



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

January 21, 2016

Mr. Shane M. Marik  
Site Vice President and Chief Nuclear Officer  
Omaha Public Power District  
Fort Calhoun Station FC-2-4  
P.O. Box 550  
Blair, NE 68023-0550

**SUBJECT: FORT CALHOUN STATION – NRC PROBLEM IDENTIFICATION AND  
RESOLUTION INSPECTION REPORT 05000285/2015009**

Dear Mr. Marik,

On December 17, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed a problem identification and resolution biennial inspection at your Fort Calhoun Station. The NRC inspection team discussed the results of this inspection with Mr. E.D. Dean, Plant Manager, and other members of your staff. The inspection team documented the results of this inspection in the enclosed inspection report.

Based on the inspection sample, the inspection team determined that the Fort Calhoun Station's corrective action program, and your staff's implementation of the corrective action program, were adequate to support nuclear safety.

In reviewing your corrective action program, the team assessed how well your staff identified problems at a low threshold, your staff's implementation of the station's process for prioritizing and evaluating these problems, and the effectiveness of corrective actions taken by the station to resolve these problems. The team also evaluated other processes your staff used to identify issues for resolution. These included your use of audits and self-assessments to identify latent problems and your incorporation of lessons learned from industry operating experience into station programs, processes, and procedures. The team determined that your station's performance in each of these areas supported nuclear safety. However, your staff continues to demonstrate weaknesses in the implementation of the station's operability determination process. The team noted only marginal improvements in performance in this area since the last problem identification and resolution inspection, performed in January 2015. In addition, your staff continues to demonstrate a lack of rigor in evaluating operating experience condition reports for appropriate corrective actions.

Finally, the team determined that your station's management has implemented and maintains a safety-conscious work environment in which your employees are willing to raise nuclear safety concerns.

NRC inspectors documented two findings of very low safety significance (Green) in this report. Both of these findings involved violations of NRC requirements. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2.a of the NRC Enforcement Policy.

If you contest the violations or significance of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC resident inspector at the Fort Calhoun Station.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region IV; and the NRC resident inspector at the Fort Calhoun Station.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Eric Ruesch, Team Lead (Acting)  
Inspection Programs & Assessment Team  
Division of Reactor Safety

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

Enclosure:  
Inspection Report 05000285/2015009  
w/Attachment: Supplemental Information

Electronic Distribution to Fort Calhoun Station

**U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV**

Docket: 05000285

License: DPR-40

Report: 05000285/2015009

Licensee: Omaha Public Power District

Facility: Fort Calhoun Station

Location: 9610 Power Lane  
Blair, NE 68008

Dates: November 9 through December 17, 2015

Team Lead: R. Azua, Senior Reactor Inspector

Inspectors: H. Freeman, Senior Reactor Inspector  
M. Williams, Reactor Inspector  
B. Cummings, Resident Inspector

Approved By: E. Ruesch, (Acting) Team Lead  
Inspection Programs & Assessment Team  
Division of Reactor Safety

## SUMMARY

IR 05000285/2015009; 11/09/2015 – 12/17/2015; FORT CALHOUN STATION; Problem Identification and Resolution (Biennial)

The inspection activities described in this report were performed between November 9, and December 17, 2015, by three inspectors from the NRC's Region IV office and the resident inspector at the Fort Calhoun Station. The report documents two findings of very low safety significance (Green). Both of these findings involved violations of NRC requirements. The significance of inspection findings is indicated by their color (Green, White, Yellow, or Red), which is determined using Inspection Manual Chapter 0609, "Significance Determination Process." Their cross-cutting aspects are determined using Inspection Manual Chapter 0310, "Aspects Within the Cross-Cutting Areas." Violations of NRC requirements are dispositioned in accordance with the NRC Enforcement Policy. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process."

### Assessment of Problem Identification and Resolution

Based on its inspection sample, the team concluded that the licensee maintained a corrective action program in which individuals generally identified issues at an appropriately low threshold. Once entered into the corrective action program, the licensee generally evaluated and addressed these issues appropriately and timely, commensurate with their safety significance. The licensee's corrective actions were generally effective, addressing the causes and extents of condition of problems. However, since the last problem identification and resolution inspection in January 2015, the licensee continues to demonstrate weaknesses in the implementation of the operability determination process.

The licensee appropriately evaluated industry operating experience for relevance to the facility. The licensee incorporated industry and internal operating experience in its root cause and apparent cause evaluations. The licensee performed effective and self-critical nuclear oversight audits and self-assessments. The licensee maintained an effective process to ensure significant findings from these audits and self-assessments were addressed. However, the team identified a number of examples that demonstrated a lack of rigor in the evaluation of these condition reports for adequate corrective actions. This has led to a number of operational experience condition reports that were closed with no action taken. In one case, an unaddressed operational experience manifested itself as an event initiator, which resulted in a NCV. This issue was also previously identified to the licensee during the January 2015, problem identification and resolution inspection.

The licensee maintained a safety-conscious work environment in which personnel were willing to raise nuclear safety concerns without fear of retaliation.

### Cornerstone: Initiating Events

- Green. The team evaluated a self-revealing NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions", which states, in part, that "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies... are promptly identified and corrected." Specifically, prior to September 30, 2015, the licensee failed to revise procedures, and perform additional operator training, to prevent the

inadvertent opening of steam bypass and steam dump valves during plant startup, and any subsequent plant impacts. In response to this issue, the licensee initiated a condition report to document these corrective actions. This finding was entered into the licensee's corrective action program as Condition Report CR-FCS-2015-13718.

The team determined that the failure to take timely corrective actions to revise procedures and complete additional training to correct a condition adverse to quality, was a performance deficiency. This finding was more than minor because it was associated with the initiating events cornerstone objective of configuration control to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the licensee failed to take recommended corrective actions to revise procedures and perform additional operator training to ensure proper alignment of the steam dump and bypass valves controller during startup. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 1, "Initiating Events Screening Questions," the team determined that the finding was determined to have very low safety significance (Green) since the transient did not result in a reactor trip or loss of mitigation equipment. The finding has a problem identification and resolution cross-cutting aspect in the area of "Operating Experience," because the licensee failed to systematically and effectively collect, evaluate, and implement relevant internal operating experience in a timely manner [P.5]. (Section 4OA2.5.b)

### **Cornerstone: Mitigating Systems**

- Green. The team identified an NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," for the licensee's failure to take corrective actions to prevent repetition of a significant condition adverse to quality. Specifically, since February 2009, the licensee failed to take corrective actions to prevent repetitive water intrusions from the Auxiliary Building HVAC room (Room 82) into the number one Emergency Diesel Generator room (Room 63).

The inspectors determined that the licensee's failure to implement corrective actions to preclude repetitive water intrusions into Room 63 was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external factors attribute of the mitigating systems cornerstone. Specifically, water intrusion events from Room 82 into Room 63 could challenge the reliability of the emergency diesel generator when relied upon during a loss of offsite power. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Question," inspectors determined that the finding was of very low safety significance (Green). The finding has a problem identification and resolution cross-cutting aspect within the area of "Resolution," because the licensee did not take effective corrective actions to address issues in a timely manner commensurate with their safety significance [P.3]. (Section 4OA2.5.a)

## REPORT DETAILS

### 4. OTHER ACTIVITIES (OA)

#### 4OA2 Problem Identification and Resolution (71152)

The team based the following conclusions on a sample of corrective action documents that were open during the assessment period, which ranged from January 1, 2015, to the end of the on-site portion of this inspection on December 11, 2015.

##### .1 **Assessment of the Corrective Action Program Effectiveness**

###### a. Inspection Scope

The team reviewed approximately 170 condition reports (CRs), including associated root cause analyses and apparent cause evaluations, from approximately 15,000 CRs that the licensee had initiated or closed between January 1, 2015, and December 17, 2015. The majority of these were lower-level condition reports that did not require cause evaluations. The inspection sample focused on higher-significance condition reports for which the licensee evaluated and took actions to address the cause of the condition. In performing its review, the team evaluated whether the licensee had properly identified, characterized, and entered issues into the corrective action program, and whether the licensee had appropriately evaluated and resolved the issues in accordance with established programs, processes, and procedures. The team also reviewed these programs, processes, and procedures to determine if any issues existed that may impair their effectiveness.

The team reviewed a sample of operability determinations, self-assessments, trending reports, metrics, and various other documents related to the licensee's corrective action program. The team evaluated the licensee's efforts in determining the scope of problems by reviewing selected logs, work orders, self-assessment results, and audits. The team reviewed daily CRs and attended the licensee's Station Ownership Committee (SOC), Management Review Committee (MRC) and Departmental Corrective Action Review Board (DCARB) meetings to assess the reporting threshold and prioritization efforts, and to observe the corrective action program's interfaces with the operability assessment and work control processes. The team's review included an evaluation of whether the licensee considered the full extent of cause and extent of condition for problems, as well as a review of how the licensee assessed generic implications and previous occurrences of issues. The team assessed the timeliness and effectiveness of corrective actions, completed or planned, and looked for additional examples of problems similar to those the licensee had previously addressed.

The team reviewed corrective action documents that addressed past NRC-identified violations to evaluate whether corrective actions addressed the issues. The team reviewed a sample of corrective actions closed to other corrective action documents to ensure that the ultimate corrective actions remained appropriate and timely. The team reviewed a sample of condition reports where the licensee had changed the significance level after initial classification to determine whether the level changes were in

accordance with station procedures and that the conditions were appropriately addressed.

The team considered risk insights from both the NRC's and the Fort Calhoun Station's risk models to focus the sample selection and plant tours on risk-significant systems and components.

b. Assessments

Overall, the team concluded that the licensee has continued to maintain its corrective action program at the level previously evaluated during the January 2015 inspection, as documented in NRC Inspection Report 05000285/2015008. However, the team noted that the licensee continues to experience challenges with the implementation of the operability determination process. These challenges include failures to recognize degraded or nonconforming conditions, and failures to promptly engage other departments when degraded or nonconforming conditions meet the criteria for operability determinations. In addition, the licensee has continued to demonstrate a lack of rigor when processing operating experience condition reports.

1. Effectiveness of Problem Identification

During the nearly 12-month inspection period, licensee staff generated approximately 15,000 CRs or approximately 1,250 CRs per month. The licensee's actions reflected progress in the closure of backlog items. Also notable was the installation of two kiosks, with a computer terminal in each, where plant personnel could enter CRs anonymously, without having to enter any personal identifying information. These kiosks were also used by contract employees who do not have access to the licensee's computer system. The inspectors reviewed the CRs that were entered into these kiosks and other anonymous CR's that were provided via paper. These did not identify a negative trend with regard to anonymous submittals. The team determined that most conditions that required generation of a condition report had been appropriately entered into the corrective action program. However, issue identification and entry into the corrective action program continues to be a challenge for members of the Engineering and Operations departments as demonstrated by the following examples:

- In one case, a root cause analysis for a reactor coolant pump leak stated that the most likely cause of the leak was due to excessive vibrations. These vibrations involved a design weakness that had affected all reactor coolant pumps. Even though Engineering personnel identified this condition as a design weakness, and therefore a nonconformance with the existing design criteria, a separate CR was never generated. As a result, an assessment for operability was not performed until NRC inspectors raised the question.
- In another case, as documented in a finding in NRC Inspection Report 2015-003 (ML15314A273), Operations personnel failed to identify and evaluate an adverse trend related to boron concentration in Safety Injection Tank SI-6A and to take corrective actions to prevent boron concentration from going below the minimum concentration required by Technical Specifications.

Overall, the team concluded that the licensee generally maintained a low threshold for the formal identification of problems and entry into the corrective action program for evaluation. Most of the personnel interviewed by the team understood the requirements for condition report initiation; and most expressed a willingness to enter newly identified issues into the corrective action program at a low threshold.

## 2. Effectiveness of Prioritization and Evaluation of Issues

The sample of CRs reviewed by the team focused primarily on issues screened by the licensee as having higher-level significance, including those that received cause evaluations, those classified as significant conditions adverse to quality, and those that required engineering evaluations. The team also reviewed a number of condition reports that included or should have included immediate operability determinations to assess the quality, timeliness, and prioritization of these determinations.

Prioritization and evaluation of issues, in general, was found to be good, especially with the more safety significant CRs. Use of the Devonway software, with its more rigorous questions and prompts, has improved CR detail and helped prompt the performance of operability determinations. The actions of the Station Ownership Committee, Management Review Committee, Engineering Assurance Group and Departmental Corrective Action Review Board provided several levels of review in the CR process which helped produce a more thorough evaluation of each CR.

### Open Operability Evaluations

At the end of the last NRC PI&R inspection, completed in January 2015, the licensee had 81 open operability evaluations. Since then, the licensee has closed 53 of these operability evaluations to design analysis, plant modifications, or license amendments. The inspectors sampled some of these operability evaluations for adequate closure and did not identify any discrepancies with the closure efforts. In addition, the prioritization of efforts appeared to be adequate and consistent with the safety significance of the open evaluations. The remaining 28 operability evaluations will either require outages to implement, require extensive design analysis, or license amendments to close. Continued focus on these items will be needed to assure their completion.

The licensee continues to demonstrate weaknesses in the implementation of the operability determination process. The inspectors sampled several operability determinations and identified discrepancies with the immediate operability determination process:

- CR-FCS-2015-11990 documented 16 nonconformances associated with an extent of condition related to safety-related steam generator auxiliary feedwater inlet valves failing to stroke. Engineering personnel identified nonconformances with these components over an 8 week review period. However, they did not initiate a CR, and therefore did not assess each component for operability/functionality, until the complete list of nonconformances was reported to Operations personnel. This practice is not consistent with the guidance in Procedure OP-FC-108-115, "Operability Determinations", which requires that



Operations personnel make “immediate” operability calls. The inspectors determined this to be a minor deficiency since it was an administrative error that had no safety impact on the plant

- Condition Report-FCS-2015-11990 also described an incorrect technical basis for functionality of the steam generator blowdown isolation valves HCV-1387A/1387B/1388A/ 1388B. The original technical basis concluded that the “main steam secondary safety valves open at 985 psig, therefore the blowdown isolation valves will not see pressures above approximately 1000 psig.” The inspectors reviewed the technical basis, and identified conditions described in the Updated Safety Analysis Report (USAR) by which the pressure could reach nearly 1090 psig and that these valves would be required to function. Following the inspectors’ inquiry, the licensee revised the Immediate Operability Determination and generated CR-FCS-2015-12636, which concluded that the valves would remain operable. The inspectors determined this to be a minor performance deficiency, since this increased pressure did not adversely affect the functionality evaluation.
- Condition Report-FCS-2015-13151 described a degraded floor coating in the Auxiliary Building HVAC room (Room 82), and used a previous functionality basis for the current basis for functionality. The previous functionality basis described in CR FCS-2015-00874 was performed when auxiliary steam was not in service. The functionality determination assessment described in CR-FCS-2015-13151 was the same, but this time the auxiliary steam system was in service. The licensee subsequently generated CR-FCS-2015-13186 to correctly revise the functionality assessment, to remove the erroneous statement. The inspectors determined this to be a performance deficiency, since the erroneous statement did not affect the functionality evaluation.

Overall, the team determined that the licensee’s processes for screening, prioritizing, and correcting degraded and nonconforming issues supported nuclear safety. However, implementation and execution of the immediate operability determination process continues to be a weakness. It has shown only marginal improvements since the last problem identification and resolution inspection in January 2015.

### 3. Effectiveness of Corrective Actions

Overall, the team concluded that the licensee generally identified effective corrective actions for the problems evaluated in the corrective action program. The licensee generally implemented these corrective actions in a timely manner, commensurate with their safety significance, and reviewed the effectiveness of the corrective actions appropriately.

## **.2 Assessment of the Use of Operating Experience**

### a. Inspection Scope

The team examined the licensee’s program for reviewing industry operating experience, including reviewing the governing procedures. The team reviewed a sample of industry operating experience communications and the associated site evaluations to assess

whether the licensee had appropriately assessed the communications for relevance to the facility. The team also reviewed assigned actions to determine whether they were appropriate.

b. Assessment

The team noted that the licensee entered Industry Operating Experience (OE) into the facilities corrective action program. However, the team noted a vulnerability in the language used in the recently adopted Exelon corporate procedure. Specifically, it conflicted with terminology used in the station's Devonway software when categorizing whether OE is applicable to the station. In addition, the team identified examples where thorough disposition of applicability to the station was not documented in the appropriate attachment, according to procedures. Finally, previous inspections by the NRC and industry have also noted missed opportunities for actions from relevant OE. The following is an example where the licensee closed an OE/CR with no action:

- CR-FCS-2013-20427 - In 2013 a warning to all facilities that the controller for the steam dump valves and steam bypass valves needed to be placed in manual during plant startup, to avoid the valves inadvertently opening, and causing a plant event. This CR recommended a couple of actions, including modifying operations procedures. However, it was closed with no action taken. In 2015, such an event occurred, which resulted in a pressure transient that caused a number of safety relief valves to lift, which ultimately resulted in damage to one Main Steam isolation valve and a number of Room 81 blowout panels, requiring repair. This is the subject of a Self Revealing NCV being documented in this inspection report (Section 4OA2.5.b).

The team further determined that the licensee appropriately evaluated industry operating experience when performing root cause analysis and apparent cause evaluations. The licensee appropriately incorporated both internal and external operating experience into lessons learned for training and pre-job briefs.

**.3 Assessment of Self-Assessments and Audits**

• Inspection Scope

The team reviewed a sample of licensee self-assessments and audits to assess whether the licensee was regularly identifying performance trends and effectively addressing them. The team also reviewed audit reports to assess the effectiveness of assessments in specific areas. The specific self-assessment documents and audits reviewed are listed in Attachment 1.

• Assessment

Overall, the team concluded that the licensee had an effective self-assessment and audit process. The team determined that self-assessments were self-critical and thorough enough to identify deficiencies. However, some items of note were identified. For example, the Focused Area Self-Assessment (FASA) for the Maintenance Rule Program, completed for review period January to December 2015, included percentage improvements that did not reflect true measured metrics. The inspector interviewed the

individual who performed the FASA, and understands the difficulty in trying to quantify recovery progress. However, it should be noted that senior management could be misled to reduce or discontinue certain recovery initiatives if under the impression that certain milestones were achieved when in fact, the assessment was more subjective. The following is an example of percentage improvements described above, none of which were supported by quantitative data:

Knowledge Gaps – increased from 5 percent to 40 percent  
Document Quality – increased from 5 percent to 50 percent  
Document Timeliness – increased from 3 percent to 50 percent  
Maintenance Rule Panel Management – increased from 15 percent to 60 percent  
Program Leadership – increased from 10 percent to 60 percent  
Sustainability – increased from 0 percent to 30 percent

The team brought these observations to licensee management's attention.

#### **.4 Assessment of Safety-Conscious Work Environment**

A safety-conscious work environment is defined by the NRC as an environment in which employees feel free to raise safety concerns, both to their management and to the NRC, without fear of retaliation. The NRC recognizes that an employee's willingness to identify safety concerns can also be affected by other factors such as the effectiveness of the licensee's processes for resolving concerns or senior management's ability to detect and prevent retaliatory actions. Therefore, the NRC assesses the safety-conscious work environment for indications that could impact employees' willingness to raise safety concerns as part of the reactor oversight process.

##### **a. Inspection Scope**

The team interviewed 35 individuals in seven focus groups. The purpose of these interviews was: (1) to evaluate the willingness of the licensee's staff to raise safety issues without fear of retaliation; (2) to evaluate the perceived effectiveness of the corrective action program at resolving identified problems; and (3) to evaluate licensee management's involvement in establishing and promoting a safety-conscious work environment (SCWE). The focus group participants included personnel from operations, engineering, instrumentation and controls, electrical maintenance, nuclear oversight, and quality control. At the team's request, the licensee's regulatory affairs staff assisted in selecting participants randomly from these work groups, based on availability and position. To supplement these focus group discussions, the team interviewed the Employee Concerns Program coordinators to assess their perceptions of employees' willingness to raise nuclear safety concerns. The team reviewed the Employee Concerns Program case log and select case files. The team also reviewed the minutes from the licensee's last two safety culture monitoring panel meetings.

##### **b. Assessment**

###### **1. Willingness to Raise Nuclear Safety Issues**

Based upon the interviews, all individuals indicated that they would raise nuclear safety concerns. All indicated that management was generally receptive to nuclear

safety concerns and was willing to address them promptly. Individuals stated that management encourages them to raise and document safety concerns in the corrective action program. All of the interviewees further agreed that if they were not satisfied with the response from their immediate supervisor, they had the ability to escalate the concern to higher organizational levels. Most expressed positive experiences after raising issues to their supervisors. Many of the individuals (especially newer employees with less than 3 years onsite) indicated that they are encouraged to stop work and raise concerns associated with the quality of work documents. They indicated that this is helping to improve the clarity of procedures.

The team questioned focus group participants whether they were able to submit a condition report anonymously. Most individuals were aware that they could submit condition reports anonymously via the electronic system but several were suspicious about the true anonymity of this process. When asked why they thought individuals may be submitting condition reports anonymously, individuals from several different groups believed that it may be because the individual wished not to be identified to avoid attention from being drawn away from the concern itself rather than on who raised the concern.

The team also received several statements, which were contrary to a positive environment for raising safety concerns, and could indicate an area where additional management attention may be warranted. One individual stated that they had been directed to stop writing condition reports but would not elaborate any further on this issue. The second individual indicated that they had previously had a negative experience for having raised concerns would not initiate condition reports without their supervisor's approval. Finally, all of the individuals within one group expressed concerns regarding the receptiveness of one supervisor to raised concerns. These individuals indicated that they tended to seek out other supervisors if they had concerns. The team discussed these potential problem areas with the Site Vice President and Chief Nuclear Officer.

## 2. Perceived Effectiveness of the Corrective Action Program

All interviewees stated that they were able to and had initiated condition reports using the electronic corrective action program system. Individuals stated that condition report initiation was straightforward and simple. All of the focus groups agreed that the corrective action program was doing a better job in addressing concerns, scheduling work, and working the schedule than it had in the past. Individuals believed that the station was doing a better job at addressing lower level issues and cited the "B-list" discussions during the plan of the day meetings and the Top-10 list as examples of management being able to better focus corrective action efforts and timeliness.

## 3. Management Involvement in Establishing and Promoting a Safety-Conscious Work Environment

Responses from the focus group interviewees indicate that they generally believe that management has established and promoted a safety-conscious work environment where individuals feel free to raise safety concerns without fear of retaliation. Most of the individuals had not experienced retaliation or other negative

reaction for raising issues, all individuals interviewed (except for one previously mentioned) stated that they had neither experienced nor heard of an instance of retaliation, harassment, intimidation or discrimination at the site. Several of the individuals expressed that they had a positive view or had a positive experience with the employee concerns program. Individuals stated that management expects and requires them to slow down and do the job correctly and to document any concerns in the condition reporting process. However, some individuals believed that the station still could improve communications down to the worker level associated with concerns, process changes, and decisions associated priorities. Overall, the team determined that the licensee had processes in place to promote a safety-conscious work environment that were generally effective.

## **.5 Findings**

### **.a Failure to Take Adequate Corrective Action to Preclude Repetition of a Significant Condition Adverse to Quality Associated with Emergency Diesel Generator Room Water Intrusions**

Introduction. The team identified a Green NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," for the licensee's failure to take adequate corrective action to prevent repetition of a significant condition adverse to quality. Specifically, since February 2009, the licensee failed to prevent repetitive water intrusions from the Auxiliary Building HVAC room (Room 82) into the number one Emergency Diesel Generator room (Room 63).

Description. On February 11, 2009, the licensee had documented a significant condition adverse to quality due to water intrusion from the Auxiliary Building HVAC room (Room 82) into the number one emergency diesel generator room (Room 63), located below. The water intrusion had caused water to leak onto the secondary air compressor motor starter in Room 63 and tripped the associated breakers. This electrical transient then caused the number one emergency diesel generator, which was running for surveillance purposes, to trip. The licensee initiated Condition Report CR-FCS-2009-0687 and subsequently determined that an unanalyzed condition had existed by which an auxiliary steam leak in Room 82 could potentially result in water entering both diesel generator rooms through the floor of Room 82. This condition had existed at least since February 1, 2006, when CR-FCS-2006-0399 was written to document water dripping from the same crack in the ceiling of Room 63 above the secondary air compressor. This event was documented as a Green NCV in NRC Inspection Report 0500285/2009002 (ML091200069).

The licensee performed a root cause analysis (RCA) following the event in 2009. The analysis determined that the root cause was a failure to document, in the licensee's USAR, the implicit assumption that the floor in Room 82 shall not leak. As a result, a program was not established to assure the integrity of the flooring. Licensee corrective actions included the following:

- Coating the Room 82 floor.
- Revising the USAR to document the implicit assumption that floors of rooms analyzed for medium and high energy line breaks are leak tight.

- Revising the periodic structural inspection of the Auxiliary Building to ensure all ceiling cracks, for rooms that are susceptible to internal flooding, are documented and evaluated.

Following implementation of the above corrective actions, recurrent leaks into Room 63 and identified examples of inadequate Room 82 floor coating were identified by the licensee and documented in the licensee's corrective action program, these included:

- January 9, 2011, CR-FCS-2011-0156: The licensee identified water leaking into Room 63 at approximately 3 drops per minute. The licensee performed an evaluation and determined that this leak was from a previously identified ceiling crack, and that the drip would not impact the operability of any equipment in this location.
- October 6, 2012, CR-FCS-2012-14958: The licensee identified water dripping into Room 63 while placing Room 82 auxiliary steam in service. On October 12, 2012, the licensee generated Work Order 461213 and made repairs to the Room 82 floor coating where chips and cracks were identified. The licensee then performed an Apparent Cause Analysis, and determined that the floor coating previously installed was not adequate for Room 82. The licensee generated Engineering Change (EC) 62082 to modify the floor coating to a more suitable material. This EC was implemented on October 22, 2013.
- September 23, 2013, CR-FCS-2013-18103: During periodic coating inspections, the licensee identified yet again that the coating in Room 82 had degraded during a routine walkdown. The licensee performed another Apparent Cause Analysis and determined that the 2009 RCA was inadequate.
- October 18, 2014, CR-FCS-2014-12894: A building operator identified several cracks and chips in the Room 82 floor coating. Work Order 552343 was generated to recoat the floor, but was never completed.
- January 21, 2015, CR-FCS-2015-0874 and CR-FCS-2015-0883: During a routine walkdown of Room 82, a design engineer identified additional cracks in the Room 82 floor coating. In addition, the engineer identified a piping penetration seal in the Room 82 floor that was degraded. Work Request (WR) 220667 and WR 220668 were generated to repair the penetration, and WR 220618 was generated to recoat the floor.
- October 14, 2015, CR-FCS-2015-11976: Maintenance personnel identified a water intrusion into Room 63. Water had been dripping around the primary starting air compressor. The leak was identified to be from an auxiliary steam system leak in Room 82.

Following the water intrusion event on October 14, 2015, the licensee recoated the floor per an existing WO 552343 and cancelled the work requests associated with the degraded floor penetration (WR 220667 and WR 220668), since work planners had assumed that all repairs had been made. The inspectors performed a walkdown of

Room 82 following repairs to the flooring on November 18, 2015, and noted that the degraded pipe seal had not been fixed, and that water intrusion via this piping penetration was still a vulnerability to the rooms below. The inspectors informed the licensee, and at this time, CR-FCS-2015-13151 was generated to repair the degraded fire seal.

Analysis. The team determined that the licensee's failure to implement adequate corrective actions to prevent repetitive water intrusions into Room 63 was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it was associated with the protection against external factors attribute of the mitigating systems cornerstone and it adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, water intrusion events from Room 82 into Room 63 could challenge the reliability of the emergency diesel generator when relied upon during a loss of offsite power. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2, "Mitigating Systems Screening Question," dated June 19, 2012, inspectors determined that the finding was of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program. The finding has a problem identification and resolution cross-cutting aspect within the resolution area because the licensee did not take effective corrective actions to address issues in a timely manner commensurate with their safety significance [P.3].

Enforcement. Title 10 of the Code of Federal Regulations Part 50, Criterion XVI, "Corrective Actions," requires, in part, for significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition. Contrary to the above, between February 2009 and November 2015, measures established by the licensee to correct a significant condition adverse to quality did not assure that corrective actions were taken to preclude repetition. Specifically, corrective actions taken to address water intrusion from Room 82 into safety related emergency diesel generator Room 63, a significant condition adverse to quality first identified on February 11, 2009, were not effective to prevent recurrent water leaks. Immediate corrective actions to correct this condition included evaluating the Room 82 flooring for operability and recoating it. This violation is being treated as a NCV, consistent with Section 2.3.2 of the Enforcement Policy. The violation was entered into the licensee's corrective action program as CR-FCS-2015-11976 and CR-FCS-2015-13151. NCV 05000248/2015009-01, "Failure to Take Adequate Corrective Action to Preclude Repetition of a Significant Condition Adverse to Quality Associated with Emergency Diesel Generator Room Water Intrusions."

.b Failure to Revise Procedures and Perform Additional TrainingIntroduction.

The team evaluated a self-revealing Green NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," for the licensee's failure to correct conditions adverse to quality. Specifically, prior to September 30, 2015, the licensee failed to revise procedures, and perform additional operator training, to prevent the inadvertent opening of steam bypass and steam dump valves during plant startup.

Description. The team reviewed CR-FCS-2015-09308, which was written to document a plant transient that occurred due to the steam dump and bypass valves controller being in the wrong configuration during plant startup. On July 27, 2015, while drawing condenser vacuum during secondary plant startup, the steam dump and bypass valves opened unexpectedly. This opening caused a pressure transient in the main steam piping, and approximately three main steam safety valves opened. This pressure perturbation ultimately resulted in damage to one of the main steam isolation valves (rupture disc failed) and to a number of roof blowout panels located in Room 81. The root cause analysis of the July 2015 event noted that procedure OI-MS-1A, "Main Steam System Operation," did not provide clear guidance with regard to the steam dump and bypass valve controller. Specifically, that the controller should be placed in MANUAL when the plant is in startup mode. Through further review, the team identified that on November 2, 2013, CR-FCS-2013-20427 was written to capture operating experience regarding operation of the steam dump and bypass valves. The condition report identified that if the steam dump and bypass controller was in AUTO, while drawing condenser vacuum during secondary plant startup, this would result in an inadvertent opening of the steam dump and bypass valves. Ultimately, this could cause an unintended cooldown and reactivity event. Corrective actions to revise procedures and perform additional operator training were recommended, however, the condition report was closed in 2013 without any action taken.

Analysis. The team determined that the failure to take timely corrective actions to revise procedures and complete additional training to correct a condition adverse to quality was a performance deficiency. This performance deficiency was more than minor, and therefore a finding, because it was associated with the initiating events cornerstone objective of configuration control and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the licensee failed to take recommended corrective actions to revise procedures and perform additional operator training to ensure that the steam dump and bypass valves controller was properly set to MANUAL prior to plant startup. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 1, "Initiating Events Screening Questions," the team determined that the finding was determined to have very low safety significance (Green) since the transient did not result in a reactor trip or loss of mitigation equipment. The finding was determined to have a cross-cutting aspect in the area of problem identification and resolution, Operating Experience, because the licensee failed to systematically and effectively collect, evaluate, and implement relevant internal operating experience in a timely manner (P.5).

Enforcement. Title 10 of the Code of Federal Regulations Part 50, Appendix B, Criterion XVI, states, in part, "Measures shall be established to assure that conditions



adverse to quality, such as failures, malfunctions, deficiencies... are promptly identified and corrected.” Contrary to the above, prior to September 30, 2015, the licensee failed to establish measures to assure that conditions adverse to quality were promptly identified and corrected. Specifically, the licensee failed to revise procedures, and perform training, as recommended in operational experience documented in Condition Report CR-FCS-2013-20427, to prevent the inadvertent opening of steam dump and bypass valves during plant startup. This finding was entered into the licensee’s corrective action program as Condition Report CR-FCS-2015-13718. Because this finding is of very low safety significance and has been entered into the licensee’s corrective action program, this violation is being treated as a NCV consistent with Section 2.3.2.a of the NRC Enforcement Policy: NCV 5000285/2015009-002, “Failure to Revise Procedures and Perform Additional Training.”

#### **40A6 Meetings, Including Exit**

##### Exit Meeting Summary

On December 17, 2015, the inspectors presented the inspection results to Mr. E.D. Dean, General Manager of Plant Operations, 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.

##### ATTACHMENTS:

1. Supplemental Information
2. Information Request

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee Personnel**

B. Blome	Manager Site Regulatory Assurance
K. Boston	Reliability Engineer
C. Cameron	Principle Regulatory Specialist
J. Cate	Manager Engineering Special Projects
L. Church	DEN engineer
M. Cooper	Administrative Clerk III
N. Darrow	Corporate Employee Concerns Investigator, Exelon
S. Dean	Plant Manager
J. Denton	Nuclear Engineer I
E. Durboraw	Radwaste Specialist
J. McBride	Supervisor Nuclear Audits (Fmr Employee Concerns Coordinator)
J. Goering	Project Manager
A. Hansen	Principle Regulatory Specialist
C. Heimes	Superintendent, Site Security
T. Hutchinson	Inservice Inspection Engineer
K. Jacobsen	Reliability Engineer
J. Kellams	Supervisor Nuclear Assessments (Fmr Employee Concerns Coordinator)
L. Kshywonis	Senior Project Manager
S. Lindquist	Unit Supervisor
M. Marcellus	Regulatory Specialist
E. Matzke	Senior Regulatory Engineer
H. Minassian	Reliability Engineer
J. Mise	Nuclear Engineer II
T. Muff	Superintendent Maintenance
J. Musser	Superintendent Shift Operations
B. Obermeyer	Principal Regulatory Specialist
B. Pence	Senior Regulatory Engineer
C. Scofield	DEN Engineer
J. Steinke	Principle Engineer- Electric
C. Sterba	Special Assignment – Nuclear
R. Swerzcek	Senior Nuclear Design Engineer- Mechanical
D. Trausch	Manager Operations Support
T. Schulte	Nuclear Engineer II
J. Steinke	Principle Engineer- Electric

#### **NRC Personnel**

E. Ruesch, (Acting) Team Lead, Inspection Programs & Assessment Team  
M. Schneider, Senior Resident Inspector, FCS

## LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

### Opened and Closed

05000285-009-01	NCV	Failure to Take Adequate Corrective Action to Preclude Repetition of a Significant Condition Adverse to Quality Associated with Emergency Diesel Generator Room Water Intrusions (Section 4OA2.5.a)
05000285-009-02	NCV	Failure to Revise Procedures and Perform Additional Training (Section 4OA2.5.b)

## LIST OF DOCUMENTS REVIEWED

### Condition Reports

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CR-FCS-2002-02124	CR-FCS-2015-00056	CR-FCS-2015-03073
CR-FCS-2003-00400	CR-FCS-2015-00701	CR-FCS-2015-03683
CR-FCS-2009-00687	CR-FCS-2015-00796	CR-FCS-2015-03690
CR-FCS-2010-05816	CR-FCS-2015-00826	CR-FCS-2015-03756
CR-FCS-2011-04591	CR-FCS-2015-00874	CR-FCS-2015-03945
CR-FCS-2011-01584	CR-FCS-2015-01013	CR-FCS-2015-04578
CR-FCS-2011-08063	CR-FCS-2015-01093	CR-FCS-2015-04634
CR-FCS-2012-02096	CR-FCS-2015-01155	CR-FCS-2015-04649
CR-FCS-2012-02688	CR-FCS-2015-01277	CR-FCS-2015-04652
CR-FCS-2012-05779	CR-FCS-2015-01574	CR-FCS-2015-04655
CR-FCS-2012-07882	CR-FCS-2015-01716	CR-FCS-2015-04657
CR-FCS-2012-17879	CR-FCS-2015-01755	CR-FCS-2015-04658
CR-FCS-2013-01679	CR-FCS-2015-01801	CR-FCS-2015-04660
CR-FCS-2013-03598	CR-FCS-2015-01835	CR-FCS-2015-04949
CR-FCS-2013-05630	CR-FCS-2015-01932	CR-FCS-2015-05173
CR-FCS-2013-08656	CR-FCS-2015-02191	CR-FCS-2015-05455
CR-FCS-2013-15030	CR-FCS-2015-02224	CR-FCS-2015-05574
CR-FCS-2013-16870	CR-FCS-2015-02232	CR-FCS-2015-05808
CR-FCS-2013-18103	CR-FCS-2015-02302	CR-FCS-2015-05858
CR-FCS-2013-18580	CR-FCS-2015-02319	CR-FCS-2015-05862
CR-FCS-2013-20427	CR-FCS-2015-02351	CR-FCS-2015-05870
CR-FCS-2013-20716	CR-FCS-2015-02373	CR-FCS-2015-05995
CR-FCS-2013-21083	CR-FCS-2015-02392	CR-FCS-2015-06298
CR-FCS-2013-21956	CR-FCS-2015-02412	CR-FCS-2015-06301
CR-FCS-2013-21967	CR-FCS-2015-02414	CR-FCS-2015-06531
CR-FCS-2014-02537	CR-FCS-2015-02443	CR-FCS-2015-06581
CR-FCS-2014-06759	CR-FCS-2015-02547	CR-FCS-2015-06615
CR-FCS-2014-07376	CR-FCS-2015-02575	CR-FCS-2015-06722
CR-FCS-2014-08612	CR-FCS-2015-02673	CR-FCS-2015-06726
CR-FCS-2014-08787	CR-FCS-2015-02708	CR-FCS-2015-06867
CR-FCS-2014-09104	CR-FCS-2015-02713	CR-FCS-2015-07120
CR-FCS-2014-11266	CR-FCS-2015-02808	CR-FCS-2015-07479
CR-FCS-2014-14190	CR-FCS-2015-02955	CR-FCS-2015-07564
CR-FCS-2014-14208	CR-FCS-2015-02962	CR-FCS-2015-07652

CR-FCS-2015-08216	CR-FCS-2015-10730	CR-FCS-2015-13098*
CR-FCS-2015-08288	CR-FCS-2015-10794	CR-FCS-2015-13104
CR-FCS-2015-08357	CR-FCS-2015-11014	CR-FCS-2015-13121
CR-FCS-2015-08522	CR-FCS-2015-11244	CR-FCS-2015-13131*
CR-FCS-2015-08523	CR-FCS-2015-11519	CR-FCS-2015-13132*
CR-FCS-2015-08655	CR-FCS-2015-11520	CR-FCS-2015-13146*
CR-FCS-2015-08835	CR-FCS-2015-11527	CR-FCS-2015-13151*
CR-FCS-2015-09084	CR-FCS-2015-11788	CR-FCS-2015-13186*
CR-FCS-2015-09101	CR-FCS-2015-11832	CR-FCS-2015-13218*
CR-FCS-2015-09130	CR-FCS-2015-11875	CR-FCS-2015-13690*
CR-FCS-2015-09192	CR-FCS-2015-11915	CR-FCS-2015-13691*
CR-FCS-2015-09193	CR-FCS-2015-11976	CR-FCS-2015-13702*
CR-FCS-2015-09308	CR-FCS-2015-11990	CR-FCS-2015-13709*
CR-FCS-2015-09413	CR-FCS-2015-12039	CR-FCS-2015-13711*
CR-FCS-2015-09737	CR-FCS-2015-12636	CR-FCS-2015-13718*
CR-FCS-2015-09753	CR-FCS-2015-12967	CR-FCS-2015-13743*
CR-FCS-2015-09943	CR-FCS-2015-13022	CR-FCS-2015-13747*
CR-FCS-2015-10015	CR-FCS-2015-13031	CR-FCS-2015-13764*
CR-FCS-2015-10598	CR-FCS-2015-13035	CR-FCS-2015-13800*
CR-FCS-2015-10599	CR-FCS-2015-13037	CR-FCS-2015-13860*
CR-FCS-2015-10600	CR-FCS-2015-13056	CR-FCS-2015-13904*
CR-FCS-2015-10604	CR-FCS-2015-13085	
CR-FCS-2015-10606	CR-FCS-2015-13096	

\*Issued as a result of inspection activities.

<u>Drawings Number</u>	<u>Title</u>	<u>Revision</u>
35740	Containment Spray Pump Discharge to Heat Exchanger AC-1A	Rev 9

<u>Miscellaneous</u>	<u>Title</u>	<u>Revision/Date</u>
AR 2014-1814	Problem Identification and Resolution Focused Area Self-Assessment	September 2015
AR 2014-1800	FCS Maintenance Rule Recovery Focused Area Self- Assessment	June 2015
AR 2015-001	NOS Audit	February 2015
FC0754	Gas-Water Waterhammer Evaluations for the Fort Calhoun Containment Spray Piping	Rev 1
FC07889	HELB Environmental Analysis for FCS Auxiliary Building Room 81	Rev 0
NOSA-FCS-15-05	Engineering Design Control Audit Report	Rev 1
NOSA-FCS-15-06	Radiation Protection Audit Report	July 24, 2015
RA-2014-1607	Focused Area Self-Assessment: 2015 NRC CDBI Inspection	
RA-2014-1803	Operating Fundamentals	

**OFFICIAL USE ONLY – SECURITY-RELATED INFORMATION**

<u>Miscellaneous</u>	<u>Title</u>	<u>Revision/Date</u>
T.S.2.5	Steam and Feedwater Systems	Rev 278
USAR 9.4	Auxiliary Feedwater System	Rev 22
USAR App.G	Responses to 70 Criteria	Rev 27
USAR Appendix M	Postulated High Energy Line Rupture Outside of Containment	Rev 17

<u>Procedure</u>	<u>Title</u>	<u>Revision</u>
FCSG-71	Engineering Assurance Group	Rev 4
HU-AA-104-101	Procedure Use and Adherence	Rev 5
LS-AA-1020	Reportability Tables and Decision Trees	Rev 23
OP-AA-102-106	Operators Response Time Program	Rev 3
OP-FC-108-115	Operability Determinations	Rev 2
OP-ST-AFW-0004	Auxiliary Feedwater Pump Operability Test	Rev 32
PI-AA-115	Operating Experience Program	Rev 0
PI-AA-115-1003	Processing of Level 3 OPEX Evaluations	Rev 1
PI-AA-120	Issue Identification and Screening Process	Rev 1
PI-AA-125	Corrective Action Program (CAP) Procedure	Rev 2
PI-AA-125-1001	Root Cause Analysis Manual	Rev 1
PI-AA-125-1003	Apparent Cause Evaluation Manual	Rev 2
PI-AA-125-1004	Effectiveness Review Manual	Rev 0
PI-AA-125-1005	Coding and Analysis Manual	Rev 0
QC-ST-ECCS-0001	Quarterly ECCS Gas Accumulation Detection	Rev 15
SE-PM-AE-1001	Auxiliary Building Structural Inspection	Rev 15
SE-ST-FP-0005	Fire Barrier and Penetration Seals Eighteen Month Inspection	Rev 15

Work Orders

365092

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**Information Request  
Biennial Problem Identification and Resolution  
Inspection Fort Calhoun Station  
October 5, 2015**

**Inspection Report: 50-285/2015009**  
**On-site Inspection Dates: November 16-20 and December 7-11, 2015**

This inspection will cover the period from January 1 through December 11, 2015. All requested information is limited to this period or to the date of this request unless otherwise specified. To the extent possible, the requested information should be provided electronically in word-searchable Adobe PDF (preferred) or Microsoft Office format. Any sensitive information should be provided in hard copy during the team's first week on site; do not provide any sensitive or proprietary information electronically.

Lists of documents ("summary lists") should be provided in Microsoft Excel or a similar sortable format. Please be prepared to provide any significant updates to this information during the team's first week of on-site inspection. As used in this request, "corrective action documents" refers to condition reports, notifications, action requests, cause evaluations, and/or other similar documents, as applicable to Fort Calhoun Station.

Please provide the following information no later than November 2, 2015:

1. Document Lists

Note: For these summary lists, please include the document/reference number, the document title, initiation date, current status, and long-text description of the issue.

- a. Summary list of all corrective action documents related to significant conditions adverse to quality that were opened, closed, or evaluated during the period
- b. Summary list of all corrective action documents related to conditions adverse to quality that were opened or closed during the period
- c. Summary lists of all corrective action documents that were upgraded or downgraded in priority/significance during the period (these may be limited to those downgraded from, or upgraded to, apparent-cause level or higher)
- d. Summary list of all corrective action documents initiated during the period that "roll up" multiple similar or related issues, or that identify a trend
- e. Summary lists of operator workarounds, operator burdens, temporary modifications, and control room deficiencies (1) currently open and (2) that were evaluated and/or closed during the period
- f. Summary list of safety system deficiencies that required prompt operability determinations (or other engineering evaluations) to provide reasonable assurance of operability

- g. Summary list of plant safety issues raised or addressed by the Employee Concerns Program (or equivalent) (sensitive information should be made available during the team's first week on site—do not provide electronically)
- h. Summary list of all Apparent Cause Evaluations completed during the period

2. Full Documents with Attachments

- a. Root Cause Evaluations completed during the period; include a list of any planned or in progress
- b. Quality Assurance audits performed during the period
- c. Audits/surveillances performed during the period on the Corrective Action Program, of individual corrective actions, or of cause evaluations
- d. Functional area self-assessments and non-NRC third-party assessments (e.g., peer assessments performed as part of routine or focused station self- and independent assessment activities; do not include INPO assessments) that were performed or completed during the period; include a list of those that are currently in progress
- e. Any assessments of the safety-conscious work environment at Fort Calhoun Station
- f. Corrective action documents generated during the period associated with the following:
  - i. NRC findings and/or violations issued to Fort Calhoun Station
  - ii. Licensee Event Reports issued by Fort Calhoun Station
- g. Corrective action documents generated for the following, if they were determined to be applicable to Fort Calhoun Station (for those that were evaluated but determined not to be applicable, provide a summary list):
  - i. NRC Information Notices, Bulletins, and Generic Letters issued or evaluated during the period
  - ii. Part 21 reports issued or evaluated during the period
  - iii. Vendor safety information letters (or equivalent) issued or evaluated during the period
  - iv. Other external events and/or Operating Experience evaluated for applicability during the period
- h. Corrective action documents generated for the following:

- i. Emergency planning drills and tabletop exercises performed during the period
- ii. Maintenance preventable functional failures which occurred or were evaluated during the period
- iii. Adverse trends in equipment, processes, procedures, or programs that were evaluated during the period
- iv. Action items generated or addressed by offsite review committees during the period

3. Logs and Reports

- a. Corrective action performance trending/tracking information generated during the period and broken down by functional organization (if this information is fully included in item 3.c, it need not be provided separately)
- b. Corrective action effectiveness review reports generated during the period
- c. Current system health reports, Management Review Meeting package, or similar information; provide past reports as necessary to include  $\geq 12$  months of metric/trending data
- d. Radiation protection event logs during the period
- e. Security event logs and security incidents during the period (sensitive information should be made available during the team's first week on site—do not provide electronically)
- f. Employee Concern Program (or equivalent) logs (sensitive information should be made available during the team's first week on site—do not provide electronically)
- g. List of training deficiencies, requests for training improvements, and simulator deficiencies for the period

Note: For items 3.d–3.g, if there is no log or report maintained separate from the corrective action program, please provide a summary list of corrective action program items for the category described.

4. Procedures

Note: For these procedures, please include all revisions that were in effect at any time during the period.

- a. Corrective action program procedures, to include initiation and evaluation procedures, operability determination procedures, apparent and root cause evaluation/determination procedures, and any other procedures that implement the corrective action program at Fort Calhoun Station



- b. Quality Assurance program procedures (specific audit procedures are not necessary)
- c. Employee Concerns Program (or equivalent) procedures
- d. Procedures which implement/maintain a Safety Conscious Work Environment

5. Other

- a. List of risk-significant components and systems, ranked by risk worth
- b. Organization charts for plant staff and long-term/permanent contractors
- c. Electronic copies of the UFSAR (or equivalent), technical specifications, and technical specification bases, if available
- d. For each day the team is on site,
  - i. Planned work/maintenance schedule for the station
  - ii. Schedule of management or corrective action review meetings (e.g. operations focus meetings, condition report screening meetings, CARBs, MRMs, challenge meetings for cause evaluations, etc.)
  - iii. Agendas for these meetings

Note: The items listed in 5.d may be provided on a weekly or daily basis after the team arrives on site.

All requested documents should be provided electronically where possible. Regardless of whether they are uploaded to an internet-based file library (e.g., Certrec's IMS), please provide copies on CD or DVD. One copy of the CD or DVD should be provided to the resident inspector at Fort Calhoun Station; three additional copies should be provided to the team lead, to arrive no later than November 2, 2015:

Eric A. Ruesch  
U.S. NRC Region IV  
1600 East Lamar Blvd.  
Arlington, TX 76011-511

M. Marik

- 2 -

NRC inspectors documented two findings of very low safety significance (Green) in this report. Both of these findings involved violations of NRC requirements. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2.a of the NRC Enforcement Policy.

If you contest the violations or significance of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC resident inspector at the Fort Calhoun Station.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region IV; and the NRC resident inspector at the Fort Calhoun Station.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Eric Ruesch, Team Lead (Acting)  
Inspection Programs & Assessment Team  
Division of Reactor Safety

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

Enclosure:  
Inspection Report 05000285/2015009  
w/Attachment: Supplemental Information

Electronic Distribution to Fort Calhoun Station

Distribution:  
See next page

DOCUMENT NAME: FCS 2015009 PI&R ADAMS ACCESSION NUMBER: ML16021A486

<input checked="" type="checkbox"/> SUNSI Review by: RVA	ADAMS: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available		Keyword: NRC-002
OFFICE	RIV/DRS/EB1	RIV/DRP/PBD	RIV/DRS/IPAT	RIV/DRS/IPAT	C:DRP/PBD	C:DRS/IPAT	
NAME	MWilliams	BCummings	HFreeman	RAzua	JSowa	ERuesch	
SIGNATURE	/RA/	/RA/	/RA/	/RA/	/RA/	/RA/	
DATE	1/20/16	1/20/2016	1/19/2016	1/20/2016	1/20/2016	1/21/16	

OFFICIAL RECORD COPY

Letter to Shane M. Marik from Eric A. Ruesch dated, January 21, 2016

SUBJECT: FORT CALHOUN STATION – NRC PROBLEM IDENTIFICATION AND  
RESOLUTION INSPECTION REPORT 05000285/2015009

DISTRIBUTION:

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Deputy Regional Administrator (Kriss.Kennedy@nrc.gov)  
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