



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION IV
1600 E. LAMAR BLVD.
ARLINGTON, TX 76011-4511

November 8, 2016

Shane M. Marik, Vice President
and Chief Nuclear Officer
Omaha Public Power District
Fort Calhoun Station
Mail Stop FC-2-4
9610 Power Lane
Blair, NE 68008

SUBJECT: FORT CALHOUN STATION – NRC INTEGRATED INSPECTION REPORT
NUMBER 05000285/2016003

Dear Mr. Marik:

On September 30, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Fort Calhoun Station. On October 12, 2016, the NRC inspectors discussed the results of this inspection with Michael J. Prospero, Acting Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspectors did not identify any findings or violations of more than minor significance.

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/

Geoffrey B. Miller, Branch Chief
Project Branch D
Division of Reactor Projects

Docket No. 50-285
License No. DPR-40

S. Marik

- 2 -

Enclosure:

Inspection Report 05000285/2016003

w/ Attachment:

1. Supplemental Information
2. Request for Information for the
Occupational/Public Radiation
Safety Inspection

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Letter to Shane M. Marik from Geoffrey B. Miller dated November 8, 2016

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NUMBER 05000285/2016003

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket: 05000285

License: DPR-40

Report: 05000285/2016003

Licensee: Omaha Public Power District

Facility: Fort Calhoun Station

Location: 9610 Power Lane
Blair, NE 68008

Dates: July 1 through September 30, 2016

Inspectors: S. Schneider, Senior Resident Inspector
S. Money, Acting Resident Inspector
T. Sullivan, Acting Resident Inspector
L. Brandt, Acting Resident Inspector
L. Carson II, Sr. Health Physicist
N. Greene, PhD, Health Physicist
P. Hernandez, Health Physicist
J. Kirkland, Senior Operations Engineer
J. O'Donnell, CHP, Health Physicist
C. Cowdrey, Operations Engineer

Approved By: Geoffrey B. Miller
Chief, Project Branch D
Division of Reactor Projects

SUMMARY

IR 05000285/2016003; 07/01/2016 - 09/30/2016; Fort Calhoun Station; Integrated Inspection Report.

The inspection activities described in this report were performed between July 1 and September 30, 2016, by the resident inspectors at Fort Calhoun Station and inspectors from the NRC's Region IV office. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process."

No findings were identified.

PLANT STATUS

The unit began the inspection period at approximately 98 percent power following start-up from an unplanned automatic reactor trip and returned to 100 percent power on July 1, 2016. On September 29, 2016, the licensee commenced a power coastdown, and Fort Calhoun operated at approximately 98.5 percent power at the end of the inspection period.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

Readiness for Impending Adverse Weather Conditions

a. Inspection Scope

On September 6, 2016, the inspectors completed an inspection of the station's readiness for impending adverse weather conditions. The inspectors reviewed plant design features, the licensee's procedures to respond to impending storms, and the licensee's compensatory actions to protect safety-related equipment. The inspectors evaluated operator staffing and accessibility of controls and indications for those systems required to control the plant and conducted a plant walk-down.

These activities constituted one sample of readiness for impending adverse weather conditions, as defined in Inspection Procedure 71111.01.

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial Walk-Down

a. Inspection Scope

The inspectors performed partial system walk-downs of the following risk-significant systems:

- July 13, 2016, emergency diesel generator 2 during testing on emergency diesel generator 1
- July 18, 2016, steam driven auxiliary feedwater pump FW-10 prior to motor driven auxiliary feedwater pump FW-6 operability test
- September 20, 2016, auxiliary feedwater system prior to steam driven auxiliary feedwater pump FW-10 operability test

- September 26, 2016, component cooling water system with component cooling water pump AC-3B out of service for maintenance

The inspectors reviewed the licensee's procedures and system design information to determine the correct lineup for the systems. They visually verified that critical portions of the systems were correctly aligned for the existing plant configuration.

These activities constituted four partial system walk-down samples as defined in Inspection Procedure 71111.04.

b. Findings

No findings were identified.

.2 Complete Walk-Down

a. Inspection Scope

On August 19, 2016, the inspectors performed a complete system walk-down inspection of the spent fuel pool cooling system. The inspectors reviewed the licensee's procedures and system design information to determine the correct system lineup for the existing plant configuration. The inspectors also reviewed open condition reports, in-process design changes, and other open items tracked by the licensee's operations and engineering departments. The inspectors then visually verified that the system was correctly aligned for the existing plant configuration.

These activities constituted one complete system walk-down sample, as defined in Inspection Procedure 71111.04.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

Quarterly Inspection

a. Inspection Scope

The inspectors evaluated the licensee's fire protection program for operational status and material condition. The inspectors focused their inspection on five plant areas important to safety:

- July 21, 2016, emergency diesel generator room 1, fire area 35A
- August 10, 2016, auxiliary building, fire area 33
- August 10, 2016, auxiliary building, fire area 43
- August 11, 2016, auxiliary building, fire areas 35A and 35B
- August 12, 2016, auxiliary building, fire area 10

For each area, the inspectors evaluated the fire plan against defined hazards and defense-in-depth features in the licensee's fire protection program. The inspectors

evaluated control of transient combustibles and ignition sources, fire detection and suppression systems, manual firefighting equipment and capability, passive fire protection features, and compensatory measures for degraded conditions.

These activities constituted five quarterly inspection samples, as defined in Inspection Procedure 71111.05.

b. Findings

No findings were identified.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

On August 9, 2016, the inspectors completed an inspection of the station's ability to mitigate flooding due to internal causes. After reviewing the licensee's flooding analysis, the inspectors chose one plant area containing risk-significant structures, systems, and components that were susceptible to flooding:

- Room 22, safety injection pump room

The inspectors reviewed plant design features and licensee procedures for coping with internal flooding. The inspectors walked down the selected areas to inspect the design features, including the material condition of seals, drains, and flood barriers. The inspectors evaluated whether operator actions credited for flood mitigation could be successfully accomplished.

These activities constituted completion of one flood protection measures sample, as defined in Inspection Procedure 71111.06.

b. Findings

No findings were identified.

1R07 Heat Sink Performance (71111.07)

a. Inspection Scope

On August 15, 2016, the inspectors completed an inspection of the readiness and availability of a risk-significant heat exchanger. The inspectors reviewed the data from the performance of spent fuel pool cooling heat exchanger AC-8 disassembly, cleaning, visual inspection, and reassembly activities.

Additionally, the inspectors walked down spent fuel pool cooling heat exchanger AC-8 to observe its performance and material condition and verified that the heat exchanger was correctly categorized under the Maintenance Rule and was receiving the required maintenance.

These activities constituted completion of one heat sink performance annual review sample, as defined in Inspection Procedure 71111.07.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program and Licensed Operator Performance (71111.11)

.1 Review of Licensed Operator Requalification

a. Inspection Scope

On July 26, 2016, the inspectors observed an Emergency Plan drill for an operating crew in the simulator. The inspectors assessed the performance of the operators and the evaluators' critique of their performance. The inspectors also assessed the modeling and performance of the simulator during the requalification activities.

These activities constituted completion of one quarterly licensed operator requalification program sample, as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

.2 Review of Licensed Operator Performance

a. Inspection Scope

The inspectors observed the performance of on-shift licensed operators in the plant's main control room. The inspectors observed the operators' performance of the following activities:

- July 5, 2016, operators responded to an automatic isolation of steam generator B blowdown
- August 10, 2016, entry into abnormal operating procedure AOP-31 due to 161 kV grid disturbances
- August 29, 2016, entry into abnormal operating procedure AOP-12 due to loss of containment integrity
- September 13, 2016, operators performed an emergency diesel generator 1 surveillance test while conducting fuel moves in the spent fuel pool and diluting the reactor coolant system
- September 15, 2016, operators responded to the failed Loop 2 T_{hot} resistance temperature detector from the B reactor protective system instrument channel

In addition, the inspectors assessed the operators' adherence to plant procedures and other operations department policies.

These activities constituted completion of five quarterly licensed operator performance samples, as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

.3 Biennial Review of Regualification Program

a. Inspection Scope

The licensed operator regualification program involves two training cycles that are conducted over a 2-year period. In the first cycle, the annual cycle, the operators are administered an operating test consisting of job performance measures and simulator scenarios. In the second part of the training cycle, the biennial cycle, operators are administered an operating test and a comprehensive written examination.

To assess the performance effectiveness of the licensed operator regualification program, the inspectors reviewed both the written examination and operating test quality and observed licensee administration of an annual regualification test while onsite. The operating tests observed included five job performance measures and two scenarios that were used in the current biennial regualification cycle. These observations allowed the inspectors to assess the licensee's effectiveness in conducting the operating test to ensure operator mastery of the training program content and to determine if feedback of performance analyses into the regualification training program was being accomplished.

On September 16, 2016, the licensee informed the inspectors of the completed cycle results for Fort Calhoun Station for both the written examinations and the operating tests:

- 8 of 8 crews passed the simulator portion of the operating test
- 35 of 38 licensed operators passed the simulator portion of the operating test
- 36 of 38 licensed operators passed the job performance measure portion of the operating test
- 34 of 38 licensed operators passed the written examination

Two licensed operators did not take any portion of the operating test or written examination. They were unavailable for medical reasons and will be meeting the regualification exam requirements prior to the end of the current biennial cycle ending December 31, 2016.

The individual that failed the simulator scenario portion of the operating test was remediated, retested, and passed their retake test.

Two individuals failed the written examinations. One individual was remediated, retested, and passed their retake examination. The other individual was remediated, retested, and failed their retake examination. On September 26, 2016, the licensee requested that this individual's license be terminated.

The inspectors observed examination security measures in place during administration of the examinations (including controls and content overlap) and reviewed any remedial training and re-examinations, if necessary. The inspectors also reviewed medical records of five licensed operators for conformance to license conditions and the licensee's system for tracking qualifications and records of license reactivation for one operator.

The inspectors reviewed simulator performance for fidelity with the actual plant and the overall simulator program of maintenance, testing, and discrepancy correction.

The inspectors completed one inspection sample of the biennial licensed operator requalification program.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors reviewed one instance of degraded performance or condition of safety-related structures, systems, and components (SSCs):

- July 28, 2016, spent fuel pool bridge failure

The inspectors reviewed the extent of condition of possible common cause SSC failures and evaluated the adequacy of the licensee's corrective actions. The inspectors reviewed the licensee's work practices to evaluate whether these may have played a role in the degradation of the SSCs. The inspectors assessed the licensee's characterization of the degradation in accordance with 10 CFR 50.65 (the Maintenance Rule), and verified that the licensee was appropriately tracking degraded performance and conditions in accordance with the Maintenance Rule.

These activities constituted completion of one maintenance effectiveness sample, as defined in Inspection Procedure 71111.12.

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed two risk assessments performed by the licensee prior to changes in plant configuration and the risk management actions taken by the licensee in response to elevated risk:

- July 8, 2016, planned yellow risk during emergency diesel generator 2 maintenance
- August 17, 2016, planned yellow risk during emergency diesel generator 1 testing

The inspectors verified that these risk assessments were performed timely and in accordance with the requirements of 10 CFR 50.65 (the Maintenance Rule) and plant procedures. The inspectors reviewed the accuracy and completeness of the licensee's risk assessments and verified that the licensee implemented appropriate risk management actions based on the result of the assessments.

These activities constituted completion of two maintenance risk assessment inspection samples, as defined in Inspection Procedure 71111.13.

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15)

a. Inspection Scope

The inspectors reviewed six operability determinations that the licensee performed for degraded or nonconforming structures, systems, or components (SSCs):

- July 15, 2016, operability determination of the primary and secondary control element assemblies following discovery of a degraded condition
- August 23, 2016, operability determination of the reactor coolant pump RC-3A motor lower oil reservoir level anomalies
- August 29, 2016, operability determination of the flooding impact to the raw water pumps not adequately evaluated for the most limiting impact from tornado missile hazards
- September 2, 2016, operability determination of the raw water pump seal water piping supports not appearing to be seismically qualified
- September 28, 2016, operability determination of the boric acid leak on a reactor coolant system sampling line outside containment but inside the reactor coolant system containment isolation valve which affected containment integrity
- September 29, 2016, assessment of operator work-arounds

The inspectors reviewed the timeliness and technical adequacy of the licensee's evaluations. Where the licensee determined the degraded SSC to be operable, the inspectors verified that the licensee's compensatory measures were appropriate to provide reasonable assurance of operability. The inspectors verified that the licensee had considered the effect of other degraded conditions on the operability of the degraded SSC.

The inspectors reviewed operator actions taken or planned to compensate for degraded or nonconforming conditions. The inspectors verified that the licensee effectively managed these operator work-arounds to prevent adverse effects on the function of mitigating systems and to minimize their impact on the operators' ability to implement abnormal and emergency operating procedures.

These activities constituted completion of six operability review samples, which included one operator work-around sample, as defined in Inspection Procedure 71111.15.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope

The inspectors reviewed two temporary plant modifications that affected risk-significant structures, systems, and components (SSCs):

- August 24, 2016, tornado protection for raw water system cable pull boxes
- September 23, 2016, removal of a failed Loop 2 T_{hot} resistance temperature detector from the B reactor protective system instrument channel

The inspectors verified that the licensee had installed these temporary modifications in accordance with technically adequate design documents. The inspectors verified that these modifications did not adversely impact the operability or availability of affected SSCs. The inspectors reviewed design documentation and plant procedures affected by the modifications to verify the licensee maintained configuration control.

These activities constituted completion of two samples of temporary modifications, as defined in Inspection Procedure 71111.18.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed five post-maintenance testing activities that affected risk-significant structures, systems, or components (SSCs):

- August 17, 2016, raw water pump AC-10 post-maintenance test
- September 8, 2016, replace battery charger 3 float potentiometer
- September 19, 2016, replace time delay agastat relay for component cooling water pump AC-3B from DC sequencer S2-1

- September 20, 2016, refurbishment of compressed air CA-1B air compressor
- September 26, 2016, removal of a failed Loop 2 T_{hot} resistance temperature detector from the B reactor protective system instrument channel

The inspectors reviewed licensing- and design-basis documents for the SSCs and the maintenance and post-maintenance test procedures. The inspectors observed the performance of the post-maintenance tests to verify that the licensee performed the tests in accordance with approved procedures, satisfied the established acceptance criteria, and restored the operability of the affected SSCs.

These activities constituted completion of five post-maintenance testing inspection samples, as defined in Inspection Procedure 71111.19.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed nine risk-significant surveillance tests and reviewed test results to verify that these tests adequately demonstrated that the structures, systems, and components (SSCs) were capable of performing their safety functions:

In-service tests:

- August 19, 2016, component cooling water pump AC-3A in-service test
- September 9, 2016, safety injection/containment spray pumps in-service and valve exercise test
- September 30, 2016, raw water pump AC-10D in-service test

Containment isolation valve surveillance tests:

- July 20, 2016, containment cooler inlet and outlet valves surveillance test

Reactor coolant system leak detection tests:

- September 28, 2016, reactor coolant system leak detection test

Other surveillance tests:

- July 15, 2016, emergency diesel generator 1 S1-2 automatic load sequencer surveillance test
- August 4, 2016, chemical and volume control system boric acid pump CH-4B surveillance test

- August 19, 2016, ventilating air system Category A valve exercise surveillance test
- September 20, 2016, diesel driven auxillary feedwater pump FW-54 full flow operability verification test

The inspectors verified that these tests met technical specification requirements, that the licensee performed the tests in accordance with their procedures, and that the results of the tests satisfied appropriate acceptance criteria. The inspectors verified that the licensee restored the operability of the affected SSCs following testing.

These activities constituted completion of nine surveillance testing inspection samples, as defined in Inspection Procedure 71111.22.

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06)

Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors observed an emergency preparedness drill on July 26, 2016, to verify the adequacy and capability of the licensee's assessment of drill performance. The inspectors reviewed the drill scenario, observed the drill from the simulator, and attended the post-drill critique. The inspectors verified that the licensee's emergency classifications, off-site notifications, and protective action recommendations were appropriate and timely. The inspectors verified that any recommendations were appropriately identified by the licensee in the post-drill critique and entered into the corrective action program for resolution.

These activities constituted completion of one emergency preparedness drill observation sample, as defined in Inspection Procedure 71114.06.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstones: Public Radiation Safety and Occupational Radiation Safety

2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01)

a. Inspection Scope

The inspectors evaluated the licensee's performance in assessing the radiological hazards in the workplace associated with licensed activities. The inspectors assessed

the licensee's implementation of appropriate radiation monitoring and exposure control measures for both individual and collective exposures. During the inspection, the inspectors interviewed licensee personnel, walked down various areas in the plant, performed independent radiation dose rate measurements, and observed postings and physical controls. The inspectors reviewed licensee performance in the following areas:

- Radiological hazard assessment, including a review of the plant's radiological source terms and associated radiological hazards. The inspectors also reviewed the licensee's radiological survey program to determine whether radiological hazards were properly identified for routine and non-routine activities and assessed for changes in plant operations.
- Instructions to workers including radiation work permit requirements and restrictions, actions for electronic dosimeter alarms, changing radiological condition, and radioactive material container labeling.
- Contamination and radioactive material control, including release of potentially contaminated material from the radiologically controlled area, radiological survey performance, radiation instrument sensitivities, material control and release criteria, and control and accountability of sealed radioactive sources.
- Radiological hazards control and work coverage. During walk-downs of the facility and job performance observations, the inspectors evaluated ambient radiological conditions, radiological postings, adequacy of radiological controls, radiation protection job coverage, and contamination controls. The inspectors also evaluated dosimetry selection and placement as well as the use of dosimetry in areas with significant dose rate gradients. The inspectors examined the licensee's controls for items stored in the spent fuel pool and evaluated airborne radioactivity controls and monitoring.
- High radiation area and very high radiation area controls. During plant walk-downs, the inspectors verified the adequacy of posting and physical controls, including areas of the plant with the potential to become risk-significant high radiation areas.
- Radiation worker performance and radiation protection technician proficiency with respect to radiation protection work requirements. The inspectors determined if workers were aware of significant radiological conditions in their workplace, radiation work permit controls/limits in place, and electronic dosimeter dose and dose rate set points. The inspectors observed radiation protection technician job performance, including the performance of radiation surveys.
- Problem identification and resolution for radiological hazard assessment and exposure controls. The inspectors reviewed audits, self-assessments, and corrective action program documents to verify problems were being identified and properly addressed for resolution.

These activities constituted completion of the seven required samples of radiological hazard assessment and exposure control program, as defined in Inspection Procedure 71124.01.

b. Findings

No findings were identified.

2RS5 Radiation Monitoring Instrumentation (71124.05)

a. Inspection Scope

The inspectors evaluated the accuracy and operability of the radiation monitoring equipment used by the licensee to monitor areas, materials, and workers to ensure a radiologically safe work environment. This evaluation included equipment used to monitor radiological conditions related to normal plant operations, anticipated operational occurrences, and conditions resulting from postulated accidents. The inspectors interviewed licensee personnel, walked down various portions of the plant, and reviewed licensee performance associated with radiation monitoring instrumentation, as described below:

- The inspectors performed walk-downs and observations of selected plant radiation monitoring equipment and instrumentation, including portable survey instruments, area radiation monitors, continuous air monitors, personnel contamination monitors, portal monitors, and small article monitors. The inspectors assessed material condition and operability, evaluated positioning of instruments relative to the radiation sources or areas they were intended to monitor, and verified performance of source checks and calibrations.
- The inspectors evaluated the calibration and testing program, including laboratory instrumentation, whole body counters, post-accident monitoring instrumentation, portal monitors, personnel contamination monitors, small article monitors, portable survey instruments, area radiation monitors, electronic dosimetry, air samplers, and continuous air monitors.
- The inspectors assessed problem identification and resolution for radiation monitoring instrumentation. The inspectors reviewed audits, self-assessments, and corrective action program documents to verify problems were being identified and properly addressed for resolution.

These activities constituted completion of the three required samples of radiation monitoring instrumentation, as defined in Inspection Procedure 71124.05.

b. Findings

No findings were identified.

2RS6 Radioactive Gaseous and Liquid Effluent Treatment (71124.06)

a. Inspection Scope

The inspectors evaluated whether the licensee maintained gaseous and liquid effluent processing systems and properly mitigated, monitored, and evaluated radiological discharges with respect to public exposure. The inspectors verified that abnormal

radioactive gaseous or liquid discharges and conditions, when effluent radiation monitors are out-of-service, were controlled in accordance with the applicable regulatory requirements and licensee procedures. The inspectors verified that the licensee's quality control program ensured radioactive effluent sampling and analysis adequately quantified and evaluated discharges of radioactive materials. The inspectors verified the adequacy of public dose projections resulting from radioactive effluent discharges. The inspectors interviewed licensee personnel and reviewed licensee performance in the following areas:

- During walk-downs and observations of selected portions of the radioactive gaseous and liquid effluent equipment, the inspectors evaluated routine processing and discharge of effluents, including sample collection and analysis. The inspectors observed equipment configuration and flow paths of selected gaseous and liquid discharge system components, effluent monitoring systems, filtered ventilation system material condition, and significant changes to effluent release points.
- Calibration and testing program for process and effluent monitors, including National Institute of Standards and Technology (NIST) traceability of sources, primary and secondary calibration data, channel calibrations, set-point determination bases, and surveillance test results.
- Sampling and analysis controls used to ensure representative sampling and appropriate compensatory sampling. Reviews included results of the inter-laboratory comparison program.
- Instrumentation and equipment, including effluent flow measuring instruments, air cleaning systems, and post-accident effluent monitoring instruments.
- Dose calculations for effluent releases. The inspectors reviewed a selection of radioactive liquid and gaseous waste discharge permits and abnormal gaseous or liquid tank discharges, and verified the projected doses were accurate. The inspectors also reviewed 10 CFR Part 61 analyses and methods used to determine which isotopes were included in the source term. The inspectors reviewed land use census results, offsite dose calculation manual changes, and significant changes in reported dose values from previous years.
- Problem identification and resolution for radioactive gaseous and liquid effluent treatment. The inspectors reviewed audits, self-assessments, and corrective action program documents to verify problems were being identified and properly addressed for resolution.

These activities constituted completion of the six required samples of radioactive gaseous and liquid effluent treatment program, as defined in Inspection Procedure 71124.06.

b. Findings

No findings were identified.

2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (71124.08)

a. Inspection Scope

The inspectors evaluated the effectiveness of the licensee's programs for processing, handling, storage, and transportation of radioactive material. The inspectors interviewed licensee personnel and reviewed the following items:

- Radioactive material storage, including waste storage areas including container labeling/marketing and monitoring containers for deformation or signs of waste decomposition.
- Radioactive waste system, including walk-downs of the accessible portions of the radioactive waste processing systems and handling equipment. The inspectors also reviewed or observed changes made to the radioactive waste processing systems, methods for dewatering and waste stabilization, waste stream mixing methodology, and waste processing equipment that was not operational or abandoned in place.
- Waste characterization and classification, including radio-chemical sample analysis results for radioactive waste streams and use of scaling factors and calculations to account for difficult-to-measure radionuclides, and processes for waste classification including use of scaling factors and 10 CFR Part 61 analyses.
- Shipment preparation, including packaging, surveying, labeling, marking, placarding, vehicle checking, driver instructing, and preparation of the disposal manifests.
- Shipping records for LSA I, II, III, SCO I, II, Type A, or Type B radioactive material or radioactive waste shipments.
- Problem identification and resolution for radioactive solid waste processing and radioactive material handling, storage, and transportation. The inspectors reviewed audits, self-assessments, and corrective action program documents to verify problems were being identified and properly addressed for resolution.

These activities constituted completion of the six required samples of radioactive solid waste processing and radioactive material handling, storage, and transportation program, as defined in Inspection Procedure 71124.08.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Security

4OA1 Performance Indicator Verification (71151)

.1 Mitigating Systems Performance Index: High Pressure Injection Systems (MS07)

a. Inspection Scope

The inspectors reviewed the licensee's mitigating system performance index data for the period of July 1, 2015, through June 30, 2016, to verify the accuracy and completeness of the reported data. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the mitigating system performance index for high pressure injection systems, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.2 Mitigating Systems Performance Index: Heat Removal Systems (MS08)

a. Inspection Scope

The inspectors reviewed the licensee's mitigating system performance index data for the period of July 1, 2015, through June 30, 2016, to verify the accuracy and completeness of the reported data. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the mitigating system performance index for heat removal systems, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.3 Mitigating Systems Performance Index: Cooling Water Support Systems (MS10)

a. Inspection Scope

The inspectors reviewed the licensee's mitigating system performance index data for the period of July 1, 2015, through June 30, 2016, to verify the accuracy and completeness of the reported data. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the mitigating system performance index for cooling water support systems, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.4 Occupational Exposure Control Effectiveness (OR01)

a. Inspection Scope

The inspectors verified that there were no unplanned exposures or losses of radiological control over locked high radiation areas and very high radiation areas during the period of April 1, 2015, to June 30, 2016. The inspectors reviewed a sample of radiologically controlled area exit transactions showing exposures greater than 100 millirem. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the occupational exposure control effectiveness performance indicator, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.5 Radiological Effluent Technical Specifications (RETS)/Offsite Dose Calculation Manual (ODCM) Radiological Effluent Occurrences (PR01)

a. Inspection Scope

The inspectors reviewed corrective action program records for liquid or gaseous effluent releases that occurred between April 1, 2015, and June 30, 2016, and were reported to the NRC to verify the performance indicator data. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the radiological effluent technical specifications (RETS)/offsite dose calculation manual (ODCM) radiological effluent occurrences performance indicator, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152)

.1 Routine Review

a. Inspection Scope

Throughout the inspection period, the inspectors performed daily reviews of items entered into the licensee's corrective action program and periodically attended the licensee's condition report screening meetings. The inspectors verified that licensee personnel were identifying problems at an appropriate threshold and entering these problems into the corrective action program for resolution. The inspectors verified that the licensee developed and implemented corrective actions commensurate with the significance of the problems identified. The inspectors also reviewed the licensee's problem identification and resolution activities during the performance of the other inspection activities documented in this report.

b. Findings

No findings were identified.

.2 Annual Follow-up of Selected Issues

a. Inspection Scope

The inspectors selected one issue for an in-depth follow-up:

- On September 30, 2016, in leakage into safety injection tank 6A.

The inspectors assessed the licensee's problem identification threshold, cause analyses, extent of condition reviews and compensatory actions. The inspectors verified that the licensee appropriately prioritized the planned corrective actions and that these actions were adequate to correct the condition.

These activities constituted completion of one annual follow-up sample as defined in Inspection Procedure 71152.

b. Findings

No findings were identified.

4OA3 Follow-up of Events and Notices of Enforcement Discretion (71153)

.1 Plant Events

a. Inspection Scope

For the plant events listed below, the inspectors reviewed and observed plant parameters, reviewed personnel performance, and evaluated performance of mitigating systems as applicable. The inspectors communicated the plant events to appropriate regional personnel, and compared the event details with criteria contained in Inspection Manual Chapter 0309, "Reactive Inspection Decision Basis for Reactors," for consideration of potential reactive inspection activities. As applicable, the inspectors

verified that the licensee made appropriate emergency classification assessments and properly reported the event in accordance with 10 CFR 50.72 and 50.73. The inspectors reviewed the licensee's follow-up actions related to the event to assure that the licensee implemented appropriate corrective actions commensurate with their safety significance.

- August 10, 2016, operator response to 161 kV grid disturbances
- August 29, 2016, operator response to a loss of containment integrity
- September 3, 2016, operator response to a seismic event alarm

b. Findings

No findings were identified.

.2 (Closed) Licensee Event Report 05000285/2016-001-00, "Technical Specification Violation Due to Installation of an Unqualified Part in a Radiation Monitor"

a. Inspection Scope

On February 10, 2016, the licensee became aware of a 10 CFR 21.21 nonconformance notification issued by Canberra Industries, Incorporated. Canberra identified that some components from purchase orders associated with radiation monitors had not fully met 10 CFR 50.49 electrical equipment qualification standards. It was determined that certain components (time delay, mass flow controller, and vacuum pump motor) in specific radiation monitors (RMs)-50, -51, and -52 may not be qualified for the potential worst case environmental conditions during an electromagnetic, high temperature or seismic event. By February 12, 2016, the licensee and Canberra located the components that should have been included in the electrical equipment qualification program. Eventually, the licensee determined that only RM-52 (auxiliary building vent stack monitor) had an unqualified part installed, a time delay relay.

The licensee did not have the nonconforming relay rededicated or requalified. As corrective action, the licensee replaced the relay with a new relay that had been properly qualified. The extent of condition evaluation revealed that when RM-52 was in the degraded condition with the unqualified time delay relay, it was relied on to backup the dedicated containment building radiation monitors RM-50, -51, and -62. These radiation monitors provide a containment radiation high signal during an event and are required to be operable per Technical Specification 2.15.1. The licensee corrected the deficiency immediately upon notification and no additional deficiencies were identified during the review of this licensee event report. Therefore, the inspector determined there was no performance deficiency. This licensee event report is closed.

b. Findings

No findings were identified.

.3 (Closed) Violation 05000285/2015010-01, "Failure to Provide Complete and Accurate Information on Licensed Operator Applications"

The NRC issued this cited violation of 10 CFR 50.9, "Completeness and Accuracy of Information," for the Fort Calhoun Station's failure to perform combustion odor testing as required in American National Standards Institute Standard 3.4-1996 for physical

examinations of licensed operators and as documented in NRC Form 396, "Certification of Medical Examination by Facility Licensee." To address this violation, the licensee initiated Condition Report CR 2014-05108.

The inspectors reviewed the actions documented in Condition Report CR 2014-05108 and the subsequent condition reports. Those corrective actions included testing all licensed operators for combustion odor testing prior to taking their next scheduled watch, and revising Procedure OP-AA-105-101, "Administrative Process for NRC License and Medical Requirements," to bring the Exelon fleet model to Fort Calhoun Station. The inspectors determined that through these actions, the licensee restored compliance to 10 CFR 55.23. This violation is closed.

These activities constituted completion of five event follow-up samples, as defined in Inspection Procedure 71153.

4OA5 Other Activities

Follow Up Inspection for Three or More Severity Level IV Traditional Enforcement Violations in the Same Area in a 12-Month Period

a. Inspection Scope

The inspectors performed Inspection Procedure (IP) 92723, "Follow Up Inspection for Three or More Severity Level IV Traditional Enforcement Violations in the Same Area in a 12-Month Period," based on the results of the NRC's mid-cycle assessment review of station performance as documented in the 2015 mid-cycle assessment letter dated September 1, 2015. From July 1, 2014 through June 30, 2015, the NRC issued eight Severity Level (SL) IV traditional enforcement violations in the area of impeding the regulatory process, four of which involved the implementation of the 10 CFR 50.59 process.

The inspectors reviewed the licensee's cause evaluation and corrective actions associated with these issues in order to determine whether the licensee's actions met the IP 92723 inspection objectives to provide assurance that: (1) the cause(s) of the violations are understood by the licensee; (2) the extent of condition and extent of cause of the violations are identified; and (3) licensee corrective actions to the violations are sufficient to address the cause(s).

b. Observations and Findings

The licensee determined the cause was leadership had not provided adequate governance and oversight to influence behaviors and hold personnel accountable. The licensee also determined that the traditional enforcement issues were driven by human performance errors and were primarily associated with the implementation of the 10 CFR 50.59 process by engineering personnel. The licensee reviewed traditional enforcement violations from the previous 12-month time period and identified similar issues and drivers (e.g., several 10 CFR 50.59 process implementation issues). The inspectors determined the SLIV violations received an evaluation at an appropriate level of detail to identify the causes and included review of prior occurrences. The inspectors also concluded the evaluation of the traditional enforcement violations included an appropriate extent of condition and extent of cause of the issues.

The licensee credited several high level corrective actions previously implemented during their recovery while in the Inspection Manual Chapter 0350 process. These actions included; development of governance and oversight policies and transition to the Exelon Management model, implementation of a new engineering organizational structure, development and implementation of an Institute of Nuclear Power Operations (INPO) Human Performance Strategic Plan, and the development of an interim Engineering Assurance Group to review engineering product quality. In addition, actions were taken specifically to improve engineering performance and 10 CFR 50.59 process implementation. The actions included 10 CFR 50.59 training, limiting the number of personnel qualified to perform 10 CFR 50.59 evaluations and reviews, and the development of key performance indicators to trend the quality of these engineering products.

The inspectors determined these corrective actions were comprehensive and appropriate to improve overall site performance and specifically to improve 10 CFR 50.59 process and engineering department performance. The inspectors also determined that the corrective actions were prioritized and implemented on a schedule reflective of the organizational turn around necessary to improve site performance. The inspectors noted that although some actions had not appeared to have been in place long enough to effectively preclude the traditional enforcement violations that were identified in the 2014 to 2015 time period, overall site and specifically engineering performance has improved since this time.

The licensee identified several success measures to determine the effectiveness of the traditional enforcement corrective actions including: verification of the completion of engineering training classes, a Nuclear Oversight department audit of the design process (including the 10 CFR 50.59 process with no findings), a successful check-in self-assessment conducted in June 2016, and an overall reduction of traditional enforcement violations in the 12 months following the period of the review (two traditional enforcement violations issued, one of which involved the 10 CFR 50.59 process). The inspectors determined that the licensee developed measures of success which reasonably show improvement has occurred and that corrective actions were reasonably effective in preventing recurrence.

No findings were identified.

4OA6 Meetings, Including Exit

Exit Meeting Summary

On July 22, 2016, the inspectors presented the radiation safety inspection results to Mr. M. Prospero, Vice President, Site (Acting), and other members of the licensee staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspectors had been returned or destroyed.

On September 28, 2016, the inspectors briefed Mr. S. Marik, Vice President and Chief Nuclear Officer, and other members of the licensee's staff of the results of the licensed operator requalification program inspection. The licensee representatives acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On October 12, 2016, the inspectors presented the inspection results to Mr. M. Prospero, Acting Site Vice President, and other members of the licensee staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspectors had been returned or destroyed.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

A. Barker, Supervisor, Radiation Protection
C. Beck, Director, Training, (Acting)
R. Beck, Manager Chemistry, Environmental, and Radwaste
A. Beebe, Supervisor, Chemistry
B. Blessie, Operations Training
B. Blome, Manager, Regulatory Assurance
B. Bonwell, Requalification Supervisor
E. Breault, Supervisor, Radiological Operations
D. Brehm, Supervisor, Radiation Protection Technical Support
C. Cameron, Principal Regulatory Specialist
J. Cate, Manager, Engineering Projects
H. Childs, Manager, Security
D. Conn, Shipper, Radiation Protection
B. Currier, Director, Site Engineering
E. Durboraw, Specialist, Radwaste
E. Engert, Senior Technician, Chemistry
J. Hoffman, Supervisor, Chemistry
R. Hugenthorn, Manager, Nuclear Oversight
K. Kingston, Director Maintenance (Acting)
T. Leaf, Director, Operations
L. Maine, Senior Technician, Chemistry
S. Marik, Vice President and Chief Nuclear Officer
E. Matzke, Senior Licensing Engineer
T. Parent, Engineering
B. Pearson, Supervisor, Radiation Protection
E. Plautz, Manager, Emergency Planning
M. Prospero, Vice President, Site (Acting)
A. Ritton, Senior Technician, Chemistry
J. Shuck, Manager, Systems Engineering
J. St. Claire, Operations Training
J. Sunderman, Senior Radiation Protection Technician
T. Tierney, Plant Manager
T. Uehling, Manager, Training
C. Verdoni, Operation Training
D. Weaver, Director, Site Work Management (Acting)
D. Whisler, Manager, Radiation Protection

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

05000285/2016001-00	LER	Technical Specification Violation Due to Installation of an Unqualified Part in a Radiation Monitor (Section 4OA3)
05000285/2015010-01	VIO	Failure to Provide Complete and Accurate Information on Licensed Operator Applications (Section 4OA3)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
AOP-1	Acts of Nature	48
OP-AA-108-111-1001	Severe Weather and Natural Disaster Guidelines	15
SO-G-119	Site Wind Generated Missile Protection Standards	3

Section 1R04: Equipment Alignment

Drawings

<u>Number</u>	<u>Title</u>	<u>Revision</u>
11405-M-10	Auxiliary Coolant Component Cooling System P&ID	36
11405-M-10	Auxiliary Coolant Component Cooling System Flow Diagram P&ID, Sheet 2	22
11405-M-10	Auxiliary Coolant Component Cooling System Flow Diagram P&ID, Sheet 3	27
11405-M-40	Auxiliary Coolant Component Cooling System P&ID	11
11405-M-11	Spent Fuel Pool Cooling System Flow Diagram	59
11405-M-252	Steam P&ID, Sheet 1	116
11405-M-253	Steam Generator Feedwater and Blowdown P&ID, Sheet 4	42
11405-M-254	Condensate P&ID, Sheet 2	43

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Maintenance Rule Functional Scoping Data Sheets for Spent Fuel Pool Cooling System	

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Spent Fuel Pool Cooling System Health Report	April 1, 2016 to July 31, 2016
	Summary Report of Spent Fuel Pool Cooling System Condition Reports	2015 - 2016
	Boric Acid Corrosion Control Program Spent Fuel Pool Cooling System Open Leak List	August 17, 2016
Chapter 9.6	Updated Safety Analysis Report (USAR), Spent Fuel Pool Cooling System	10

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OI-AFW-1	Auxiliary Feedwater Actuation System Normal Operation	85
OI-CC-1	Component Cooling System Normal Operation	86
OI-DG-2	Operating Instruction Diesel Generator No. 2	70
OI-SFP-1	Spent Fuel Pool Cooling Normal Operation	41
OP-ST-AFW-0001	Auxiliary Feedwater System Valve Alignment Check	24
SO-G-123	Protected Equipment Program	9

Condition Reports (CRs)

2016-05807 2014-01969

Section 1R05: Fire Protection

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
Chapter 9.11	Updated Safety Analysis Report (USAR), Auxiliary Systems Fire Protection System	25, 28

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
AOP-06-02	Uncontrolled Areas of Auxiliary Building	6
EA-97-001	Updated Fire Hazards Analysis	19
SO-G-28	Standing Order Station Fire Plan	93
SO-G-102	Fire Protection Program Plan	

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
UFHA-EA97-001	Fire Area 43 EFWST Area (room 81)	19

Condition Reports (CRs)

2014-08637 2016-05807

Section 1R06: Flood Protection Measures

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
	PRA Summary Notebook	14
Calculation EA 08-010	Internal Flooding	0
Calculation EA 92-057	Internal Flood Analysis Report	1
FC08313	Calculation, Fort Calhoun Room 81 Flooding Analysis	0

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
ARP-AI-100/A50	Annunciator Response Procedure A50 Local Annunciator A50, Waste Disposal	13

Section 1R07: Heat Sink Performance

Drawings

<u>Number</u>	<u>Title</u>	<u>Revision</u>
B-4298	Temporary Spent Fuel Pool Cooling System, Sheet 1	6
B-4298	Temporary Spent Fuel Pool Cooling System, Sheet 2	5
11405-M-11	Temporary Spent Fuel Pool Cooling System Flow Diagram	59

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Spent Fuel Pool Cooling System Health Report	April 1, 2016 to July 31, 2016
	Maintenance Rule Functional Scoping Data Sheets for Spent Fuel Pool Cooling System	

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
Chapter 4.5.6.5	Updated Safety Analysis Report (USAR), In-Service Inspection of ASME Code Class 1, Class 2, and Class 3 Components	
Chapter 9.6	Updated Safety Analysis Report (USAR), Spent Fuel Pool Cooling System	10
Preliminary Report 18-57	Fuel Pool Cooler AC-8, Integrated Technologies, Inc.	March 21, 2005

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OI-SFP-1	Spent Fuel Pool Cooling Normal Operation	41
QC-ST-SFP-3001	Forty Month In-Service Test of the Spent Fuel Pool Cooling System in Room number 5	5

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Work Orders

<u>Number</u>	<u>Title</u>
00188897	Task 01, IC-8 Remove Channel Cover, Inspect, Reinstall Cover
00201320	Task 01, Plug 15 U-Tubes in AC-8 Hx
00413547	Task 01, Perform the Procedure SE-PFT-CCW-004

Section 1R11: Licensed Operator Requalification Program and Licensed Operator Performance

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Control Room Logs	
	2015 – Week 1 Annual Operating Test (2 Scenarios, 5 Job Performance Measures)	2015
	2015 – Week 2 Annual Operating Test (2 Scenarios, 5 Job Performance Measures)	2015
	2016 – LORT 2016, Rotation 5, Week 3 RO Written Exam	2016
	2016 – LORT 2016, Rotation 5, Week 3 SRO Written Exam	2016

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	2016 – Week 3 Annual Operating Test (2 Scenarios, 5 Job Performance Measures)	2016
	2016 – Week 4 Annual Operating Test (2 Scenarios, 5 Job Performance Measures)	2016
	Post Event Simulator Test	December 17, 2014
	Post Event Simulator Test	March 17, 2014
	Post Event Simulator Test	July 27, 2015
	Simulator Work Requests – open and closed from last two years	2015-2016
2.6	Technical Specification, Containment System	
10 CFR 55.46	Simulator Facilities	January 1, 2016
161F561	SPEC 200 Loop Diagram: Loop B/TE-112C, B/TE-112H, B/TE-122C, B/TE-122H	47
17391	Emergency Generators Schematic Diagram	22
68913	Engineering Change, Remove B/TE-122H from RPS	September 17, 2016
ANSI/ANS-3.4	Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants	1996
Chapter 12.1	Updated Safety Analysis Report (USAR), Conduct of Operations – Organization and Responsibilities	20
Chapter 12.2	Updated Safety Analysis Report (USAR), Conduct of Operations – Training	5
Chapter 12.6	Updated Safety Analysis Report (USAR), Conduct of Operations – Site Emergency Plan	3
IP-71111.11	Appendix G and H, effective date Jan 1, 2015	
RERP	Radiological Emergency Response Plan	17

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
AOP-12	Loss of Containment Integrity	8
AOP-31	161 kV Grid Disturbances	14

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
ARP-CB-1,2,3/A4	Annunciator Lampbox A4 Control Board CB-1/2/3 Power AI-41B	36
ARP-CB-4/A20	Annunciator Lampbox A20 Control Board CB-4 Power AI-41A	48
HR-AA-07-101	NRC Licensed Operator Medical Examination	16
OI-FW-5	Steam Generator Blowdown Normal Operation	36
OP-AA-101-113	Operator Fundamentals	9
OP-AA-103-102	Watch-Standing Practices	14
OP-AA-103-103	Operation of Plant Equipment	0
OP-AA-104-101	Communications	3
OP-AA-105-101	Administrative Process for NRC License and Medical Requirements	19
OP-AA-105-102	NRC Active License Maintenance	12
OP-ST-DG-0001	Diesel Generator 1 Check	87
OP-ST-RPS-0005	RPS Power Adjustment	16
STM-RR	Volume 36, RCS Instrumentation and Reactor Regulating Systems	24
SY-FC-102-206	Reporting Use of Medication	5
TBD-EOP-05	Uncontrolled Heat Extraction	30
TQ-AA-150	Operator Training Programs	14
TQ-AA-155	Conduct of Simulator Training and Evaluation	6
TQ-AA-201	Examination Security and Administration	17
TQ-AA-223	Required Reading Training Package – Deboration and Coastdown Overview	August 29, 2016
TQ-FC-201-J01, App A	Licensed Operator Training Simulator Checklist (FCS Specific)	1
TQ-FC-306	Simulator Management	2
TQ-FC-SS-50	Simulator Steady State Test – 50%	1
TQ-FC-TR-1	Manual Reactor Trip Simulator Testing	1
TQ-FC-TR-10	Slow Primary System Depressurization to Saturated Condition using PORV	1
TQ-FC-TR-11	Maximum Design Load Rejection Simulator Testing	3

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
TQ-FC-TR-6	Turbine Trip from Maximum Power Level does not result in Immediate Reactor Trip	1
TQ-FC-TR-8	Maximum Size RCS Rupture with Loss of Offsite Power Simulator Testing	1
TQ-FC-TR-9	Maximum Size Unisolable MSLR Simulator Testing	1

Work Orders

<u>Number</u>	<u>Title</u>
00576848	Task 01, Diesel Generator 1 Check

Condition Reports (CRs)

2013-21774	2014-00376	2014-00379	2014-09652	2014-09655
2014-10116	2014-10172	2014-10297	2014-10573	2014-10907
2014-10938	2014-11396	2014-11546	2014-11840	2014-11938
2014-12020	2014-12693	2014-13632	2014-13878	2014-15294
2015-00810	2015-01033	2015-01277	2015-02181	2015-02940
2015-03599	2015-03621	2015-04442	2015-06224	2015-07522
2015-08240	2015-08243	2015-08246	2015-09200	2015-09308
2015-09618	2015-09638	2015-09795	2015-10566	2015-10572
2015-11215	2015-11707	2015-12496	2015-12863	2015-12964
2015-13125	2015-13324	2015-13738	2015-13800	2015-14282
2016-00516	2016-01239	2016-01531	2016-02035	2016-02777
2016-03429	2016-03700	2016-03786	2016-04032	2016-04415
2016-04468	2016-04756	2016-05256	2016-05471	2016-05807
2016-06039	2016-07037	2016-07038	2016-07045	2016-07333
2016-07336	2016-07388			

Section 1R12: Maintenance Effectiveness

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
ER-AA-310	Implementation of the Maintenance Rule	9
ER-AA-310-1001	Maintenance Rule Scoping	4

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
ER-AA-310-1002	Maintenance Rule Functions – Safety Significance Classification	3
ER-AA-310-1003	Maintenance Rule – Performance Criteria Selection	5

Condition Reports (CRs)

2016-04448	2016-04013	2016-03970	2016-06117	2015-05313
2015-05404	2015-04842			

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
	Equipment Out Of Service Quantitative Risk Assessment Tool	
Chapter 8.4	Updated Safety Analysis Report (USAR), Emergency Power Sources	19
WC-AA-101 Attachment 7	High Risk Evolution Determination	26

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
ER-AA-600	Risk Management	7
ER-AA-600-1011	Risk Management Administrative Guidance	15
ER-AA-600-1042	On-line Risk Management	10
PO-ST-DG-0001	Surveillance Test – Diesel Generator 1 Check	87
SO-G-123	Protected Equipment Program	9

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Section 1R15: Operability Determinations and Functionality Assessments

Miscellaneous Documents

	<u>Title</u>	<u>Revision/Date</u>
	Adverse Condition Monitoring Plan, RC-3A Reactor Coolant Pump Motor Lower Oil Reservoir Level Indication	August 15, 2016
	Event Notification for an Unanalyzed Condition that Significantly Degrades Plant Safety and a Condition that could have Prevented Fulfillment of a Safety Function	August 25, 2016
	Fort Calhoun Site Risk Issue Summary Report	September 28, 2016
	Fort Calhoun Site Risk Map	September 28, 2016
	Operator Burden Backlog Report	September 26, 2016
	Plant Health Committee Meeting Minutes	July 20, 2016 and August 17, 2016
	RC-3A Lower Oil Reservoir Level versus Containment Pressure Plots	
	50.59 Review for EC 68845/OP Eval 16-003	
2.6	Technical Specification, Containment System	
68845	Engineering Change, RW Vault Flooding Due to FP Tornado Missile Strike	0
Chapter 5.9	Updated Safety Analysis Report, Containment Penetrations	16
Chapter 9.13	Updated Safety Analysis Report, Auxiliary Systems-Sampling Systems	7
Chapter 9.8	Updated Safety Analysis Report, Raw Water System	36
FC06343	Calculation, Input, Stress Analysis, and Qualification of Piping for Seismic Subsystem RW-4264, Raw Water Pump Seal Water Supply	0A
FC08264	Calculation, Seismic Qualification of Raw Water Pump Seal Water Supply Pipe Supports - SWS-15, SWS-17, SWS-19, and SWS-21	0

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
AOP-12	Loss of Containment Integrity	8
AOP-35	Reactor Coolant Pump Malfunctions	7

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OI-RC-9	Reactor Coolant Pump Operation	78
OI-RW-1	Raw Water System Normal Operation	111
OP-AA-102-103	Operator Work-Around Program	4
OP-AA-102-103-1001	Operator Burden and Plant Significant Decision Impact Assessment Program	6
OP-AA-108-111	Adverse Condition Monitoring and Contingency Plan, Attachment 1	10
OP-FC-108-105-1001	MCR and RWCR Equipment Deficiency Management and Performance Indicator Screening	1
OP-FC-108-115	Operability Determinations	3
OP-FC-108-115-AD-ODQRB	Operability Determination Oversight and Monitoring	0
OP-ST-SHIFT-0001	Operations Technical Specification Required Shift Surveillance	122

Condition Reports (CRs)

2013-16870	2015-07764	2015-09481	2016-05571	2016-05847
2016-06752	2016-06972	2016-07037	2016-07038	2016-07060
2016-07140	2016-07395	2016-07396	2016-07560	2016-07643

Section 1R18: Plant Modifications

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Operability Evaluation for CR-2016-06498	
1.76	Regulatory Guide, Design Basis Tornado and Tornado Missiles for Nuclear Power Plant, March 2007	1
2.15.1	Technical Specification, Instrumentation and Control Systems	
50.59	Review for EC 68783/Op Eval 16-002	August 8, 2016
50.59	Screening Form for EC 68783	August 8, 2016
60183	Engineering Change, Tornado Protection for Pull Boxes PB-128T and PB-129T	3

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
68913	Engineering Change, Remove B/TE-122H from RPS	2
Chapter 7.1	Updated Safety Analysis Report (USAR), Instrumentation and Control	5
Chapter 7.2	Updated Safety Analysis Report (USAR), Reactor Protective Systems Instrumentation Systems	16, 27
EM-122	Drawing, Instrument and Control Equipment List, Sheet 1	14
FC08250	Design Analysis, Tornado Protection for Pull Boxes PB-128T and PB-129T	3
SK-EC60183-01	Drawing, Tornado Missile Barrier for Pull Boxes PB-128T and PB-129T	E

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
CC-AA-112	Temporary Configuration Changes	23
LS-AA-104	Exelon 50.59 Review Process	10
OP-AA-108-115	Operability Determinations (CM-1)	18
OP-ST-RPS-0005	RPS Power Adjustment	16
OP-ST-SHIFT-0001	Operations Technical Specification Required Shift Surveillance	122

Condition Reports (CRs)

2016-05807	2015-06498	2016-07333	2016-07376	2016-07433
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Work Orders

<u>Number</u>	<u>Title</u>
00593556	Task 02, B/TI-122H; Perform Troubleshooting per MA-AA-716-004

Section 1R19: Post-Maintenance Testing

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
	Electrical Troubleshooting Log	August 31, 2016

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
	Diesel Generator Sequencer Report	September 1, 2016
	Maintenance Alterations Log for WO 00592537-02	September 1, 2016
161F598	Drawing, AI-30B DC Sequencer S2-1 Auto Start Circuit 480V Bus 1B4C and Bus Tie 1B3C-4C, Sheet 2	20
20751	Drawing, Schematic 125 Vdc Battery Charger	2
20778	Drawing, Battery Chargers EE-8C, 8D, 8E	1
68913	Engineering Change, Remove B/TE-122H from RPS	2
E-4126	Drawing, Logic Diagram Panels AI-30A & B, DC Sequencers S1-1 & S2-1, and AC Sequencers S1-2 & S2-2	6
EM-122	Drawing, Instrument and Control Equipment List, Sheet 1	14

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EM-RR-EE-0812	Maintenance of Battery Charger 3 (EE-8E) Alarm Cards	9
MA-AA-716-012	Post Maintenance Testing	20
MD-RR-EX-1000	Soldering Guidelines for Electronic Components	0
MM-PM-PX-0051	Air Compressor CA-1A, CA-1B, and CA-1C Maintenance	10
OP-ST-EE-0002	Monthly Surveillance Test for Station Battery Chargers	3
OP-ST-ESF-0010	Channel B Safety Injection, Containment Spray, and Recirculation Actuation Signal Test	60
OP-ST-RPS-0005	RPS Power Adjustment	16
OP-ST-RW-3005	Raw Water Pump Post Maintenance Operability Test	3
OP-ST-SHIFT-0001	Operations Technical Specifications Required Shift Surveillance	122
OP-ST-SI-3022	Safety Injection/Containment Spray Pumps and Valve Exercise In-Service Test, Room 22	18

Work Orders

<u>Number</u>	<u>Title</u>
00573833	Task 01, CA-1B; Inspection and Refurbishment MM-PM-PX-0051

Work Orders

<u>Number</u>	<u>Title</u>
00578183	Task 01, EE-8E; Conduct Alarm Card Maintenance
00591545	Task 01, EE-8E; Replace Float Potentiometer
00591969	Task 01, EE-8E; Replace CFA Board and DSL Board for Battery Charger #3
00592537	Task 02, Replace Time Delay Pick Up Relay on Sequencer S2-1 for AC-3B
00593556	Task 02, B/TI-122H; Perform Troubleshooting per MA-AA-716-004

Condition Reports (CRs)

2016-05807	2016-06787	2016-06677	2016-06959
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Section 1R22: Surveillance Testing

Drawings

<u>Number</u>	<u>Title</u>	<u>Revision</u>
E-23866-210-120	Piping & Instrumentation Diagram - CVCS	15
E-23866-210-121	Piping & Instrumentation Diagram - CVCS	15

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Control Room Logs	
	Technical Specification 3.1, Instrumentation and Control Surveillance Requirements, Table 3-2	
	Updated Safety Analysis Report (USAR), Chapter 8.4, Emergency Power Sources	19
	Updated Safety Analysis Report (USAR), Chapter 7.3, Engineered Safeguards Controls and Instrumentation	16
2.2	Technical Specification, Chemical and Volume Control System	249
Amendment 165	NRC Safety Evaluation	August 25, 1994
Chapter 9.2	Updated Safety Analysis Report (USAR), Chemical and Volume Control System	27
FC05462	Response Time of Containment Air Monitoring System	8

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
FC05464	Sensitivity of Containment Sump Level and Dew Point Temperature	0

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
1CST-1A-3010A	Accumulator, Check Valve and Trip Valve Testing for Containment Cooler Inlet and Outlet Valves	6
11405-N-40	Auxiliary Coolant Component Cooling System P&ID Sheet 1	36
ER-AP-331-1003	RCS Leakage Monitoring and Action Plan	9
OP-PM-AFW-0004	Third Auxiliary Feedwater Pump Operability Verification	43
OP-ST-CCW-3002	AC-3A Component Cooling Water Pump In-service Test	35
OP-ST-CH-3008B	Chemical and Volume Control System Boric Acid Pump CH-4B Test	6
OP-ST-RC-3001	Reactor Coolant System (RCS) Leak Rate Test	39
OP-ST-RW-3002A	Raw Water System Category A and B Valve Exercise Test	21
OP-ST-RW-3031	AC-10D Raw Water Pump Quarterly In-Service Test	44
OP-ST-SI-3021	Room 21 Safety Injection/Containment Spray Pumps and Valve Exercise In Service Test	20
OP-ST-SI-3022	Safety Injection/Containment Spray Pumps and Valve Exercise In-Service Test, Room 22	18
OP-ST-VA-3001A	Ventilating Air System Quarterly Category A Valve Exercise Test	17
OPST-ESF-00 22	S1-2 Automatic Load Sequencer Test	30
TS 2.4	Containment Cooling	249

Condition Reports (CRs)

2016-05807 2015-04298 2016-05874

Work Orders

<u>Number</u>	<u>Title</u>
572319	Task 01, Accumulator, Check Valve & Trip Valve Testing, "400 Series"

Work Orders

<u>Number</u>	<u>Title</u>
574090	Task 01, FW-54 Monthly Full Flow Operability Verification
576427	Task 01, EE-91 A&B Verify Min Battery Voltage During Cranking of Diesel
578036	Task 01, Reactor Coolant System (RCS) Leak Rate Test

Section 1EP6: Drill Evaluation

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
	Scenario: Volume One FCS EP drill off-year exercise	
EP-FC-1001 Addendum 3	Emergency Action Levels for FCS	1
EP-FC-1001	Radiological Emergency Response Plan FCS	0
RERP	Radiological Emergency Response Plan	17

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EPIP-EOF-1	Activation of the Emergency Operations Facility	20

Condition Reports (CRs)

2016-05807

Section 2RS1: Radiological Hazard Assessment and Exposure Controls

Audits and Self-Assessments

<u>Number</u>	<u>Title</u>	<u>Date</u>
NOSCPA-FC-14-17	Fort Calhoun Radiation Protection Performance Report	October 16, 2014
NOSCPA-FC-15-11	Fort Calhoun Radiation Protection Performance Report	October 5, 2015
NOSCPA-FC-16-03	Fort Calhoun Radiation Protection Performance Report	April 1, 2016

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Date</u>
	Fort Calhoun Nuclear Safety Review Board Meeting Summary	March 9, 2015
	Fort Calhoun Station Nuclear Safety Review Board Meeting Summary	August 21, 2015
	NSTS Inventory Report	January 4, 2016
	SourceTrax Leak Test Record	May 9, 2016
FC-1216	Annual Spent Fuel Pool Physical Inventory Log	October 19, 2015
FC-RP-037-14	2013 Dry Active Waste Stream Off-Site Sample Results	April 8, 2014
L62402	2015 Dry Active Waste Stream Results	April 13, 2015
RP-AA-800	SourceTrax Source Inventory	July 2015
RP-AA-460, Att. 9	HRA Key Log	July 20-21, 2016
RP-AA-460, Att. 10	LHRA Key Log	July 20-21, 2016

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
IC-CP-07-0006	Calibration of the Eberline Small Articles Monitor SAM 12	5
RP-AA-10	Radiation Protection Process Description	3
RP-AA-100	Conduct of Radiation Protection Operations	1
RP-AA-300	Radiological Survey Program	13
RP-AA-376	Radiological Postings, Labeling, and Markings	8
RP-AA-403	Administration of the Radiation Work Permit Program	8
RP-AA-460	Controls for High and Locked High Radiation Areas	28
RP-AA-800	Control, Inventory, and Leak Testing of Radioactive Sources	7
RP-AA1008	Unescorted Access to and Conduct in Radiologically Controlled Areas	5

Radiation Surveys

<u>Number</u>	<u>Title</u>	<u>Date</u>
10620	Breathing Zone Sample for CH-448 Repair	May 13, 2016

Radiation Surveys

<u>Number</u>	<u>Title</u>	<u>Date</u>
M-20150419-19	Lower Reactor Cavity	April 19, 2015
M-20150419-26	Lower Reactor Cavity	April 19, 2015
M-20150706-2	'B' S/G Walkway, Elevation 1013'	July 6, 2015
M-20160330-2	Room #5 L2AA	April 11, 2016
M-20150505-6	CH 188 Room #7	May 11, 2016
M-20160609-1	Room 31	June 9, 2016

Radiation Work Permits

<u>Number</u>	<u>Title</u>	<u>Revision</u>
15-0618	Transfer Canal Blind Flange and LLRT	0
15-0651	Boric Acid Cleaning	0
15-0653	Rx Head Maintenance	0/1
16-0102	Operations Activities	1
16-0103	RP Activities	1
16-0207	Routine Decon Activities in HRAs/LHRAs	0
16-0306	CTMT Work @ Power with Added Controls	0
16-0326	RCP Seal Maintenance and Support Activities	0
16-0337	AC-236 Pipe Weld Repair	0

Condition Reports (CR-)

2015-05720	2015-05925	2015-05938	2015-06847	2015-06904
2015-07552	2015-08876	2015-08877	2015-08946	2015-10640
2015-11672	2015-11674			

Section 2RS5: Radiation Monitoring Instrumentation

Audits and Self-Assessments

<u>Number</u>	<u>Title</u>	<u>Date</u>
NOSA-FCS-15-06	Radiation Protection Audit Report	July 24, 2015
P3 2015(2)	FCS RMS System Health	September 16, 2015
P4 2015(2)	FCS RMS System Health	June 26, 2016
P3 2016(2)	FCS RMS System Health	May 17, 2016

Audits and Self-Assessments

<u>Number</u>	<u>Title</u>	<u>Date</u>
P3 2015(2)	FCS RMS System Health	July 17, 2016
RA 2015-1442	Focused Area Pre-NRC Inspection Self-Assessment	April 27, 2016

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Date</u>
BX-3	Hopewell Calibration Irradiator Box	February 19, 2015
FC-15-001	Evaluation of Instrument Response to Plant Radiological Mix	January 24, 2016
FC-14-002	Evaluation of Instrument Response to Plant Radiological Mix	May 28, 2014

Portable Radiation Instrument Calibration Records

<u>Number</u>	<u>Title</u>	<u>Date</u>
279	ASP-2E (Remball)	June 4, 2015
282	ASP-2E (Remball)	December 4, 2015
302	AMS-4 Continuous Air Monitor	February 20, 2015
691	Hi-Vol Air Sampler	March 9, 2015
1291	Hi-Vol Air Sampler	September 23, 2014
2554	AMS-4 Continuous Air Monitor	March 7, 2015
2554	AMS-4 Continuous Air Monitor	June 6, 2015
6601-091	MGP Telepole	March 25, 2015
6601-124	MGP Telepole	March 25, 2015

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
CH-CP-RA-0006	Calibration of Canberra Gamma Spectroscopy Detectors	13
CH-CP-RM-5300	Component Cooling Water Liquid Radiation Monitor, RM-53, Primary Calibration	5
IC-CP-01-5300	Electronic & Secondary Calibration of Radiation Monitor, RM-53	11
IC-CP-01-5500	Calibration of Eberline Model IM-1A, RM-65	6
IC-CP-01-6700	Calibration of Eberline Model PING-1A, RM-67	11

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
IC-CP-02-0202	Calibration of the Eberline ASP-2E with Remball NRD	1
IC-CP-02-0205	Calibration of Ludlum Model 3030 Alpha/Beta Counter	3b
IC-CP-02-0210	Calibration of the Tennelec XLB	1a
IC-CP-02-0229	Calibration of MGP Telepole	8
IC-CP-02-0602	Calibration of Gooseneck LV Air Sampler	1a
IC-CP-02-0610	Calibration of Eberline AMS 3 Air Monitoring System	5
IC-CP-07-0006	Calibration of the Small Article Monitor SAM 12	8
IC-CP-07-0008	Calibration of the Eberline PM-7 Portal Monitor	8a
IC-CP-07-0013	Calibration of the ARGOS-5A/B PCM	1
IC-ST-RM-5500	Electronic And Secondary Calibration Of Radiation Monitor RM-055	11
OP-ST-RM-0001	Area Radiation Monitor Checks	9
OP-ST-RM-0002	Process/Effluent Radiation Monitor & Effluent Flowrate Checks	25
RP-CP-07-0201	Calibration of Source Calibration Systems	10
RP-FC-700-AD-0201	Calibration of Source Calibration Systems	0
RP-AA-700-1239	Operation & Calibration of the Model SAM 12	2
TBD-IV.8	Area Monitoring Setpoints	88
TBD-IV.7	Process Monitor Setpoints	229

Radiation Monitoring System Calibration Records

<u>Number</u>	<u>Title</u>	<u>Date</u>
WO-446910	Process Radiation Monitor RM-53	June 13, 2013
WO-475850	Process Radiation Monitor RM-65	January 29, 2014
WO-485608	Process Radiation Monitor RM-64	April 14, 2014
WO-494600	Process Radiation Monitor RM-67	July 15, 2014
WO-546538	Process Radiation Monitor RM-67	July 13, 2014
WO-588704	Process Radiation Monitor RM-63	July 16, 2016
WO-671143	Process Radiation Monitor RM-65	July 15, 2016

Stationary Radiation Instrument Calibration Records

<u>Number</u>	<u>Title</u>	<u>Date</u>
110	Argos 5B	January 6, 2016
111	Argos 5B	December 10, 2015
133	Count Room SAM-12	December 2, 2015
134	Count Room SAM-12	August 27, 2015
672	Radwaste PM-7	March 12, 2015
672	Radwaste PM-7	March 10, 2016
18243	Tennelec XLB	October 21, 2015
222792	Ludlum Model 3030 Alpha-Beta Counter	March 8, 2016
Admin FS2	Calibration Admin Bldg. FastScan2 WBC System	November 3, 2015
Detector 1	Calibration of Canberra Gamma Spectroscopy Detectors	December 15, 2015
Plant AC2	Calibration AccuScan2 WBC System	February 25, 2016
Plant FS2	Calibration Admin Bldg. FastScan2 WBC System	February 25, 2016

Condition Reports (CR-)

2014-11553	2014-14872	2014-15152	2015-04956	2015-05423
2015-09208	2015-13987	2016-00585	2016-02369	2015-13757
2015-00512	2015-07137			

Section 2RS6: Radioactive Gaseous and Liquid Effluent Treatment

Audits and Self-Assessments

<u>Number</u>	<u>Title</u>	<u>Date</u>
RA 2015-1442	Focused Area Self-Assessment	June 17, 2016

Effluent Monitor Calibration Records

<u>W/O Number</u>	<u>Title</u>	<u>Date</u>
	Electronic and Secondary Calibration of Radiation Monitor RM-054A	March 1, 2016
	Electronic and Secondary Calibration of Radiation Monitor RM-054B	March 1, 2016
	Steam Generator "A" Blowdown Liquid Radiation Monitor, RM-054A, Primary Calibration	January 22, 2016

Effluent Monitor Calibration Records

<u>W/O Number</u>	<u>Title</u>	<u>Date</u>
	Steam Generator "B" Blowdown Liquid Radiation Monitor, RM-054B, Primary Calibration	January 22, 2016
000534700	Calibration of Auxiliary Building Exhaust Stack Total Ventilation Flow, Loop F-758	April 28, 2016
00485608	Electronic and Secondary Calibration of Radiation Monitor RM-064	April 9, 2014
00503580	Electronic and Secondary Calibration of Radiation Monitor RM-055 (Liquid Waste Monitor)	June 13, 2014
00510640	Electronic and Secondary Calibration of Radiation Monitor RM-052 (Containment/Vent Stack Monitor)	November 1, 2014
00518572	Calibration of Post Accident Radiation Monitor RM-063	March 13, 2015
00532157	Electronic and Secondary Calibration of Radiation Monitor RM-062 (Aux Bldg Vent Stack)	April 6, 2015
00538166	Electronic and Secondary Calibration of Radiation Monitor RM-064	June 19, 2015
00545103	Electronic and Secondary Calibration of Radiation Monitor RM-057 (Condenser Off-Gas Monitor)	October 8, 2015
00554641	Electronic and Secondary Calibration of Radiation Monitor RM-055 (Liquid Waste Effluent Monitor)	February 19, 2016
00560218	Electronic and Secondary Calibration of Radiation Monitor RM-052 (Containment/Vent Stack Monitor)	May 17, 2016
00561162	Calibration of Laboratory and Radioactive Waste Processing Building Exhaust Stack Total Ventilation Flow, Loop F-6699	May 26, 2016
00566733	Electronic and Secondary Calibration of Radiation Monitor RM-062 (Aux Bldg Vent Stack)	October 6, 2015

In-Place Filter Testing and Carbon Testing Records

<u>W/O Number</u>	<u>Title</u>	<u>Date</u>
00470593	Containment HEPA Filter Banks VA-5A/VA-5B Refueling Inspection	May 23, 2015
00525582	Freon Test of Safety Injection Pump Room Charcoal Filter Absorbers VA-26A/26B	November 23, 2015
00540507	Freon Test of Spent Fuel Pool Area Charcoal Filter VA-66	October 26, 2015
00543969	Safety Injection Pump Room Charcoal Filter VA-26A/26B Elemental Iodine Removal Efficiency Test	November 24, 2015

In-Place Filter Testing and Carbon Testing Records

<u>W/O Number</u>	<u>Title</u>	<u>Date</u>
00554642	Verification of Spent Fuel Pool Area Filter unit VA-66 Flow	December 4, 2015

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Date</u>
1 st QTR 2016	Radiation Monitoring System Health Report	
2014	Annual Radiological Effluent Release Report	
2014	Interlaboratory Comparison	
2015	Annual Radiological Effluent Release Report	May 1, 2016
2015	Interlaboratory Comparison	
42006	Engineering Change: Replacement of Radiation Monitor Components	December 22, 2015
TD V964.0010	Installation, Operating and Maintenance Manual for Vortek Electronic Airflow Transmitter	November 16, 1995

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
CH-AD-0055	Special Radiological Liquid Release Permit and Summary	4
CH-ODCM-0001	Off-Site Dose Calculation Manual (ODCM)	25
CH-SMP-RE-0013	Auxiliary Building Exhaust Stack Sampling	27
CH-SMP-RE-0018	Laboratory And Radioactive Waste Processing Building Exhaust Stack Sampling	31
CH-SMP-RE-0019	Auxiliary Building Tritium Sampling Using Either RM-062 or RM-052	5
CH-ST-RM-5400	Steam Generator "A" Blowdown Liquid Radiation Monitor, RM-054A, Primary Calibration	10
CH-ST-RM-5401	Steam Generator "B" Blowdown Liquid Radiation Monitor, RM-054B, Primary Calibration	10
CH-ST-VA-0001	Auxiliary Building Exhaust Stack Sampling and Analysis	14
CH-ST-VA-0002	Laboratory and Radioactive Waste Processing Building Exhaust Stack Sampling and Analysis	9
IC-ST-RM-5200	Electronic and Secondary Calibration of Radiation Monitor RM-052	27

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
IC-ST-RM-5400	Electronic and Secondary Calibration of Radiation Monitor RM-054A	20
IC-ST-RM-5401	Electronic and Secondary Calibration of Radiation Monitor RM-054B	16
IC-ST-RM-5500	Electronic and Secondary Calibration of Radiation Monitor RM-055	11
IC-ST-RM-5700	Electronic and Secondary Calibration of Radiation Monitor RM-057	25
IC-ST-RM-6200	Electronic and Secondary Calibration of Radiation Monitor RM-062	20
IC-ST-RM-6400	Electronic and Secondary Calibration of Radiation Monitor RM-064	9
IC-ST-VA-0026	Calibration of Auxiliary Building Exhaust Stack Total Ventilation Flow, Loop F-758	14
IC-ST-VA-0038	Calibration of Laboratory and Radioactive Waste Processing Building Exhaust Stack Total Ventilation Flow, Loop F-6699	5
SE-ST-VA-0004	Freon Test of Safety Injection Pump Room Charcoal Filter Absorbers VA-26A/26B	7
SE-ST-VA-0005	Safety Injection Pump Room Charcoal Filter VA-26A/26B Elemental Iodine Removal Efficiency Test	8
SE-ST-VA-0009	Freon Test of Spent Fuel Pool Area Charcoal Filter VA-66	10
TDB-IV.7	Technical Data Book: Process Monitor Set Points	229

Radioactive Effluent Release Permits and Summaries

<u>Release Number</u>	<u>Title</u>	<u>Date</u>
2014002	Waste Gas Decay Tank Release Permit (WGDT-D)	April 30, 2014
2015006	Condenser Air Ejector Release Summary	July 1, 2015
2015007	Waste Gas Decay Tank Release Permit (WGDT-B)	June 6, 2015
2015013	Special Radiological Liquid Release Permit	April 30, 2015
2015018	Auxiliary Building Exhaust Stack Release Summary	May 5, 2015
2015018	Special Radiological Liquid Release Permit	May 5 2015
2015023	Special Radiological Liquid Release Permit	May 7, 2015
2015030	Auxiliary Building Exhaust Stack Release Summary	July 28, 2015

Radioactive Effluent Release Permits and Summaries

<u>Release Number</u>	<u>Title</u>	<u>Date</u>
2015040	Steam Generator Batch Release Permit	May 9, 2015
2016006	Containment Release Permit	February 11, 2016
2016019	Waste Liquid Tank Release Permit (MT-A)	March 8, 2016
2016029	Auxiliary Building Exhaust Stack Release Summary	July 19, 2016
2016029	Laboratory and Radioactive Waste Processing Building Exhaust Stack Release Summary	July 19, 2016
2016031	Containment Release Permit	July 21, 2016
2016040	Steam Generator Release Summary (SG-B)	May 19, 2016
2016082	Waste Liquid Tank Release Permit (MT-A)	July 19, 2016

Condition Reports (CR-)

2014-11553	2014-12842	2014-12842	2014-12866	2014-12928
2014-14251	2015-00858	2015-10850	2015-11564	2015-12459
2015-13374	2016-00237	2016-00401	2016-00835	2016-00860
2016-01455	2016-04552	2016-05774		

Section 2RS8: Radioactive Solid Waste Processing, and Radioactive Material Handling, Storage, and Transportation

Audits and Self-Assessments

<u>Number</u>	<u>Title</u>	<u>Date</u>
NOSA-FCS-16-04	Chemistry, Radwaste, Effluent and Environmental Monitoring Audit Report	July 15, 2016
NOSCPA-FC-16-03	Fort Calhoun Radiation Protection Performance Report	April 1, 2016
RA 2015-1442	Focused Area Self-Assessment	April 27, 2016

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Date</u>
	2015 Waste Stream Results Dry Active Waste	January 20, 2015
	Waste Stream Nuclide Distribution Report	June 19, 2016
	Quarterly Radwaste Storage Facility/Waste Liner Container Integrity Inspection	2014-2016

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Date</u>
FC-RP-037-14	2013 Dry Active Waste Stream Off-Site Sample Results	April 8, 2014

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
QCP-235	Radioactive Material Shipments and Preparation for Shipment Inspections (Superseded on March 3, 2016)	21
RE-ST-RX-0004	Boral Sample Coupon Retrieval and Testing	June 27, 2013
RP-AA-14	Radioactive Material Control Program Description	2
RP-AA-500	Radioactive Material (RAM) Control	17
RP-AA-500-1001	Requirements for Radioactive Materials Stored Outdoors	5
RP-AA-600	Radioactive Material/Waste Shipments	14
RP-AA-600-1001	Exclusive Use and Emergency Response Information	9
RP-AA-600-1004	Radioactive Waste Shipments to Energy Solutions' Clive Utah Disposal Site Containerized Waste Facility	12
RP-AA-600-1005	Radioactive Material and Non-Disposal Site Waste Shipments	18
RP-AA-600-1008	Radioactive Waste Shipments to Waste Control Specialists Disposal Facility	4
RP-AA-600-1010	Use and Operation of WMG Software for Creating Containers, Samples, Waste Streams and Waste Types	2
RP-AA-601	Surveying Radioactive Material Shipments	20
RP-AA-602	Packaging of Radioactive Material Shipments	20
RP-AA-603	Inspection and Loading of Radioactive Material Shipments	10
RP-AA-605	10 CFR 61 Program	6
RP-AA-631	Dry Radioactive Waste Generation and Reduction	1
RW-202	Collection of Dry Active Waste	13
RW-AA-10	Radwaste Process Description	5
RW-AA-100	Process Control Program for Radioactive Wastes	11

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
RW-AA-102	Radwaste Storage Facility/DAW Waste Container Inspections	5
RW-AA-1000	Radwaste Monthly Report Guideline	7
RW-AA-104	Radwaste Storage Facility/Waste Container Inspections	5

Radioactive Materials Shipments

<u>Number</u>	<u>Title</u>	<u>Date</u>
09-14	UN3321, Fissile-Excepted, Radioactive Material, LSA-II – Resin	June 17, 2009
14-16	UN2910, Fissile-Excepted, Radioactive Material, Limited Quantity	November 13, 2014
15-12	UN2912, Fissile-Excepted, Radioactive Material, LSA-I – DAW	April 21, 2015
15-15	UN2912, Fissile-Excepted, Radioactive Material, LSA-I – DAW	May 1, 2015
15-34	UN3321, Fissile-Excepted, Radioactive Material, LSA-II	June 1, 2015

Surveys

<u>Number</u>	<u>Title</u>	<u>Date</u>
M-20160621-3	Owner Control Old Warehouse Monthly	July 21, 2016
M-20160531-1	Owner Controlled RA/RMA/Old Warehouse Survey	May 31, 2016
M-20160710-1	Room 502	July 10, 2016

Condition Reports (CRs)

2016-05384	2016-05385	2015-00364	2015-05913	2016-03088
2015-01213	2015-12016	2015-04731	2015-04727	2016-03846
2016-04303	2015-14166	2015-09823	2014-13098	2014-11800

Section 40A1: Performance Indicator Verification

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Control Room Logs	

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Maintenance Rule Performance Criteria for Raw Water System	
	Mitigating System Performance Index Basis Document	1
	MSPI Derivation Reports for Heat Removal System, Cooling Water System, and High Pressure Injection System	July 1 through June 30, 2016
99-02	NEI, Regulatory Assessment Performance Indicator Guidelines	7

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
LS-AA-2001	Collecting and Reporting of NRC Performance Indicator Data	14
LS-AA-2200	Mitigating System Performance Index Data Acquisition and Reporting	5

Condition Reports (CRs)

2016-05807

Section 40A2: Problem Identification and Resolution

Miscellaneous Documents

<u>Number</u>	<u>Title</u>
	Safety Injection Tank Boron Concentration Adverse Condition Monitoring Plan
	Safety Injection Tank Boron Concentration Trending Plots
2015-10181	Apparent Cause Evaluation Report

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
CH-ST-SI-0002	Safety Injection Tank Boron Sampling and Analysis	24

Condition Reports (CRs)

2015-10181 2015-12964 2016-05807

Section 40A3: Follow-up of Events and Notices of Enforcement Discretion

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Control Room Logs	
2.6	Technical Specification, Containment System	
Ansi/Ans-3.4	Medical Certification And Monitoring Of Personnel Requiring Operator Licenses For Nuclear Power Plants	1996

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
AOP-1	Acts of Nature	47
AOP-12	Loss of Containment Integrity	8
EP-FC-1001	Emergency Action Levels for Fort Calhoun Station, Addendum 3	1
EP-FC-1001	Radiological Emergency Response Plan for Fort Calhoun Station	0

Condition Reports (CRs)

2013-21774	2014-00376	2014-00379	2014-05108	2014-05371
2014-05374	2014-05375	2014-05377	2014-14242	2015-03619
2015-10600	2016-05807	2016-07037	2016-07038	2016-07133
2016-07134	2016-07135	2016-07137	2016-07138	2016-07140
2016-07147	2016-07151	2016-07167		

Section 40A5: Other Activities

Procedures

<u>Number</u>	<u>Title</u>	<u>Date</u>
	Check-In Self-Assessment, Self-Assessment of Design and Licensing Basis Configuration Control (CR 2013-05570-064)	June 1, 2016
	Nuclear Oversight Audit Report, Engineering Design Control	August 26, 2015
NED-13-155 DEN	Site Vice President Memo, Restriction of Individuals Preparing/Reviewing 10 CFR 50.59 Product	May 7, 2013
10 CFR 50.59	Lessons Learned Briefing	September 13, 2013

Condition Reports (CRs)

2015-09132 2016-03876 2016-04839

**The following items are requested for the
Occupational/Public Radiation Safety Inspection
at Fort Calhoun Station
July 18 – 22, 2016
Integrated Report 2016003**

Inspection areas are listed in the attachments below.

Please provide the requested information on or before **June 27, 2016**.

Please submit this information using the same lettering system as below. For example, all contacts and phone numbers for Inspection Procedure 71124.01 should be in a file/folder titled "1- A," applicable organization charts in file/folder "1- B," etc.

If information is placed on *ims.certrec.com*, please ensure the inspection exit date entered is at least 30 days later than the onsite inspection dates, so the inspectors will have access to the information while writing the report.

In addition to the corrective action document lists provided for each inspection procedure listed below, please provide updated lists of corrective action documents at the entrance meeting. The dates for these lists should range from the end dates of the original lists to the day of the entrance meeting.

If more than one inspection procedure is to be conducted and the information requests appear to be redundant, there is no need to provide duplicate copies. Enter a note explaining in which file the information can be found.

If you have any questions or comments, please contact Louis Carson at (817) 817-200-1221 or Louis.Carson@nrc.gov.

PAPERWORK REDUCTION ACT STATEMENT

This letter does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget, control number 3150-0011.

1. Radiological Hazard Assessment and Exposure Controls (71124.01) and Performance Indicator Verification (71151)

Date of Last Inspection: May 18, 2015

- A. List of contacts and telephone numbers for the Radiation Protection Organization Staff and Technicians
- B. Applicable organization charts
- C. Audits, self-assessments, and LERs written since date of last inspection, related to this inspection area
- D. Procedure indexes for the radiation protection procedures
- E. Please provide specific procedures related to the following areas noted below. Additional Specific Procedures may be requested by number after the inspector reviews the procedure indexes.
 - 1. Radiation Protection Program Description
 - 2. Radiation Protection Conduct of Operations
 - 3. Personnel Dosimetry Program
 - 4. Posting of Radiological Areas
 - 5. High Radiation Area Controls
 - 6. RCA Access Controls and Radworker Instructions
 - 7. Conduct of Radiological Surveys
 - 8. Radioactive Source Inventory and Control
 - 9. Declared Pregnant Worker Program
- F. List of corrective action documents (including corporate and sub-tiered systems) since date of last inspection
 - 1. Initiated by the radiation protection organization
 - 2. Assigned to the radiation protection organization

NOTE: The lists should indicate the significance level of each issue and the search criteria used. Please provide in document formats which are "searchable" so that the inspector can perform word searches.

If not covered above, a summary of corrective action documents since date of last inspection involving unmonitored releases, unplanned releases, or releases in which any dose limit or administrative dose limit was exceeded (for Public Radiation Safety Performance Indicator verification in accordance with IP 71151)

- G. List of radiologically significant work activities scheduled to be conducted during the inspection period (If the inspection is scheduled during an outage, please also include a list of work activities greater than 1 rem, scheduled during the outage with the dose estimate for the work activity.)
- H. List of active radiation work permits

- I. Radioactive source inventory list
 - 1. All radioactive sources that are required to be leak tested
 - 2. All radioactive sources that meet the 10 CFR Part 20, Appendix E, Category 2, and above threshold. Please indicate the radioisotope, initial and current activity (w/assay date), and storage location for each applicable source.
- J. The last two leak test results for the radioactive sources inventoried and required to be leak tested. If applicable, specifically provide a list of all radioactive source(s) that have failed its leak test within the last two years
- K. A current listing of any non-fuel items stored within your pools, and if available, their appropriate dose rates (Contact / @ 30cm)
- L. Computer printout of radiological controlled area entries greater than 100 millirems since the previous inspection to the current inspection entrance date. The printout should include the date of entry, some form of worker identification, the radiation work permit used by the worker, dose accrued by the worker, and the electronic dosimeter dose alarm setpoint used during the entry (for Occupational Radiation Safety Performance Indicator verification in accordance with IP 71151).

5. Radiation Monitoring Instrumentation (71124.05)

Date of Last Inspection: **September 15, 2014**

- A. List of contacts and telephone numbers for the following areas:
 - 1. Effluent monitor calibration
 - 2. Radiation protection instrument calibration
 - 3. Installed instrument calibrations
 - 4. Count room and Laboratory instrument calibrations
- B. Applicable organization charts
- C. Copies of audits, self-assessments, vendor or NUPIC audits for contractor support and LERs, written since date of last inspection, related to:
 - 1. Area radiation monitors, continuous air monitors, criticality monitors, portable survey instruments, electronic dosimeters, teledosimetry, personnel contamination monitors, or whole body counters
 - 2. Installed radiation monitors
- D. Procedure index for:
 - 1. Calibration, use and operation of continuous air monitors, criticality monitors, portable survey instruments, temporary area radiation monitors, electronic dosimeters, teledosimetry, personnel contamination monitors, and whole body counters
 - 2. Calibration of installed radiation monitors
- E. Please provide specific procedures related to the following areas noted below. Additional Specific Procedures will be requested by number after the inspector reviews the procedure indexes.
 - 1. Calibration of portable radiation detection instruments (for portable ion chambers)
 - 2. Whole body counter calibration
 - 3. Laboratory instrumentation quality control
- F. A summary list of corrective action documents (including corporate and sub-tiered systems) written since date of last inspection, related to the following programs:
 - 1. Area radiation monitors, continuous air monitors, criticality monitors, portable survey instruments, electronic dosimeters, teledosimetry, personnel contamination monitors, whole body counters
 - 2. Installed radiation monitors
 - 3. Effluent radiation monitors
 - 4. Count room radiation instruments

NOTE: The lists should indicate the significance level of each issue and the search criteria used. Please provide in document formats which are “searchable” so that the inspector can perform word searches.

- G. Offsite dose calculation manual, technical requirements manual, or licensee controlled specifications which lists the effluent monitors and calibration requirements
- H. Current calibration data for the whole body counter's
- I. Primary to secondary source calibration correlation for effluent monitors
- J. A list of the point of discharge effluent monitors with the two most recent calibration dates and the work order numbers associated with the calibrations.
- K. Radiation Monitoring System health report for the previous 12 months

6. Radioactive Gaseous and Liquid Effluent Treatment (71124.06)

Date of Last Inspection: **September 15, 2014**

- A. List of contacts and telephone numbers for the following areas:
 - 1. Radiological effluent control
 - 2. Engineered safety feature air cleaning systems
- B. Applicable organization charts
- C. Audits, self-assessments, vendor or NUPIC audits of contractor support, and LERs written since date of last inspection, related to:
 - 1. Radioactive effluents
 - 2. Engineered Safety Feature Air cleaning systems
- D. Procedure indexes for the following areas:
 - 1. Radioactive effluents
 - 2. Engineered Safety Feature Air cleaning systems
- E. Please provide specific procedures related to the following areas noted below. Additional Specific Procedures will be requested by number after the inspector reviews the procedure indexes.
 - 1. Sampling of radioactive effluents
 - 2. Sample analysis
 - 3. Generating radioactive effluent release permits
 - 4. Laboratory instrumentation quality control
 - 5. In-place testing of HEPA filters and charcoal absorbers
 - 6. New or applicable procedures for effluent programs (e.g., including ground water monitoring programs)
- F. List of corrective action documents (including corporate and sub-tiered systems) written since date of last inspection, associated with:
 - 1. Radioactive effluents
 - 2. Effluent radiation monitors
 - 3. Engineered Safety Feature Air cleaning systems

NOTE: The lists should indicate the significance level of each issue and the search criteria used. Please provide in document formats which are “searchable” so that the inspector can perform word searches.

- G. 2014 and 2015 Annual Radioactive Effluent Release Report or the two most recent reports
- H. Current Copy of the Offsite Dose Calculation Manual
- I. Copy of the 2014 and 2015 inter-laboratory comparison results for laboratory quality control performance of effluent sample analysis or the two most recent results
- J. Effluent sampling schedule for the week of the inspection
- K. New entries into 10 CFR 50.75(g) files since date of last inspection
- L. Operations department (or other responsible dept.) log records for effluent monitors removed from service or out of service
- M. Listing or log of liquid and gaseous release permits since date of last inspection
- N. A list of the technical specification-required air cleaning systems with the two most recent surveillance test dates of in-place filter testing (of HEPA filters and charcoal absorbers) and laboratory testing (of charcoal efficiency) and the work order numbers associated with the surveillances
- O. System Health Report for radiation monitoring instrumentation. Also, please provide a specific list of all effluent radiation monitors that were considered inoperable for 7 days or more since November 2011. If applicable, please provide the relative Special Report and condition report(s).
- P. A list of all radiation monitors that are considered § 50.65/Maintenance Rule equipment.
- Q. A list of all significant changes made to the Gaseous and Liquid Effluent Process Monitoring System since the last inspection. If applicable, please provide the corresponding UFSAR section in which this change was documented.
- R. A list of any occurrences in which a non-radioactive system was contaminated by a radioactive system. Please include any relative condition report(s).

8. Radioactive Solid Waste Processing, and Radioactive Material Handling, Storage, and Transportation (71124.08)

Date of Last Inspection: **September 15, 2014**

- A. List of contacts and telephone numbers for the following areas:
 - 1. Solid Radioactive waste processing
 - 2. Transportation of radioactive material/waste
- B. Applicable organization charts (and list of personnel involved in solid radwaste processing, transferring, and transportation of radioactive waste/materials)
- C. Copies of audits, department self-assessments, and LERs written since date of last inspection related to:
 - 1. Solid radioactive waste management
 - 2. Radioactive material/waste transportation program
- D. Procedure index for the following areas:
 - 1. Solid radioactive waste management
 - 2. Radioactive material/waste transportation
- E. Please provide specific procedures related to the following areas noted below. Additional Specific Procedures will be requested by number after the inspector reviews the procedure indexes.
 - 1. Process control program
 - 2. Solid and liquid radioactive waste processing
 - 3. Radioactive material/waste shipping
 - 4. Methodology used for waste concentration averaging, if applicable
 - 5. Waste stream sampling and analysis
- F. A summary list of corrective action documents (including corporate and sub-tiered systems) written since date of last inspection related to:
 - 1. Solid radioactive waste
 - 2. Transportation of radioactive material/waste

NOTE: The lists should indicate the significance level of each issue and the search criteria used. Please provide in document formats which are “searchable” so that the inspector can perform word searches.
- G. Copies of training lesson plans for 49CFR172 subpart H, for radwaste processing, packaging, and shipping
- H. A summary of radioactive material and radioactive waste shipments made from date of last inspection to present
- I. Waste stream sample analyses results and resulting scaling factors for 2014 and 2015, or the two most recent results

- J. Waste classification reports if performed by vendors (such as for irradiated hardware)
- K. A listing of all onsite radwaste storage facilities. Please include a summary *or* listing of the items stored in each facility, including the *total* amount of radioactivity and the *highest* general area dose rate.

Although it is not necessary to compile the following information, the inspector will also review:

- L. Training and qualifications records of personnel responsible for the conduct of radioactive waste processing, package preparation, and shipping