



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION IV  
1600 E. LAMAR BLVD  
ARLINGTON, TX 76011-4511

May 8, 2017

Ms. Mary J. Fisher  
Senior Director for Decommissioning  
Omaha Public Power District  
Fort Calhoun Station  
9610 Power Lane, Mail Stop FC-2-4  
Blair, NE 68008

SUBJECT: FORT CALHOUN STATION – NRC INSPECTION REPORT 05000285/2017001  
AND 05000285/2017008

Dear Ms. Fisher:

This letter refers to the U.S. Nuclear Regulatory Commission (NRC) inspections conducted from January 1 – March 31, 2017, at the Fort Calhoun Station. The NRC inspector discussed the results of these inspections with you and other members of your staff during an onsite final exit meeting conducted on April 21, 2017. The inspection results are documented in the enclosure to this inspection report.

The NRC inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel. Specifically, the inspector reviewed activities related to the transition to decommissioning, emergency planning, confirmatory action letter closure, decommissioning performance, plant procedures and decommissioning project plans, engineering training, spent fuel pool safety, maintenance rule implementation, surveillance activities, and adverse weather protection. No violations were identified and no response to this letter is required.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter, its enclosure, and your response if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the Public without redaction.

If you have any questions regarding this inspection report, please contact Rachel Browder at 817-200-1452, or the undersigned at 817-200-1191.

Sincerely,

/RA/

Ray L. Kellar, P.E., Chief  
Fuel Cycle and Decommissioning Branch  
Division of Nuclear Materials Safety

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

Enclosure:  
Inspection Report 05000285/2017001 and  
05000285/2017008  
w/Attachment: Supplemental Information

**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION IV**

Docket: 05000285  
License: DPR-40  
Report: 05000285/2017001 and 05000285/2017008  
Licensee: Omaha Public Power District  
Facility: Fort Calhoun Station  
Location: 9610 Power Lane  
Blair, NE  
Dates: January 1 through March 31, 2017  
Inspectors: M. Schneider, Senior Resident Inspector  
J. Dixon, Senior Project Engineer  
P. Elkmann, Senior Emergency Preparedness Inspector  
Approved By: Ray L. Kellar, P.E., Chief  
Fuel Cycle and Decommissioning Branch  
Division of Nuclear Materials Safety

Enclosure

## EXECUTIVE SUMMARY

Fort Calhoun Station  
NRC Inspection Report 05000285/2017001 and 05000285/2017008

This U.S. Nuclear Regulatory Commission (NRC) inspection was a routine, announced inspection of decommissioning activities being conducted at the Fort Calhoun Station under Inspection Report (IR) 05000285/2017008. In summary, the licensee was conducting these activities in accordance with site procedures, license requirements, and applicable NRC regulations.

In addition, IR 05000285/2017001 documents inspections of the transition to decommissioning activities, an emergency planning inspection, and confirmatory action letter (CAL) closure activities. No significant issues were identified during these inspections and reviews.

### IR 05000285/2017001

#### Transition to a Decommissioning Organization

- The licensee successfully transitioned from the Exelon operating management model to an OPPD decommissioning management team. (Section 1.0)

#### Problem Identification and Resolution

- The licensee identified issues at an appropriate threshold, specified appropriate corrective actions, and were effective in resolving degraded conditions. (Section 2.0)

#### Decommissioning Emergency Preparedness

- The licensee appropriately maintained their emergency preparedness program, and their revised emergency action levels did not reduce the effectiveness of the Fort Calhoun Station emergency plan. (Section 3.0)

#### Confirmatory Action Letter and Unresolved Item Closure

- The licensee submitted a CAL closure request and follow-up letters to the NRC. The NRC closed the CAL on April 12, 2017. (Section 4.0)

### IR 05000285/2017008

#### Decommissioning Performance

- The licensee had initiated reactor coolant, chemical volume and control, and safety injection system drains and system abandonment. In addition the licensee commenced main steam piping removal and asbestos abatement activities. (Section 1.0)

#### Spent Fuel Pool Safety

- The Fort Calhoun Station spent fuel pool was being maintained in accordance with technical specifications and procedural requirements. The licensee was safely storing spent fuel in wet storage. (Section 2.0)

### Adverse Weather Protection

- The licensee implemented adverse weather procedures for seasonal extreme low temperature conditions. The licensee implemented cold weather protection features in accordance with plant procedures. (Section 3.0)

### Maintenance Rule and Surveillance Observations

- The licensee implemented its maintenance program consistently with procedures and regulatory requirements. Plant systems were maintained and tested in accordance with technical specification requirements. The licensee appropriately implemented the maintenance rule to ensure compliance with the requirements of 10 CFR 50.65 for structures, systems, and components associated with the storage, control, and maintenance of spent fuel. (Section 4.0)

### Plant Procedures

- The licensee implemented decommissioning project plans and procedures and revised current procedures to reflect decommissioning plant conditions and activities. Plant procedures were reviewed and approved in accordance with technical specifications and regulatory requirements. (Section 5.0)

### Training and Qualification Effectiveness

- The licensee developed and conducted decommissioning training activities for the engineering staff in accordance with a systems approach to training. (Section 6.0)

## REPORT DETAILS

### Site Status

On August 25, 2016, the Omaha Public Power District (OPPD), the licensee, formally notified the NRC by letter that it would permanently cease power operations at the Fort Calhoun Station (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16242A127). By letter dated November 13, 2016, (ADAMS Accession No. ML16319A254) the licensee informed the NRC that the reactor fuel had been permanently removed from the reactor. The licensee submitted its post-shutdown decommissioning activities report (PSDAR) on March 30, 2017, (ADAMS Accession No. ML17089A759).

The spent fuel was being safely stored in the spent fuel pool. The licensee has maintained the raw water, component cooling water, and spent fuel pool cooling systems in operation until such time as they complete the design and construction of an independent spent fuel pool cooling system or determine the current plant systems should be retained for the spent fuel pool cooling function.

Site decommissioning activities are in progress. The following activities were completed or in-progress at the end of the first quarter of 2017:

- Regulatory Assurance – The Fort Calhoun Station post shutdown emergency plan was submitted to the NRC and a validation drill under this plan was conducted. Also, the Fort Calhoun Station emergency plan emergency action level revisions were submitted to the NRC reflecting the permanently defueled condition. Fort Calhoun Station technical specification revisions, irradiated fuel management plan, and the post shutdown decommissioning activities report were completed and submitted to the NRC.
- Security – The first phase of a security protective strategy update to reflect the Fort Calhoun Station decommissioning status and the first phase submittal to the NRC were completed.
- Operations – All major secondary systems have been drained as well as primary systems not required for Safstor. The Safstor training process procedures were developed and approved. Certified fuel handler training is in-progress and expected to be complete prior to the NRC approval of the certified fuel handler training and retraining program.
- Engineering – Completed decommissioning project plans for system classification, and revised the scoping of maintenance rule systems to reflect the decommissioning status. System design reviews for an independent spent fuel pool cooling island are in-progress.
- Facilities – The maintenance fabrication shop was the first building to be demolished as part of the decommissioning process. Review of buildings and structures to establish a strategy for building abandonment and dismantlement are in progress.
- Radiation Protection – A radiological waste building modification will be implemented to improve the radiological work shipping process.

## Inspection Report 2017001

### **1.0 Transition to a Decommissioning Organization**

#### **1.1 Inspection Scope**

From January 3, 2017, through January 20, 2017, the inspector conducted plant status tours, attended condition report management review committee meetings, and met and communicated with various Exelon and OPPD decommissioning senior managers and team members to discuss the transition of Fort Calhoun Station from the Exelon operating management model to the OPPD decommissioning management model. The inspector also reviewed decommissioning project plans, decommissioning organizational charts, and the Fort Calhoun Station Safstor timeline. The inspector also interviewed individual decommissioning staff contributors to ensure that a successful transition to a decommissioning organization was completed.

#### **1.2 Observations and Findings**

During this transition to decommissioning, the inspector attended plant status and work and test scheduling meetings, attended management review committee meetings, and conducted plant tours. The inspector determined that the licensee continued to operate the shutdown plant safely. In addition, the inspector concluded that the senior management transition from Exelon to the OPPD decommissioning team was well coordinated and implemented with no loss of leadership continuity.

#### **1.3 Conclusions**

The licensee successfully transitioned from the Exelon operating management model to an OPPD decommissioning management team.

### **2.0 Problem Identification and Resolution (71152)**

#### **2.1 Inspection Scope**

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

#### **2.2 Observations and Findings**

The licensee identified issues at an appropriate threshold, specified appropriate corrective actions, and were effective in resolving degraded conditions.

### 2.3 Conclusions

The inspector concluded that the PIR program at Fort Calhoun Station was effectively implemented throughout the inspection period (first quarter of 2017).

## 3.0 **Decommissioning Emergency Preparedness (82501)**

### 3.1 Inspection Scope

From February 7, 2017, through February 22, 2017, the inspector performed an in-office review of EP-FC-1001, Addendum 3, "Emergency Action Levels," Revision 3, implemented December 29, 2016. This revision:

- Implements Emergency Action Level RU2, "Unplanned Loss of Water Level Above Irradiated Fuel"
- Implements Emergency Action Level RA2, "Significant Lowering of Water Level Above, or Damage to, Irradiated Fuel"
- Implements Emergency Action Level RS2, "Spent Fuel Pool Level at EL 1011' (15.5 feet) as indicated on LI-4356 or LI-4357"
- Implements Emergency Action Level RG2, "Spent Fuel Pool Level Cannot be Restored to at Least EL 1011' (15.5 feet) as Indicated on LI-4365 or LI-4357 for 60 Minutes or Longer"

This revision was compared to License Amendment 285 and Safety Analysis Report NRC-15-106 to determine if the revision adequately implemented the requirements of 10 CFR 50.54(q)(3) and 50.54(q)(4).

### 3.2 Observations and Findings

The inspector determined that the emergency action levels implemented on December 29, 2016, were based on NRC Order EA-12-051 and the site specific values were developed using Nuclear Energy Institute (NEI) 12-02, "Industry Guidance for Compliance with NRC Order EA-12-051, 'To Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation,'" Revision 1, dated August 2012, and NEI 99-01, "Development of Emergency Action Levels for Non-Passive Reactors," Revision 6, dated November 2012.

### 3.3 Conclusions

The inspector concluded that the licensee was appropriately maintaining their emergency preparedness program and the emergency action levels implemented December 29, 2016, did not reduce the effectiveness of the licensee's emergency plan.



## 4.0 Confirmatory Action Letter (CAL) and Unresolved Item Closure

### 4.1 Inspection Scope

The NRC based the closure of the below unresolved items (URI), in part, on Omaha Public Power District notifying the NRC of the cessation of power operations and the permanent removal of fuel from the Fort Calhoun Station reactor vessel on November 13, 2016, (ADAMS Accession No. ML16319A254). In addition, the NRC closed the Confirmatory Action Letter on April 12, 2017, (ADAMS Accession No. ML17102B737) based on the Fort Calhoun Station, March 10, 2017, Confirmatory Action Letter Commitments Follow Up letter (ADAMS Accession No. ML17069A441) which committed to completing the design and licensing basis reconstitution actions for supporting structures, systems, and components associated with spent fuel pool cooling.

### 4.2 Observations and Findings

(1) Unresolved Item (URI) 05000285/2013008-23, "Code of Record for Safety-Related Piping Systems"

The NRC concluded that with fuel permanently removed from the reactor vessel that the potential for fuel-related accident scenarios are limited to the spent fuel pool. There are no accident scenarios where the failure of the Code of Record of Safety Piping could contribute to a fuel-related accident in the spent fuel pool. Fort Calhoun Station is currently committed to evaluating the spent fuel pool, spent fuel pool cooling, and the required supporting structures, systems, and components design and licensing basis, or submitting a license amendment request for the installation of an independent spent fuel pool cooling system as documented in Condition Report CR 2017-00842, and further discussed in the closure to the Confirmatory Action Letter (ADAMS Accession No. ML17102B737). This URI is closed.

(2) URI 05000285/2013008-29, "Use of Alternate Seismic Evaluation Criteria"

Fort Calhoun Station submitted License Amendment Request (LAR) 16-04, "Revise Current Licensing Basis to Use ACI [American Concrete Institute] Ultimate Strength Requirements," (ADAMS Accession No. ML16299A275), on October 25, 2016, to address this concern. Any concerns will be addressed as part of the request for additional information process. This URI is closed.

(3) URI 05000285/2013013-22, "Shutdown Cooling Piping and Pipe Supports Calculation Has Incorrect Acceptance"

The NRC concluded that with fuel permanently removed from the reactor vessel that the potential for fuel-related accident scenarios are limited to the spent fuel pool. There are no accident scenarios where the failure of shutdown cooling piping and/or supports could contribute to a fuel-related accident in the spent fuel pool. This URI is closed.

(4) URI 05000285/2015007-09, "Intake Structure Design Requirements"

The NRC concluded that with fuel permanently removed from the reactor vessel that the potential for fuel-related accident scenarios are limited to the spent fuel pool. The intake structure houses the raw water system which ultimately cools the spent fuel pool heat exchangers, as such, it is a required support structure for spent fuel pool cooling. Fort

Calhoun Station is currently committed to evaluating the spent fuel pool, spent fuel pool cooling, and the required supporting structures, systems, and components design and licensing basis, or submitting a license amendment request for the installation of an independent spent fuel pool cooling system as documented in Condition Report CR 2017-00842, and further discussed in the closure to the Confirmatory Action Letter (ADAMS Accession No. ML17102B737). This URI is closed.

(5) URI 05000285/2015007-11, "Raw Water Strainer Analysis and Commercial Dedication"

The NRC concluded that with fuel permanently removed from the reactor vessel that the potential for fuel-related accident scenarios are limited to the spent fuel pool. The raw water system ultimately cools the spent fuel pool heat exchangers, as such, it is a required support structure for spent fuel pool cooling. Fort Calhoun Station is currently committed to evaluating the spent fuel pool, spent fuel pool cooling, and the required supporting structures, systems, and components design and licensing basis, or submitting a license amendment request for the installation of an independent spent fuel pool cooling system as documented in Condition Report CR 2017-00842, and further discussed in the closure to the Confirmatory Action Letter (ADAMS Accession No. ML17102B737). This URI is closed.

(6) URI 05000285/2015008-02, "Unresolved Item Associated with the Weld Repair of SI-339 Vent Pipe Leakage"

The NRC concluded that with fuel permanently removed from the reactor vessel that the potential for fuel-related accident scenarios are limited to the spent fuel pool. There are no accident scenarios where the failure of the weld repair to SI-339, high pressure safety injection pump 2B casing and vent pipe, could contribute to a fuel-related accident in the spent fuel pool. This URI is closed.

#### 4.3 Conclusions

The licensee submitted a CAL closure request and follow-up letters to the NRC. The NRC closed the CAL on April 12, 2017.

#### 5.0 **Exit Meeting Summary**

On April 12, 2017, the inspector presented the results of the closure of the unresolved items to Mr. T. Uehling, Plant Manager, and other members of the licensee staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspector had been returned or destroyed.

On April 21, 2017, the NRC inspector presented the final inspection results to Ms. Mary Fisher, Senior Decommissioning Director, and other members of the licensee's staff. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

## Inspection Report 2017008

### **1.0 Decommissioning Performance (71801)**

#### **1.1 Inspection Scope**

The inspector evaluated whether the licensee was conducting decommissioning activities in accordance with the license and regulatory requirements.

#### **1.2 Observations and Findings**

The licensee notified the NRC by letter dated August 25, 2016, (ADAMS Accession No. ML16242A127) of its decision to permanently cease power operations at the Fort Calhoun Station. Reactor fuel was permanently removed from the reactor vessel on November 13, 2016. In the first quarter of 2017, the licensee generated a number of decommissioning project plans to describe how the various processes at Fort Calhoun Station would be managed and implemented during decommissioning. In addition, Fort Calhoun Station conducted engineering decommissioning training, revised maintenance rule system scoping(s), and completed the abandonment of several systems. The licensee is in the early stages of the decommissioning process.

#### **1.3 Conclusions**

The licensee has initiated decommissioning activities in some plant systems and protected area buildings. Specifically, the reactor coolant, chemical and volume control, and safety injection systems were in the process of being drained and abandoned. In addition, the licensee has made significant progress in the decommissioning of the main steam and feedwater secondary systems. Some protected area buildings, such as the fabrication shop have been abandoned or dismantled. The inspector concluded that, during these activities, the licensee has maintained the availability and capability of necessary systems to support the remaining safety functions.

### **2.0 Spent Fuel Pool Safety (60801)**

#### **2.1 Inspection Scope**

The inspector conducted a review of the spent fuel pool for Fort Calhoun Station, specifically the pool water level, chemistry, and associated cooling systems to ensure that the licensee was maintaining the pool in accordance with technical specifications and procedural requirements.

#### **2.2 Observations and Findings**

Technical Specification 2.8.3 requires the spent fuel pool water level be maintained greater than or equal to 23 feet over the top of the irradiated fuel assemblies seated in storage racks, and the spent fuel pool boron concentration be maintained greater than or equal to 500 parts per million (ppm), respectively.

The Fort Calhoun Station spent fuel pool was approximately 27 feet above the top of the irradiated fuel assemblies on April 10, 2017. The boron concentration was 2241 ppm on April 10, 2017. The water level and boron concentration were not below the technical specification requirements.

The spent fuel pool cooling system was holding the temperature of the spent fuel pool in steady temperature conditions. The spent fuel pool was approximately 72 degrees Fahrenheit on April 10, 2017.

The inspector verified that design, operational, and administrative measures were in place to prevent a substantial reduction in spent fuel pool inventory. The spent fuel pool system lineup, including support systems, was reviewed to ensure that spent fuel pool cooling was maintained. The inspector also reviewed spent fuel pool level instrumentation and leakage detection systems. The inspector reviewed the spent fuel pool water chemistry and cleanliness controls and criticality and safety controls to ensure technical specification requirements were met. The inspector also observed activities in the spent fuel pool including fuel moves and locking clip installation activities.

### 2.3 Conclusions

The Fort Calhoun Station spent fuel pool was being maintained in accordance with technical specifications and procedural requirements. The licensee was safely storing spent fuel in wet storage.

## 3.0 **Adverse Weather Protection (71111.01)**

### 3.1 Inspection Scope

The inspector reviewed the licensee's evaluation and procedural guidance for actions necessary to protect important systems during extreme cold weather conditions. The inspector reviewed Procedure OI-EW-1, "Extreme Weather," Revision 35, Procedure OI-EW-2, "Cold Weather Operations with Auxiliary Steam Unavailable," Revision 4, and the Fort Calhoun Station snow removal plan to ensure that Fort Calhoun Station systems important to decommissioning safety would not be impaired due to extreme cold weather.

### 3.2 Observations and Findings

On February 3, 2017, the inspector conducted site walk-downs of plant areas containing systems important to safety and which could be affected by extreme cold weather conditions. The inspector also reviewed condition reports to determine if cold weather vulnerabilities existed. The inspector reviewed equipment staged around the plant (e.g. portable heaters) to ensure the assumptions of cold weather procedures were supported.

### 3.3 Conclusions

The licensee's adverse weather protection procedure was being implemented in accordance with regulatory and license requirements.

## 4.0 **Maintenance Rule and Surveillance Observations (62706 and 61726)**

### 4.1 Inspection Scope

The inspector evaluated the licensee's implementation of its maintenance and surveillance oversight and maintenance rule programs.

## 4.2 Observations and Findings

### a. Maintenance and Surveillance Testing

The inspector observed surveillance testing of two systems important to spent fuel pool and decommissioning safety. The inspectors observed the performance of Procedure OP-ST-BW-3031, which tested the AC-10D raw water pump while in service on March 9, 2017. The inspector also reviewed the performance of Procedure OP-FT-DG-0302, which conducted a lower made availability and functionality test of emergency diesel generator 2 on March 15, 2017.

The inspector determined that when the licensee identified deficiencies, the deficiencies were placed into the condition reporting system in accordance with site procedures. The inspector was informed that since the licensee was no longer an operational facility, it was no longer a member of the Institute for Nuclear Power Operations (INPO), which has the largest and most populace database to query operating experience. However, the licensee indicated that it still had access to vendors and the NRC, although these entities may not have as comprehensive and searchable databases as INPO.

Based on the maintenance observed, surveillance tests reviewed, and interviews with site staff, the inspector concluded that the licensee performed extent of condition reviews when applicable and used operational experience when it was available. Based on a review of the corrective actions and interviews with licensee staff, the inspector concluded that the identification and placement of deficiencies into the maintenance program was being performed at a threshold that ensured those deficiencies and conditions adverse to quality would be identified, evaluated, and corrected.

### b. Maintenance Rule

The regulations under 10 CFR 50.65(a)(1) require, in part, that licensees monitor the performance or condition of all structures, systems, and components (SSCs) associated with the storage, control, and maintenance of spent fuel in a safe condition in a manner sufficient to provide reasonable assurance that such SSCs were capable of performing their intended functions. The licensee was implementing the maintenance rule under 10 CFR 50.65 as required for decommissioning SSCs and was adequately evaluating the maintenance monitoring during decommissioning.

The licensee had identified those SSCs associated with the storage, control, or maintenance of spent fuel in a safe condition, as well as those SSCs relied upon to remain functional during or following design basis events associated with spent fuel storage, as defined in 10 CFR 50.65. The licensee maintained a maintenance rule functional record for each SSC identified, which specified the acceptable functions of the SSC in order to determine its success during the monitoring period. The NRC inspector concluded that the licensee had identified those SSCs under the maintenance rule program and was monitoring them sufficiently.

The inspector attended a Maintenance Rule Expert Panel (MREP) meeting on January 4, 2017. The MREP met to review and approve changes to the SSCs under the maintenance rule to reflect the decommissioning status of Fort Calhoun Station.

#### 4.3 Conclusions

The licensee implemented its maintenance and surveillance program consistently with procedures and regulatory requirements. Plant systems were maintained in accordance with technical specifications requirements. The licensee appropriately implemented the maintenance rule to ensure compliance with the requirements of 10 CFR 50.65 for structures, systems, and components associated with the storage, control, and maintenance of spent fuel.

### 5.0 **Plant Procedures (42700)**

#### 5.1 Inspection Scope

The inspector evaluated the licensee's decommissioning and associated plant procedures to ensure they were in compliance with technical specifications and regulatory requirements. The inspector also verified the technical adequacy and usability of the procedures.

#### 5.2 Observations and Findings

The inspector reviewed the following:

##### a. Decommissioning Project Plans

- FC-DPP-11, Spent Fuel Pool Cooling Isolation Study Plan
- FC-DPP-13, Decommissioning System Identification, Operating System Disposition, and System Quality Classification Plan
- FC-DPP-14, Decommissioning Power Study Plan
- FC-DPP-18, Decommissioning Accident Analysis Plan
- FC-DPP-20, Maintenance Rule Program Revisions
- FC-DPP-23, Fire Protection
- FC-DPP-028, PSDAR Preparation Plan
- FC-DPP-30, USAR Update Plan
- FC-DPP-44, Decommissioning Personnel Tracking Plan
- FC-DPP-48, Spent Fuel Management Plan
- FC-DPP-50, Procedures
- FC-DPP-51, Technical Specifications
- FC-DPP-57, System Abandonment
- FC-DPP-58, Underground Piping and Tanks

b. Plant Procedures

- AOP-1, Acts of Nature
- AOP-34, Loss of the ERF or QSPDS
- CC-FC-103, Configuration Control for Permanent Physical Plant Changes
- CC-FC-103-1001, Configuration Change Control Guidance
- EP-FC-1001, Radiological Emergency Response Plan for Fort Calhoun Station
- ER-FC-200-1002, Preventive Maintenance Oversight Committee
- ER-FC-2001, Plant Health Committee
- ER-FC-310, Implementation of the Maintenance Rule
- ER-FC-310-1001, Maintenance Rule Scoping
- OI-EW-1, Extreme Weather
- OI-EW-2, Cold Weather Operations with Auxiliary Steam Unavailable
- OI-SFP-1, Spent Fuel Pool Cooling Normal Operation
- OP-FT-DG-0302, DG-2 Lower Mode Availability Functional Test
- OP-ST-RW-3031, AC-10D Raw Water Pump Quarterly Inservice Test
- RP-229, Changes in Radiological Conditions due to Plant Evolutions
- TQ-DC-FC-201, SAFSTOR Systematic Approach to Training (SAT)
- TQ-DC-FC-201-1009, Fort Calhoun Station SAFSTOR Engineering Training Plan

5.3 Conclusions

The licensee has a process in place to review and revise or delete plant procedures to meet the needs of a decommissioning plant. Though the licensee is in the early stages of decommissioning a significant number of procedures are expected to be retired due to the significant reduction in scope of procedurally driven activities and system controls.

**6.0 Training and Qualification Effectiveness (41500)**

6.1 Inspection Scope

The inspector evaluated the performance of nuclear plant workers to determine if they maintained their training and qualifications commensurate with the performance requirements of their jobs. In addition, the inspector attended decommissioning classroom training for engineering staff on March 14, 2017, to ensure an effective program for training on decommissioning was presented.

6.2 Observations and Findings

The inspector reviewed the decommissioning training lesson plan prepared for training the engineering staff and determined that the systems approach to training was implemented effectively. The inspector also attended one of the training sessions to ensure the training provided opportunity for class participation and interaction.

6.3 Conclusions

The licensee conducted one engineering training activity in the first quarter of 2017 (two sessions were provided) to address the decommissioning process. The inspector concluded this training followed a systems approach to the training concept. The inspector also noted that the engineering participants were attentive and involved in the classroom discussion.

## **7.0 Exit Meeting Summary**

On April 21, 2017, the NRC inspector presented the final inspection results to Ms. Mary Fisher, Senior Decommissioning Director, and other members of the licensee's staff. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.



## **SUPPLEMENTAL INSPECTION INFORMATION**

### **Licensee Personnel**

C. Amundson, Manager, Operations Services  
R. Beck, Manager, Chemistry  
B. Blome, Director, Licensing and Regulatory Assurance  
C. Cameron, Principal Engineer, Licensing  
J. Cate, Manager, Engineering Design and Programs  
B. Chapin, Manager, Maintenance  
M. Ferm, Director, Engineering  
J. Fickbohm, Coordinator, Emergency Planning  
M. Fisher, Senior Director, Fort Calhoun Station Decommissioning  
C. Heimes, Director, Security  
C. Longua, Assistant Plant Manager, Operations  
T. Maine, Director, Radiation Protection and Chemistry  
B. Obermeyer, Manager Site Security  
E. Plautz, Manager Emergency Planning  
J. Shuck, Manager, System Engineering  
T. Uehling, Director, Plant Management  
C. Verdoni, Manager, Operations Training  
D. Weaver, Manager, Work Management  
D. Whisler, Manager, Radiation Protection

## **INSPECTION PROCEDURES USED**

IP 41500	Training and Qualification Effectiveness
IP 42700	Plant Procedures
IP 60801	Spent Fuel Pool Safety at Permanently Shutdown Reactors
IP 61726	Surveillance Observations
IP 62706	Maintenance Rule
IP 71111.01	Adverse Weather Protection
IP 71152	Identification and Resolution of Problems
IP 71801	Decommissioning Performance and Status Review at Permanently Shutdown Reactors
IP 82501	Decommissioning Emergency Preparedness Program Evaluation

## LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
CFR	<i>Code of Federal Regulations</i>
FCS	Fort Calhoun Station
MREP	Maintenance Rule Expert Panel
NRC	Nuclear Regulatory Commission
PSDAR	Post-Shutdown Decommissioning Activities Report
TS	Technical Specifications
USAR	Updated Safety Analysis Report

## LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

### Closed

05000285/2013008-23	URI	Code of Record for Safety-Related Piping Systems (Section 4.2.1)
05000285/2013008-29	URI	Use of Alternate Seismic Evaluation Criteria (Section 4.2.2)
05000285/2013013-22	URI	Shutdown Cooling Piping and Pipe Supports Calculation Has Incorrect Acceptance (Section 4.2.3)
05000285/2015007-09	URI	Intake Structure Design Requirements (Section 4.2.4)
05000285/2015007-11	URI	Raw Water Strainer Analysis and Commercial Dedication (Section 4.2.5)
05000285/2015008-02	URI	Unresolved Item Associated with the Weld Repair of SI-339 Vent Pipe Leakage (Section 4.2.6)

FORT CALHOUN STATION – NRC INSPECTION REPORT 05000285/2017001 AND  
 05000285/2017008 – DATED MAY 8, 2017

DISTRIBUTION

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ADAMS ACCESSION NUMBER: ML17124A291

<input checked="" type="checkbox"/> SUNSI Review By: RLK	ADAMS: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Sensitive <input type="checkbox"/> Non-Sensitive	<input type="checkbox"/> Non-Publicly Available <input type="checkbox"/> Publicly Available	Keyword NRC-002	
OFFICE	SRI:DRP/D	SPE:DRP/D	BC:PSB2	BC:DRP/D	BC:DNMS
NAME	MSchneider	JDixon	HGepford	GMiller	RKellar
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DATE	3/8/17	4/24/17	5/5/17	4/24/17	5/8/17

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