-13E and C-13W, the Division I and Division II control building chiller rooms. The licensee had taken Division I of the control building ventilation system out of service for maintenance and had protected Division II with a barrier to mitigate the online risk. The inspectors noticed that the protected equipment barrier, which consisted of a single belt across the door, had been placed in the door frame, thereby blocking the door closure path. The inspectors immediately contacted the licensee to notify them of the blocked fire door.

The licensee removed the barrier from the frame and restored the ability of the door to close. The licensee estimated that the door had been blocked for approximately one day. After the inspectors followed up with the licensee on the potential significance of the issue, the licensee entered the issue into their corrective action program.

Door CB98-032 is a normally open, self-closing fire door that separates Division I and Division II control building ventilation system equipment, which is required for safe shutdown capability. The inspectors determined that the licensee's fire protection program requires self-closing fire doors to be cleared of obstruction, while the licensee's technical requirements manual Section 3.7.9.6 requires compensatory measures to be implemented when a fire barrier is degraded. The inspectors concluded that the licensee had degraded the fire barrier by obstructing its path and that compensatory measures would have been required to maintain the effectiveness of the fire protection program. The licensee had not implemented compensatory measures.

The licensee determined that the personnel installing the barrier did not understand the required function of the fire door or the additional risk from degrading the fire barrier.

Corrective Actions: The licensee removed the obstruction from the fire door frame.

Corrective Action References: CR-RBS-2019-05128

Performance Assessment:

Performance Deficiency: Degrading a required fire barrier without implementing compensatory measures was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the protection against external factors 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, by degrading the fire barrier and not implementing compensatory measures, there was a loss of control of fire barriers required to ensure the availability of required safe shutdown equipment.

Significance: The inspectors assessed the significance of the finding using Appendix F, "Fire Protection and Post - Fire Safe Shutdown SDP." The inspectors determined the finding was associated with Fire Confinement and was assigned a "High" degradation rating. The inspectors used Step 1.4.4 to determine that the finding was of very low safety significance (Green) because there was an adequate automatic suppression system on either side of the fire confinement element.

Cross-Cutting Aspect: H.5 - Work Management: The organization implements a process of planning, controlling, and executing work activities such that nuclear safety is the overriding priority. The work process includes the identification and management of risk commensurate to the work and the need for coordination with different groups or job activities. Specifically, the licensee failed to ensure that the individuals installing the protected equipment barrier understood the nuclear safety risks associated with the work in the field.

Enforcement:

Violation: Facility Operating License, Section C(10) and Attachment 4, requires that the licensee implement and maintain in effect all provisions of the approved fire protection program. The approved fire protection plan requires that self-closing fire door doorways be kept free of obstructions. Contrary to the above, the licensee failed to maintain door CB98-032 free of obstructions.

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

Licensee-Identified Non-Cited Violation	71111.05Q

This violation of very low safety significance was identified by the licensee and has been entered into the licensee's corrective action program and is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Violation: Facility Operating License, Section C(10) and Attachment 4, requires that the licensee implement and maintain in effect all provisions of the approved fire protection program. The licensee's fire protection program requires the licensee to implement compensatory measures for a degraded suppression system. Contrary to the above, from April 25 to April 26, 2019, the licensee failed to implement compensatory measures for a degraded fire suppression system. Specifically, the licensee failed to perform hourly fire watches in fire zone AB-4/Z-2 while the PS-1 suppression piping was out of service.

Significance/Severity: Green. Using Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," dated October 7, 2016, Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," dated May 9, 2014, and Appendix G, Attachment 1, "Phase 1 Initial Screening and Characterization of Findings," Exhibit 3, "Mitigating Systems Screening Questions," the inspectors determined the finding affected the Mitigating Systems Cornerstone and was of very low safety significance (Green) because the finding did not involve fire brigade training or staffing, did not involve the response time of the fire brigade, and did not involve fire extinguishers or fire hoses.

Corrective Action References: CR-RBS-2019-03114

Failure to Preventively Maintain Circuit Component in Unmonitored System Leads to Inoperability of Containment Unit Cooler

Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000458/2019003-02 Open/Closed	None (NPP)	71111.12

A self-revealed Green non-cited violation of 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," was identified when the licensee failed to monitor the condition of a safety-related component whose condition was not being

controlled through the performance of appropriate preventive maintenance (PM). Specifically, the licensee failed to monitor the condition of the Division II containment unit cooler even though the condition of a critical relay in the control circuitry for the cooler was not being preventively maintained. Consequently, the relay was left to fail in place on two separate occasions, rendering the cooler incapable of performing its specified safety function of automatically starting on a loss-of-coolant accident. The licensee entered this issue into their corrective action program as CR-RBS-2019-05416.

Description: On March 31, 2019, the Division II containment unit cooler at River Bend Station failed to start as required during an emergency core cooling systems (ECCS) test. The failure to start was caused by a faulted CR120 LX relay in the control circuitry for the unit cooler. The relay was incapable of properly actuating due to the buildup of excessive resistance across its contacts.

Subsequent licensee reviews determined that the relay was not being replaced on a scheduled periodicity. Instead, it was being run to failure. Since the relay performed a standby function that is not normally in service, the station did not have an opportunity to detect an eventual failure in the relay during the normal course of plant operation. The only opportunity to detect such a failure was during ECCS testing conducted every 2 years.

The original PM strategy for the relay was established in 2006. This strategy called for functional testing every 3 years, replacement every 18 years, and calibration every 9 years. The PM strategy for the relay was modified in 2013 to entail functional testing every 9 years and replacement as required.

The inspectors discovered during their reviews that the relay had failed in the same unit cooler during the same test in March 2013. The system evaluator at the time incorrectly believed that the auto-start function of the unit coolers was to be monitored at the system level. The maintenance rule database specified that the system was to be monitored at the train level, consistent with site Procedure EN-DC-205 and the guidance provided in NUREG-1526, both of which call for safety-related standby functions to be monitored at the train level, given the potential for masking and shadowing. Consequently, the failure was not classified as a maintenance rule functional failure and the underlying deficiency in the station's PM program with respect to the relays was not identified or addressed.

Despite the station's prior experience of having the relays fail over time and cause a loss of component function, the licensee failed to implement a replacement plan for the relays. By failing to implement a replacement plan, the licensee failed to demonstrate that the condition of the containment unit coolers was being effectively controlled through the performance of appropriate preventive maintenance in accordance with (a)(2) of the maintenance rule. The unit coolers were therefore subject to (a)(1), which requires the station to monitor them in a manner sufficient to provide assurance that they were capable of fulfilling their intended function of automatically starting on a loss-of-coolant accident. This monitoring did not take place.

Corrective Actions: To address the immediate test failure, the station replaced the faulted relay and successfully reperformed the ECCS test. To address the lack of an appropriate PM program with respect to the relays, the station has implemented a plan to replace the relays on a given periodicity. To address the possibility that similar deficiencies might exist in CR120 relays used elsewhere in the plant, the licensee completed an extent of condition review.

Corrective Action References: CR-RBS-2019-01787, CR-RBS-2019-02589, and CR-RBS-2019-05416

Performance Assessment:

Performance Deficiency: The failure to monitor the condition of a safety-related component whose condition was not being controlled through the performance of appropriate PM was 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, by failing to monitor or conduct appropriate PM on the Division II unit cooler, the cooler was rendered incapable of automatically starting as required in accident scenarios.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The finding required a detailed risk evaluation because it involved an actual loss of function of at least a single train for greater than its technical specification allowed outage time. A Region IV senior reactor analyst performed a detailed risk evaluation for the issue.

The analyst treated the failure as a failure of the automatic actuation circuitry which could be recovered by manual action by the operators. To model this, the analyst modified basic events CHR-ACT-FC-TRNA and CHR-ACT-FC-TRNB, "Actuation Circuit for CHR Cooler A (B) Fails To Function," from the IGNORE status in the Limited Use SPAR model for River Bend Station, to a template-based event using template event ZT-RLY-FTOP, "Actuation Circuit For CHR Cooler Fails To Function." The analyst combined each of these events with an AND gate under Fault Trees CHR-A and CHR-B, "Train A(B) Fan Cooler Fails," with a new basic event which modeled the recovery by the operators to manually start the containment unit coolers after their automatic start function failed. This recovery event was modeled as a human reliability analysis event using SPAR-H methodology. All performance shaping factors were considered nominal except procedures were considered symptom based in the diagnosis portion of the event since the licensee's emergency operating procedure flow charts clearly prescribed starting a containment unit cooler upon increasing containment temperatures. The resulting failure probability for this event was 6.0E-3. Upon setting the actuation circuitry failures for both trains to TRUE, the following results distribution was obtained which had a best estimate of the conditional core damage probability of 2.3E-7, with 99.7 percent of the results having an estimated value below the green-to-white threshold of 1.0E-6. The finding therefore screened to green.

Cross-Cutting Aspect: Not Present Performance. No cross-cutting aspect was assigned to this finding because the inspectors determined the finding did not reflect present licensee performance. The decision to implement an inappropriate preventive maintenance program for the relays and the failure to respond to operating experience indicating that this preventive maintenance approach was inappropriate both occurred in 2013.

Enforcement:

Violation: Title 10 CFR 50.65 (a)(1), requires, in part, that the holders of an operating license shall monitor the performance or condition of structures, systems, or components (SSCs) within the scope of the rule as defined by 10 CFR 50.65 (b), against licensee established

goals, in a manner sufficient to provide reasonable assurance that such SSCs are capable of fulfilling their intended functions. Title 10 CFR 50.65 (a)(2) states, in part, that monitoring as specified in 10 CFR 50.65 (a)(1) is not required where it has been demonstrated that the performance or condition of an SSC is being effectively controlled through the performance of appropriate PM, such that the SSC remains capable of performing its intended function.

Contrary to the above, as of 2013, the licensee failed to demonstrate that the performance or condition of the Division II containment unit cooler had been effectively controlled through the performance of appropriate PM and did not monitor the system against licensee--established goals.

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 the Corrective Action Process Procedure			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Initiating Events	Green FIN 05000458/2019003-04 Open/Closed	None (NPP)	71153

A self-revealed Green finding was identified for failure to follow Entergy Nuclear Procedure EN-LI-102, "Corrective Action Process," Revision 19. Specifically, station personnel failed to issue appropriate corrective actions to preclude repetition (CAPRs) for a 2012 failure of turbine control valve 3, a Category A condition. The failure to issue appropriate CAPRs led to a repeat failure of the turbine control valve 3 on November 10, 2018, which resulted in a reactor scram. The licensee entered this issue into their corrective action program as CR-RBS-2018-06018.

Description: The inspectors reviewed Licensee Event Report 2018-010. On November 10, 2018, the River Bend Station scrammed due to a failure of turbine control valve 3. During normal operation, a failure of the bolting for the valve actuator spring housing occurred. This failure of the bolts resulted in a decompression of the spring and damage to a servo, ultimately causing the valve to close while at full power. The transient caused the reactor to scram on high reactor pressure.

The licensee entered this event into their corrective action program in accordance with Procedure EN-LI-102 and performed a root cause analysis (RCA). The licensee determined that the same failure had occurred on April 23, 2012. The licensee documented the 2012 event in their corrective action program as CR-RBS-2012-02773. The licensee classified that condition report as Category A, requiring an RCA and CAPRs. The licensee's RCA identified that the bolts had failed from fatigue due to incorrect installation. The licensee also submitted the bolts to a vendor for analysis. The licensee identified that the incorrect bolts had been used, that lock tabs had not been installed correctly, that the lock tabs could potentially overlap, and that the bolts may not have been properly torqued. The vendor recommended correcting these issues and additionally recommended that the licensee ensure correct flatness of the joint. Based on the results of the licensee's and the vendor's analyses, the licensee developed several CAPRs in 2012 intended to prevent a similar failure from occurring again. The licensee replaced the bolts and lock tabs using the correct components and the correct torque. The licensee also issued a corrective action to implement the vendor recommendations into future work packages. These corrective actions were identified as CAPRs in the licensee's RCA.

After the 2018 failure, the licensee performed an Adverse Condition Analysis. The licensee determined that the bolts had failed due to fatigue. In this case, the licensee identified that the bolt failure was due to additional stress from a bent switch arm. The switch arm bend resulted in the bolted joint not meeting the recommended flatness criteria. The licensee determined that they had never issued a corrective action to ensure that the joint met the flatness criteria recommended by the vendor in 2012. The licensee also noted that they did not implement the CAPR to correct the work orders. The licensee also noted that they had been aware of the bent switch rod but had not recognized the potential for it to cause a failure.

The inspectors reviewed Procedure EN-LI-102 and noted that step 5.8 of the procedure requires, for Category A condition reports, that the licensee ensure that an RCA is performed and that "appropriate CAPRs are issued." The inspectors reviewed the licensee's RCA from 2012 and concluded that the licensee should have issued an appropriate CAPR to ensure flatness of the bolted joint. The inspectors determined that this performance deficiency was not a violation of NRC requirements because, while EN-LI-102 is a quality related procedure, the turbine control valve is not a quality related structure, system, or component.

The inspectors also noted that the licensee identified an error in the procedure for main turbine operation that resulted in an incorrect load limit setting for turbine control valve 4. This setting resulted in turbine control valve 4 not opening enough to prevent a reactor scram following the closure of turbine control valve 3. The inspectors determined that this error did not constitute a separate finding or violation.

Corrective Actions: The licensee replaced the failed bolts and bent switch arm and submitted a licensee event report for the reactor scram.

Corrective Action References: CR-RBS-2018-06018

Performance Assessment:

Performance Deficiency: The failure to follow Procedure EN-LI-102 was 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 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. Specifically, the performance deficiency resulted in an unplanned scram during full power operation.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," dated October 7, 2016, the inspectors determined the finding was associated with the Initiating Events cornerstone. The inspectors used Appendix A, Exhibit 1, "Initiating Events Screening Questions," and determined the finding was of very low safety significance (Green) because the finding caused a scram, but did not cause a loss of mitigation equipment.

Cross-Cutting Aspect: Not Present Performance. No cross-cutting aspect was assigned to this finding because the inspectors determined the finding did not reflect present licensee performance. The failure to follow procedure occurred six years prior to the event.
Enforcement: Inspectors did not identify a violation of regulatory requirements associated with this finding.

Inadequate Design Change Leads to Division III Undervoltage Relay Setpoints Drifting Outside of Technical Specification Allowable Values			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000458/2019003-05 Open/Closed	[H.3] - Change Management	71153

A self-revealed Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified when the licensee failed to establish measures to assure that the design basis is correctly translated into plant specifications. Specifically, after determining that existing technical specification allowable values for Division III undervoltage relays were insufficient to maintain the operability of safety-related equipment in a design basis grid transient, and after receiving approval for a license amendment to change those values, the licensee continued to use relays with measured drift tendencies that exceeded the values. Consequently, the Division III electrical bus was rendered inoperable. The licensee entered this issue into their corrective action program as CR-RBS-2019-05709.

Description: In June 2013, the licensee completed Engineering Change 37097. This change was implemented to correct an inadequacy in technical specification 3.3.8.1. The allowable values in the technical specification were found to be insufficient to fulfill the design function of Division III undervoltage relays, which is to trip offsite power and preserve the operability of safety-related equipment under degraded voltage grid conditions. The engineering change was used to revise the allowable values through a license amendment that was approved by the NRC. The new allowable range was specified to be 86.23 volts to 95.00 volts against a prior allowable range of 80.89 volts to 93.11 volts.

To fulfill the Division III undervoltage relay function, the licensee utilized GE Model NGV13B relays. Prior measurements over a multi-year period had established that the bounding analyzed setpoint drift for the relays was 5.823 volts for a 30-month cycle. With the relays calibrated to the midpoint of the range, the setpoint drift was compatible with the prior range of 80.89 volts to 93.11 volts. But the setpoint drift was not compatible with the new range of 86.23 volts to 95.00 volts. With the relays calibrated at the midpoint of these values, 90.62 volts, the setpoints would be expected to drift outside of the allowable value range within the 2-year calibration frequency prescribed by technical specifications. The licensee failed to recognize this problem during the engineering change process and therefore left the existing relays in place.

Technical specification surveillance requirements SR 3.3.8.1.3 and SR 3.3.8.1.4 require calibration and logic system functional testing of the relays every two years. Given the excessive drift, the relays were found to be outside of the allowable technical specification range during performance of these surveillances in October 2016. The relays were again found to be outside of the allowable range during performance of the surveillances in October 2018. In the October 2018 surveillances, one relay, 27S2, was found to be picking up at 84.80 volts, below the technical specification minimum value of 86.23 volts. With the relay failing to pick up at the required minimum setpoint, the Division III electrical bus was rendered

inoperable.

The licensee conducted a review of the failure and concluded that either the station's technical specification should have been amended to require more frequent Division III undervoltage relay testing or the relay model should have been replaced with a model with drift tendencies that were sufficient to keep it inside of the allowable value range during the two year window in between required surveillances.

Corrective Actions: To address the condition in the short-term, the licensee is calibrating the relays every 6 months, instead of every 2 years. To address the condition over the long-term, the licensee has assigned an action to replace the relays with a different model that has a drift tendency low enough to ensure that the system remains operable in between scheduled 2-year calibrations.

Corrective Action References: CR-RBS-2018-05709

Performance Assessment:

Performance Deficiency: The failure to correctly translate the design basis into plant specifications was 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, by failing to utilize a relay model that was capable of fulfilling the specified safety function of Division III undervoltage relays, the licensee caused the Division III bus to be rendered inoperable.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The inspectors determined the finding to be of very low safety significance (Green) because the finding did not represent an actual loss of function of the Division III bus.

Cross-Cutting Aspect: H.3 - Change Management: Leaders use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority. Specifically, the station implemented the technical specification change through an engineering change process that failed to identify the need to change the relays or the calibration frequency.

Enforcement:

Violation: Title 10 CFR Part 50, Appendix B, Criterion III, "Design Control," requires, in part, that the licensee establish measures to assure that the design basis is correctly translated into plant specifications. Contrary to the above, from June 2013 through October 2018, the licensee failed to establish measures to assure that the design basis, which designates Division III undervoltage relays with the safety function of ensuring a trip of offsite power during a degraded voltage grid condition, was correctly translated into plant specifications. Specifically, the licensee used a relay model with measured drift tendencies that caused its setpoints to drift outside of the technical specification allowable value range between calibrations. The licensee restored compliance by increasing the frequency at which the relays are calibrated.

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

Failure to Notify the NRC of a Valid Actuation of a Specified System			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000458/2019003-03 Open/Closed	Not Applicable	71153
The inspectors identified a Severity Level IV non-cited violation of 10 CFR 50.72(b)(3) when the licensee failed to report a valid reactor protection system actuation. Following an unplanned manual reactor scram and actuation of reactor core isolation cooling on May 31, 2019, the licensee was unable to maintain level control and received a subsequent actuation of the reactor protection system on June 1, 2019. The licensee reported the manual reactor scram but failed to report the additional actuations of the specified systems. The licensee entered this into their corrective action program as CR-RBS-2019-03961.			
Description: On May 31, 2019, at 11:45 PM, the licensee initiated an unplanned reactor scram in response to a loss of feedwater. At the time of the unplanned scram, the station had completed a scheduled downpower to 30 percent. Upon the loss of feedwater, the crew successfully initiated the scram prior to Level 3 being reached. The station restarted and realigned the 'C' main feed pump (MFP) approximately 4 minutes after the event. Approximately 45 minutes after the initial event, the running 'C' MFP spontaneously tripped. Control room operators re-started the 'C' MFP but were unable to open the 'C' MFP discharge valve, which had gone shut in response to the trip. Upon the initial attempt to open the valve, the breaker for the valve tripped on overload, removing remote operation capability. The licensee then started the 'A' MFP and opened the 'A' discharge valve, restoring feedwater flow. During this transient, the licensee again reached Level 3 (9.7"), resulting in a second actuation of the Reactor Protection System (RPS). The second event was a valid actuation of the RPS while the reactor was not critical. This meets the requirement for a report to the agency under 50.72(b)(3) within 8 hours for a valid actuation of a system specified in paragraph (b)(3)(iv)(B). The licensee submitted a report for the initial manual scram under 50.72(b)(2), but this report did not mention the subsequent loss of level control and additional RPS actuation, nor did the licensee submit a separate report. Following a review of the event and the licensee's actions, the inspectors noted that the licensee had not reported the second actuation and questioned why it had not been reported. The licensee agreed that the second actuation was required to be reported. Corrective Actions: The licensee submitted an updated report to the agency including the second event. Corrective Action References: CR-RBS-2019-03961			
Performance Assessment: The inspectors determined this violation was associated with a minor performance deficiency.			
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: The violation was determined to be Severity Level IV using Section 6.9 of the NRC Enforcement Policy, dated May 15, 2018, because it was a failure to make a report required by 10 CFR 50.72, but the information did not cause the NRC to reconsider a regulatory position or undertake a substantial further inquiry.

Violation: Title 10 CFR 50.72(b)(3) requires, in part, that the licensee shall notify the NRC within 8 hours of a valid actuation of the RPS. Contrary to the above, on June 1, 2019, the licensee failed to notify the NRC within 8 hours of a valid actuation of the RPS.

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 16, 2019, the inspectors presented the public radiation safety inspection results to Mr. S. Vercelli, Site Vice President, and other members of the licensee staff.

- On July 26, 2019, the inspectors presented the emergency preparedness inspection results to Mr. S. Vercelli, Site Vice President, and other members of the licensee staff.

- On October 9, 2019, the inspectors presented the integrated inspection results to Mr. B. Chenard, Director, Engineering, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Procedures	EN-FAP-EP-010	Severe Weather Response	7
71111.01	Procedures	OP-901-521	Severe Weather and Flooding	330
71111.04S	Procedures	SOP-0042	Standby Service Water System	49
71111.12	Corrective Action Documents	CR-RBS-	2013-02068, 2019-01787, 2019-02589, 2019-05416	
71111.12	Procedures	EN-DC-203	Maintenance Rule Program	4
71111.12	Procedures	EN-DC-204	Maintenance Rule Scope and Basis	4
71111.12	Procedures	EN-DC-205	Maintenance Rule Monitoring	7
71111.12	Procedures	EN-DC-206	Maintenance Rule (A)(1) Process	3
71111.12	Procedures	SOP-0059	Containment HVAC System (Sys #403)	38
71114.02	Corrective Action Documents	Condition Report	2018-06285	
71114.02	Miscellaneous		River Bend Station Nuclear Power Plant Alert and Notification System Design Report, Addendum 1	March 2013
71114.02	Miscellaneous		5054Q Screening for EIP-2-006 Notifications, Rev. 46	2/13/2019
71114.02	Work Orders	Work Orders	00016321	
71114.03	Corrective Action Documents	Condition Reports	2017-06855, 2017-08220, 2018-02012	
71114.03	Miscellaneous	EPP-2-502	Emergency Communications Testing Cover Sheet, ERO Notifications System Test, Attachment 1, R27	9/19/2017, 12/26/2017, 4/18/2018, 5/24/2018, 10/18/2018, 12/17/2018, 4/9/2019
71114.03	Procedures	EIP-2-006	Notifications, R46	2/28/2019
71114.05	Corrective Action Documents	Condition Reports	2017-05391, 2017-06370, 2017-06852, 2017-07333, 2017-08360, 2018-00084, 2018-02094, 2018-02521, 2018-03550, 2018-03659, 2018-03666, 2018-03669, 2018-03683, 2018-03791, 2018-03793, 2018-03880, 2018-05122, 2018-05283, 2018-06197, 2019-01125, 2019-02574, 2019-02952	
71114.05	Miscellaneous		5054Q Screening for EIP-2-014 Offsite Radiological	8/2/2017

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Monitoring, Rev. 19	
71114.05	Miscellaneous		5054Q Screening for EIP-2-020 Emergency Operations Facility, Rev. 40	2/13/2019
71114.05	Miscellaneous		5054Q Screening for EIP-2-022 Alternate EOF – Activation and Transfer of Functions, Rev. 32	2/13/2019
71114.05	Miscellaneous		5054Q Screening for EP-4-ALL Exposure Authorization, Rev. 3	8/9/2017
71114.05	Miscellaneous		5054Q Screening for EN-EP-306 Drills and Exercises, Rev. 9	11/15/2017
71114.05	Miscellaneous		5054Q Screening for EN-EP-609 Emergency Operations Facility (EOF) Operations, Rev. 5	10/29/2018
71114.05	Miscellaneous		5054Q Screening for EN-EP-611 Operations Support Center (OSC) Operations, Rev. 6	4/9/2019
71114.05	Miscellaneous		5054Q Screening for EN-TQ-110 Emergency Response Organization Training, Rev. 13	11/1/2018
71114.05	Miscellaneous		5054Q Screening for EPP-2-701 Prompt Notification Equipment Maintenance and Testing, Rev. 32	7/31/2017
71114.05	Miscellaneous		5054Q Screening for TSC/OSC Renovations	10/3/2018
71114.05	Miscellaneous		EPP-2-502, Revision 27, Attachment 2, Offsite Emergency Communications Test Form	1/9/2019, 1/16/2019, 1/23/2019, 1/30/2019, 2/6/2019, 2/13/2019, 2/20/2019, 2/27/2019, 3/6/2019, 3/13/2019, 3/20/2019, 4/3/2019, 4/10/2019, 4/17/2019, 4/24/2019, 5/1/2019,

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
				5/8/2019, 5/15/2019, 5/29/2019, 6/5/2019, 6/12/2019, 6/19/2019
71114.05	Miscellaneous		EPP-2-502, Revision 27, Attachment 4, Onsite Emergency Communications Test Form	1/28/2019, 2/13/2019, 3/13/2019, 4/24/2019, 5/29/2019
71114.05	Miscellaneous		Emergency Response Data System Quarterly Test	1/15/2019, 4/9/2019, 6/19/2019
71114.05	Miscellaneous		Public Information Program, Transient Warning Signs	12/21/2018
71114.05	Miscellaneous		EIP-2-103, R23, Attachment 4, Operations Support Center Emergency Locker Inventory	12/11/2017, 4/24/2018, 5/17/201, 6/22/2018, 6/27/2018, 3/6/2019
71114.05	Miscellaneous		EIP-2-103, R23, Attachment 4, Emergency Operations Facility Locker Inventory	12/28/2017, 3/4/2019
71114.05	Miscellaneous		EPP-2-501, R17, Attachment 2, Facility Readiness Checklists, Technical Support Center	3/19/2018, 9/6/2018
71114.05	Miscellaneous		EPP-2-501, R17, Attachment 2, Facility Readiness Checklists, Emergency Operations Facility	3/30/2018, 9/26/2018
71114.05	Miscellaneous		RDRL-EP-LSCOMM, R11, Limited Scope Communications Drill	10/24/2018
71114.05	Miscellaneous		EP-M-17-008, ERO Team A Exercise After-Action Evaluation Report	7/6/2017
71114.05	Miscellaneous		River Bend Station REP After-Action Report/Improvement Plan	12/7/2017
71114.05	Miscellaneous		November 14, 2017, Exercise After-Action Evaluation Report	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71114.05	Miscellaneous		June 27, 2018 ERO Team C Exercise After-Action Evaluation Report	7/26/2018
71114.05	Miscellaneous		August 21, 2018, ERO Team B Exercise After-Action Evaluation Report	9/20/2018
71114.05	Miscellaneous		September 25, 2018, ERO Teams D/A Exercise After-Action Evaluation Report	10/25/2018
71114.05	Miscellaneous		March 13, 2018, Exercise After-Action Evaluation Report, Revision 1	5/29/2019
71114.05	Miscellaneous		ERO Team C March 12, 2019, Exercise After-Action Evaluation Report	4/10/2019
71114.05	Miscellaneous	EP-M-010	ERO Team C Exercise After-Action Evaluation Report	5/24/2018
71114.05	Miscellaneous	EP-M-17-010	ERO Team A JIC Exercise After-Action Evaluation Report	7/13/2017
71114.05	Miscellaneous	EP-M-17-011	ERO Team C Exercise After-Action Evaluation Report	8/23/2017
71114.05	Miscellaneous	EP-M-17-013	ERO Team C Exercise After-Action Evaluation Report	10/11/2017
71114.05	Miscellaneous	EP-M-17-015	Health Physics Drill After-Action Evaluation Report	11/14/2017
71114.05	Miscellaneous	EP-M-17-019	Radiological Monitoring Drill After-Action Evaluation Report	12/12/2017
71114.05	Miscellaneous	EP-M-17-024	Off-Hours Accountability Drill Report	12/20/2017
71114.05	Miscellaneous	EP-M-18-008	Onsite and Offsite Medical Drill After-Action Evaluation Report	4/30/2018
71114.05	Miscellaneous	EP-M-18-018	2018 Off-Hours Accountability Drill After-Action Report	12/19/2018
71114.05	Miscellaneous	G9.20.6.15	2018 Medical Drill Report	2/13/2019
71114.05	Miscellaneous	KLD-TR-1021	River Bend Station 2018 Population Analysis	9/19/2018
71114.05	Miscellaneous	KLD-TR-936	River Bend Station 2017 Population Analysis	9/20/2017
71114.05	Miscellaneous	LO-RLO-2017-00070	Pre-NRC Evaluated Exercise Assessment	4/10/2018
71114.05	Miscellaneous	LO-RLO-2018-00108	Pre-NRC Emergency Planning Program Inspection Assessment	3/18/2019
71114.05	Miscellaneous	Memorandum 18-004	March 13, 2018, In-Plant Health Physics Drill After-Action Evaluation Report	
71114.05	Miscellaneous	Memorandum 18-011	September 25, 2018, In-Plant Health Physics Drill After-Action Evaluation Report	10/2/2018
71114.05	Miscellaneous	QA-7-2018-RBS-1	Quality Assurance Audit Report, Emergency Preparedness	5/14/2018
71114.05	Miscellaneous	QA-7-2019-RBS-	Quality Assurance Audit Report, Emergency Preparedness	5/20/2019

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		1		
71114.05	Procedures	EIP-2-006	Notifications, R45	9/27/2018
71114.05	Procedures	EIP-2-101	Periodic Review of the Emergency Plan, R22	2/21/2012
71114.05	Procedures	EIP-2-103	Emergency Equipment Inventory, R23	6/25/2015
71114.05	Procedures	EN-EP-305	Emergency Planning 10 CFR 50.54(q) Review Program, R6	4/25/2018
71114.05	Procedures	EN-EP-306	Drills and Exercises, R9	12/14/2017
71114.05	Procedures	EN-EP-308	Emergency Planning Critiques, R5	5/11/2017
71114.05	Procedures	EN-LI-102	Corrective Action Program, R36	2/1/2019
71114.05	Procedures	EN-LI-118	Casual Evaluation Process, R29	1/21/2019
71114.05	Procedures	EN-QV-109	Audit Process, R35	8/13/2018
71114.05	Procedures	Memorandum 19-014	June 12, 2019, In-Plant Health Drill After-Action Evaluation Report	6/13/2019
71114.05	Work Orders	Precision Communications Work Order 3186	West Feliciana Parish Hospital River Bend Station Hotline	2/1/2019
71114.05	Work Orders	Work Orders	00429989, 00487082	
71124.05	Calibration Records	11048	SAC-4 Portable Instrument Calibration Data Sheet	2/12/2019
71124.05	Calibration Records	1410-188	Operation and Calibration of the Canberra GEM-5	12/26/2018
71124.05	Calibration Records	1410-189	Operation and Calibration of the Canberra GEM-5	9/20/2018
71124.05	Calibration Records	1412-364	CRONOS Calibration Data Sheet	7/11/2019
71124.05	Calibration Records	394-01	PM-7 Calibration Data Sheet	1/15/2019
71124.05	Calibration Records	395-06	PM-7 Calibration Data Sheet	6/25/2019
71124.05	Calibration Records	96-5818	Calibration of the Canberra AccuScan II WBC System at the Entergy River Bend Station	1/24/2019
71124.05	Calibration Records	96-9762	Calibration of the Canberra Abacos-2000 FastScan WBC System at eh Entergy River Bend Station	1/24/2019
71124.05	Calibration Records	CHP-CR-074	LM-177 Portable Instrument Calibration Data Sheet	3/6/2019

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71124.05	Calibration Records	CHP-CR-155	LM-177 Portable Instrument Calibration Data Sheet	1/10/2019
71124.05	Calibration Records	CHP-CR-166	LM-177 Portable Instrument Calibration Data Sheet	2/8/2018
71124.05	Calibration Records	CHP-CR-175	LM-177 Portable Instrument Calibration Data Sheet	1/10/2019
71124.05	Calibration Records	CHP-DR-027	RAM GAM-1 Portable Instrument Calibration Data Sheet	1/14/2019
71124.05	Calibration Records	CHP-DR-053	RAM GAM1 Portable Instrument Calibration Data Sheet	12/24/2018
71124.05	Calibration Records	CHP-DR-200	RAM ION Digilog Portable Instrument Calibration Data Sheet	6/10/2019
71124.05	Calibration Records	CHP-DR-381	Ludlum 9-3 Portable Instrument Calibration Data Sheet	12/24/2018
71124.05	Calibration Records	CHP-DR-530	Ludlum 9-3 Portable Instrument Calibration Data Sheet	3/7/2019
71124.05	Calibration Records	CHP-MF-033	ASP-1 (Frisker) Portable Instrument Calibration Data Sheet	1/14/2019
71124.05	Calibration Records	CHP-TEL091	TelePole II Portable Instrument Calibration Data Sheet	2/12/2019
71124.05	Calibration Records	CHP-TEL093	TelePole II Portable Instrument Calibration Data Sheet	2/21/2019
71124.05	Calibration Records	HP-CS-003	BC-4 Portable Instrument Calibration Data Sheet	4/23/2019
71124.05	Calibration Records	HP-DS-033	SAC-4 Portable Instrument Calibration Data Sheet	3/14/2019
71124.05	Calibration Records	WO 00202505	RMS-RE214 - Clean, Check Calibration, and Functionally Test Auxiliary Building RHR 'B' Equipment Area East Radiation Monitor Per MCP-4201.	8/21/2013
71124.05	Calibration Records	WO 00405278	RMS-RE193 - Calibrate the Fuel Building Operating Floor Radiation Monitor	11/15/2017
71124.05	Calibration Records	WO 51561781	RMS-RE170 - Clean, Check Calibration, and Functionally Test Main Control Room Radiation Monitor per MCP-4201	5/23/2008
71124.05	Calibration	WO 51561788	RMS-RE145 - Clean, Check Calibration, and Functionality	4/21/2008

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Records		Test Fuel Transfer Tube Radiation Monitor per MCP-4201	
71124.05	Calibration Records	WO 52628624	STP-511-4249: RMS-Primary Containment Area Radiation Monitor, Channel Calibration RMS-RE16A	5/3/2017
71124.05	Calibration Records	WO 52660176	STP-511-4250: RMS-Primary Containment Area Radiation Monitor, Channel Calibration RMS-RE16B	3/15/2018
71124.05	Calibration Records	WO 52699738	STP-511-4209: RMS-Control Room Fresh Air System Radiation Monitor Local Intake Channel Calibration RMS-RE13A	3/3/2018
71124.05	Calibration Records	WO 52719773	STP-257-4202: RMS-Primary Containment Purge Isolation Radiation – High Activity Monitor Channel Calibration Test & Logic System Functional Test (RMS-RE21B)	3/16/2018
71124.05	Calibration Records	WO 52728674	STP-511-4210: RMS-Control Room Fresh Air System Radiation Monitor Local Intake Channel Calibration RMS-RE13B	10/16/2018
71124.05	Calibration Records	WO 52754409	STP-511-4203: Main Steam Line Radiation High High 18 Month Channel Calibration and Logic System Functional Test (D17-N003C, K610C)	10/9/2018
71124.05	Calibration Records	WO 52755322	STP-511-4201: Main Steam Line Radiation High High 18 Month Channel Calibration and Logic System Functional Test (D17-K610A, D17-N003A)	10/8/2018
71124.05	Calibration Records	WO 52757184	STP-257-4201: RMS-Primary Containment Purge Isolation Radiation - High Activity Monitor Channel Calibration and Logic System Functional Test (RMS-RE21A)	2/7/2019
71124.05	Calibration Records	WO 52765894	STP-511-4290: RMS-Primary Drywell Area Radiation Monitor (RE-20B)	4/10/2019
71124.05	Calibration Records	WO 52766002	STP-511-4289: RMS-Primary Drywell Area Radiation Monitor (RE-20A)	4/10/2019
71124.05	Corrective Action Documents	CR-RBS-	2017-04775, 2017-05065, 2017-06201, 2017-06222, 2017-06252, 2017-06656, 2017-06793, 2017-07024, 2017-08554, 2018-02588, 2018-04024, 2018-04962, 2018-06382	
71124.05	Miscellaneous	Daily Detector Quality Check	Daily Detector Quality Check - Trend Chart Review - Detector 1	07/11/2019
71124.05	Miscellaneous	Daily Detector	Daily Detector Quality Check - Trend Chart Review - Liquid	7/11/2019

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		Quality Check	Scintillator	
71124.05	Miscellaneous	Efficiency Confirmation Check Reports	Efficiency Confirmation Check Reports - Detector 1	4/20/2017
71124.05	Miscellaneous	Efficiency Confirmation Check Report	Efficiency Confirmation Check Report - Detector 1	7/31/2018
71124.05	Miscellaneous	Efficiency Confirmation Check Report	Efficiency Confirmation Check Report - Detector 1	5/5/2019
71124.05	Miscellaneous	Efficiency Confirmation Check Report	Efficiency Confirmation Check Report - Detector 2	5/10/2017
71124.05	Miscellaneous	Efficiency Confirmation Check Report	Efficiency Confirmation Check Report - Detector 2	4/25/2018
71124.05	Miscellaneous	Efficiency Confirmation Check Report	Efficiency Confirmation Check Report - Detector 2	5/6/2019
71124.05	Miscellaneous	RBS-SE-13-00022	Maintenance Rule Basis Document: MRBD-511 Process and Digital Radiation Monitoring Systems (System 511)	1
71124.05	Procedures	EN-RP-301	Radiation Protection Instrument Control	12
71124.05	Procedures	EN-RP-302	Operation of Radiation Protection Instrumentation	5
71124.05	Procedures	EN-RP-303	Source Checking of Radiation Protection Instrumentation	4
71124.05	Procedures	EN-RP-306	Calibration and Operation of the Eberline PM-7	3
71124.05	Procedures	EN-RP-308	Operation and Calibration of Gamma Scintillation Tool Monitors	8
71124.05	Procedures	EN-RP-313	Operation and Calibration of the ARGOS-5AB Personnel Contamination Monitor	3
71124.05	Procedures	EN-RP-315	Operation and Calibration of the CRONOS Contamination Monitor	3
71124.05	Procedures	ESP-8-043	Calibration and Instrument Performance Assessment of the Packard Model 2700 Liquid Scintillation Analyzer	10
71124.05	Procedures	RPP-0010	Operation and Verification of the Shepherd Model 89	301

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Gamma Clibrator	
71124.05	Procedures	RPP-0036	Calibration of DRMS Area Monitors and Determination of Alert and High Alarm Setpoints	303
71124.05	Procedures	RPP-0101	Determination of Background Values for DRMS Process Radiation Monitors	3
71124.05	Procedures	RPP-0118	Calibration and Maintenance of Portable Radiological Air Samplers	4
71124.06	Calibration Records	WO 51030195	MCP-4205, DRMS-Liquid Radiation Monitor Calibration Cooling Tower Blowdown Liquid Radiation Monitor, RMS-RE108	05/30/2008
71124.06	Calibration Records	WO 52661826	STP-511-4248, RMS-Reactor Coolant System Leakage Drywell Atmosphere Radioactivity Channel Calibration, RMS-RE112	07/05/2017
71124.06	Calibration Records	WO 52667744	STP-511-4205, SCIS RMS Fuel Building Ventilation Exhaust Radiation High Channel Calibration, RMS-RE5A	11/27/2017
71124.06	Calibration Records	WO 52684743	STP-511-4280, RMS-Liquid Radwaste Effluent Line Radiation Monitor Channel Calibration, RMS-RE107	12/05/2017
71124.06	Calibration Records	WO 52700901	STP-511-4215, RMS-Main Plant Exhaust Duct Noble Gas Activity Channel Calibration, RMS-RE126	05/07/2018
71124.06	Calibration Records	WO 52706487	STP-511-4216, RMS-Radwaste Building Ventilation Exhaust Duct Noble Gas Activity Monitor Channel Calibration, RMS-RE6A	07/03/2018
71124.06	Corrective Action Documents	CR-RBS-	HQN-2017-01442, HQN-2018-00153, 2017-01030, 2017-06201, 2017-06626, 2017-06627, 2017-06985, 2018-01285, 2018-01877, 2018-02264, 2018-02298, 2018-02601, 2018-02638, 2018-02739, 2018-03259, 2018-03978, 2018-04749, 2018-04615, 2018-06382, 2018-06521, 2019-00496, 2019-03565, 2019-04716	
71124.06	Engineering Changes	EC-35300	Add Temporary Above-Ground Liquid Waste System (LWS) Blowdown Line Including Changes to Support EC-41004 and EC-47012	0
71124.06	Engineering Changes	EC-53367	Liquid Radwaste Piping Replacement	0
71124.06	Engineering	EC-76726	Temporary Modification for Blow-Down Path for the Standby	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Evaluations		Cooling Tower to the Circulating Water System Blowdown Line	
71124.06	Miscellaneous		RBS USAR - Chapters 11.2, Liquid Waste Management System	10
71124.06	Miscellaneous		RBS USAR - Chapters 11.5, Process and Effluent Radiological Monitoring and Sampling Systems	16
71124.06	Miscellaneous	L-20170815-152B	Liquid Non-Routine Batch Release Permit	08/15/2017
71124.06	Miscellaneous	L-20170925-201B	Liquid Non-Routine Batch Release Permit	09/25/2017
71124.06	Miscellaneous	L-20170927-202B	Liquid Non-Routine Batch Release Permit	09/27/2017
71124.06	Miscellaneous	L-20180509-052B	Liquid Non-Routine Batch Release Permit	05/09/2018
71124.06	Miscellaneous	L-20180831-134B	Liquid Non-Routine Batch Release Permit	08/31/2018
71124.06	Miscellaneous	L-20190111-003B	Liquid Non-Routine Batch Release Permit	01/11/2019
71124.06	Miscellaneous	LAR 99-03	License Amendment Request Review: Amendment to TRM Section 3.3.11.2 Concerning RMS-RE108, Cooling Tower Blowdown Line Radiation Monitor	04/03/1999
71124.06	Miscellaneous	RBG-47863	Annual Radioactive Effluent Release Report for 2017	05/01/2018
71124.06	Miscellaneous	RBG-47951	2018 Annual Radioactive Effluent Release Report	05/01/2019
71124.06	Miscellaneous	WO 52819691	REMP-22: Report Results of Interlaboratory Comparison	04/18/2019
71124.06	Procedures	COP-0046	Sampling Gaseous Effluents via the Wide Range Gas Monitors	16
71124.06	Procedures	COP-0050	Grab Sampling Gaseous Streams	13
71124.06	Procedures	COP-0813	Radioactive Liquid Discharge Permit Process	1
71124.06	Procedures	CSP-0110	Radioactive Liquid Effluent Batch Discharge	21
71124.06	Procedures	EN-CY-108	Monitoring of Nonradioactive Systems	6
71124.06	Procedures	EN-CY-111	Radiological Groundwater Protection Program	9
71124.06	Procedures	MCP-4205	DRMS-Liquid Radiation Monitor Calibration	4
71124.06	Procedures	RHP-0032	Dose Rate Calculation from Gaseous Effluents	11
71124.06	Procedures	RPP-0102	Dose Calculations from Gaseous Effluents	303
71124.06	Procedures	RSP-0008	Offsite Dose Calculation Manual (ODCM)	15
71124.06	Procedures	SOP-0086	Digital Radiation Monitoring Instrumentation	17
71124.06	Procedures	SOP-0108	Liquid Radwaste Collection and Processing	34
71124.06	Procedures	STP-511-4249	RMS-Primary Containment Area Radiation Monitor, Channel Calibration RMS-RE16A	307

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71124.06	Self-Assessments	LO-RLO-2018-0112	Pre-NRC Self-Assessment: Radioactive Gaseous and Liquid Effluent Treatment IP 71124.06, Radioactive Environmental Monitoring Program IP 71124.07	04/04/2019
71124.06	Work Orders	WO 52724879	STP-257-8601: Division I Standby Gas Treatment System Carbon Filtration Surveillance	05/16/2018
71124.06	Work Orders	WO 52736644	STP-406-8603: Division II Fuel Building Ventilation System Laboratory Surveillance	01/03/2019
71124.06	Work Orders	WO 52736646	STP-402-8604: Division I Main Control Room Fresh Air System Surveillance	06/10/2019
71124.06	Work Orders	WO 52771768	STP-406-3602: In-service Testing of Division II Fuel Building Ventilation System Surveillance	09/14/2017
71124.06	Work Orders	WO 52822872	STP-402-3601: In-service Testing of Division I Control Room Fresh Air System Surveillance	06/05/2019
71124.06	Work Orders	WO 52825650	STP-406-8602: Division I Fuel Building Ventilation System Laboratory Surveillance	06/12/2019
71124.07	Corrective Action Documents	CR-RBS-	2015-05530, 05541, 08831, 08838 2017-03252, 06201, 08010 2018-00374, 02181, 04844, 06479 2019-02503, 02566	
71124.07	Miscellaneous	03/28/19	2018 Land Use Census	
71124.07	Miscellaneous	06/08/18	RBS Groundwater Monitoring Program Improvements	
71124.07	Miscellaneous	12/28/19	RBS Groundwater Remediation Action Plan	
71124.07	Miscellaneous	2017	RBS Annual Radiological Environmental Operating Report	
71124.07	Miscellaneous	2017	RBS Annual Radiological Effluent Release Report	
71124.07	Miscellaneous	2018	RBS Annual Radiological Effluent Release Report	
71124.07	Miscellaneous	2018	RBS Annual Radiological Environmental Operating Report	
71124.07	Procedures	ADM-0104	Response to Inadvertent Release of Licensed Material to Groundwater, Surface Water, or Soil	5/28/15
71124.07	Procedures	EN-CY-111	Radiological Groundwater Protection Program	9
71124.07	Procedures	EN-CY-130	REMP	0
71124.07	Procedures	EN-CY-130-03	REMP-RBS	0
71124.07	Procedures	EN-FAP-OM-012	Prompt Investigations and Notifications	26
71124.07	Procedures	EN-RP-113	Response to Contaminated Spills/Leaks	9
71124.07	Procedures	RSP-0008	ODCM	15

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71124.07	Self-Assessments	NUPIC Joint Utility Audit No. 24791	Issuance of the Exelon Generation Audit Report of TBE-ES NUPIC Joint Utility Audit No. 24791 / Exelon Audit No. SR-2019-14	5/9/19
71124.07	Self-Assessments	LO-RLO-2018-0112	Pre-NRC Self-Assessment: Radioactive Environmental Monitoring Program IP 71124.07	4/4/19
71124.07	Self-Assessments	TBE Internal Audit QA 2018	Teledyne Brown Engineering QA Audit 2018	3/20/19
71124.08	Corrective Action Documents	CR-RBS-	2017-05704, 2017-06983, 2018-00596, 2019-00821, 2019-01244, 2019-03672	
71124.08	Miscellaneous	2017	Annual Radiological Effluent Release Report	5/1/2018
71124.08	Miscellaneous	2017	Shipping Logbook	5/28/2019
71124.08	Miscellaneous	2018	Shipping Logbook	5/28/2019
71124.08	Miscellaneous	2018	Annual Radiological Effluent Release Report	5/1/2019
71124.08	Miscellaneous	2019	Shipping Logbook	5/28/2019
71124.08	Procedures	COP-0813	Radioactive Liquid Discharge Permit Process	1
71124.08	Procedures	EN-RP-121	Radioactive Material Control	15
71124.08	Procedures	EN-RW-101	Radioactive Waste Management	3
71124.08	Procedures	EN-RW-102	Radioactive Shipping Procedure	17
71124.08	Procedures	EN-RW-103	Radioactive Waste Tracking Procedure	4
71124.08	Procedures	EN-RW-104	Scaling Factors	13
71124.08	Procedures	EN-RW-105	Process Control Program	5
71124.08	Procedures	EN-RW-106	Integrated Transportation Security Plan	6
71124.08	Procedures	RSP-0008	Offsite Dose Calculation Manual (ODCM)	15
71124.08	Procedures	RSP-0221	Controls for Storage, Monitoring and Decontamination Areas Outside the Protected Area	8
71124.08	Procedures	RWS-0304	Radioactive Waste Handling and Control	16
71124.08	Procedures	RWS-0336	Set-Up and Operation of The RDS-1000 Dewatering Unit	11
71124.08	Self-Assessments	2017	River Bend 10 CFR 20.1101(c) Report	6/21/2018
71151	Corrective Action Documents	Condition Reports	2018-03666, 2018-03683, 2018-03870, 2018-06197, 2018-06285, 2019-00575	
71151	Procedures	EIP-2-006	Notifications, R45 & R46	
71151	Procedures	EN-LI-114	Regulatory Performance Indicator Process, R16	7/9/2019

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71151	Work Orders	Work Orders	2709, 2917, 2929, 2936, 3065, 3066, 3086, 3079, 3101, 3123, 3124, 3125, 3126, 3127, 3144, 3179, 3181, 3180, 3217, 3236, 3267, 3268, 3269, 3270, 3271, 3322, 3236, 3441	
71153	Corrective Action Documents	CR-RBS-	2012-02773, 2016-07338, 2018-05709, 2018-05841, 2018-05843, 2018-06018, 2019-05198	
71153	Engineering Changes	EC-37097		
71153	Procedures	EN-LI-102	Corrective Action Process	19
71153	Procedures	EN-LI-118	Root Cause Evaluation Process	17
71153	Procedures	SOP-0080	Turbine Generator Operation	340
71153	Work Orders	WO	00512276, 00527028, 00527029	