



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
612 EAST LAMAR BLVD, SUITE 400
ARLINGTON, TEXAS 76011-4125

February 10, 2011

David J. Bannister, Vice President
and Chief Nuclear Officer
Omaha Public Power District
Fort Calhoun Station FC-2-4
P.O. Box 550
Fort Calhoun, NE 68023-0550

Subject: FORT CALHOUN - NRC INTEGRATED INSPECTION REPORT NUMBER
05000285/2010005

Dear Mr. Bannister:

On December 31, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Fort Calhoun Station. The enclosed integrated inspection report documents the inspection findings, which were discussed on January 13, 2011, with Mr. Jeffrey Reinhart, Site Vice President, and other members of your staff.

The inspections 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. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, the NRC has identified three issues that were evaluated under the risk significance determination process as having very low safety significance (Green). The NRC has determined that violations are associated with these issues. However, because of the very low safety significance and because they were entered into your corrective action program, the NRC is treating these findings as noncited violations, consistent with Section 2.3.3 of the NRC Enforcement Policy. If you contest the violations or the significance of the noncited violations, 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, D.C. 20555-0001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 612 E. Lamar Blvd, Suite 400, Arlington, Texas, 76011-4125; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the Fort Calhoun facility. In addition, if you disagree with the cross-cutting aspect assigned to any finding 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 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, and its enclosure, 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 or proprietary information so that it can be made available to the public without redaction.

Sincerely,

/RA/

Mr. Jeffrey A. Clark, P.E.
Chief, Project Branch E
Division of Reactor Projects

Docket: 50-285
License: DPR-40

Enclosure:
NRC Inspection Report 05000285/2010005
w/Attachment: Supplemental Information

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 ROPreports

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket: 05000285

License: DPR-40

Report: 05000285/2010005

Licensee: Omaha Public Power District

Facility: Fort Calhoun Station

Location: 9610 Power Lane
Blair, NE 68008

Dates: October 1 through December 31, 2010

Inspectors: J. Kirkland, Senior Resident Inspector
J. Wingeback, Resident Inspector
K. Clayton, Senior Operations Engineer
T. Farina, Operations Engineer
P. Elkmann, Senior Emergency Preparedness Inspector

Approved By: Jeffrey Clark, P.E., Chief, Project Branch E
Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000285/2010005; 10/01/2010 – 12/31/2010; Fort Calhoun Station, Integrated Resident and Regional Report; Licensed Operator Requalification Program; Maintenance Risk Assessments and Emergent Work Control; Operability Evaluations

The report covered a 3-month period of inspection by resident inspectors and an announced baseline inspections by region-based inspectors. Three Green noncited violations of significance were identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter 0609, "Significance Determination Process." The crosscutting aspect is determined using Inspection Manual Chapter 0310, "Components within the Cross Cutting Areas." Findings for which the significance determination process does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified Findings and Self-Revealing Findings

Cornerstone: Initiating Events

- Green. The inspectors identified a Green noncited violation of 10 CFR 50.65(a)(4), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for failing to perform a risk assessment prior to performing activities involving a man basket in the vicinity of the T1 transformer. The licensee has entered this performance deficiency into the corrective action program as Condition Report 2010-4689.

The inspectors determined that the licensee's failure to perform a risk assessment and implement appropriate risk management actions was a performance deficiency. The finding was more than minor because it was associated with the protection against external factors attribute of the Initiating Events Cornerstone. It directly affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Additionally, if left uncorrected, the practice of not adequately evaluating crane activities in the vicinity of safety-related equipment by appropriately trained individuals would become a more significant safety concern. Specifically, in that it could result in a more than minimal increase in risk associated with other risk important equipment that would not be identified and not result in appropriate actions being taken. The inspectors evaluated this finding using the Appendix K, "Maintenance Risk Assessment, and Risk Management Significance Determination Process" worksheets of Manual Chapter 0609 because the finding is a maintenance risk assessment issue. Flowchart 1, "Assessment of Risk Deficit," requires the inspectors to determine the risk deficit associated with this issue. This finding was determined to be of very low safety significance because the incremental

core damage probability deficit was less than 1×10^{-6} . Because of the confusion with performing a risk assessment with a crane but not with a man basket, the finding had crosscutting aspects in the area of human performance associated with resources in that the licensee failed to provide complete, accurate, and up-to-date procedures (H.2(c))(Section 1R13).

Cornerstone: Mitigating Systems

- Green. The inspectors identified a Green noncited violation of 10 CFR 50.55a(b)(5)(i) because the licensee failed to adequately apply ASME Section XI Code Case N-513-2 when they evaluated a degraded section of raw water piping for operability. The licensee has entered this performance deficiency in the corrective action program as Condition Report 2010-5680.

The inspectors determined that the licensee's failure to adequately apply ASME Code Case N-513-2 was a performance deficiency. The finding was more than minor because it was associated with the protection against external factors attribute of the Mitigating Systems Cornerstone, and it directly affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, if left uncorrected, improper application of an approved code case would become a more significant safety concern in that it could result in the failure to identify inoperable safety related piping. Because this finding occurred while the unit was operating at full power, the inspectors used Inspection Manual Chapter 0609 to determine its significance. Using Attachment 4 of that chapter, the inspectors determined that this finding has a very low safety significance (Green) because it was not a design or qualification deficiency, does not represent an actual loss of safety function, nor did it screen as potentially risk significant for external events. Because the licensee revised an old operability determination and did not recognize that the code case application was incorrect, the finding had crosscutting aspects in the area of human performance associated with decision-making in that the licensee failed to make safety-significant or risk-significant decisions using a systematic process [H.1(a)](Section 1R15).

- Green. The inspectors identified a Green noncited violation of 10 CFR Part 55.49, "Integrity of Examinations and Tests," for the failure of the licensee to ensure that the integrity of an operating test administered to licensed operators was maintained. Two licensed operators received five job performance measures for their retake operating tests that had been potentially compromised during earlier weeks when this week's operating test book was left out and uncontrolled overnight in the training building. These job performance measures were removed from the operating tests for subsequent weeks and a condition report was written to ensure that these job performance measures were not used in subsequent weeks. However, these actions did not prevent these job performance measures from being used for the retake operating tests for two licensed operators that failed previous operating tests. This resulted in a

compromise of operating test integrity because control of these items was lost; however, it did not lead to an actual effect on the equitable and consistent administration of the examination. This issue was entered into the licensee's corrective action program as Condition Report 2010-5977.

The failure of the licensee's training staff to maintain the integrity of examinations administered to licensed operations personnel was a performance deficiency. The performance deficiency is more than minor, and therefore a finding, because it adversely impacted the human performance attribute of the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, if left uncorrected, it could have become more significant in that allowing untested licensed operators (in this case, operators that had the potential to have an invalid test because of the lack of examination integrity) at the controls could be a precursor to a more significant event if undetected performance deficiencies develop. Using Inspection Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheets, and the corresponding Appendix I, "Licensed Operator Requalification Significance Determination Process," the finding was determined to have very low safety significance (Green) because, although the finding resulted in a compromise of the integrity of operating test job performance measures and compensatory actions were not immediately taken when the compromise should have been discovered in 2009, the equitable and consistent administration of the exam was not actually impacted by this compromise. This finding has a crosscutting aspect in the area of problem identification and resolution associated with corrective actions because the licensee did not take appropriate corrective actions to address safety issues in that an operating test compromise issue occurred that was entered into the corrective action program as Condition Report 2009-4066. This corrective action document stated that these compromised items shall not be used on any subsequent operating tests for that cycle and they were subsequently used on the 2009 annual operating test [P.1(d)](Section 1R11.1).

B. Licensee-Identified Violations

None

REPORT DETAILS

Summary of Plant Status

The unit began the inspection period operating at 100 percent power. On October 27, 2010, the unit began a plant shutdown to repair containment spray header isolation valves HCV-344 and HCV-345. Plant shutdown was halted at approximately 70 percent power when HCV-344 repairs were complete, and the plant was returned to 100 percent power on October 29, 2010. On December 23, 2010, the unit tripped from 100 percent power due to a turbine trip, caused by an inadvertent moisture separator trip. The unit started up on December 25, 2010 and returned to 100 percent on December 27, 2010, where it remained for the duration of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

1R04 Equipment Alignments (71111.04)

.1 Partial Walkdown

a. Inspection Scope

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

- November 10, 2010, Portions of the component cooling water system and the raw water system backup to component cooling water system while the east raw water header was degraded due to a through-wall leak
- November 15, 2010, Low pressure safety injection pump SI-1B while low pressure safety injection pump SI-1A is out-of-service for maintenance

The inspectors selected these systems based on their risk significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could affect the function of the system, and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Updated Safety Analysis Report, technical specification requirements, administrative technical specifications, outstanding work orders, condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also inspected accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of

mitigating systems or barriers and entered them into the corrective action program with the appropriate significance characterization. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of two (2) partial system walkdown samples as defined in Inspection Procedure 71111.04-05.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

.1 Quarterly Fire Inspection Tours

a. Inspection Scope

The inspectors conducted fire protection walkdowns that were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- October 21, 2010, Fire Area 6.3, Basement & Personnel Corridor Area, Room 4
- October 21, 2010, Fire Area 20.1, Corridor Auxiliary Building Main Floor, Room 26
- November 8, 2010, Fire Area 33, Component Cooling Heat Exchanger Area, Room 18
- November 26, 2010, Fire Area 41, Cable Spreading Room, Room 70

The inspectors reviewed areas to assess if licensee personnel had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant; effectively maintained fire detection and suppression capability; maintained passive fire protection features in good material condition; and had implemented adequate compensatory measures for out of service, degraded or inoperable fire protection equipment, systems, or features, in accordance with the licensee's fire plan. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to affect equipment that could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed in the attachment, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's corrective action program. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of four (4) quarterly fire-protection inspection samples as defined in Inspection Procedure 71111.05-05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Quarterly Review

a. Inspection Scope

On October 18, 2010, the inspectors observed a crew of licensed operators in the plant's simulator to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- Licensed operator performance
- Crew's clarity and formality of communications
- Crew's ability to take timely actions in the conservative direction
- Crew's prioritization, interpretation, and verification of annunciator alarms
- Crew's correct use and implementation of abnormal and emergency procedures
- Control board manipulations
- Supervisor's oversight and direction
- Crew's ability to identify and implement appropriate technical specification actions and emergency plan actions and notifications

The inspectors compared the crew's performance in these areas to pre-established operator action expectations and successful critical task completion requirements. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one (1) quarterly licensed-operator requalification program sample as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

.2 Biennial Inspection

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

a. Inspection Scope

To assess the performance effectiveness of the licensed operator requalification program, the inspectors conducted personnel interviews, reviewed both the operating tests and written examinations, and observed ongoing operating test activities.

The inspectors interviewed 10 licensee personnel, consisting of five operators, three instructors, 2 managers, and the simulator supervisor, to determine their understanding of the policies and practices for administering requalification examinations. The inspectors also reviewed operator performance on the written exams and operating tests. These reviews included observations of portions of the operating tests by the inspectors. The operating tests observed included five job performance measures and two scenarios that were used in the current biennial requalification cycle. These observations allowed the inspectors to assess the licensee's effectiveness in conducting the operating test to ensure operator mastery of the training program content. The inspectors also reviewed medical records of six licensed operators for conformance to license conditions and the licensee's system for tracking qualifications and records of license reactivation for two operators.

The results of these examinations were reviewed to determine the effectiveness of the licensee's appraisal of operator performance and to determine if feedback of performance analyses into the requalification-training program was being accomplished. The inspectors interviewed members of the training department and reviewed operating experience and licensee event reports to assess the responsiveness of the licensed operator requalification program to incorporate the lessons learned from both plant and industry events. Examination results were also assessed to determine if they were consistent with the guidance contained in NUREG 1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1, and NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process."

In addition to the above, the inspectors reviewed examination security measures, simulator fidelity, and existing logs of simulator deficiencies

On November 18, 2010, the licensee informed the lead inspector of the following Unit 1 results for the Licensed Operator Requalification Program

- 10 of 10 crews passed the simulator portion of the operating test

- 44 of 45 licensed operators passed the simulator portion of the operating test
- 45 of 45 licensed operators passed the job performance measure portion of the examination
- 45 of 45 licensed operators passed the biennial written exam

The individual that failed the applicable portions of their operating test was remediated, retested, and passed their retake operating test.

The inspectors completed one (1) inspection sample of the biennial licensed operator requalification program.

b. Findings

Failure to Maintain Operator Licensing Examination Integrity

Introduction. The inspectors identified a Green noncited violation of 10 CFR 55.49, "Integrity of Examinations and Tests," for the failure of the licensee to ensure that the integrity of an operating test administered to licensed operators was maintained. During the week of September 24, 2009, two licensed operators received five job performance measures for their retake operating tests that had been potentially compromised during earlier weeks when this week's operating test book was left out and uncontrolled overnight in the training building. These job performance measures were removed from the operating tests for subsequent weeks and a condition report was written to ensure that these job performance measures were not used in subsequent weeks. However, these actions did not prevent these job performance measures from being used for the retake operating tests for two licensed operators that failed their operating tests. This resulted in a compromise of operating test integrity because control of these items was lost, however it did not lead to an actual effect on the equitable and consistent administration of the examination.

Description. On November 17, 2010, while performing a biennial requalification inspection in accordance with Inspection Procedure 71111.11, "Licensed Operator Requalification Program," the inspectors discovered that during the week of September 24, 2009, two licensed operators received five job performance measures for their operating test that had been potentially compromised. During the week of September 2, 2009, one of the week's operating test books was left out and uncontrolled overnight in the training building. The next morning, when the licensee's examination team was performing an inventory of the examination books, they noticed that they were missing one book from the set that had been locked up the night before as required for examination security measures in accordance with Training Administrative Procedure 8 (TAP-8), their examination security procedure. The missing book was found on an examiner's desk and had been left out all night unsecured. The licensee wrote Condition Report 2009-4066, which required the job performance measures that were contained in this book to be removed from all of the remaining annual operating tests and it clearly stated, "All exam material contained in this packet was invalid for the

current exam cycle, and will not be used.” These job performance measures were removed from the operating tests for subsequent weeks. Two individuals failed their job performance measure portion of their annual operating tests. For their retake operating tests, the licensee’s staff used all five of these potentially compromised job performance measures on the two-licensed operator’s retake operating tests. This resulted in a compromise of operating test integrity required by 10 CFR Part 55 because control of these items was lost and they were still used on an operating test to evaluate licensed operator knowledge. However, there was no indication that the compromise led to an actual effect on the equitable and consistent administration of the examination. Because the two operators successfully passed their 2010 annual operating tests, they did not have to take replacement tests for the potentially compromised test items from the 2009 event.

The inspectors noted that licensee-training personnel performed a formal briefing to all operations personnel prior to the administration of their 2009 operating test that specifically prohibited them from discussing the details of their examination with other personnel. Additionally, all of the licensed operators signed a security agreement documenting that they would not discuss the details of their examination with other personnel. The licensee and the inspectors also reviewed the grading of the 2009 operating tests to determine if there was any discernable discrepancy in the evaluated performance between the different weeks that would indicate that the equitable and consistent administration of the examination had actually been affected. During this review, the inspectors concluded that, although the integrity of the 2009 operating examination was not maintained, no actual affect on the equitable and consistent administration of the 2009 operating examination had occurred. The licensee entered this issue into their corrective action program as Condition Report 2010-5977.

Analysis. The failure of the licensees training staff to maintain the integrity of examinations administered to licensed operations personnel was a performance deficiency. The finding is more than minor because it adversely impacted the human performance attribute of the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, if left uncorrected, the finding could have become more significant, in that, allowing untested licensed operators (in this case, operators that had the potential to have an invalid test because of the lack of examination integrity) at the controls could be a precursor to a significant event if undetected performance deficiencies develop. Using Inspection Manual Chapter 0609, “Significance Determination Process,” Phase 1 worksheets, and the corresponding Appendix I, “Licensed Operator Requalification Significance Determination Process,” the finding was determined to have very low safety significance (Green) because, although the finding resulted in a compromise of the integrity of operating test job performance measures and compensatory actions were not immediately taken when the compromise should have been discovered in 2009, the equitable and consistent administration of the exam was not actually impacted by this compromise. This finding has a crosscutting aspect in the area of problem identification and resolution associated with corrective actions because the licensee did not take appropriate corrective actions to address safety issues, in that, an operating test compromised issue occurred, which was entered

into the corrective action program as Condition Report 2010-5977. This corrective action document stated that these compromised items shall not be used on any subsequent operating tests for that cycle and they were subsequently used on the 2009 annual operating test [P.1(d)].

Enforcement. Title 10 of the Code of Federal Regulations 55.49, "Integrity of Examinations," requires, in part, that facility licensees shall not engage in any activity that compromises the integrity of any application, test, or examination required by this part. The integrity of a test or examination is considered compromised if any activity, regardless of intent, affected, or, but for detection, would have affected the equitable and consistent administration of the test or examination. This includes activities related to the preparation, administration, and grading of the tests and examinations required by this part. Contrary to the above, during the week of September 24, 2009, the licensee engaged in an activity that compromised the integrity of a test required by 10 CFR Part 55. Specifically, training personnel administered five job performance measures to two licensed operators for their operating tests that had been previously removed from the operating test schedule because their contents had been compromised the week of September 1, 2009. This resulted in these two licensed operators receiving a compromised annual operating test. Administering an operating test whose contents had been compromised is a practice that, but for detection, would affect the equitable and consistent administration of these tests. The inspectors determined that the compromise of the 2009 operating test did not result in an actual effect on the equitable and consistent administration of the operating test. Because this violation is of low safety significance (Green) and has been entered into the licensee's corrective action program as Condition Report 2010-5977, this violation is being treated as a noncited violation consistent with Section 2.3.2 of the NRC Enforcement Policy: NCV 05000285/2010005-01, "Failure to Maintain Licensed Operator Examination Integrity."

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk significant systems:

- December 13, 2010, Review of Fort Calhoun Stations Cycle 24 Maintenance Rule periodic assessment of maintenance effectiveness
- December 28, 2010, Review of the maintenance effectiveness of condenser off-gas radiation monitor RM-057

The inspectors reviewed events such as where ineffective equipment maintenance has resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- Implementing appropriate work practices

- Identifying and addressing common cause failures
- Scoping of systems in accordance with 10 CFR 50.65(b)
- Characterizing system reliability issues for performance
- Charging unavailability for performance
- Trending key parameters for condition monitoring
- Ensuring proper classification in accordance with 10 CFR 50.65(a)(1) or -(a)(2)
- Verifying appropriate performance criteria for structures, systems, and components classified as having an adequate demonstration of performance through preventive maintenance, as described in 10 CFR 50.65(a)(2), or as requiring the establishment of appropriate and adequate goals and corrective actions for systems classified as not having adequate performance, as described in 10 CFR 50.65(a)(1)

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the corrective action program with the appropriate significance characterization. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of two (2) quarterly maintenance effectiveness samples as defined in Inspection Procedure 71111.12-05.

b. Findings

No findings were identified.

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

a. Inspection Scope

The inspectors reviewed licensee personnel's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- October 19, 2010, Qualitative risk management actions associated with work on the service building, with a man-basket lift stationed near the T1 transformer
- December 8, 2010, Yellow risk associated with containment spray pump SI-3B, and low pressure safety injection pump SI-1B out-of-service

The inspectors selected these activities based on potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that licensee personnel performed risk assessments as required by 10 CFR 50.65(a)(4) and that the assessments were accurate and complete. When licensee personnel performed emergent work, the inspectors verified that the licensee personnel promptly assessed and managed plant risk. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed the technical specification requirements and inspected portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid, and applicable requirements were met. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of two (2) maintenance risk assessments and emergent work control inspection samples as defined in Inspection Procedure 71111.13-05.

b. Findings

Introduction. The inspectors identified a Green noncited violation of 10 CFR 50.65(a)(4), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for failing to perform a risk assessment prior to performing activities involving a man basket in the vicinity of the T1 transformer.

Description. On September 22, 2010, contractor personnel were performing maintenance activities on the south exterior face of the service building. The activities involved the use of a man basket to allow personnel to reach exterior portions of the third floor of the service building and were ongoing since September 20, 2010. The man basket boom was capable of extending to approximately 80 feet.

When observed by the inspectors, the man basket was parked approximately 40 feet immediately south of the service building and approximately 40 feet east of the T1 transformer. During maintenance activities, the boom was extended up to 25 feet vertically and up to 50 feet horizontally to support maintenance to the face of the service building.

The inspectors questioned the workweek manager about risk management actions associated with a man basket adjacent to the T1 transformer and he stated that he was unaware of any work being performed on the south side of the service building. The inspectors then questioned the Systems Analysis Department (PRA Group) to verify that a risk assessment had been performed for the activities near the transformer. The PRA Group determined that a risk assessment had not been performed. Immediately following the inspector's inquiry to the PRA Group, all maintenance activities were complete, and the man basket was removed.

Standing Order M-100, "Conduct of Maintenance," describes the procedure for qualitative risk assessments, which includes consultation with the PRA Group. One particular activity that requires such a risk assessment is if a plant activity "adversely affects 161 KV or 345 KV between the switchyard and the plant, such as a crane near the 161 KV lines or work near the house service transformers." The project manager in charge of the service building work did not perform a risk assessment or consult with PRA Group personnel because there was no crane involved. The PRA Group confirmed that the hazard associated with a man basket is similar enough to that of a crane that the procedure step should have been implemented for a man basket.

Analysis. The inspectors determined that the licensee's failure to perform a risk assessment and implement appropriate risk management actions was a performance deficiency. The finding was more than minor because it was associated with the protection against the external factors attribute of the Initiating Events Cornerstone. It directly affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Additionally, if left uncorrected, the practice of not adequately evaluating crane activities in the vicinity of safety-related equipment by appropriately trained individuals would become a more significant safety concern. Specifically, it could result in a more than minimal increase in risk associated with other risk important equipment that would not be identified and not result in appropriate actions being taken. The inspectors evaluated this finding using the Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process" worksheets of Inspection Manual Chapter 0609 because the finding is a maintenance risk assessment issue. Flowchart 1, "Assessment of Risk Deficit," requires the inspectors to determine the risk deficit associated with this issue. This finding was determined to be of very low safety significance because the incremental core damage probability deficit was less than 1×10^{-6} . Because of the confusion with performing a risk assessment with a crane but not with a man basket, the finding had crosscutting aspects in the area of human performance associated with resources in that the licensee failed to provide complete, accurate and up-to-date procedures (H.2(c)).

Enforcement. Title 10 of the Code of Federal Regulations Part 50.65(a)(4) requires, in part, that licensees shall assess and manage the increase in risk that may result from the proposed maintenance activities. Contrary to the above, on September 22, 2010, the licensee did not assess and manage the increase in risk that may result from the use of a man basket in the vicinity of main transformer, T1, prior to placing the man basket in the vicinity of the transformer. Since this finding is of very low safety significance and has been entered into the corrective action program as Condition Report 2010-4689, this violation is being treated as a noncited violation consistent with Section 2.3.2 of the NRC Enforcement Policy: NCV 05000285/2010005-02, "Failure to Perform a Risk Assessment When Required by 10 CFR 50.65(a)(4) for Maintenance in the Vicinity of Safety-Related Equipment."

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the following issues:

- October 12, 2010, Functionality determination concerning over-pressurization of main feedwater pump FW-4B suction piping
- October 13, 2010, Operability determination regarding foreign material in fuel oil storage tank FO-1
- October 14, 2010, Operability determination concerning excessive torque applied to the raw water/ component cooling water system heat exchanger ac-1C endbell.
- October 21, 2010, operability of high pressure safety injection valves following discovery of nut falling off the actuator of HCV-321
- November 8, 2010, operability of the east raw water header following the discovery of a through-wall leak in the piping

The inspectors selected these potential operability issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that technical specification operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the technical specifications and Updated Safety Analysis Report to the licensee personnel's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors also reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of five (5) operability evaluations inspection samples as defined in Inspection Procedure 71111.15-04

b. Findings

Introduction. The inspectors identified a Green noncited violation of 10 CFR 50.55a(b)(5)(i) because the licensee failed to adequately apply ASME Section XI Code Case N-513-2 when they evaluated a degraded section of raw water piping for operability.

Description. On November 4, 2010, at approximately 7:00 p.m., the licensee discovered a leak in a section of raw water piping. The leaking section of piping was at a wall penetration filled with a fire barrier sealant preventing visual evaluation of the leak. The estimated leak rate out of the penetration was approximately a drop every second.

The shift manager declared the raw water piping operable, based on “operating experience with localized corrosion causing small leaks in the raw water system.” The shift manager also requested a prompt operability determination, in accordance with station procedures and Part 9900 Technical Guidance.

In order to determine operability, the licensee applied ASME Section XI Code Case N-513-2, “Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping, Section XI, Division 1.” Title 10 CFR Part 50.55a(b)(5) states that licensees may apply the ASME Boiler and Pressure Vessel Code cases listed in Regulatory Guide 1.147, Revision 15, without prior NRC approval. ASME Section XI Code Case N-513-2 is listed in the Regulatory Guide.

An ultrasonic test of the piping was completed at 5:10 p.m. on November 5, 2010. The ultrasonic test consisted of readings on and around the leak location. Results of the ultrasonic test indicated that the flaw was small enough and had adequate structural integrity to apply Code Case N-513-2. The operability evaluation was completed and the shift manager approved the evaluation at 8:02 p.m. on November 5, 2010.

To apply the code case Section 2.0(a) states, “the full pipe circumference at the flaw location shall be inspected to characterize the length and depth of all flaws in the pipe section.” On November 9, 2010, while reviewing the operability determination, the inspectors questioned whether the characterization of the flaw was complete enough to apply Code Case N-513-2. The flaw had only been characterized at the flaw and near the flaw in the raw water piping but not for the full pipe circumference as required to apply the Code Case. Subsequent ultrasonic testing around the full pipe circumference was conducted with no additional indications noted and the pipe was confirmed operable at 3:49 p.m. on November 9, 2010. The inspectors noted that the licensee prepared the operability evaluation by revising a two-year-old evaluation for a similar pipe leak. That particular operability evaluation also incorrectly applied Code Case N-513-2.

Analysis. The inspectors determined that the licensee’s failure to adequately apply ASME Section XI Code Case N-513-2 was a performance deficiency. The finding was more than minor because it was associated with the protection against external factors attribute of the mitigating systems cornerstone, and it directly affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, if left uncorrected, improper application of an approved code case would become a more significant safety concern in that it could result in the failure to identify inoperable safety related piping. Because this finding occurred while the unit was operating at full power, the inspectors used Inspection Manual Chapter 0609 to determine its significance. Using Attachment 4 of that chapter, the inspectors determined that this finding has a very low safety significance (Green) because it was not a design or qualification deficiency, does not

represent an actual loss of safety function nor did it screen as potentially risk significant for external events. Because the licensee revised an old operability determination and did not recognize that the code case application was incorrect, the finding had crosscutting aspects in the area of human performance associated with decision-making in that the licensee failed to make safety-significant or risk-significant decisions using a systematic process [H.1(a)].

Enforcement. Title 10 CFR Part 50.55a(b)(5)(i) requires, in part, that licensees shall apply the most recent version of an ASME Code Case reference in Regulatory Guide 1.147. Code Case N-513-2 is an approved code case referenced in Regulatory Guide 1.147. Contrary to the above, on November 5, 2010, the licensee did not properly apply ASME Code Case N-513-2, because the licensee failed to evaluate the full pipe circumference where the flaw was found. Since this finding is of very low safety significance and has been entered into the corrective action program as Condition Report 2010-5680, this violation is being treated as a noncited violation consistent with Section 2.3.2 of the NRC Enforcement Policy: NCV 05000285/2010005-03, "Failure to Properly Apply an Approved ASME Code Case."

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed the following postmaintenance activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- October 25, 2010, Postmaintenance testing of HCV-1150A , A main feed pump discharge valve, following breaker replacement
- October 27, 2010, Postmaintenance testing of HCV-344 and HCV-345, containment spray header isolation valves, following repair of air leaks
- November 15, 2010, Postmaintenance testing of low pressure safety injection pump SI-1A, following preventative maintenance
- November 22, 2010, Postmaintenance testing of HCV-2851, raw water pump AC-10 B discharge valve, following actuator rebuild
- December 8, 2010, Postmaintenance testing of containment spray pump SI-3B, following breaker maintenance

The inspectors selected these activities based upon the structure, system, or component's ability to affect risk. The inspectors evaluated these activities for the following (as applicable):

- The effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed

- Acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate

The inspectors evaluated the activities against the technical specifications, the Updated Safety Analysis Report, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with postmaintenance tests to determine whether the licensee was identifying problems and entering them in the corrective action program and that the problems were being corrected commensurate with their importance to safety. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of five (5) postmaintenance testing inspection samples as defined in Inspection Procedure 71111.19-05.

b. Findings

No findings were identified.

1R20 Refueling and Other Outage Activities (71111.20)

a. Inspection Scope

The inspectors reviewed the outage safety plan and contingency plans for the forced outage, conducted December 23 to December 25, 2010, to confirm that licensee personnel had appropriately considered risk, industry experience, and previous site-specific problems in developing and implementing a plan that assured maintenance of defense in depth. During the forced outage, the inspectors observed portions of the licensee's reactor trip response and monitored licensee controls over the outage activities are listed below:

- Configuration management, including maintenance of defense in depth, is commensurate with the outage safety plan for key safety functions and compliance with the applicable technical specifications when taking equipment out-of-service
- Clearance activities, including confirmation that tags were properly hung and equipment appropriately configured to safely support the work or testing
- Status and configuration of electrical systems to ensure that technical specifications and outage safety-plan requirements were met, and controls over switchyard activities
- Controls over activities that could affect reactivity

- Maintenance of secondary containment as required by the technical specifications
- Startup and ascension to full power operation, tracking of startup prerequisites, walkdown of the drywell (primary containment) to verify that debris had not been left which could block emergency core cooling system suction strainers, and reactor physics testing
- Licensee identification and resolution of problems related to refueling outage activities

Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one (1) of the outage inspection sample as defined in Inspection Procedure 71111.20-05.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the Updated Safety Analysis Report, procedure requirements, and technical specifications to ensure that the surveillance activities listed below demonstrated that the systems, structures, and/or components tested were capable of performing their intended safety functions. The inspectors either witnessed or reviewed test data to verify that the significant surveillance test attributes were adequate to address the following:

- Preconditioning
- Evaluation of testing impact on the plant
- Acceptance criteria
- Test equipment
- Procedures
- Jumper/lifted lead controls
- Test data
- Testing frequency and method demonstrated technical specification operability

- Test equipment removal
- Restoration of plant systems
- Fulfillment of ASME Code requirements
- Updating of performance indicator data
- Engineering evaluations, root causes, and bases for returning tested systems, structures, and components not meeting the test acceptance criteria were correct
- Reference setting data
- Annunciators and alarms setpoints

The inspectors also verified that licensee personnel identified and implemented any needed corrective actions associated with the surveillance testing.

- November 8, 2010, Calibration of Steam Generator Low Pressure Trip Unit A/TU-6 and Asymmetrical Steam Generator Transient Trip Unit A/TU-7, IC-ST-RPS-0044
- November 18, 2010, Channel A Safety Injection, Containment Spray and Recirculation Actuation Signal Test, OP-ST-ESF-0009
- December 10, 2010, Room 22 Safety Injection / Containment Spray Pumps and Valve Exercise In-service Test, OP-ST-SI-3022
- December 20, 2010, Channel Calibration of Reactor Coolant Cold and Hot Leg Temperature Loops, Channel D, IC-ST-RC-0037

Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of four (4) surveillance testing inspection samples as defined in Inspection Procedure 71111.22-05.

b. Findings

Introduction. The inspectors identified an unresolved item concerning calibration of steam generator low-pressure trip unit A/TU-6 and asymmetrical steam generator transient (ASGT) trip unit A/TU-7. Further investigation is required to determine whether multiple performance deficiencies exist and if they are more than minor.

Description. On November 8, 2010, the licensee performed Surveillance Test IC-ST-RPS-0044, calibration of steam generator low-pressure trip unit A/TU-6 and asymmetrical steam generator transient (ASGT) trip unit A/TU-7. During the performance of this test out of tolerance as found values were recorded at approximately

10:30 a.m. Specifically, on Attachment 9.1 - Data Sheet 1, terminal 73 and terminal 75 were elevated out of tolerance by 0.0001 Vdc and 0.0002 Vdc respectively. These values normally correspond to RC-2A and RC-2B steam generator pressure. RC-2A and RC-2B pressure transmitters scale from 1-4 volts corresponding to 0 - 1000 psi. The condition observed was nonconservative, in that, increased voltage would mask a low-pressure condition to the reactor protection system (RPS) by a linear amount. The intent of gathering this data is to ensure that there is minimal degradation of the signals by the circuitry prior to trip unit input. The remaining as found data required by the surveillance test was recorded by the instrumentation and controls (I&C) technician. The remaining values including trip unit A/TU-6 and trip unit A/TU-7 input values were in specification. The out-of-tolerance values failed the surveillance test. Work Request 157517 was generated to troubleshoot and repair. Condition Report 2010-5645 documented the out of tolerance values.

During troubleshooting efforts it was determined the issue resided with the circuit. Specifically, terminal 74 is connected to common and should have a value of zero Vdc. Instead, this terminal was reading greater than zero Vdc by a few millivolts. Common to all three terminals is AI-31A-AW12 B2 contact module, which is part of the ASGT test circuit and should not affect the circuits. Instrumentation and controls technicians knew this module had previously been an issue. Condition Reports 200302822 and 2009-2317 document past out of tolerance results. Cycling the contact module or replacing it had cleared out of tolerances values in the past, therefore part of the FC-1212 troubleshooting plan was to cycle the contact module. The FC-1212 was executed and no maintenance activities were performed.

Surveillance Test IC-ST-RPS-0044 was performed again to check the required values for change. The out of tolerance values were now in tolerance. The on-shift I&C technician did not intend to complete the surveillance test. Instead, the trip units were left in bypass and the results were discussed with the shift manager including a safety concern regarding the contact module. This concern was documented in Condition Report 2010-5667 on November 8, 2010, at 3:00 p.m. The condition report questioned the problem with the contact module and stated that if the problem occurred again there would be no indication to the control room. It also stated that the ASGT test relay was exercised during troubleshooting specifically to make a better connection to pass the IC-ST-RPS-0044 surveillance test. At approximately 5:06 p.m., the night shift I&C technician completed the last three steps of IC-ST-RPS-0044 with the day shift operations crew based on the data recorded by the day shift I&C technician. This consisted of ensuring the trip units were reset, removing the bypass keys, and informing the shift manager. The trip units were returned to service and an operability determination was requested by the shift manager to evaluate the ASGT test circuit during normal operation for operability.

Based on discussions with I&C personnel and the shift manager, as well as review of condition reports, the inspectors questioned if the surveillance test used to declare operability had been compromised due to potential preconditioning. The inspectors also asked what corrective actions were taken to correct the problem. The inspectors brought these questions to the licensing department. These questions were

documented by the licensee in Condition Report 2010-5733, on November 10, 2010. Based on discussions with licensing and I&C personnel the operating crew declared trip units A/TU-6 and A/TU-7 inoperable, replaced the contact module, performed Surveillance Test IC-ST-RPS-0044 again, and then returned the trip units to service.

On November 16, 2010, operability determination associated with Condition Report 2010-5667 was completed. This determination concluded that the out of tolerance values on November 8, 2010, were not outside the design basis as the values do not account for 4 psi of margin not built into the tolerances based on Calculation FC05733. Therefore, the values could be out of tolerance +/- 16-millivolt dc before they are outside of their design basis. In addition, the increase in voltage does not affect trip unit A/TU-7 as the voltage is added to each signal, which are then subtracted to determine a difference. To address the concern regarding the ASGT test circuit effect on trip unit operability additional actions were required to confirm operability in the current calibration cycle. Specifically Work Order 396853 was generated to monitor the voltage of the relay contact on all channels to confirm operability. Surveillance Test IC-ST-RPS-0044 test frequency was increased for the next six weeks.

On November 29, 2010, voltage at terminal 74 was elevated 39-millivolt dc, thus rendering trip unit A/TU-6 inoperable. This is documented in the operator logs as well as Condition Report 2010-6190. Trip Unit A/TU-6 was declared inoperable. Subsequent trouble shooting determined a bad wire in the circuit. The wire was replaced, postmaintenance testing was performed, and the trip unit was returned to service.

Condition Reports 200302822 and 2009-2317 documents prior out of tolerance readings, for the same values in Surveillance test IC-ST-RPS-0044, which rendered the trip unit inoperable. These events were not determined by the licensee to be functional failures. After reviewing the condition reports, the inspectors believe these particular events to be functional failures of trip unit A/TU-6.

Not fixing a condition adverse to quality is a performance deficiency. The events on November 8, 2010, show that the corrective actions taken in response to Condition Report 2009-2317 were inadequate. These actions consisted of replacing the AI-31A-AW12 B2 contact module. These same actions were taken in response to Condition Report 200302822 and therefore, were within the licensee's ability to foresee and correct.

The actions taken in response to the events on November 8 and November 10, 2010, were inadequate as demonstrated when trip unit A/TU-6 was declared inoperable on November 29, 2010, documented in Condition Report 2010-6190.

To determine if there is more than one performance deficiency, the inspectors intend to investigate the actions taken on November 8 and November 10, 2010, as well as review the licensee's apparent cause analysis regarding Condition Report 2010-6190.

In accordance with the guidance in Inspection Manual Chapter 0612, an unresolved item is warranted if more information is required to determine if the performance deficiency is

more than minor. URI 05000285/2010005-04, "Calibration Failures of RPS Trip Units 6 and 7."

Cornerstone: Emergency Preparedness

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspectors performed an in-office review of the Fort Calhoun Station Radiological Emergency Response Plan, Appendix C, "NUREG/RERP/Implement Procedure Cross Reference List" Revision 15, and Emergency Plan Implementing Procedure TBD-EPIP-OSC-1S, "Recognition Category S, System Malfunction," Revision 2. These revisions:

- Added the definition for the reactor coolant barrier to the basis for emergency action level SU5, "RCS Leakage"
- Updated the cross-references to refer to emergency action level bases from Nuclear Energy Institute Report 99-01, "Methodology for Development of Emergency Action Levels," Revision 5

These revisions were compared to their previous revision, to the criteria of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1, to the Nuclear Energy Institute Report 99-01, "Methodology for Development of Emergency Action Levels," Revision 5, and to the standards in 10 CFR 50.47(b) to determine if the revisions adequately implemented the requirements of 10 CFR 50.54(q). This review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, these revisions are subject to future inspection.

These activities constitute completion of two (2) samples as defined in Inspection Procedure 71114.04-05.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06)

.1 Training Observations

a. Inspection Scope

The inspectors observed a simulator training evolution for licensed operators on November 4, 2010, which required emergency plan implementation by a licensee operations crew. This evolution was planned to be evaluated and included in performance indicator data regarding drill and exercise performance. The inspectors

observed event classification and notification activities performed by the crew. The inspectors also attended the post-evolution critique for the scenario. The focus of the inspectors' activities was to note any weaknesses and deficiencies in the crew's performance and ensure that the licensee evaluators noted the same issues and entered them into the corrective action program. As part of the inspection, the inspectors reviewed the scenario package and other documents listed in the attachment.

These activities constitute completion of one (1) sample as defined in Inspection Procedure 71114.06-05.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

40A1 Performance Indicator Verification (71151)

.1 Data Submission Issue

a. Inspection Scope

The inspectors performed a review of the performance indicator data submitted by the licensee for the fourth quarter 2010 performance indicators for any obvious inconsistencies prior to its public release in accordance with Inspection Manual Chapter 0608, "Performance Indicator Program."

This review was performed as part of the inspectors' normal plant status activities and, as such, did not constitute a separate inspection sample.

b. Findings

No findings were identified.

.2 Mitigating Systems Performance Index - Heat Removal System (MS08)

a. Inspection Scope

The inspectors sampled licensee submittals for the mitigating systems performance index - heat removal system performance indicator for the period from the third quarter 2009 through the third quarter 2010. To determine the accuracy of the performance indicator data reported during those periods, the inspectors used definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports, mitigating systems performance index derivation reports, and NRC integrated inspection reports for the period of July 1, 2009 through September 31, 2010, to validate the accuracy of the submittals. The inspectors reviewed the mitigating systems performance index component risk co-efficient to

determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none was identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one (1) mitigating systems performance index heat removal system sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.3 Mitigating Systems Performance Index - Residual Heat Removal System (MS09)

a. Inspection Scope

The inspectors sampled licensee submittals for the mitigating systems performance index - residual heat removal system performance indicator for the period from the third quarter 2009 through the third quarter 2010. To determine the accuracy of the performance indicator data reported during those periods, the inspectors used definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports, mitigating systems performance index derivation reports, and NRC integrated inspection reports for the period of July 1, 2009, through September 31, 2010, to validate the accuracy of the submittals. The inspectors reviewed the mitigating systems performance index component risk co-efficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none was identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one (1) mitigating systems performance index residual heat removal system sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.4 Mitigating Systems Performance Index - Cooling Water Systems (MS10)

a. Inspection Scope

The inspectors sampled licensee submittals for the mitigating systems performance index - cooling water systems performance indicator for the period from the third

quarter 2009 through the third quarter 2010. To determine the accuracy of the performance indicator data reported during those periods, the inspectors used definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports, mitigating systems performance index derivation reports, and NRC integrated inspection reports for the period of July 1, 2009, through September 31, 2010, to validate the accuracy of the submittals. The inspectors reviewed the mitigating systems performance index component risk co-efficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none was identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one (1) mitigating systems performance index cooling water system sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

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

.1 Routine Review of Identification and Resolution of Problems

a. Inspection Scope

As part of the various baseline inspection procedures discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that they were being entered into the licensee's corrective action program at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. The inspectors reviewed attributes that included the complete and accurate identification of the problem; the timely correction, commensurate with the safety significance; the evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent of condition reviews, and previous occurrences reviews; and the classification, prioritization, focus, and timeliness of corrective actions. Minor issues entered into the licensee's corrective action program because of the inspectors' observations are included in the attached list of documents reviewed.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure, they were considered an

integral part of the inspections performed during the quarter and documented in Section 1 of this report.

b. Findings

No findings were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's corrective action program. The inspectors accomplished this through review of the station's daily corrective action documents.

The inspectors performed these daily reviews as part of their daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings were identified.

.3 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's corrective action program and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors focused their review on repetitive equipment issues, but also considered the results of daily corrective action item screening discussed in Section 4OA2.2, above, licensee trending efforts, and licensee human performance results. The inspectors nominally considered the 6-month period of April 2010, through September 2010, although some examples expanded beyond those dates where the scope of the trend warranted.

The inspectors also included issues documented outside the normal corrective action program in major equipment problem lists, repetitive and/or rework maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self-assessment reports, and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's corrective action program trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

These activities constitute completion of one (1) single semi-annual trend inspection sample as defined in Inspection Procedure 71152-05.

b. Findings

No findings were identified.

40A3 Event Follow-up (71153)

.1 (Closed) Licensee Event Report 05000285/2009-005-01: Inoperable Auxiliary Feedwater Train Due to an Inoperable Injection Valve

On November 6, 2009, during performance of air operated valve diagnostic testing of HCV-1107A (Steam Generator 'A' auxiliary feedwater (AFW) inlet valve), the air regulator setting was found to be 23.6 pounds per square inch gauge (psig). The regulator pressure setting of 23.6 psig is contrary to the required nominal setting of 35 psig credited in calculation FC06904, "Category 1 Air-Operated Valve (AOV) Operator Margin Analysis." (HCV-1107A is an air-to-close valve.) The licensee event report was reviewed by the inspectors, no findings of significance were identified, and no violation of NRC requirements occurred. This licensee event report is closed.

.2 (Opened and Closed) Licensee Event Report 05000285/2010-005-00: Inoperability of the Emergency Diesel Generator Fuel Oil Transfer System

Diesel Fuel Oil Transfer Pump FO-37 and its credited portable back-up pump were inoperable on January 6-7, 2010. On January 6, 2010, FO-37 was rendered inoperable due to local area flooding caused by the rupture of FP-772, "Service Building Fire Sprinkler Isolation Valve." The function of FO-37 is to transfer diesel fuel between "Diesel Fuel Oil Storage Tanks" FO-10 and FO-1. On June 24, 2010, an engineering evaluation determined that the credited portable back up pump to FO-37 was not the correct pump for the application and would not transfer diesel fuel oil from FO-10 to FO-1 as intended. Since both pumps (FO-37 and the credited portable back-up pump) were inoperable, this is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B). The licensee event report was reviewed by the inspectors, with one Severity Level IV noncited violation, which was, documented in Inspection Report 05000285/2010004. This licensee event report is closed.

40A5 Follow Up Inspection for Three or More Severity Level IV Traditional Enforcement Violations in the Same Area in a 12-Month Period (92723)

a. Inspection Scope

The inspectors performed Inspection Procedure 92723 in accordance with the Fort Calhoun Station 2010 mid-cycle assessment letter. Fort Calhoun Station received five traditional enforcement violations during the 2010 mid-cycle assessment period. In addition, the inspectors reviewed three traditional enforcement violations that were received in the third quarter of 2010. The inspectors reviewed the licensee's condition reports for each violation and the roll-up root cause analysis for the following items:

- Problem identification

- Cause, extent of condition and extent of cause
- Evaluation of corrective actions

b. Findings

No findings were identified.

40A6 Meetings

Exit Meeting Summary

On September 10, 2010, the inspectors discussed the results of the licensed operator requalification program inspection with Mr. T. Nellenbach, Plant Manager, and other members of the licensee's staff. The lead inspector obtained the final biennial examination results and telephonically exited with Mrs. D. Guinn, Regulatory Compliance Supervisor, on December 14, 2010. The licensee representatives acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On December 2, 2010, the inspector discussed the results of the in-office inspection of licensee changes to their emergency plan and emergency plan implementing procedures with Mr. A. Berck, Supervisor, Emergency Planning, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On January 13, 2011, the inspectors presented the inspection results to Mr. J. Reinhart, Site Vice President, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

SUPPLEMENTAL INFORMATION
KEY POINTS OF CONTACT

Licensee Personnel

R. Acker, Licensing Engineer
D. Bannister, Vice President and Chief Nuclear Officer
S. Baughn, Manager, Nuclear Licensing
A. Berck, Supervisor, Emergency Planning
G. Cavanaugh, Manager, Performance Improvement
M. Smith, Manager, Operations
H. Faulhaber, Division Manager, Nuclear Engineering
M. Ferm, Manager, System Engineering
M. Frans, Manager, Engineering Programs
S. Gebers, Manager, Emergency Planning and Health Physics
T. Giebelhausen, Operations Training Manager
J. Goodell, NPIS Division Manager
D. Guinn, Regulatory Compliance Supervisor
W. Hansher, Supervisor, Nuclear Licensing
R. Haug, Manager, Training
J. Herman, Manager, Design Engineering
R. Hodgson, Manager, Radiation Protection
K. Kingston, Manager, Chemistry
E. Matzke, Compliance Engineer
T. Nellenbach, Plant Manager
A. Pallas, Manager, Shift Operations
J. Reinhart, Site Vice President
T. Uehling, Manager, Maintenance
R. Westcott, Manager, Quality

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000285/2010-005-04 URI Calibration Failures of RPS Trip Units 6 and 7 (1R22)

Opened and Closed

05000285/2010-05-00 LER Inoperability of the Emergency Diesel Generator Fuel Oil Transfer System (4OA3)

05000285/2010005-01 NCV Failure to Maintain Licensed Operator Examination Integrity (1R11)

05000285/2010005-02 NCV Failure to Perform a Risk Assessment When Required by 10 CFR 50.65(a)(4) for Maintenance in the Vicinity of Safety-Related Equipment (1R13)

05000285/2010005-03 NCV Failure to Properly Apply an Approved ASME Code Case (1R15)

Closed

05000285/2009-05-01 LER Inoperable Auxiliary Feedwater Train Due to an Inoperable Injection Valve (4OA3)

LIST OF DOCUMENTS REVIEWED

Section 1RO4: Equipment Alignment

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OI-CC-1	Component Cooling System Normal Operation	67

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
11405-M-10-COV	Auxiliary Coolant Component Cooling System P&ID	29
11405-M-10-1	Auxiliary Coolant Component Cooling System P&ID	66
11405-M-10-2	Auxiliary Coolant Component Cooling System P&ID	17
11405-M-10-3	Auxiliary Coolant Component Cooling System P&ID	24
11405-M-10-4	Auxiliary Coolant Component Cooling System P&ID	11
11405-M-100	Raw Water Flow Diagram P&ID	99
E-23866-210-130	Safety Injection and Containment Spray System P&ID	61

MISCELLANEOUS DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
2.3	Technical Specifications – Emergency Core Cooling System	11/28/2006

Section 1RO5: Fire Protection

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
GO-G-102	Standing Order, Fire Protection Program Plan	34

Section 1RO5: Fire Protection

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
SO-G-103	Standing Order, Fire Protection Operability Criteria and Surveillance Requirements	8
SO-G-28	Standing Order, Station Fire Plan	78
SO-G-58	Standing Order, Control of Fire Protection System Impairments	37
SO-G-91	Standing Order, Control and Transportation of Combustible Materials	26

MISCELLANEOUS DOCUMENTS

NUMBER	TITLE	REVISION
EA-FC-97-0001	Fire hazards Analysis Manual	15
FC05814	UFHA Combustible Loading Calculation	11
USAR 9.11	Updated Safety Analysis Report, Fire Protection Systems	21

Section 1R11: Licensed Operator Requalification

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
EOP-04	Steam Generator Tube Rupture	25
LOR TPMP	Licensed Operator Requal Training Program Master Plan	40
None	Interim Guidance for In Plant Exam Security	3
OPD-3-11	Licensed Activation and Watch station Maintenance	16
SO-G-26	Training and Qualification Programs Standing Orders	56
SO-G-64	Medical Examination Program for Worker Qualifications	33
SO-O-42	Notification to NRC of Licensed Personnel Disability, Permanent Reassignment, or Termination	8
TAP-43	Operations Requalification Examinations	43

TAP-7	Revision of Training Programs	33
TAP-8	Examination Control and Administration	8

MISCELLANEOUS DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
	Simulator Discrepancy Report	N/A
FCS LER's	All 15 LER's from 2009-2010	N/A
JPM's	2010 Exam -Weeks 1-6	November 2010
JPM's	2009 Exam - Weeks 1-6	August 2009
LOCT Matrix	2 year Sample Plan from Vision	N/A
RA-2009-1237	71111.11 Self-Assessment	May 2010
Sim CR 694	Documentation of Test Results	November 2010
Sim CR 695	Baseline Data Curves	November 2010
Simulator Test	Steady State 30% Power	May 2010
Simulator Test	Core Physics Test Power Defect	October 2009
Simulator Test	Transient Test Max Un-Isolable Steam Break (TT9)	April 2010
Simulator Test	Slow Primary Depressurization (TT10)	April 2010
Written Exams	2010 Exam-Weeks 1-6 Biennial Exams (RO and SRO)	November 2010

CONDITION REPORTS

2008-7250 20010-4077	2008-7253	2009-4239	2010-5976	2010-5977
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Section 1R12: Maintenance Effectiveness

CONDITION REPORTS

2008-6557	2009-1079	2009-2140	2010-3524	2010-3960
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PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
PBD-16	Program Basis Document, Maintenance Rule	8
PED-SEI-34	Maintenance Rule Program	8

MISCELLANEOUS DOCUMENTS

<u>TITLE</u>	<u>DATE</u>
Cycle 24 Maintenance Rule Periodic Assessment of Maintenance Effectiveness	October 31, 2009
Maintenance Rule Scoping Data Sheet MOVDAO	5a

Section 1R13: Maintenance Risk Assessment and Emergent Work Controls

CONDITION REPORTS

2010-4689

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
SO-M-100	Conduct of Maintenance	53

Section 1R15: Operability Evaluations

CONDITION REPORTS

2008-5517	2010-5603	2010-5680	2010-5280	2010-5107
2010-5349	2010-4919	2010-4940	2010-5087	

WORK ORDERS

394655	365963	394732
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PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
	Apparent Cause Analysis Summary Report: FW-327 Relief Valve Failure	November 11, 2010
FC-1353	Safety Culture Analysis (2010-4940)	November 11, 2010
NOD-QP-31.1	Operability Evaluation Form	44

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
NOD-QP-31.1	Operability Evaluation Form (2010-4919)	October 7, 2010
NOD-QP-31.1	Operability Evaluation Form (2010-4940)	October 14, 2010

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
11405-M-100	Raw Water Flow Diagram P&ID	99

MISCELLANEOUS DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
20100155	OPPD Fort Calhoun Station Quality Control Inspection Report	November 5, 2010
20100157	OPPD Fort Calhoun Station Quality Control Inspection Report	November 9, 2010
ASME Case N-513-2	Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping, Section XI, Division 1	February 20, 2004
RIS 2005-20	Revision to NRC Inspection Manual Part 9900 Technical Guidance, "Operability Determinations & Functionality Assessments for Resolution Of Degraded or Nonconforming Conditions Adverse to Quality or Safety"	1

Section 1R19: Postmaintenance Testing

CONDITION REPORTS

2009-1603	2010-2693	2010-5406	2010-5344	2010-5387
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WORK ORDERS

381479	396660	397403	383617	337926
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PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
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PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
EM-PM-EX-0202	G.E Type AK-2A-25 and AK-7A-25 Circuit Breaker Inspection	31
OP-ST-RW-3002A	Raw Water System Category A and B Valve Exercise Test	14
OP-ST-SI-3021	Room 21 Safety Injection/Containment spray Pumps and Valve Exercise In Service Test	11
EM-PM-EX-0203	Molded Case Circuit Breaker Inspection and Test	22
IC-PM-SI-0344	HCV-344 Backup Nitrogen Supply Functional Test	3
EM-CP-05-1B4B-1	Calibration of Containment Spray Pump SI-3B Circuit Breaker	11

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
11405-E-143 SH2	480V SWGR 1B4B Schematic SI-3B	3
11405-E-51 SH7	Containment Spray Control Valve HCV-344	31

Section 1R20: Refueling and Other Outage Activities

CONDITION REPORTS

2010-6816 2010-6817

WORK ORDERS

390978 376317 372946

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
EOP-00	Standard Post Trip Actions	27
EOP-01	Reactor Trip Recovery	13
OP-2A	Plant Startup	102
OP-4	Load Change and Normal Power Operation	44

Section 1R22: Surveillance Testing

CONDITION REPORTS

2010-5645 2010-5733 2010-6190 2010-6364 2010-5667

WORK ORDERS

396853 382234

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
IC-ST-RC-0037	Channel Calibration of Reactor Coolant Cold and Hot Leg Temperature Loops, Channel D	5
IC-ST-RPS-0044	Calibration of Steam Generator Low Pressure Trip Unit A/TU-6 and Asymmetrical Steam Generator Transient Trip Unit A/TU-7	4
OP-ST-ESF-0009	Channel A Safety Injection, Containment Spray and Recirculation Actuation Signal Test	56
OP-ST-SI-3022	Room 22 Safety Injection/Containment Spray Pumps and Valve Exercise In Service Test	9

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
161F561 sh. 122	Interconnection Diagram	38
E-23866-210-130 sh. 1	Safety Injection & Containment Spray System P&ID	106
E-23866-210-130 sh. cov	Safety Injection & Containment Spray System P&ID	61
E-23866-411-061	TM/LP Wiring Diagram	15

MISCELLANEOUS DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
FC-1401	Reportability Evaluation Checklist	November 19, 2010
FC-1401	Reportability Evaluation Checklist	December 15, 2010
NOD-QP-31.1	Operability Evaluation Form	November 16, 2010

Section 1EP6: Drill Evaluation

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
TBD-EPIP-OSC-1A	Recognition Category A - Abnormal Rad Levels/Radiological Effluent	1
TBD-EPIP-OSC-1F	Recognition Category F - Fission Product Barrier Degradation	1
TBD-EPIP-OSC-1H	Recognition Category H - Hazards and Other Conditions Affecting Plant Safety	1
TBD-EPIP-OSC-1S	Recognition Category S - System Malfunction	1

Section 4OA1: Performance Indicator Verification

CONDITION REPORTS

2009-5010	2009-5116	2009-5156	2009-5240	2009-5356
2009-5453	2009-5574	2009-5780	2009-5789	2009-5839
2009-5912	2009-6193	2009-6227	2009-6331	2009-6360
2009-6394	2009-6403	2009-6468	2009-6492	2009-6532
2009-6454	2009-6554	2009-6576	2009-6748	2010-0296
2010-0813	2010-0868	2010-0944	2010-1201	2010-1313
2010-1375	2010-1429	2010-1446	2010-1447	2010-1452
2010-2325	2010-2424	2010-2491	2010-2741	2010-2847
2009-4604	2009-4614	2009-4650	2009-4891	2009-5003
2009-5006	2009-5007	2009-5089	2009-5111	2009-5690
2009-5917	2009-6006	2009-6102	2009-6513	2009-6659
2009-6790	2009-6825	2009-6858	2010-0018	2010-0087
2010-0483	2010-0529	2010-0711	2010-0788	2010-0803
2010-0858	2010-0914	2010-0955	2010-0985	2010-0993
2010-0994	2010-1020	2010-1147	2010-1239	2010-1261
2010-1359	2010-1360	2010-1385	2010-1398	2010-1526
2010-1574	2010-1585	2010-1719	2010-1822	2010-1823
2010-2139	2010-2169	2010-2206	2010-2460	2010-2499
2010-2548	2010-2620	2010-2635	2010-2636	2010-2769
2010-2908	2010-2917	2010-3082	2010-3097	2010-3129
2010-3135	2010-3253	2010-3357	2010-3417	2010-3424
2010-3476	2010-3590	2010-3729	2010-3741	2010-3745
2010-3952	2010-3997	2010-4017	2010-4045	2010-4228
2010-4325	2010-4395	2010-4587	2010-4588	2009-4735
2009-4858	2009-5024	2009-5118	2009-5211	2009-5212

CONDITION REPORTS

2009-5617	2009-5639	2009-5732	2009-5760	2009-5762
2009-5827	2009-5856	2009-5899	2009-5914	2009-5923
2009-5924	2009-5928	2009-5959	2009-5976	2009-5977
2009-6084	2009-6096	2009-6119	2009-6139	2009-6143
2009-6151	2009-6160	2009-6170	2009-6179	2009-6184
2009-6187	2009-6196	2009-6217	2009-6222	2009-6248
2009-6259	2009-6277	2009-6310	2009-6312	2009-6313
2009-6325	2009-6398	2009-6400	2009-6401	2009-6426
2009-6749	2009-6819	2010-107	2010-298	2010-375
2010-680	2010-1068	2010-1090	2010-1249	2010-1373
2010-1559	2010-1632	2010-1635	2010-1819	2010-2051
2010-2206	2010-2273	2010-2690	2010-2693	2010-2698
2010-2815	2010-2898	2010-3039	2010-3222	2010-3383
2010-3493	2010-4174	2010-4582	2010-4605	2010-4705
2010-4741				

MISCELLANEOUS DOCUMENTS

NUMBER	TITLE	REVISION / DATE
	Various Operator Logs	October 1, 2009 to September 30, 2010
	Mitigating Systems Performance Index Basis Document for Fort Calhoun Station	2
NEI 99-02	Regulatory Assessment Performance Indicator Guideline	6

Section 4OA2: Identification and Resolution of Problems

CONDITION REPORTS

2010-0505	2010-2470	2010-2471	2010-2473	2010-2474
2010-2475	2010-2476	2010-3248	2010-3251	2010-3252
2010-3542	2010-4390	2010-4391	2010-4396	2010-5314

Section 4OA5: Other Activities

CONDITION REPORTS

2009-2276	2009-3670	2009-5903	2009-5906	2010-0223
2010-0224	2010-2338	2010-2506	2010-2507	2010-2741
2010-3636	2010-3865	2010-4463	2010-4465	2010-4466
2010-4859				

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
FC-SG-24	Corrective Action Program Guideline	27
SO-R-1	Reportability Determinations	21
SO-R-2	Condition Reporting and Corrective Action	49