



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

January 11, 2023

Fadi Diya
Senior Vice President
and Chief Nuclear Officer
Ameren Missouri
8315 County Road 459
Steedman, MO 65077

SUBJECT: CALLAWAY PLANT – INTEGRATED INSPECTION
REPORT 05000483/2022004

Dear Fadi Diya:

On December 31, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Callaway Plant. On January 11, 2023, 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.

One finding of very low safety significance (Green) is documented in this report. This finding involved a violation of NRC requirements. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

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

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

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 Werner, Gregory
on 01/11/23

Gregory E. Werner, Chief
Projects Branch B
Division of Operating Reactor Safety

Docket No. 05000483
License No. NPF-30

Enclosure:
As stated

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CALLAWAY PLANT – INTEGRATED INSPECTION REPORT 05000483/2022004- DATED
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05000483/2022004

Non-Public Designation Category: MD 3.4 Non-Public _____ (A.3 - A.7 or B.1)

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number: 05000483

License Number: NPF-30

Report Number: 05000483/2022004

Enterprise Identifier: I-2022-004-0000

Licensee: Ameren Missouri

Facility: Callaway Plant

Location: Steedman, MO

Inspection Dates: October 1 to December 31, 2022

Inspectors: D. Bradley, Senior Resident Inspector
S. Hedger, Senior Emergency Preparedness Inspector
J. Melfi, Project Engineer
D. Proulx, Senior Project Engineer
S. Schwind, Senior Resident Inspector
J. Vera, Resident Inspector

Approved By: Gregory E. Werner, Chief
Projects Branch B
Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Callaway Plant, 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 Conduct Drills in Accordance with the Site Emergency Plan			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Emergency Preparedness	Green NCV 05000483/2022004-01 Open/Closed	[H.8] - Procedure Adherence	71114.05
The inspectors identified a Green non-cited violation of 10 CFR 50.54(q)(2) associated with the licensee's failure to follow their emergency plan. Specifically, the licensee failed to follow Callaway Plant Radiological Emergency Response Plan, revisions 52 and 53, section 8.2.3, which requires annual radiological monitoring drills. The licensee failed to conduct correctly scoped radiological monitoring drills in 2020 and 2021 by not including sampling activities both on-site and off-site.			

Additional Tracking Items

None.

PLANT STATUS

Callaway plant began the inspection period at rated thermal power and remained at or near rated thermal power for the remainder of the inspection period.

INSPECTION SCOPES

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

REACTOR SAFETY

71111.01 - Adverse Weather Protection

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 cold weather on December 20, 2022.

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (1 Sample)

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

- (1) spent fuel pool cooling train B on October 6, 2022

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (4 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) control building 2000' elevation, Class 1 E switchgear train A, fire area C-9, on October 11, 2022
- (2) control building 2000' elevation, Class 1 E switchgear train B, fire area C-10, on October 11, 2022
- (3) auxiliary building 2047' elevation, general area, fire areas A-19 and A-20, on November 10, 2022

- (4) auxiliary building 1974' and 2000' elevation, boron injection room and piping penetration room B, fire areas A-7 and A-25, on November 21, 2022

71111.11Q - Licensed Operator Regualification 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 auxiliary feedwater system surveillance testing on October 31, 2022.

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

- (1) The inspectors observed and evaluated licensed operator regualification training in the simulator on November 8, 2022.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (1 Sample)

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

- (1) valve EMHV8802B, safety injection pump B discharge to hot leg injection isolation, failure to stroke closed on October 4, 2022

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (5 Samples)

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

- (1) elevated risk due to 345 kV breaker testing in the switchyard on October 6, 2022
- (2) elevated risk during a technical specification work window on train A class 1E electrical equipment air conditioning unit on October 18, 2022
- (3) elevated risk during a technical specification work window on train A components including the emergency diesel generator, essential service water, and the ultimate heat sink on October 25, 2022
- (4) elevated risk during calibration of main steam dump control loop pressure transmitter ABPT0500 on November 1, 2022
- (5) elevated risk during maintenance on the normal charging pump on November 22, 2022

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (4 Samples)

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

- (1) class 1E air conditioning unit SGK05A compressor temperature and other conditions under condition reports 202207056, 202206972, 202207007, 202207020, and 202207111 on October 31, 2022
- (2) void in safety injection pump B discharge piping under condition report 202207295 on November 4, 2022
- (3) refueling water storage tank insulation removal during cold weather, condition report 202207052, on November 16, 2022
- (4) ultimate heat sink fan design under condition report 202207687 on November 22, 2022

71111.18 - Plant Modifications

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

The inspectors evaluated the following temporary or permanent modifications:

- (1) essential service water bypass valve shaft replacement under modification package MP 20-0068 on November 28, 2022

71111.19 – Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (6 Samples)

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

- (1) class 1E electrical equipment room air conditioner train B after a planned work window on October 11, 2022
- (2) class 1E electrical equipment room air conditioner train A after a planned work window on October 19, 2022
- (3) essential service water train A after a planned work window on October 26, 2022
- (4) emergency diesel generator train A after a planned work window on October 27, 2022
- (5) atmospheric steam dump train B after a planned work window on November 9, 2022
- (6) control room air conditioning train A after a planned work window on November 15, 2022

71111.22 - Surveillance Testing

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

Surveillance Tests (other) (IP Section 03.01) (1 Sample)

- (1) emergency diesel generator train B fast start on a single air bank on October 12, 2022

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 and November 18, 2022.

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, 2020, and November 18, 2022. Inspectors also evaluated the licensee's ability to staff their emergency response facilities in accordance with emergency plan commitments.

71114.04 - Emergency Action Level and Emergency Plan Changes

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

- (1) The inspectors evaluated the 10 CFR 50.54(q) emergency plan change process and practices between July 1, 2020, and November 18, 2022. The evaluation reviewed screenings and evaluations documenting implementation of the process. In addition, the inspectors evaluated the following emergency plan revisions:
 - Radiological Emergency Response Plan, revision 54 (effective January 26, 2022)
 - Emergency Action Level Technical Basis Document (EIP-ZZ-00101, addendum 2), revision 19 (effective January 26, 2022)

The reviews of the change process documentation or the emergency plan changes 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, 2020, and November 18, 2022. The evaluation reviewed evidence of completing various emergency plan commitments, the conduct of drills and exercises, licensee audits and assessments, and the maintenance of equipment important to emergency preparedness.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

MS07: High Pressure Injection Systems (IP Section 02.06) (1 Sample)

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

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

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

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

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

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

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

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

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

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

- (1) July 1, 2021, through March 31, 2022

The licensee transitioned its alert and notification system to a purely non-siren-based system at the end of March 2022. The alert and notification PI and associated data will no longer be required to be reported by the licensee, and thus will not be subject to further inspection/verification per IP 71151. Evaluation of the licensee's non-siren based alert notification system will be completed separately per IP 71114.02, "Alert and Notification System Evaluation."

71152A - Annual Follow-up Problem Identification and Resolution

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

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

- (1) Room temperature monitoring not performed under condition report 202205390 on October 6, 2022
- (2) Ultimate heat sink cooling tower fan DCEF01A failed to start under condition report 202206427 on December 2, 2022

71152S - Semiannual Trend Problem Identification and Resolution

Semiannual Trend Review (Section 03.02) (1 Sample)

- (1) The inspectors reviewed the licensee's corrective action program for potential adverse trends in procedure usage that might be indicative of a more significant safety issue.

INSPECTION RESULTS

Failure to Conduct Drills in Accordance with the Site Emergency Plan			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Emergency Preparedness	Green NCV 05000483/2022004-01 Open/Closed	[H.8] - Procedure Adherence	71114.05
<p>The inspectors identified a Green non-cited violation of 10 CFR 50.54(q)(2) associated with the licensee's failure to follow their emergency plan. Specifically, the licensee failed to follow Callaway Plant Radiological Emergency Response Plan, revisions 52 and 53, section 8.2.3, which requires annual radiological monitoring drills. The licensee failed to conduct correctly scoped radiological monitoring drills in 2020 and 2021 by not including sampling activities both on-site and off-site.</p> <p><u>Description:</u> The inspectors reviewed drills and exercises conducted by the licensee between 2020 and 2022 and compared the drill and exercise evaluation reports to the requirements of the licensee emergency plan.</p> <p>Callaway Plant Radiological Emergency Response Plan, revisions 52 and 53, section 8.2.3, requires that plant environs and radiological monitoring drills (on-site and off-site) are conducted annually. To verify these took place, the inspectors evaluated radiological monitoring drill reports (field monitoring teams) held on July 8, 2020, and August 19, 2021. In reviewing the reports, the inspectors observed that the various samples taken appeared to have been taken in one location. Discussion with the licensee staff revealed that all sampling activities in 2020 took place only off-site, and all in 2021 took place only on-site. For the 2022 drill, it was confirmed that it was completed on November 23, 2022, including sampling activity evaluation both on-site and off-site.</p> <p>The inspectors reviewed the licensee's documentation describing how emergency preparedness drills were developed and implemented. Licensee procedure KDP-ZZ-02001, "Drill and Exercise Program," revision 28, section 6.1.1, says to test major parts of the emergency plan, including conduct of the radiological monitoring drill (field teams). Definition 9.16 specifies that the drill requires both on-site and off-site sampling. Further, licensee procedure EIP-ZZ-A0020, "Maintaining Emergency Preparedness," revision 34, section 5.4.9.e, reinforces that the required radiological monitoring drills include on-site and off-site collection and analysis of sample media. Procedural direction stated that activities to be evaluated were to include sampling in both locations, but the drill report scope descriptions did not include all salient elements described in them.</p> <p>The inspectors determined that the licensee did not conduct annual radiological monitoring drills in a manner that ensured that all sampling activities were evaluated in all specified locations. Therefore, the inspectors concluded that the licensee did not follow the requirements of the site emergency plan.</p> <p>Corrective Actions: The licensee entered these issues into the corrective action program.</p> <p>Corrective Action References: Condition Report 202207914</p> <p><u>Performance Assessment:</u></p>			

Performance Deficiency: The inspectors determined that the failure to conduct drills required by the emergency plan is a performance deficiency within the licensee's ability to foresee and correct.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the ERO Performance attribute of the Emergency Preparedness cornerstone and adversely affected the cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The licensee's ability to take adequate measures to protect the health and safety of the public is degraded when the licensee does not perform drills and exercises to ensure emergency response organization proficiency.

Significance: The inspectors assessed the significance of the finding using IMC 0609 appendix B, "Emergency Preparedness SDP." The performance deficiency was determined to have very low safety significance (Green) because it was a failure to comply with NRC requirements, was not a loss of planning standard function, and was not a degraded risk significant planning standard function. The planning standard function was not lost because the licensee did conduct drills and training that addressed portions of the related emergency plan commitments.

Cross-Cutting Aspect: H.8 - Procedure Adherence: Individuals follow processes, procedures, and work instructions. The finding had a cross-cutting aspect in the area of human performance associated with procedural adherence because the licensee did not follow processes, procedures, and work instructions to appropriately develop objective evaluation criteria for the radiological monitoring drills. Specifically, the drill documentation did not include the procedural requirement to evaluate sampling in both on-site and off-site locations. This would have provided assurance that the emergency plan commitments would be addressed in further development of the drill's scope.

Enforcement:

Violation: Title 10 CFR 50.54(q)(2) requires, in part, that a power reactor licensee follow an emergency plan which meets the requirements of Appendix E to 10 CFR, Part 50 and the standards of 10 CFR 50.47(b). Planning standard 10 CFR 50.47(b)(14) requires, in part, that the licensee conduct periodic drills to maintain key skills. Callaway Plant Radiological Emergency Response Plan, revisions 52 and 53, section 8.2.3, states, in part, that plant environs and radiological monitoring drills (on-site and off-site) are conducted annually.

Contrary to the above, between January 1, 2021, and November 23, 2022, Callaway Plant failed to follow an emergency plan which met the requirements of Appendix E and the standards of 10 CFR 50.47(b). Specifically, the licensee failed to conduct annual radiological monitoring drills involving the scope of evaluation required by the emergency plan to maintain key emergency response organization skills. The licensee failed to conduct annual radiological monitoring drills including sampling activity evaluation both on-site and off-site in 2020 and 2021.

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

<p>Observation: The inspectors reviewed the licensee's corrective action program, site-wide communications, and other documentation to determine if the licensee was identifying and entering trends into the corrective action program.</p>	<p>71152S</p>
<p><u>Background</u></p> <p>Between September 9 and October 13, 2022, the licensee documented 11 condition reports in their corrective action program related to procedure usage and adherence to plant standards. These occurrences involved administrative requirements, non-safety related work, or issues that were considered minor performance deficiencies. Together they represented an adverse trend regarding adherence to plant standards.</p> <p>The licensee self-identified this trend in performance and on October 13, 2022, they issued a "Red" communication to their staff regarding these 11 condition reports. A "Red" communication is the vehicle used by licensee management for disseminating important information rapidly to first-line supervisors, who are required to present the information to their entire workgroup in-person. The subject of the communication was a "Standards Stand Down" which occurred the following day. It listed the 11 examples documented in the condition reports where plant standards had not been followed in a 24-day period. First-line supervisors then presented the information in the communication to their work groups on October 14, 2022, during the stand down.</p> <p><u>Inspector Assessment</u></p> <p>The inspectors reviewed the 11 condition reports and concluded that none of the issues documented in them individually rose above a minor performance deficiency. Further, the inspectors agreed with the licensee's conclusion that, collectively, the 11 occurrences were indicative of an adverse trend in standards usage and adherence. Given the general nature of the issues, an intentional communication and reinforcement of management expectations for procedure use was a reasonable corrective action accomplished by the "Standards Stand Down" on October 14.</p> <p>The inspectors also noted that, aside from the original 11 condition reports, nothing was entered into the corrective action program to document this adverse trend until November 3, 2022. On that date, condition report 202207293 was generated to document a trend in minor deviations from procedure use.</p> <p>The inspectors concluded that the licensee adequately identified an adverse trend and took reasonable corrective actions, but they did so outside of their corrective action program and its requirements. Specifically, condition report 202207293 was not initiated within 24 hours of discovery of the condition as required by procedure APA-ZZ-00500, "Corrective Action Program," revision 75. There are similarities between this observation and a minor performance deficiency discussed in the Callaway Plant Biennial Problem Identification and Resolution Inspection Report 05000483/2022010 (ADAMS Accession Number ML22277A822) regarding eight examples of failure to initiate condition reports where problems were known and corrected but not through the corrective action program.</p> <p>The inspectors noted that several licensee organizations have also identified similar observations recently. For example, the licensee's internal oversight group documented condition report 202205059 which states that "station personnel are not always writing condition reports as required by the Corrective Action Program." The Nuclear Safety Review Board recommended continued engagement with the workforce around standards adherence</p>	

in condition report 202207423. The performance improvement group generated condition report 202208006 to trend standards adherence through the month of November 2022 and noted there were a total of 15 examples of minor deviations.

Implementing an effective corrective action program is a key performance element in that a licensee demonstrates their ability to detect and correct problems at the right threshold. Although there have not been any safety-significant impacts from issues around procedure adherence and the use of the corrective action program, the licensee has not always been effective in recognizing trends. The inspectors continued to monitor and assess the licensee's use of the corrective action program through routine inspections. No additional trends were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On December 20, 2022, the inspectors presented the emergency preparedness program inspection results to Barry Cox, Site Vice President, and other members of the licensee staff.
- On January 11, 2022, the inspectors presented the integrated inspection results to Fadi Diya, Senior Vice President and Chief Nuclear Officer, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Corrective Action Documents	Condition Reports	202200010, 202200064, 202200563, 202206928, 202207317, 202207947, 202208041, 202208231	
71111.01	Procedures	OTO-ZZ-00012	Severe Weather	44
71111.01	Procedures	OTS-ZZ-00007	Plant Cold Weather	41
71111.04	Corrective Action Documents	Condition Reports	201705354, 201706666, 201804179, 201804844	
71111.04	Drawings	M-01EC02	System Flow Diagram Fuel Pool Cooling and Clean-up System	B
71111.04	Drawings	M-01EC01	System Flow Diagram Fuel Pool Cooling and Clean-up System	D
71111.04	Procedures	OTN-EC-00001	Fuel Pool Cooling and Cleanup System	44
71111.05	Miscellaneous		Fire Preplan Manual	42
71111.05	Miscellaneous	KC-120	Fire Safety Analysis, Fire Area: C-9, ESF Switchgear Room A	2
71111.05	Miscellaneous	KC-121	Fire Safety Analysis, Fire Area: C-10, ESF Switchgear Room B	2
71111.05	Miscellaneous	KC-60	Detailed Fire Modeling Report, Fire Compartment: C-9, ESF Switchgear Room North, Control Building, Elevation 2000	4
71111.05	Miscellaneous	KC-61	Detailed Fire Modeling Report, Fire Compartment: C-10, ESF Switchgear Room South, Control Building, Elevation 2000	4
71111.05	Work Orders		22000449	
71111.11Q	Corrective Action Documents	Condition Reports	202207189	
71111.11Q	Procedures	ODP-ZZ-00001	Operations Department - Code of Conduct	108
71111.11Q	Procedures	OSP-AL-V001C	Turbine Driven Auxiliary Feedwater Valve Inservice Test	62
71111.12	Corrective Action Documents	Condition Reports	202206571	
71111.13	Corrective Action Documents	Condition Reports	202207040, 202207050, 202207058, 202207064, 202207208	
71111.13	Procedures	APA-ZZ-00322, Appendix F	Online Work Integrated Risk Management	24

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.13	Procedures	ODP-ZZ-00002, Appendix 1	Protected Equipment Program	32
71111.13	Procedures	ODP-ZZ-00002, Appendix 2	Risk Management Actions for Planned Risk Significant Activities	19
71111.13	Work Orders		16505944, 21505608, 21504604, 21511873	
71111.15	Corrective Action Documents	Condition Reports	202206972, 202207007, 202207020, 202207052, 202207056, 202207107, 202207111, 202207295, 202207671, 202207687, 202207728	
71111.15	Miscellaneous	EF-123	UHS Thermal Performance Analysis using GOTHIC	2
71111.18	Corrective Action Documents	Condition Reports	202202324, 202203328, 202203378, 202203394, 202203419	
71111.18	Drawings	M-1145-00005	Flanged Style Butterfly Valve Disc and Shaft Assembly	0
71111.18	Drawings	M-1145-00007, S001	Flanged Style Butterfly Valve with Limitorque Actuator	0
71111.18	Miscellaneous	CA0139	Senior Leadership Challenge Meeting Comments	0
71111.18	Miscellaneous	CA4600B	Design Equivalent Change Package	1
71111.18	Miscellaneous	CA4620	Design Task Job Brief	1
71111.18	Miscellaneous	CA4640	Design Risk Assessment	0
71111.18	Miscellaneous	CA4642	Failure Modes and Effects Analysis	0
71111.18	Miscellaneous	CA4643	Equipment Spare Part Rating Matrix	0
71111.18	Miscellaneous	FCN01	Field Change Request	0
71111.18	Miscellaneous	MP 20-0068	ESW Bypass Valve (EFHV0065/66) Shaft Replacement	1
71111.18	Work Orders		200044408, 19513019	
71111.19	Corrective Action Documents	Condition Reports	202207058, 202207076, 202207189	
71111.19	Procedures	APA-ZZ-00322, Appendix E	Post-Maintenance Test Program	18
71111.19	Procedures	ODP-ZZ-00002	Equipment Status Control	96
71111.19	Procedures	OSP-EF-P001A	ESW Train A Inservice Test	89
71111.19	Procedures	OSP-KA-V0003	Nitrogen Accumulator Inservice Leak Rate Test	31
71111.19	Procedures	OSP-NE-0001A	Standby Diesel Generator A Periodic Tests	69
71111.19	Work Orders		21504040, 21503991, 18503096, 21504043, 21004019, 21504051, 20001021, 21504003, 19512893, 19513019,	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			21504066, 22511269, 20513223, 19513531, 19513532, 21507343	
71111.22	Corrective Action Documents	Condition Reports	202206770	
71111.22	Procedures	OSP-NE-0001B	Standby Diesel Generator B Periodic Tests	69
71111.22	Work Orders		22510732, 21501525	
71114.02	Miscellaneous		Alert and Notification System Evaluation Report, Callaway Energy Center	3/1/2021
71114.02	Miscellaneous		Report of Work Performed on the Outdoor Warning Siren System	6/18/2020
71114.02	Miscellaneous		Report of Work Performed on the Outdoor Warning Siren System	10/25/2021
71114.02	Miscellaneous		Report of Work Performed on the Outdoor Warning Siren System	11/13/2020
71114.02	Miscellaneous		Report of Work Performed on the Outdoor Warning Siren System	10/21/2022
71114.02	Miscellaneous		Report of Work Performed on the Outdoor Warning Siren System	5/27/2021
71114.02	Miscellaneous	Job 19502946/500	2020 Audit of Callaway Electric Coop Utility Report for Tone Alert Radios	0
71114.02	Miscellaneous	Job 20503116-500	2021 Audit of Three Rivers Utility Report for Tone Alert Radios	0
71114.02	Miscellaneous	Job 21503381-500	2022 Audit of Ameren Utility Report for Tone Alert Radios	0
71114.02	Procedures	KSP-ZZ-00008	Tone Alert Radios	11
71114.02	Procedures	KSP-ZZ-00110	Siren Alerting System Testing	18
71114.03	Corrective Action Documents	Condition Reports	202206013	
71114.03	Miscellaneous	Job/Task Number: 21504806	ERO Augmentation Drill/Test, Date: 9/6/2021	9/15/2021
71114.03	Miscellaneous	Job/Task Number: 21509156	ERO Augmentation Drill/Test, Date: 10/21/2021	10/27/2021

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71114.03	Miscellaneous	Job/Task Number: 21511692	ERO Augmentation Drill/Test, Date: 3/1/2022	3/9/2022
71114.03	Miscellaneous	Job/Task Number: 22502275	ERO Augmentation Drill/Test, Date: 6/8/2022	6/20/2022
71114.03	Miscellaneous	Job/Task Number: 22507242	ERO Augmentation Drill/Test, Date: 9/10/2022	9/14/2022
71114.03	Miscellaneous	Surveillance Number: 20503127	ERO Augmentation Drill/Test, Date: 9/13/2020	9/15/2020
71114.03	Miscellaneous	Surveillance Number: 20508820	ERO Augmentation Drill/Test, Date: 12/14/2020	12/17/2020
71114.03	Miscellaneous	Surveillance Number: 20513218	ERO Augmentation Drill/Test, Date: 2/2/2021	2/5/2021
71114.03	Miscellaneous	Surveillance Number: 21501631	ERO Augmentation Drill/Test, Date: 5/10/2021	5/13/2021
71114.03	Procedures	EIP-ZZ-00200	Augmentation of the Emergency Response Organization	22
71114.03	Procedures	KOA-ZZ-00200	Activation of the Callaway Plant Emergency Callout System	17
71114.04	Corrective Action Documents	Condition Reports	202105820, 202106364	
71114.04	Corrective Action Documents Resulting from Inspection	Condition Reports	202207884, 202207906, 202207933, 202208187	
71114.04	Miscellaneous	EIP-ZZ-00101, Addendum 2	Emergency Action Level Technical Bases Document	19
71114.04	Miscellaneous	EP Tracking Number 2021037	50.54(q) Screening Form, Document: EIP-ZZ-00101, Addendum 2, Revision 19, Emergency Action Level Technical Bases Document	12/13/2021

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71114.04	Miscellaneous	EP Tracking Number: 2021019	50.54(q) Screening Form, Document: RERP Revision 53, Radiological Emergency Response Plan (Change 5)	9/30/2021
71114.04	Miscellaneous	EP Tracking Number: 2021026	50.54(q) Effectiveness Evaluation Form, Document: RERP Revision 54, Radiological Emergency Response Plan	10/28/2021
71114.04	Miscellaneous	EP Tracking Number: 2021038	50.54(q) Screening Form, Document: EIP-ZZ-00101, Addendum 2, Revision 19, Emergency Action Level Technical Bases Document	12/16/2021
71114.04	Miscellaneous	EP Tracking Number: 2021038	50.54(q) Effectiveness Evaluation Form, Document: EIP-ZZ-00101, Addendum 2, Revision 19, Emergency Action Level Technical Bases Document	12/16/2021
71114.04	Miscellaneous	EP Tracking Number: 2021039	50.54(q) Screening Form, Document: EIP-ZZ-00101, Addendum 2, Revision 19, Emergency Action Level Technical Bases Document	12/16/2021
71114.04	Miscellaneous	EP Tracking Number: 2022017	50.54(q) Screening Form, Document: EIP-ZZ-01211, Revision 43, Accident Dose Assessment (Changes 1-3, 6, 8-10, 14-16, 18, and 20)	2/24/2022
71114.04	Miscellaneous	EP Tracking Number: 2022017	50.54(q) Screening Form, Document: EIP-ZZ-01211, Revision 43, Accident Dose Assessment (Changes 4 and 19)	2/24/2022
71114.04	Miscellaneous	EP Tracking Number: 2022017	50.54(q) Screening Form, Document: EIP-ZZ-01211, Revision 43, Accident Dose Assessment (Changes 5, 7, 11-13, 17)	2/24/2022
71114.04	Miscellaneous	EP Tracking Number: 2022017	50.54(q) Effectiveness Evaluation Form, Document: EIP-ZZ-01211, Revision 43, Accident Dose Assessment (Changes 4 and 19)	2/24/2022
71114.04	Miscellaneous	EP Tracking Number: 2022018	50.54(q) Screening Form, Document: EIP-ZZ-00212, Revision 32, Protective Action Recommendations (Changes 1-15)	2/24/2022
71114.04	Miscellaneous	EP Tracking Number: 2022018	50.54(q) Screening Form, Document: EIP-ZZ-00212, Revision 32, Protective Action Recommendations (Change 16)	2/24/2022
71114.04	Miscellaneous	EP Tracking Number: 2022018	50.54(q) Effectiveness Evaluation Form, Document: EIP-ZZ-00212, Revision 32, Protective Action Recommendations (Change 16)	2/24/2022

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71114.04	Miscellaneous	EP Tracking Number: 2022018	50.54(q) Screening Form, Document: EIP-ZZ-00212, Revision 32, Protective Action Recommendations (Changes 17-18)	2/24/2022
71114.04	Miscellaneous	EP Tracking Number: 2022018	50.54(q) Effectiveness Evaluation Form, Document: EIP-ZZ-00212, Revision 32, Protective Action Recommendations (Changes 17-18)	2/24/2022
71114.04	Miscellaneous	EP Tracking Number: 2022050	50.54(q) Effectiveness Evaluation Form, Document Number/Title: RERP, Appendix G, Revision 1, Evacuation Time Estimates (ETE) for the Callaway Nuclear Plant Emergency Planning Zone	10/25/2022
71114.04	Procedures	EIP-ZZ-00102	Emergency Implementing Actions	68
71114.04	Procedures	EIP-ZZ-00212	Protective Action Recommendations	32, 33
71114.04	Procedures	EIP-ZZ-01211	Accident Dose Assessment	43
71114.05	Corrective Action Documents	Condition Reports	202007070, 202100920, 202101027, 202103513, 202104753, 202104755, 202104759, 202105380, 202106651, 202200845, 202201214, 202207108, 202207171, 202207304	
71114.05	Corrective Action Documents Resulting from Inspection	Condition Reports	202207914, 202207932	
71114.05	Miscellaneous		Health Physics Drill	6/23/2020
71114.05	Miscellaneous		Callaway Energy Center Ingestion Pathway Exercise Drill Report, April 25, 2017	6/30/2017
71114.05	Miscellaneous		Callaway Energy Center, JIC SEMA Drill Report, June 28, 2022	8/3/2022
71114.05	Miscellaneous		Drill (2021), Contaminated Victim Drill	10/28/2021
71114.05	Miscellaneous		Callaway Energy Center, ERO Training Drill Report, January 28, 2021, through March 4, 2021;	4/15/2021
71114.05	Miscellaneous		Health Physics Drill	5/26/2021
71114.05	Miscellaneous		Callaway Energy Center, Annual ERO Drill (AED) Report, August 20, 2020, through September 24, 2020	1/26/2021
71114.05	Miscellaneous		Callaway Energy Center, Dress Rehearsal Drill Report, August 19, 2021 - Team 5 Participants	10/12/2021

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71114.05	Miscellaneous		Callaway Energy Center, NRC Graded Exercise Report, September 21, 2021 - Team 5 - Participants	10/12/2021
71114.05	Miscellaneous		Health Physics (Chem) Drill	10/28/2021
71114.05	Miscellaneous		Health Physics Drill	9/15/2020
71114.05	Miscellaneous		Mini Scenario #7, Field Monitoring Team	8/19/2021
71114.05	Miscellaneous		Contaminated Victim Drill	12/3/2020
71114.05	Miscellaneous		Health Physics Drill	9/15/2022
71114.05	Miscellaneous		Field Monitoring Team Drill 2020	7/8/2020
71114.05	Miscellaneous		Health Physics Drill	6/14/2022
71114.05	Miscellaneous	AP20007	Nuclear Oversight Audit of Emergency Preparedness	9/3/2020
71114.05	Miscellaneous	AP22005	Nuclear Oversight Audit of Emergency Preparedness	9/28/2022
71114.05	Miscellaneous	Job 19507106	2020 Population Update Analysis	5/26/2020
71114.05	Miscellaneous	Job 20504723	2021 Population Update Analysis	5/24/2021
71114.05	Miscellaneous	Surveillance Report SP21003	Annual Review of the Emergency Preparedness Program	6/15/2021
71114.05	Procedures	APA-ZZ-00500	Corrective Action Program	75
71114.05	Procedures	CDP-ZZ-08100	Post Accident Sampling Guidelines	6
71114.05	Procedures	DTI-020	Regulatory Required Internal Assessments	31, 32
71114.05	Procedures	DTI-033	Performance of Regulatory Required Reviews	4
71114.05	Procedures	EIP-ZZ-A0020	Maintaining Emergency Preparedness	34, 35
71114.05	Procedures	GDP-ZZ-00001	Nuclear Oversight Conduct of Operations	15
71114.05	Procedures	GDP-ZZ-00002	NOS Regulatory Required Internal Assessments	14
71114.05	Procedures	KDP-ZZ-00013	Emergency Response Facility and Equipment Evaluation	19
71114.05	Procedures	KDP-ZZ-00013, Appendix 1	Equipment Important to Emergency Response Matrix	13
71114.05	Procedures	KDP-ZZ-02001	Drill and Exercise Program	28
71114.05	Procedures	KSP-ZZ-00007	Off-Site Effectiveness of the Emergency Preparedness Program	18
71114.05	Work Orders	Work Orders	20002242, 20003084, 21003371, 22003488, 22004037	
71151	Corrective Action Documents	Condition Reports	202201984	
71151	Corrective Action Documents	Condition Reports	202105449	

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71151	Miscellaneous		PI Basis Reports	Various
71151	Miscellaneous		Control Room Logs	Various
71151	Procedures	KDP-ZZ-02000	NRC Performance Indicator (PI) Data Collection	23
71151	Procedures	KSP-ZZ-00110	Siren Alert System Testing	18
71152A	Corrective Action Documents	Condition Reports	202204157, 202205390, 202207044, 202207052, 202207107, 202207204, 202207208, 202206427	
71152A	Miscellaneous	MRC Requested Action 202205390-003	Reinstallation timeline of insulation	08/18/2022
71152A	Miscellaneous	Request for CR Change or Rescreen	Insulation removal room temperature monitoring not performed per RFR 018668C	08/29/2022
71152A	Miscellaneous	Request for Resolution 18668	Temporary Insulation Removal During Modes 1-4	08/28/1998
71152A	Work Orders	Job 19003544	Investigate and repair leakage on EBG01 lower RCS side flange	