

Group A

FOIA/PA NO: 2014-0128

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- Ex. 2: ☐ Records regarding personnel rules and/or human capital administration
- Ex. 3: ☐ Information about the design, manufacture, or utilization of nuclear weapons
☐ Information about the protection or security of reactors and nuclear materials
☐ Contractor proposals not incorporated into a final contract with the NRC
☐ Other _____
- Ex. 4: ☒ Proprietary information provided by a submitter to the NRC
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- Ex. 5: ☐ Draft documents or other pre-decisional deliberative documents (D.P. Privilege)
☐ Records prepared by counsel in anticipation of litigation (A.W.P. Privilege)
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☐ Other _____
- Ex. 6: ☐ Agency employee PII, including SSN, contact information, birthdates, etc.
☐ Third party PII, including names, phone numbers, or other personal information
- Ex. 7(A): ☐ Copies of ongoing investigation case files, exhibits, notes, ROI's, etc.
☐ Records that reference or are related to a separate ongoing investigation(s)
- Ex. 7(C): ☐ Special Agent or other law enforcement PII
☐ PII of third parties referenced in records compiled for law enforcement purposes
- Ex. 7(D): ☐ Witnesses' and Allegers' PII in law enforcement records
☐ Confidential Informant or law enforcement information provided by other entity
- Ex. 7(E): ☐ Law Enforcement Technique/Procedure used for criminal investigations
☐ Technique or procedure used for security or prevention of criminal activity
- Ex. 7(F): ☐ Information that could aid a terrorist or compromise security

Other/Comments: _____

Fort Calhoun
Corrective Action Program
Root Cause Analysis Report



Organizational Ineffectiveness at Fort Calhoun
Station Root Cause

REV 0

Condition Report: 2012-03986

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Organizational Ineffectiveness at Fort Calhoun Station

Condition Report: 2012-03986

A. EXECUTIVE SUMMARY:

Event Date: May 11, 2012

Executive Sponsor: W. Gary Gates

Summary of Events:

Fort Calhoun Station has a history of organizational effectiveness weaknesses as indicated by (b)(4)

(b)(4)

The Nuclear Regulatory Commission has identified organizational effectiveness issues in Problem Identification and Resolution (PI&R) inspections conducted in 2007, 2009 and 2011. A PI&R Root Cause Analysis (CR2011-10135) identified that flawed mental models, misguided beliefs, and misplaced values have driven, influenced and permitted the misalignment of organizational behaviors. The station has shown an adverse regulatory trend of violations beginning in 2007, entering action matrix column 3 (95003) in October 2010, then action matrix column 4 in July 2011, to eventually inspection Manual Chapter 0350 in December 2011.

A root cause analysis team was formed to evaluate the causes of this organizational ineffectiveness. The team conducted a root cause analysis on organizational effectiveness related events that occurred from 2007 through May 2012. The team also reviewed the 2012 *Independent Safety Culture Assessment* report and Strategic Talent Solutions (STS) Executive Leadership Assessment summary to validate their findings.

Condition Report 2012-03986 was initiated when a team of station management personnel and external consultants determined that the Fort Calhoun Station's organizational effectiveness is inadequate. The team characterized the issue as follows:

"Senior leaders and managers are not providing the necessary leadership to improve organizational performance. Additionally, leadership has failed to be intrusive, set the right priorities, and holds personnel accountable and has not understood major processes or issues affecting morale. As a result, timeliness and thoroughness of resolution of important issues has been lacking and station performance has declined significantly."

The RCA team subsequently developed a problem statement that, "The Fort Calhoun Station (FCS) organization has been ineffective in meeting regulatory and industry standards, resulting in untimely and ineffective resolution of issues contributing to a significant decline in station performance."

This organizational effectiveness weakness has had a direct negative impact on nuclear, radiological, and industrial safety and other business aspects. Examples include organizational effectiveness issues identified in the Yellow external flooding finding, the M-2 contactor failure White NRC identified finding, and the 1B4A Bus fire NRC Red finding. Industrial safety has been identified by (b)(4) as lacking sufficient organizational oversight and (b)(4) that station oversight did not perform adequate organizational challenging of radiological planning for outages.

The analysis identified that there has been inadequate direction, prioritization and oversight from the "board of directors" down to the station leaders. The team identified three root causes and three contributing causes. Less than adequate corporate and station governance and oversight; leaders functioning more in a tactical rather than strategic manner and not valuing accountability; and lack of thorough policy implementation as root causes. Three policies were determined to be contributing causes base on the fact that both the policy was weak and needed improving, as well as proper implementation. Those three policies included the stations Nuclear Safety policy, Change Management policy, and Communications policy. All three of these policies were identified in the *2012 Independent Safety Culture Assessment*.

The extent of condition was based on the problem statement, interviews conducted, documents reviewed and the analytical tools used to assess FCS performance in the area of Organizational Effectiveness. An extent of condition exists: The team concluded the organizational effectiveness deficiencies reviewed by this causal analysis extend to those programs, processes, and departments throughout the organization.

A summary of the causes are as follows:

Root Cause-1 (RC1) – Less than adequate (LTA) Governance and Oversight: The OPPD organization failed to establish and implement the essential attributes of governance and oversight, including the key elements of individual roles, responsibilities, and accountabilities to enable FCS to achieve and maintain high levels of operational nuclear safety and reliability.

Basis: The OPPD Corporation does not have a governance and oversight plan with a set of policies, processes, and programs by which a corporation is directed and controlled, including the roles, responsibilities, and accountability of individuals in the organization. Governance results in the creation and alignment of organizational structures and policies, the definition of processes, the development of programs, and the deployment of procedures that establish the standards to guide the operation, maintenance, and organizational support of nuclear stations within a corporation.

Absent a governance plan, the OPPD Corporation relied on its strategic plan to provide the standards to guide the operation, maintenance, and organizational support for FCS. However, the OPPD strategic plan has an inadequate focus area on nuclear safety. The Corporate plan does not set the essential vision, mission, and values to enable and sustain a culture at FCS that embraces nuclear safety as the overriding priority. Consequently, FCS management eliminated the station's strategic plan and did not have (or develop) an organizational roadmap to achieve operational excellence with nuclear safety as the overriding priority. This has resulted in lack of alignment between departments. The current FCS

vision, mission and strategic need to be reevaluated based on the stations regulatory position and drive the station to regain its regulatory margin and restart of the station.

An extent of cause is determined to exist. The team found this cause to be pervasive through departmental organization levels at FCS. Therefore, the extent of cause encompasses the scope of the areas reviewed by this analysis and no additional extent of cause is required.

Root Cause-2 (RC2) – Station Leadership / Culture: Station leaders are more tactical than strategic, prioritize poorly, delegate little, surrender oversight, rationalize low standards and hesitate to hold personnel accountable, resulting in a culture that values harmony and loyalties over standards, accountability and performance.

Basis: The *2012 Independent Safety Culture Assessment* cites examples of a lack of accountability that permeates the Station at all levels. Accountability is described by most of the individuals interviewed as the biggest issue for the Station. Many individuals in management and supervision do not consistently exhibit desired behaviors and are not challenged by their managers or peers. Inconsistent implementation of standards and expectations in work activities are common and are enabled by ineffective communication around the change management process. Significant management oversight and attention is needed to communicate the standards and expectations and implement the appropriate and consistent performance management system to hold individuals accountable. The Strategic Talent Solutions Leadership Assessment that was performed in 2011 identified these weaknesses as common to station leadership and to date only individual development plans have been implemented with minimal follow up.

The station lacks a management model that aligns leadership behaviors to the stations vision, mission and values. This model will help define how proper planning, prioritization, oversight and accountability will help drive the station to regain regulatory margin and improve overall station performance. This model can be used to improve current leadership, but future leaders as well.

An extent of cause is determined to exist. Due to the pervasiveness and magnitude of issues related to this root cause there is not an organizational level or departmental organization at FCS that is not impacted by the cause. Therefore, the extent of cause encompasses the scope of the areas reviewed by this analysis and no additional extent of cause is required.

Root Cause-3 (RC3) – LTA Policy Implementation: Less than adequate Policy Implementation: The FCS leaders failed to develop, implement, and hold people accountable for implementation of important policies and programs, to achieve organizational effectiveness. These include, but are not limited to the Corrective Action, Operating Experience and Observation Programs.

Basis: Key programs identified by the RCA Team important for organizational effectiveness were not implemented in accordance with their associated policies. Specifically, the corrective action program (CAP), change management, accountability, observations, operational experience (OE), and Self-Assessment Programs were determined to be ineffective. The Change Management Program

implementation was treated as a separate contributing cause and is addressed in Contributing Cause-2, (CC2).

An extent of cause is determined to exist. The team found this cause to be pervasive through departmental organization levels at FCS. Therefore, the extent of cause encompasses the scope of the areas reviewed by this analysis and no additional extent of cause is required.

Contributing Cause-1 (CC1) – The principles and attributes for a strong nuclear safety culture are not rigorously applied at FCS.

Basis: A healthy safety culture is most often found within an aligned organization that has effective processes and motivated people. Management has not been able to engage the workforce, provide healthy avenues for reporting concerns, and beneficially challenge each other to make the right decisions. In addition, the *2012 Independent Safety Culture Assessment* identified many examples of missed opportunities for the organization to demonstrate the value and priority of safety and several examples of non-conservative decision making.

As indicated by the 2011 INPO plant evaluation, the organization's nuclear safety culture is weakened by difficulties in recognizing the significance of some important issues. In particular, FCS leaders did not ensure a systematic or thorough investigation when some important safety systems became degraded. Additionally, leaders have not consistently ensured sufficient organizational preparation for risk-significant work.

Contributing Cause-2 (CC2) – The Station Leadership team does not consistently implement the FCS Change Management Policy to maintain trust in the organization.

Basis: The INPO Principles for a Strong Nuclear Safety Culture, Principle 3, "trust permeates the organization," states that a high level of trust is established in the organization, fostered, in part through timely and accurate communication. The effects of impending changes (such as those caused by sale or acquisition, bargaining unit contract negotiations, and economic restructuring) are anticipated and managed such that trust in the organization is maintained. The *2012 Independent Safety Culture Assessment* identified that the station leadership team does not consistently implement the FCS Change Management Policy. For example: no formalized procedure or change management plan had been implemented to date with regard to what Exelon Nuclear Partners roles and responsibilities at the station would be; the centralization of a nuclear procurement process in materials management had not been formally communicated through a change management plan; and communication around the restart of the Station had been largely informal and often through word of mouth.

Contributing Cause-3 (CC-3) – The implementation of the FCS Communication Policy is less than adequate to build trust and to reinforce a healthy safety culture.

Basis: The *2012 Independent Safety Culture Assessment* identified that communication issues were identified by almost all FCS personnel interviewed as well as by the results on the survey. For example: contractors don't have mailboxes and do not receive site communications; indications from interviews

were that perceptions are that the organization is more concerned about what information goes out to the public than what information employees need to perform their job; and that the perceived accuracy of communication across FCS is low. In addition, data from the Behavioral Anchored Rating Scale on communication indicated that overall only 17 percent of the Station interviewee respondents perceive that departments keep each other well informed and those individuals can readily gain information when the need arises.

The corrective actions include:

For RC1

CAPRI (RC1) - Establish corporate governance and oversight policies, processes, and programs by which OPPD directs and controls FCS. Include the roles, responsibilities, and accountability of individuals in the organization for implementing the governance.

CA1 - Prepare new corporate strategic plan to cover activities of the corporation including nuclear safety.

CA2 - Establish a corporate support group that includes a focus on nuclear safety that reports directly to the CEO.

CA3 - Implement the revised FCS Vision, Mission, and Values to align with the OPPD strategic plan.

CA4 - Align the FCS organization to the FCS Vision, Mission, and Values using training, coaching, performance reviews, accountability, and communications, as applicable.

CA5 - Implement an accountability model for the FCS organization.

CA6 - Implement a performance management process for FCS employees.

CA7 - Implement a process including developing effectiveness measures for the following key programs (but not limited to):

- Corrective Action Program
- Operating Experience
- Self-Assessment
- Observations
- Benchmarking
- Human Performance
- Safety Culture
- Leadership development
- Leadership skills assessment
- Succession planning
- Hiring
- Knowledge transfer

- Workforce planning

For RC2

CAPR2 (RC2) - Implement a management model with an emphasis on nuclear safety and continuous improvement that defines the FCS fundamental objectives, through the mission, vision, values, guiding principles, and fundamentals of the organization.

CA8 - Assess the leadership and management capabilities of the entire leadership team and make any needed changes. (Independent assessor)

CA9 - Develop and implement a succession planning process for FCS.

CA10 - Link the leadership certification assessment results to the FCS succession plan.

CA11 - Implement the existing knowledge transfer process for FCS.

CA12 - Implement a Strategic Workforce Planning process.

For RC3

CAPR3 (RC3) - Implement an accountability model for the FCS organization. [Reference CA5]

CA13 - Prepare the Organizational Effectiveness Recovery Team Charter.

CA14 - Staff and implement the Organizational Effectiveness recovery team. This is a team to ensure proper implementation of the organizational effectiveness corrective actions.

CA15 - Create an overall Organizational Effectiveness Metric.

CA21 - Develop a "Road Map" to Organizational Excellence.

CA22 - Revise the MRM Agenda to have a standing line item to review the status of the Organizational Effectiveness recovery.

CA16 - Revise FCSG-2, Observation Program, to include:

- Conduct of peer observations.
- Define specific rating criteria to evaluate field observation for EE, ME, BE, NI.
- Assign responsibility for trending observation findings.

For CC1

CA17 - Revise NPM-1.00, Nuclear Safety, to require:

- Safety culture metrics

- Use of INPO's Principles for a Strong Nuclear Safety Culture as the guiding principles for improving performance and nuclear safety margin. Examples include pre-job briefings, meetings, training sessions, and infrequently performed tests and evolution briefings.

For CC2

CA18 – Determine policies, procedures and guidelines that should direct implementation of FCSG-17, Change Management.

For CC2

CA19 – Revise the policies, procedure, and guidelines identified in CA-18 that direct implementation of FCSG-17, Change Management.

For CC3

CA20 - Establish a communications policy to replace NPM-1.06 that provides direction and expectations based on the significance of the issue and the expected communication methods to be used. This policy should include development of an FCS communications strategy.

B. TEAM MEMBERS

Team member were as follows:

W. Gary Gates – CEO, Omaha Public Power District (Executive Sponsor)
Dave Bannister – SVP-CNO Omaha Public Power District (CR Sponsor)
Richard Haug – Manager, Training, OPPD (Root Cause Team Lead, CR Owner)
Ray Reno – Manager, Operations Support, OPPD (Team member)
Patty Yager – Manager, HR Nuclear, OPPD (Team member)
John Madera – Conger & Elsea (Root Cause Analysis Investigator)
Mike Stein – Conger & Elsea (Team member)
Michael Marler – Exelon Organizational Effectiveness Lead (Team member)
Michael Werner – Certrec (Team member)

C. CONDITION EVENT DESCRIPTION

A team of station management personnel and external consultants determined the Fort Calhoun Station's organizational effectiveness is inadequate. The station has a significant condition adverse to

quality in that it lacks the ability to improve organizational performance. The team characterized the issue as:

"Senior leaders and managers are not providing the necessary leadership to improve organizational performance. Additionally, leadership has failed to be intrusive, set the right priorities, and hold personnel accountable, and to understand major processes or issues affecting morale. As a result, timeliness and thoroughness of resolution of important issues has been lacking and station performance has declined significantly."

The significant sequence of events that translated into this inadequate organizational effectiveness started with (b)(4) combined with organizational leadership changes in the 2007 to 2008 timeframe. Several significant regulatory findings began to surface in the 2008 and 2009. (b)(4) continued to identify some organizational effective weaknesses and the maintenance and technical training programs were placed on accreditation probation. Regulatory findings continued and ultimately resulted in a Yellow finding in 2010. A second significant number of leadership changes were made in 2010 and 2011 with no change management plan. In 2011 (b)(4) (b)(4) again identified organizational effectiveness weaknesses include one with a "nuclear safety culture" principle tied to it. Further regulatory issues were identified with a white finding for the M2 contactor problem and a red finding for the 1B4A bus fire. See attachment 4 – Timeline - to see how station performance declined through this period and its relationship to leadership changes.

D. PROBLEM STATEMENT

The Fort Calhoun Station (FCS) organization has been ineffective in meeting regulatory and industry standards, resulting in untimely and ineffective resolution of issues contributing to a significant decline in station performance.

E. SAFETY SIGNIFICANCE AND BUSINESS IMPACT

1. Nuclear Safety Impact

Actual Impact: Based on document reviews, FCS organizational ineffectiveness did impact FCS Technical Specifications (TS) which resulted in both a Yellow external flooding finding and M-2 contactor failure White NRC identified findings. The Yellow violation determined that existing procedures were inadequate, and would not have protected Fort Calhoun Station safety systems during flooding conditions (per basis in Technical Specification 2.16) to achieve and maintain cold shutdown conditions due to external flooding up to 1014' MSL. Inadequate procedures were also a cause in the M-2 contactor failure as well. In addition some organizational effectiveness aspects were identified in the 1B4A bus fire that resulted in a NRC Red finding. These events contributed to an erosion of nuclear safety and regulatory margins.

2. Industrial Safety Impact

Actual Impact: Based on document reviews, FCS organizational ineffectiveness did impact the industrial safety program. (b)(4)

(b)(4) identified organizational effectiveness issues with industrial safety program implementation and oversight at Fort Calhoun Station. The station had an industry high of twenty-one recordable injuries in 2011.

3. Radiological Safety Impact

Actual Impact: Based on document reviews organizational ineffectiveness also had a negative impact on radiological safety. (b)(4) noted that managers did not challenge the adequacy of some radiological work plans, including the evaluation of contingencies for unexpected conditions during the most recent refueling outage. A lack of management team intrusiveness in decision-making has contributed to shortfalls in response to changing conditions during refueling outages. For instance, operators did not involve key managers in the decision to secure shutdown cooling following an unexpected crud burst at the end of the 2009 refueling outage before cleanup of reactor coolant system activity.

4. Business or Other Impact

Actual Impact: The degradation of organizational effectiveness has had direct and immediate impact on business performance. The untimely and ineffective resolution of issues has contributed to a significant decline in station performance and a change of regulatory oversight into Inspection Manual Chapter 0350 process. Currently the station has a confirmatory action letter that must be addressed prior to station restart.

F. EXTENT OF CONDITION

The Extent of Condition is defined as the extent which the actual condition exists or may exist with other plant processes, equipment or human performance.

Extent of condition involves putting a reasonable boundary around the population of other plant processes, equipment, or human performance jobs or tasks with the potential to exhibit the same undesired symptoms, circumstances, or effects as the concern being investigated.

Conclusion Statement:

Based on the problem statement, interviews conducted, documents reviewed and the analytical tools used to assess FCS performance in the area of organizational effectiveness, an extent of condition exists. The team concluded the organizational effectiveness deficiencies reviewed by this causal analysis extend to those programs, processes, and departments throughout the organization.

G. EXTENT OF CAUSE

The Extent of Cause is defined as the extent to which root causes of an identified problem have impacted (or may have impacted) other plant processes, equipment or human performance.

As stated in RC-1, the OPPD organization has failed to establish and implement the essential attributes of governance and oversight, including the key elements of individual roles, responsibilities, and accountabilities to enable FCS to achieve and maintain high levels of operational nuclear safety and reliability.

Extent of Cause:

An extent of cause is determined to exist. Due to the pervasiveness and magnitude of issues related to this root cause there is not an organizational level or departmental organization at FCS that is not impacted by the cause. Therefore, the extent of cause encompasses the scope of the areas reviewed by this analysis and no additional extent of cause is required

As stated in RC-2, the station leaders are more tactical than strategic, prioritize poorly, delegate little, surrender oversight, rationalize low standards and hesitate to hold personnel accountable, resulting in a culture that values harmony and loyalties over standards, accountability and performance.

Extent of Cause:

An extent of cause is determined to exist. Through team interviews, document reviews and observations made related to this root cause that station leaders' value harmony and loyalties over standards, accountability and performance extends to all leadership levels of the organization. The Strategic Talent Solutions (STS) Leadership assessment also validates this root cause. Based on this information the extent of cause is bounded by the scope of this root cause analysis and no additional extent of cause review is required.

As stated in RC-3, the FCS leaders failed to adequately implement important programs to achieve organizational effectiveness.

Extent of Cause:

An extent of cause is determined to exist. The key organizational effectiveness programs reviewed by this analysis were ineffectively implemented. Therefore, the extent of cause is bounded by the programs reviewed during the analysis and no additional extent of cause review is required.

H. INTERIM ACTIONS

1. Exelon Nuclear Partners was contracted on January 9, 2012 to provide Fort Calhoun Station recovery assistance and coaching/mentoring of station leaders. The contract continues and is on-going.
2. Completed an INPO Organizational Effectiveness Assist visit in March 2012. This assist visit started March 5, 2012 and was completed on March 9, 2012. A report from INPO was developed and routed to FCS with recommended corrective actions. That report and this RCA will be used to develop a proper response on what FCS actions will be implemented to improve organizational effectiveness.
3. Station has completed a Strategic Talent Solutions (STS) Leadership Assessment and Alignment of station leaders started in the 3rd quarter of 2011 and completed in 4th quarter of 2011. These leaders have an approved Individual Development Plan (IDP) and meet monthly with their management to review development progress. Additionally, new employees in leadership positions have had an initial assessment completed by STS to serve as a basis for their IDP.

I. ANALYSIS AND CAUSE DETERMINATION

This root cause analysis (RCA) utilized Events and Causal Factors Charting (E&CF) (Attachment 3a), Barrier Analysis (Attachment 3b), and Management Oversight and Risk Tree (MORT) analytical techniques (Attachment 3c).

The RCA team consisted of seven full time members and one part time member with over 233 years of industry experience in engineering, operations/plant management, training, human resources, organizational development, and regulatory/root cause analysis. This team expended more than 1500 hours conducting the analysis which included: nine observations (Attachment 5) involving management meetings, staff meetings, Management Review Boards, and shift manager weekend calls; 118 documents (Attachment 5) including: procedures, condition reports (CRs), Technical Specifications, Updated Safety Analysis Report (USAR), Standing Orders, internal and external Operating Experience (OE) (Section J), INPO assist visit documentation, INPO Assessment documentation, WANO report documents, SARC report documents, and NRC inspection documentation; and 19 interviews (Attachment 5) were conducted with key individuals within and outside the organization to gather information and to validate the conclusions of the RCA team.

Sequence of Events

Date	Description	Impact/Comment/Barrier
3/26/2007 - 4/2/2007	(b)(4) FCS has fallen behind industry standards in several areas such as work fundamentals, plant status control, FME, and some programs that effect equipment reliability. (D99)	First indication on event time-line indicating the start of a decline in organizational effectiveness.
2007-2008	A number of management changes take place without implementing the change management policy. (D20)	Leadership/Management/Decision Making and Change Management Policy implementation (managing change) Barriers.
2/21/2008	FCS RCA on Corrective Action Program (CAP) Effectiveness finds that station leadership has not provided the support and leadership necessary to establish organizational characteristics that support and enhance self-assessment and CAP effectiveness. (D35)	First indication on event time-line indicating degrading CAP effectiveness and lack of leadership. Leadership/Management/Decision Making and CAP Barriers.
5/21/2008	NRC 95002 inspection results – FCS failed to adequately respond to a White Finding associated with inadequate maintenance procedures and post maintenance testing of emergency diesel generator relays and contacts. In addition, NRC points out issues with CAP. (D99)	Again, CAP effectiveness concerns is identified and communicated to the station. CAP Barrier.
2008	In 2008, the FCS Strategic Business Plan was eliminated. Management didn't believe a Strategic Plan with goals and milestones (setting priorities) was needed. (I-04), (I-05)	Leadership/Management/Decision Making Barrier.

Date	Description	Impact/Comment/Barrier
2007 – 2009	NRC quarterly Integrated Inspections, PI&R Inspections, 95002 Security Inspections, Fire Protection Inspections, and the Component Design Basis Inspection (CDBI) identified numerous violations including a White Finding. The violations surrounded CAP/PI&R, performance, operability testing, deviations from commitments made and failure to incorporate procedures for safe shut down at probable maximum flood levels.	This time period on the time-line represents the beginning of the erosion of the regulatory/safety margin Barrier.
4/6/2009	(b)(4) (b)(4) (D30)	Leadership/Management/Decision Making Barrier.
9/2009	(b)(4)	Oversight, a Systematic Approach to Training (SAT) and Training finding and fixing its issues. Management oversight was not adequately intrusive to ensure proper training oversight.
2/17/2010	MSPI / NRC-6 for Aux Feed-water turned red. Associated RCA found that FCS management has not established a culture for applying rigor on the use of SAT to assure that the organization has technical knowledge of the FW-10 control systems and operating characteristics.	Leadership/Management/Decision Making Barrier
6/14/2010	The AI-3-M-2 contactor failed to open during periodic surveillance testing. The root cause was the failure to implement an interim TS strategy when funding was deferred.	Leadership/Management/Decision Making Barrier.
7/15/2010	NRC follow-up inspection, preliminary substantial finding – flooding.	Regulatory/Safety Margin and Leadership/Management/Decision Making and CAP Barriers.

Date	Description	Impact/Comment/Barrier
10/6/2010	A Yellow finding identified by the NRC for inadequate strategies to protect the plant from flooding events was issued. (95003)	Regulatory/Safety Margin and Leadership/Management/Decision Making and CAP Barriers.
11/2010	OPPD Corporate developed a Strategic Plan for 2011-2013 that did not address nuclear safety as the overriding priority. It is focused on efficient production and customer service. (D49) (I-04)	Leadership/Management/Decision Making Barrier.
2010 – 2011	A number of management changes occur without implementing the change management policy. (D20)	Leadership/Management/Decision Making and Change Management Policy implementation (managing change) Barriers.
5/6/2011	NRC inspection report 2011007; preliminary Yellow Finding – M-2 contactor.	Regulatory/Safety Margin, Leadership/Management/Decision Making and CAP Barriers.
5/21/2011	NRC Security inspection 2011404; Preliminary greater than GREEN Finding – First Safeguards	Leadership/Management/Decision Making and Regulatory/Safety Margin Barriers.
5/26/2011	NRC issues Final significance determination for a Security related greater than GREEN Finding and Notice of Violation – First Safeguards	Leadership/Management/Decision Making and Regulatory/Safety Margin Barriers.
6/6/2011	NOUE was made for flood expected to exceed 1004 feet Mean Sea Level (MSL) but less than 1009 feet MSL.	Regulatory/Safety Margin Barrier.
6/7/2011	Electrical bus 1B4A fire (Alert Emergency Classification declared). The FCS RCA identified that the design process failed to identify the silver plating of bus bar material as a critical interface when specifying replacements for the AK-50 circuit breaker. (D23)	Organizational and Programmatic Root Cause.

Date	Description	Impact/Comment/Barrier
6/24/2011	Follow-up Security Assessment Letter The NRC plans to conduct a supplemental inspection to review the actions taken to address the performance issues – First Safeguards	Leadership/Management/Decision Making and Regulatory/Safety Margin Barriers.
7/18/2011	A White finding identified by NRC for the failure of electrical components used to automatically shut-down the reactor was issued.	Regulatory/Safety Margin and Leadership/Management/Decision Making and CAP Barriers.
12/13/2011	FCS received notification from NRC of a change to regulatory oversight of Fort Calhoun Station. Effective 12/13/11, oversight of FCS will transition to IMC 0350, "Oversight of Reactor Facilities in Shutdown Condition due to Significant Performance and/or Operational Concerns." (D38)	Regulatory/Safety Margin and Leadership/Management/Decision Making Barriers.
12/2011	FCS planning to bring Exelon Nuclear Partners to assist the station with recovery activities. No Change Management Plan was implemented.	Change Management Policy and Leadership/Management/Decision Making Barriers.
9/2011 - 1/2012	Recovery Plan development by FCS.	
1/2012	Exelon Nuclear Partners arrive at FCS.	
2/2012	Recovery Plan Initiative began with Exelon Nuclear Partners assistance.	
3/12/2012	NRC Special Inspection Report – Finding of preliminary High Safety Significance - Fire	Regulatory/Safety Margin and OE Barriers.
4/10/2012	Final significance determination of RED Finding and Notice of Violation - Fire	Regulatory/Safety Margin and OE Barriers.
4/16/2012	NRC Final Significance determination for security related Greater than GREEN Findings – Second and Third Safeguards	Leadership/Management/Decision Making and Regulatory/Safety Margin Barriers.

Date	Description	Impact/Comment/Barrier
5/15/2012	FCS Organizational Effectiveness RCA Started (CR-2012-03986).	

Root Cause Analysis

The root cause analysis team systematically evaluated and organized causal factors to identify root and contributing causes. Qualitative criteria were applied to confirm the root and contributing causes. The qualitative criteria were based on the following definitions from NOD-QP-19, Cause Analysis Program:

- Root Cause - The most basic, fundamental cause(s) of a problem, which, if corrected, will prevent recurrence.
- Contributing Causes - Causes that, if corrected, would not by themselves have prevented the event, but are important enough to be identified for consideration of changes to improve the quality of the process or product. Contributing causes are not directly responsible for the problem but their existence complicates the problem or makes the consequences of the problem more severe than if only the root cause(s) had existed.

Events and Causal Factors Charting (E&CF)

The E&CF chart is a graphical presentation of the event in a chronological sequence that shows the relationship of necessary and sufficient elements and causal factors. This analytical tool was used to develop the links between causation, event consequences, and evidence to create the time line or story line demonstrating the continuing trends in repetitive problems surrounding organizational effectiveness at FCS. The information gathered from interviews, document reviews, and team observations to create the EC&F is used to further analyze the problem using the Barrier Analysis and the MORT analytical tools. The E&CF chart for this analysis is attached.

Barrier Analysis

The barrier analysis technique identifies physical and administrative barriers to prevent inappropriate actions that are either in place, failed, or missing. The barrier analysis technique applies the concept that hazards (threats/consequences) exist in relation to achieving a desired outcome (target). The barrier analysis evaluates pre-existing barriers that should protect the target from the threat/consequence.

The completed barrier analysis is attached and identified the following failed barriers:

- The Corrective Action Program (CAP)
- FCS Strategic Plan

- Leadership/Management/Decision Making
- Regulatory/Safety Margin
- Accountability Policy Implementation
- Change Management Policy Implementation
- Self-Assessment Policy Implementation
- Operating Experience Policy Implementation
- Observation Policy Implementation

MORT Analysis

The MORT analysis centers around the information/facts gathered to construct the E&CF timeline or "storyline." The MORT is a fact-based process-driven analytical tool, which uses information/facts gathered from the review of documents, interviews, and observations made by the root cause team to determine systemic organizational weaknesses.

The MORT branches are designed as a structured approach to analysis and use a system of hierarchal questions to determine where the potential weaknesses are in the organization's policies, programs, processes, and procedures (components) that may have contributed or caused the problem. The questions are designed with organizational best practices in mind to maintain nuclear safety. For example, if a particular organizational component reviewed is adequate to maintain nuclear safety, then the answers to the questions in the associated branch are GREEN. If the answers to the questions are RED, then the associated component reviewed is less than adequate to maintain nuclear safety.

The problem statement and the scope of the analysis defined in the root cause team's charter is used to associate the MORT questions to the organizational effectiveness problem. For each branch, the team defines the scope as it relates to the particular program component under review, in relation to organizational effectiveness. The questions are answered with that scope in mind. The roll-up of the facts supporting the RED findings in the component branches of the MORT analytical tool revealed to the team the root and contributing causes described in this report. The extent of condition and causes will be used to determine the depth and breadth of the issues across the organization.

Root Cause

Refer to the attached E&CF, barrier analysis, and MORT analytical tool Attachments for analysis details.

RC1: The OPPD organization failed to establish and implement the essential attributes of governance and oversight, including the key elements of individual roles, responsibilities, and accountabilities to enable FCS to achieve and maintain high levels of operational nuclear safety and reliability. (*The MORT Safety Culture Supplement indicated a weakness in all areas and components of Safety Culture*).

The OPPD Corporation does not have a governance plan with a set of policies, processes, and programs by which a corporation is directed and controlled, including the roles, responsibilities, and accountability

of individuals in the organization. Governance results in the creation and alignment of organizational structures and policies, the definition of processes, the development of programs, and the deployment of procedures that establish the standards to guide the operation, maintenance, and organizational support of nuclear stations within a corporation.

Absent a governance plan, the OPPD Corporation relied on its strategic plan to provide the standards to guide the operation, maintenance, and organizational support for FCS. However, the OPPD strategic has an inadequate focus area on nuclear safety. The Corporate plan does not set the essential vision, mission, and values to enable and sustain a culture at FCS that embraces nuclear safety as the overriding priority. Consequently, FCS management eliminated the station's strategic plan and did not have (or develop) an organizational roadmap to achieve operational excellence with nuclear safety as the overriding priority to replace it.

All departmental organization levels at FCS are impacted by this cause. Therefore, the extent of cause encompasses the scope of the areas reviewed by this analysis and no additional extent of cause is required.

Supporting Facts for RC1:

Leadership behavior that demonstrates the ability to develop a strategic vision and path forward for the Station, to make decisions consistent with that vision, to engage the workforce, and clearly communicate the expectations and standards around that vision is needed. (2012 Independent Safety Culture Assessment - D25)

(b)(4)

(b)(4)

(D1)

The CR2011-10135 RCA Root Cause 8.1 identified that flawed mental models, misguided beliefs, and misplaced values have driven, influenced, and permitted the misalignment of the individual, leader, and organizational behaviors (norms) needed for effective and timely detection, evaluation, and correction of performance deficiencies. (D16)

FCS does not have a strategic plan. Management did not believe a strategic plan with goals and key milestones (setting priorities) was needed. (I-05)

(b)(4)

(D31)

(b)(4)

(b)(4)

(D31)

Leadership was ineffective.

(I-05)

There is no alignment among the management team. (I-05)

10/05/10 - (b)(4)

(b)(4)

Ensuing facilitated discussions, it was determined that the following attributes that contribute to effective engineering support and leadership for station successes were not present or being addressed by the leadership team for the items above, thereby limiting progress:

- Common focus (including resources) between systems, design, and programs engineering
- Clear goals that everyone bought into
- Teamwork (engineering, operations, maintenance), sense of purpose, worth of individuals
- Clear, ongoing communication among departments
- Clear roles and responsibilities with station endorsement
- Deliberate planning for monitoring and feedback
- Change management with critique
- Being innovative, industry leading

2010 Engineering leadership showing: 1) No common focus, 2) No clear goals, 3) Teamwork lacking, 4) No clear roles and responsibilities, 5) Poor change management. (D34)

(b)(4)

{

(b)(4)

(b)(4) (D24)

Station managers did not implement operational decision making practices during several high risk activities. (D27)

Organizational effectiveness continued to decline (b)(4) because of leadership accepting too low of a standard, and because of site culture. (I-04)

Management was reluctant to change vision, mission, and strategic goals. Integrated performance assessment meetings were eliminated because management did not think the information was important. (I-05)

Integrated performance assessment (IPA) meetings were eliminated to focus on MRMs. In the IPAs "we diced and sliced indicators every which way and couldn't tell what was what. We needed good trend data and so we pared down the MRMs." (I-04)

Policies and the implementing procedures are not in place at all organizational levels (CR 2012-03986). No record of a change plan. (D47, D51)

There is no appropriate method used for implementing the Accountability Model, no criteria established for determining level of success, and no performance data collected. The FCS Nuclear Policy Manual does not include a policy on accountability and the FCS Accountability Model is not addressed in the Manual. Inconsistent implementation of standards and expectations in work activities are common and exacerbated by ineffective communication around the change management process. (D25, D51, D55)

Management has not identified and specified the types of information that it needs, no methods have been specified for information gathering (no accountability measuring PI), and there is no information flow up and down the chain of command as it relates to the use of the accountability model. (D25, D43, D51)

Line management is not held accountable for implementing and/or modeling the behaviors outlined in the FCS Accountability Model. (O-5, O-6, O-7, D-1, D-3, D-24)

Top level managers do not show a high level of interest in accountability by personal involvement at low levels of the organization, employees don't believe that top management is concerned about accountability, and some members of top management do not frequently visit the shop floor. (O-5, O-6, O-7, D-1, D-3, D-24, D-25)

RC2: – Station leaders are more tactical than strategic, prioritize poorly, delegate little, surrender oversight, rationalize low standards and hesitate to hold personnel accountable, resulting in a culture that values harmony and loyalties over standards, accountability and performance. (The MORT Safety Culture Supplement indicated a weakness in the Other Safety Culture Area, Components and Aspects – O.1, a., b., c., 2.b., 3., 4., C., d.).

The 2012 *Independent Safety Culture Assessment* cites examples of a lack of accountability that permeates the Station at all levels. Accountability is described by most of the individuals interviewed as the biggest issue for the Station. Many individuals in management and supervision do not consistently exhibit desired behaviors and are not challenged by their managers or peers. Inconsistent implementation of standards and expectations in work activities are common and may be facilitated by ineffective communication around the change management process. Significant management oversight and attention is needed to communicate the standards and expectations and implement the appropriate and consistent performance management system to hold individuals accountable.

Supporting facts for RC2:

Fort Calhoun needs to ensure that any accountability model that is used is consistently implemented against clearly communicated and prioritized standards and expectations that recognizes and reinforces desired behaviors and uses effective coaching, minimizing punitive actions, for undesirable behaviors. This process needs to be formalized and clearly understood by all personnel. (Safety Culture Assessment D25)

As a group, FCS leaders are more tactical than strategic. They often prioritize poorly, delegate little, work levels down and surrender oversight. They regularly enable and protect, rationalize low standards and hesitate to issue consequences. They also seldom prioritize leadership development for themselves and their reports. These issues cut across all levels of leadership and all departments. (STS Leadership Assessment D101)

A relationship-centric culture has taken hold. The culture and its leaders have come to value harmony and loyalties over standards, accountability and performance. Relationships have been prioritized over what is in the best interest of individuals, the station and the community. As is often repeated, "This is the OPPD way." (D101)

Station leaders have lost sight of the wisdom of leadership and held tightly to the virtues of a hard work ethic and technical competence. FCS Leaders try to run the plant themselves rather than develop high-functioning, cohesive teams that leverage collective knowledge and experience to lead a safe and reliable plant. (D101)

Plant hardware has aged and a litany of challenges have manifested, many preventable, others not. The leadership has been overrun and slow to make the difficult decisions and take the necessary actions required to manage these challenges. As a consequence, the status quo has been continually reinforced while confidence in the leadership's ability to right the ship is trending downward. (D101)

There is no policy or procedure that drives or governs the process of leadership skills assessment at the Station, as such the state of leadership in terms of competency and alignment was declining and no process was in place to discover this until a consultant's study was completed in late 2011. (D101)

Good methods are used for implementation of leadership development training, and criteria are established for measuring the success achieved, but the rigor of this measurement is less than adequate. No strict analysis of the data collected is completed. The performance improvement is not measured. (D101)

Line management responsibilities for ensuring that leaders attend leadership development training is understood and is included in the station's managers and supervisors key accountability documents. However, leadership development training is not prioritized in comparison to operational commitments. (D101)

Management is not always engaged around leadership development training once the training has been signed off on. (D101)

Delays are experienced due to operational commitments and scheduling frequency of leadership development training impacting the delivery of training. (D101)

Managers are not held accountable for leadership training. There are no measures of this performance. (D101)

There is no policy or procedure that drives or governs the process of Leadership Skill Assessment at the Station. (D101)

As a group, station leaders possess critical development gaps that have contributed to and resulted from a significant erosion of standards across the site. (D101)

RC3: The FCS leaders failed to develop, implement, and hold people accountable for implementation of important policies and programs, to achieve organizational effectiveness. These include, but are not limited to the Corrective Action, Operating Experience and Observation Programs. (*The MORT Safety Culture Supplement indicated a weakness in all areas and components of Safety Culture*).

Key programs identified by the RCA Team important for organizational effectiveness were not implemented in accordance with their associated policies. Specifically, the CAP, change management, accountability, observations, operating experience, and self-assessment programs were determined to be ineffective. The change management program implementation was treated as a separate contributing cause and is addressed in CC2.

Supporting facts for RC3:

Performance improvement overall, and the CAP in particular, at FCS needs to be reassessed and realigned to ensure that all employees understand its value and priority in enhancing performance. In particular, the roles and expected behaviors of management with respect to CAP need to be clearly communicated and reinforced. (2012 Independent Safety Culture Assessment - D25)

The CAP policy and procedures, FCSG-24 / SO-R-2, (the versions which had been in place prior to April 30, 2012) were not up to industry standards. For example, Quarantining (FCSG-24-2), Cause Evaluation Manual enhancement (FCSG-24-5), and Corrective Action Program Coordinator (CAPCO - FCSG-24-12), are new guidelines to support CAP written policy. (D-16, D-61, D-62)

NRC Inspection findings and causal analyses identified significant issues with the CAP. For example, corrective actions did not address the concerns; key performance indicators indicate excessive delays (overdue/extensions); individuals did not have sufficient skills and knowledge to perform cause analysis using a systematic method. In addition, station effectiveness reviews are not conducted in a manner and to a depth that assures that corrective actions for precluding problem repetition have been institutionalized. (D-16, D-18, D-35, D-36)

At times, FCS leaders did not act as leaders; decisions were frequently pushed to the highest levels of the organization and were not acted upon in a timely manner. (I12)

Leadership assessment and alignment process information is very telling and not enough is being done. It indicated FCS leadership was not equipped with the right skills, and the leadership team sometimes gets mired in details resulting in untimely decisions. (I12)

Insufficient management bench strength contributed to individuals being put into positions that they were not fully prepared to fill. (I12)

OPPD did not prepare the FCS leadership team to successfully manage the station. (I12)

Succession planning is done at FCS, but not necessarily done with enough rigor as evidenced by the current state. (I12)

New Leader Assimilation (NLA) process needs to be implemented more consistently (I12)

We do a poor job preparing supervisors and training supervisors. You pretty much are going to have to survive on the skills and abilities you brought with you to the job instead of being able to rely on acquiring new ones. (I16)

There isn't a way to implement new Leadership Academy behaviors once back at the job. (I16)

Previous leadership training efforts have not been fully successful because the FCS culture did not support application of the learned skills and did not value the learned skills. (I06)

Speaking only of the manager level, they often don't recognize joint accountability, and they don't step up to help until they become exasperated. There needs to be a lot more teamwork and understanding of joint accountability. (I18)

In some cases, delays in hiring outside analyst-support for root and apparent causal analysis have been identified as a delay in implementing CAP Policy. In addition, KPIs CCA-11 and CCA-12 indicate excessive delays (overdue/extensions). (I-02, D-43)

Members of the line management are not held accountable for implementing responsibilities associated with CAP; for example KPIs CCA-11 and CCA-12 indicate excessive delays (overdue/extensions). (D-43)

An apparent cause performed on the ineffectiveness of the ALARA Committee during the 2008 refueling outage determined the cause was ineffective change management, resulting in committee members not fully understanding their roles and responsibilities. (D30, D47, I-09)

FCS accountability model is less than adequate (LTA) because it was not effectively communicated and policies and implementing procedures are not in place at all organizational levels. Station performance has not improved as a result of implementing this accountability model. (MORT MA1, page 37)

The accountability model/policy and the implementing procedures are not in place at all organizational levels (CR 2012-03986). (D47, D51)

There is no appropriate method used for implementing the policy, no criteria established for determining level of success, and no performance data collected. The FCS Nuclear Policy Manual does not include a policy on accountability and the FCS accountability model is not addressed in the Nuclear Policy Manual. (D51, D55)

Management has not identified and specified the types of information that it needs, no methods have been specified for information gathering (no accountability measuring performance indicator), and there is no information flow up and down the chain of command as it relates to the use of the accountability model. (D25, D43, D51)

Line management is not held accountable for implementing and/or modeling the behaviors outlined in the FCS accountability model. (O-5, O-6, O-7, D-1, D-3, D-24)

Top level managers do not show a high level of interest in accountability by personal involvement at low levels of the organization, employees did not believe that top management is concerned about accountability, and some members of top management do not frequently visit the shop floor. (O-5, O-6, O-7, D-1, D-3, D-24, D-25)

The observation program policy does not require peer observations. (D69)

The lower level tier elements are not in place in the policy to implement the observation program policy. Specifically, the evaluation criteria for conducting field observations are not provided. (D37, D69)

The observation program is not effectively implemented to critically assess performance and rigorously analyze results in order to identify station issues. Observations were not sufficiently critical (approximately 3 percent of the observation results required improvement). (D37, D69)

While station managers and supervisors perform a large number of observations, there is no site-wide analysis or trending of observation data to identify common issues or adverse trends across departments. There is no clear responsibility delineated in the observation policy for trending observation findings. (D37, D69)

Expectations for some aspects of the program have not been clearly established and senior managers do not adequately monitor the status of the programs so that the expected results are achieved. For example, there are no expectations for quality, duration of the observation, or site-wide analysis – only a required number of observations is specified (four per month). (D37)

There is no guidance in the observation training or the observation procedure, FCSG-2; to define scorecard ratings (exceeds expectations, meets expectations, below expectations, needs improvement, outstanding, satisfactory, unsatisfactory, etc.). Thus there is no assurance of consistency or an appropriate level of critical appraisal. (D37, D69)

The FCS response to NRC Information Notice 94-27, "Facility Operating Concerns Resulting from Local Area Flooding," credited the use of pre-existing procedures; therefore, a detailed evaluation investigating water intrusion possibilities in the protected areas was not evident or documented. (D18)

Operating Experience (OE) was not adequately addressed concerning the breaker modification which resulted in a fire in bus 1B4A. (D23)

Responsibilities for the OE Program are clearly delineated for management. However, the responsibilities for the OE Program are not always implemented. For example, from interview information, "current upper management is not supportive of OE efforts, e.g., requirements assigned to managers are up to six months past due and no one is covering OE at meetings anymore." (I-3, D43, D71)

People higher in the FCS organization did not provide people lower in the organization what they needed to implement the OE program correctly. Specifically, management did not provide the staffing or the accountability on timeliness of reviews. (MORT SD6, Page 31)

The OE review group staffing level changed from four coordinators to one. (I-3)

Some recommendations from self-assessments are not implemented. Operations managers are not routinely benchmarking and conducting self-assessments to verify they have an accurate picture of excellence for plant control and teamwork. Although operations and training personnel conducted several self-assessments, only the self-assessment completed for Significant Operating Experience Report 96-1, *Control Room Supervision, Operational Decision-Making, and Teamwork*, specifically addressed plant control and narrowly focused on crew reconstitution. An October 2009 latent issues self-assessment of auxiliary feedwater performance noted some weaknesses in applying technical aspects of system operation to operating procedures. These included discrepancies between AOPs and EOPs for manual throttling of valves and the lack of a caution or action step to manually back up the automatic closure of a valve on loss of instrument air. To date, some of these identified issues have not been addressed. A thorough self-assessment of the flow accelerated corrosion program has not been conducted in the past 10 years, although a compliance audit with respect to industry guidance was completed in 2007. (D24, D95, D96)

Based on the number of action items that are open with an average age greater than station goals, it is evident there is no accountability for timely action completion (average age of CRs is 323 days with a station goal less than 180; 77 of the 107 CRs are above station goals). (D43, D95, D96)

Operations managers are not routinely benchmarking and conducting self-assessments to verify they have an accurate picture of excellence for plant control and teamwork. (D24, D95, D96)

CC1: The principles and attributes for a strong nuclear safety culture are not rigorously applied at FCS. *(The MORT Safety Culture Supplement indicated a weakness in the Human Performance and Problem Identification and Resolution Components, and Aspects - H.1.a., b.; P.1.b., c., d., e.; P.2., a., b.; P.3., a., b., and c.).*

A healthy safety culture is most often found within an aligned organization that has effective processes, and motivated people. Management has not been able to engage the workforce, provide healthy avenues for reporting concerns, and beneficially challenge each other to make the right decision. In addition, the 2012 Independent Safety Culture Assessment identified many examples of missed opportunities for the organization to demonstrate the value and priority of safety and several examples of non-conservative decision making.

(b)(4)

Supporting facts for CC1:

Fort Calhoun management needs to evaluate what behaviors can be used to create an environment where beneficial challenging, a healthy questioning attitude, and the reporting of concerns can be accepted, supported and desired. Efforts to erase the perceptions of fear around potential punishment will have to be made to provide a better foundation from which the appropriate behaviors can be effectively achieved. This area will receive further causal analysis during CR 2012-04262. (2012 Independent Safety Culture Assessment D25)

Data from the Behavioral Anchored Rating Scale on Attention to Safety indicated that approximately 52 percent of the Station's interviewee respondents either do not believe or are uncertain that safety is the number one priority and that that perspective is reinforced by Senior Management to all employees. (2012 Independent Safety Culture Assessment – D25)

Expectations in procedures for CAP are weak and/or ineffective. Personnel accountability is Less Than Adequate (LTA). Although the procedure is weak, the elements to report lower level issues, input cause determinations in the CR, and for the owner to provide good feedback to initiator are located in the procedure. (D100, NRC IR 05000285/2009007 PI&R)

Self-assessment identified corrective actions have been ineffective and/or untimely. (D100, NRC IR 05000285/2009007 PI&R). The standards for implementing CAP have been ineffective in identifying and driving resolution of repeat and less-significant failures of equipment important to safety and/or operation. (CR 2010-6190 - D-22)

Management oversight of PI&R practices was not effective to identify and resolve problems with degraded equipment and external flood design basis questions. The FCS organizational values regarding

problem identification and resolution preclude a self-improving culture and learning environment.
(Cause 8.2 EN.1.1 AFI – CR2011-3025, D27)

The organization has not consistently displayed the leadership and oversight skills necessary to reinforce expectations and hold personnel accountable for successful completion of PI&R activities. (D27)

Training RCA – Management has not provided effective oversight and set appropriate priorities to resolve some long standing or recurring weaknesses in the Engineering Support Personnel Training Program. (D5)

The corporate strategic plan does not take nuclear safety into account. It is focused on customer service. In hind-sight, we should have had our own strategic plan linked to a nuclear safety vision and mission. (I-04)

(b)(4)

(D24)

Flawed mental models, misguided beliefs, and misplaced values have driven, influenced, and permitted the misalignment of the individual, leader, and organizational behaviors (norms) needed for effective and timely detection, evaluation, and correction of performance deficiencies. (D16)

Station Leadership has not provided the support and leadership necessary to establish the organizational characteristics that support and enhance Self-Assessment and Corrective Action Program's effectiveness (D16)

Management has not established a culture for applying rigor on the use of SAT to assure that the organization has the technical knowledge of the FW-10 control systems and operating characteristics.
(D17)

(b)(4)

(b)(4)

(D24)

(b)(4)

(b)(4)

](D24)

Organizational effectiveness continued to decline since 2007 because of leadership accepting too low of a standard, and because of site culture. (WANO Peer Review) (I-04)

Operational focus weaknesses in the areas of maintaining plant status control and correcting deficiencies challenges operations. These weaknesses have contributed to unplanned inoperability of some equipment and to the over-pressurization of a safety injection system. The aggregate effect of the plant deficiencies is not fully assessed; and, in some cases, operators have become tolerant of some long-standing conditions. (OF.1-1 and OF.3-2) (D31)

The FCS Nuclear Safety Policy does not explain how to achieve adherence to the policy. It lacks clarity and instruction for implementation. (D87)

The Team did not identify any written directives associated with Nuclear Safety and nuclear safety attributes are not discussed at pre-job briefings and during IPTE briefings. In addition, nuclear safety was not covered at SO-G-92 briefing for mid-loop operations. (D87), (D89)

FCS does not have a system for measuring nuclear safety, and information relating to nuclear safety is not collected or analyzed. (D43)

There is no assigned station nuclear safety advocate. There is a Nuclear Safety Culture Advocate, however, the purpose of this position is to provide coaching and assess safety culture during specified station meetings. (D87)

CC2 - The station leadership team does not consistently implement the FCS Change Management Policy to maintain trust in the organization. (The MORT Safety Culture Supplement indicated a weakness in the Other Safety Culture Area, Components and Aspects – O.1, a, b, c, 2.b., 3., 4., C., d.).

INPO Principles for a Strong Nuclear Safety Culture, Principle 3, "trust permeates the organization," states that a high level of trust is established in the organization, fostered, in part through timely and accurate communication. The effects of impending changes (such as those caused by sale or acquisition, bargaining unit contract negotiations, and economic restructuring) are anticipated and managed such that trust in the organization is maintained. The 2012 Independent Safety Culture Assessment identified that the line organization does not consistently implement the FCS change management policy. For example: no formalized procedure or change management plan had been implemented to date with regard to Exelon Nuclear Partners roles and responsibilities at the station; the centralization of a nuclear procurement process in materials management had not been formally communicated through a change management plan; and communication regarding restart of the station had been largely informal and often through word of mouth.

Supporting facts for CC2

The INPO facilitated off-site meeting of engineering leaders conducted on September 21, 2010, indicated that the change management attribute for effective engineering was not present. (D34, I-07)

The line organization does not consistently implement the FCS change Management Policy. Major organizational changes in 2007 and 2010 did not utilize the FCS change management policy. (I-07, D25)

The status of open change management plans is checked by the MRM. However, there have been no MRM meetings since April 2011. In addition, a corporate procurement manager was unaware of the existence of a change management plan for centralizing the procurement program. (I-07, D25)

The Team determined through document reviews there is no written directive above the implementing procedure, FCSG-17. In addition, other applicable station procedures do not require the use of the change management policy/process (e.g., SO-G-30, SO-G-74, FCSG-44, and NAI-19).

Applicable station procedures for business unit resource committee approved projects do not require the use of the change management policy/process, e.g., FCSG-44, Project Management. In addition, other projects and initiatives often do not include change management plans, e.g., Exelon Nuclear Partners' support of station recovery. (D-60)

Members of line management are not held accountable to consistently implement FCSG-17, change management. (D-47)

FCSG-17, Change Management, does not require a measure to determine the effectiveness of the implemented change management Plans. (D-47, I-07)

Inconsistent implementation of standards and expectations in work activities are common and may be facilitated by ineffective communication around the change management process. Significant management oversight and attention is needed to communicate the standards and expectations and implement the appropriate and consistent performance management system to hold individuals accountable. (2012 Independent Safety Culture Assessment – D25)

During this assessment, the team identified the organizational change management process was often ineffective in communicating necessary information. Some examples include:

- No formalized procedure or change management plan had been implemented to date with regard to what Exelon Nuclear Partner's roles and responsibilities at the Station would be.
- The centralization of a nuclear procurement process in the Materials Management Department had not been formally communicated through a change management plan.
- Communication around the restart of the station had been largely informal and often through word of mouth information. (2012 Independent Safety Culture Assessment – D25)

CC3 - The implementation of the FCS communication policy is less than adequate to build trust and reinforce a healthy safety culture. (*The MORT Safety Culture Supplement indicated a weakness in the Human Performance Safety Culture Area, Components and Aspects – H.1.c.*).

The 2012 Independent Safety Culture Assessment noted that communication issues were identified by almost all FCS personnel interviewed as well as by the results on the survey. For example: contractors do not have mailboxes and do not receive site communications; indications from interviewees' perceptions are that the organization is more concerned about what information goes out to the public than communicated information employees need to perform their job; and that the perceived accuracy of communication across the FCS is low. In addition, data from the Behavioral Anchored Rating Scale on Communication indicated that overall only 17 percent of the station interviewee respondents perceive that departments keep each other well informed and those individuals can readily gain information when the need arises.

Supporting facts for CC3

The 2012 Independent Safety Culture Assessment determined the communication policy has a number of deficiencies such as: Criteria have not been established for determining the level of success for message delivery and the policy does not specify responsibilities for either the line or the staff. (2012 Independent Safety Culture Assessment – D25)

The 2012 Independent Safety Culture Assessment determined that information flow is not shared freely up and down the chain of command and that meetings take priority over managing by walking around. (2012 Independent Safety Culture Assessment – D25)

The full disclosure of the 2012 Independent Safety Culture Assessment was not shared with FCS staff. (2012 Independent Safety Culture Assessment – D25, I-15)

The 2012 Independent Safety Culture Assessment indicated that FCS communications are perceived to be ineffective by FCS line and staff. (2012 Independent Safety Culture Assessment – D25)

The 2012 Independent Safety Culture Assessment indicated that management doesn't accept some negative feedback or act upon it. (2012 Independent Safety Culture Assessment – D25)

No communications on important things, you can't just put it on the website and expect people to know something changed. (E.g.: HU Management Observation of the Day). (I16)

The perceived accuracy of communication across the Fort Calhoun Station is low. The electrical maintenance and various engineering work groups had statistically significantly higher scores on this scale than respondents in the Prefer Not to Respond, Security Shift, and Security Other Work Groups did. (2012 Independent Safety Culture Assessment – D25)

Desire for interaction (Communication) is moderate across the FCS. Survey respondents in the Prefer Not to Respond, Security Shift, and Security Other Work Groups had statistically significantly lower scores on this scale than respondents in other work groups. (2012 Independent Safety Culture Assessment – D25)

Data from the Behavioral Anchored Rating Scale on Communication indicated that overall only about 17 percent of the station interviewee respondents perceive departments keep each other well informed and those individuals can readily gain information when the need arises. The maintenance organization had the most positive perceptions about communication. (2012 *Independent Safety Culture Assessment* – D25)

The implementation of the FCS communication policy is less than adequate to address the problems likely to be encountered during the conduct of work at the plant as evidenced by the 2012 *Independent Safety Culture Assessment* where communication issues were identified by almost all interviewees as well as by the results on the survey. (2012 *Independent Safety Culture Assessment* – D25)

Criteria have not been established for determining the level of success. From the 2012 *Independent Safety Culture Assessment*: During this Assessment the Team identified that the organizational change management process was often ineffective in communicating necessary information. Some examples include:

- No formalized procedure or change management plan had been implemented to date with regard to what Exelon's roles and responsibilities at the Station would be.
- The centralization of a nuclear procurement process in Materials Management had not been communicated through the organization.

The station leadership team does not consistently implement the FCS Change Management Policy. Major organizational changes in 2007 and 2010 did not utilize the FCS Change Management Policy. No formalized change management plan was developed for what Exelon's roles and responsibilities were at the station. Centralization of the nuclear procurement process did not include a change management process. (I-07, 2012 *Independent Safety Culture Assessment* – D25)

Inconsistent implementation of standards and expectations in work activities are common and may be facilitated by ineffective communication around the change management process. Significant management oversight and attention is needed to communicate the standards and expectations and implement the appropriate and consistent performance management system to hold individuals accountable. (2012 *Independent Safety Culture Assessment* – D25)

J. OPERATING EXPERIENCE REVIEW

Internal Operating Experience

The DevonWay Condition Report database was searched using a date range of 5/01/2009 to 5/01/2012 to identify internal operating experience related to this event. The database was searched using keywords "Organizational Effectiveness", "Leadership", and "Governance" and "Governance and Oversight", Cause Codes CA5, DM1, MS4, MS7, MS92, PC3, PE3, WM3, Event Codes, AFI, HVI, and REG, and Special Codes INPOAI, NRCCCA, NRCINS, and NRCREG. The resulting list of condition reports were reviewed to identify those that are potentially applicable to this event, i.e., those that questioned the

adequacy of organizational effectiveness, as implemented at Fort Calhoun Station. Several condition reports determined to be noteworthy with respect to this investigation are summarized below:

1. Condition Report CR 2011-3004 (Level B Tier 1): (b)(4)

(b)(4)

(b)(4)

This Condition Report was closed to Condition Reports: CR 2011-3025 (AFI EN.1-1), CR 2010-2387 (external flooding), CR 2010-5406 (HCV-345), and CR 2011-0451 (M-2 contactor failure) since they were considered to appropriately address critical actions and factors related to adherence to expectations, organizational and programmatic defenses, and organizational and programmatic factors.

(b)(4)

(b)(4)

2. Condition Report CR 2011-0451 (Level A): Reactor Protection System (RPS) M-2 Contactor Failure. The NRC Inspectors provided a Management debrief of their inspection of the M-2 contactor failure. The inspectors discussed the timeline of events and Condition Reports initiated, that were associated with the M-2 contactor failure. As a part of the timeline discussion, the inspectors noted that FCS did not have Engineering Analyses or procedural guidance for continued operation with degraded or failed M-2 contactors.

The proposed performance deficiency is identified as: The station did not properly analyze and proceduralize operation with the degraded M-2 contactor after the November 2008 incident and allowed operation till failure. This is a violation of 10CFR50 Appendix B, Criterion XVI, Corrective Actions.

There were four root causes that were performed that were reviewed and determined to be related to this event (M-2 contactor failure). The corrective actions from these events were narrowly focused and did not take a broader perspective to prevent this event (CR 2011-0451).

As documented in the RCA for CR 2011-0451: Corrective actions to prevent recurrence from previous FCS root cause events have not been fully effective in preventing station events where form, fit, or function have been altered during maintenance activities without an adequate engineering evaluation.

3. Condition Report CR 2011-3025 (Level A): (b)(4)

(b)(4)

(b)(4)

(b)(4)

A related CR, 2010-4423 (Level B Tier 1) identified a repeat issue. *The NRC is proposing a green Non-cited violation of TS 5.8.1, due to inadequate procedures for flushing the fire protection lines. Water was found in the east switchgear VA-87 as documented in CRs 2010-4051 and 2010-4053. Water flowed under the MCC when the drain lines backed up during flushing. The water then leaked through the floor seals into the cable trays in Room 19. This is a repeat issue, documented in CRs 2008-5704 and 2007-5155.*

CR 2010-4051 (Level C): VA-87, Switchgear Room "A" Air Handling Unit, is leaking water when in operation. Water from the Air Handler then leaked through the floor into room 19. This CR was closed to 2010-4423.

CR 2010-4053 (Level C): After water was found on the floor in room 19 a search was conducted that found water in the east switchgear around VA-87. The water flowed under 480 volt Bus 1B3C then around a floor penetration to room 19 that has cabling running through it. CR will track completion of repairs to be done during the 2011 RFO. Work Order 388449-01 was finished on 11/9/2011.

CR 2008-5704 (Level C): Security contacted control with report of water on the floor in East Switchgear room. Found approximately 1 gallon of water on floor (10 ft. long pool) in front of VA-87. No active leak was noted from the air handling unit. The work accomplished was to check the condensate drain line for VA-87 and found it to be OK. The source of the leakage could not be found - closed out Work Request 126789. No corrective actions were initiated to address the condition.

CR 2007-5155 (Level C): Security informed the Control Room that water was on the floor in the East Switchgear Room. AON and EONT investigated and found the source of the water to be coming from the VA-87 Air Handling Unit. Water was also found in Room 19 which had drained from the East Switchgear Room. Work accomplished included cleaning out drain trap and line and flushed with water and unit now drains properly. No other corrective actions written to address this condition.

A design change was completed and installed and appropriate procedure changes completed per CR 2010-4423. The Effectiveness Review was completed satisfactory.

4. Condition Report CR 2011-3021 (Level B Tier 1):

(b)(4)

(b)(4)

(b)(4)

(b)(4)

concerning the station's inappropriate use of conservative margins to ensure shutdown nuclear safety, instead of prevent and plan for the unexpected approach to maintaining shutdown, safety was reviewed. *The actions in the CR for this AFI response have been completed and appear to address the issue however; they were narrowly focused and primarily aimed at Operations. The action plan for the SOER 09-01 response was reviewed along with USA Outage Improvement Assessment and the subsequent strategic plan to achieve outage excellence. Execution of these plans should reinforce and strengthen actions already taken to address this AFI. These action plans are large and comprehensive and will require support from across the organization to be successful. Additionally, the station will be challenged to fully implement these plans prior the 2011 RFO.*

The corrective actions from this Condition Report were not adequate to prevent this AFI, which had been previously deemed to present vulnerability. The following causes and contributors were identified when this AFI was issued:

- 1) There was an overreliance on lower levels of management to conduct reviews and challenge the schedule to ensure that risk-significant work activities are completed safely.
- 2) There was a failure to effectively implement oversight mechanisms to monitor risk significant work activities.
- 3) There was a failure to implement an industry excellence practice (senior management challenge reviews) in a timely manner.

5. Condition Report CR 2011-10135 (Level A): Problem Identification & Resolution Inspection Failure.

During the NRC PI&R inspection, it was noted that the station identified as one of four root causes in CR 2010-2387 that the station's corrective action program was not effective. While a gap analysis and corrective actions have been identified that should assist in correcting the problem, the NRC noted that without an analysis as to the causes for the failure of the corrective action program, it would be difficult to be sure that all necessary actions to correct the problem and prevent recurrence had been identified for resolution.

Root Causes Identified from the RCA:

- 1) Flawed mental models, misguided beliefs, and misplaced values have driven, influenced, and permitted the misalignment of the individual, leader, and organizational behaviors (norms) needed for effective and timely detection, evaluation, and correction of performance deficiencies.

- 2) The FCS organizational values regarding Problem Identification and Resolution preclude a self-improving culture and learning environment. FCS has not implemented and institutionalized lessons learned from internal and external operating experience (OE) in the area of Problem Identification and Resolution in a timely manner to assure changes to station processes, procedures, equipment, and training programs are made to support plant safety.

Contributing Causes from the RCA:

- 1) The organization (workers and management) has not consistently displayed the leadership and oversight skills necessary to reinforce expectations and to hold personnel accountable for successful completion of Problem Identification and Resolution activities. Performance Improvement personnel made a conscious decision to work on other higher priority activities rather than issue a site wide trending report as required each quarter per procedures.
- 2) Historically, changes to the corrective action process have not been well coordinated. The written guidance provided for the identification, evaluation, and resolution of adverse conditions needs improvement.
- 3) Certain groups experience challenges prioritizing the scope and/or significance of their corrective action workload either due to a lack of resources or due to an organizational inability to properly allocate resources [people, time, \$]. The organization has not ensured timely institutionalization of the changes required by the corrective action plan for Root Cause (Problem Identification & Resolution Culture) of CR 2010-2387. The organization continues to experience challenges obtaining, allocating, and deploying resources to assure performance deficiencies at Fort Calhoun Station are adequately identified, evaluated, resolved, and trended. Organizational leadership has designated personnel to perform and approve cause analyses without ensuring those individuals have sufficient skills and knowledge to perform cause analyses and to plan solutions using a systematic method.
- 4) Significant events and equipment failures have recurred indicating weaknesses in causal analysis and timely and effective problem resolution.
- 5) Previous corrective action plan steps were not developed using a systematic change management process to assure the right mental model was being implemented from the start and to assure follow-through monitoring and coaching was incorporated to anchor the desired Problem Identification and Resolution behaviors in the field.
- 6) Station effectiveness reviews are not conducted in a manner and to a depth that assures that corrective actions for precluding problem repetition have been institutionalized.

The internal OE review indicates that opportunities existed to identify, document, evaluate, and correct adverse conditions and trends, and to promptly resolve important station issues. In most of these cases cited above, outside agencies, such as NRC or INPO prompted the identification of the decline in station performance and concurrent decline in Organizational Effectiveness.

External Operating Experience

The External Operating Experience (OE) review consisted of a review of data from INPO SEE-IN documents to identify any external OE related to this event. The INPO OE review revealed numerous events providing lessons learned in the area of Organizational Effectiveness. While the events covered numerous plants, plant systems, departments and levels of the organizations, opportunities were available to learn more about Organizational Effectiveness weaknesses by reviewing the available information.

The event evaluations concluded that poor organizational effectiveness either lead to or contributed to the events.

A search of the INPO website was performed using the search terms, "Organizational led Effectiveness", "Leadership", and "Governance and Oversight". OE Event reports were reviewed from the INPO OE database. Four of these OE event reports are referenced below:

(b)(4)



(b)(4)



(b)(4)



(b)(4)



(b)(4)



(b)(4)



K. CORRECTIVE ACTION PLAN AND EFFECTIVENESS REVIEWS

Root Causes/Contributing Causes	Corrective Actions	Type	Assignee	Due Date
RC1 – Less than adequate Governance and Oversight: The OPPD organization failed to establish and implement the essential attributes of governance and oversight, including the key elements of individual roles, responsibilities, and accountabilities to enable FCS to achieve and maintain high levels of operational nuclear safety and reliability.	CAPR1 – Establish corporate governance and oversight policies, processes, and programs by which OPPD directs and controls FCS. Include the roles, responsibilities, and accountability of individuals in the organization for implementing the governance.	Prevent (P), Extent of Condition (EOCO), Extent of Cause (EOCA)	WG Gates	7/27/2012
	CA1 - Prepare new corporate strategic plan to cover activities of the corporation including nuclear safety.	Correct the Problem (C)	WG Gates	7/27/2012
	CA2 - Establish a corporate support group that includes a focus on nuclear safety that reports directly to the CEO.	C, EOCO	WG Gates	7/27/2012
	CA3 - Implement the revised FCS Vision, Mission, and Values to align with the OPPD strategic plan.	C	D Bannister	7/27/2012
	CA4 - Align the FCS organization to the FCS Vision, Mission, and Values using training, coaching, performance reviews, accountability, and communications, as applicable.	C, EOCO	D Bannister	8/31/2012
	CA5 - Implement an accountability model for the FCS organization.	C, EOCO	D Bannister	7/27/2012

Root Causes/Contributing Causes	Corrective Actions	Type	Assignee	Due Date
	CA6 - Implement a performance management process for FCS employees.	C	M Sedky	10/30/2012
	CA7 - Implement a process including developing effectiveness measures for the following key programs (but not limited to): <ul style="list-style-type: none"> • Corrective Action Program • Operating Experience • Self-Assessment • Observations • Benchmarking • Human Performance • Safety Culture • Leadership development • Leadership skills assessment • Succession planning • Hiring • Knowledge transfer • Workforce planning 	C	M Ferm	7/13/2012
RC2 - Station leaders are more tactical than strategic, prioritize poorly, delegate little, surrender oversight, rationalize low standards, and hesitate to hold personnel accountable, resulting in a culture that values harmony and loyalties over standards, accountability and performance.	CAPR2 – Implement a management model with an emphasis on nuclear safety and continuous improvement that defines the FCS fundamental objectives, through the mission, vision, values, guiding principles, and fundamentals of the organization.	P, EOCO, EOCA	D Bannister	7/20/2012
	CA8 - Assess the leadership and management capabilities of the entire leadership team and make any needed changes. (Independent assessor)	C, EOCO	S Hutcherson	8/24/2012
	CA9 - Develop and implement a succession planning process for FCS.	C	M Sedky	8/31/2012

Root Causes/Contributing Causes	Corrective Actions	Type	Assignee	Due Date
	CA10 - Link the leadership certification assessment results to the FCS succession plan.	C	M Sedky	8/31/2012
	CA11 - Implement the existing knowledge transfer process for FCS.	C	M Sedky	8/31/2012
	CA12 - Implement a Strategic Workforce Planning process.	C	M Sedky	9/30/2012
RC3 – Less than adequate Policy Implementation: The FCS leaders failed to develop, implement, and hold people accountable for implementation of important policies and programs, to achieve organizational effectiveness. These include, but are not limited to the Corrective Action, Operating Experience and Observation Programs.	CAPR3 – Implement an accountability model for the FCS organization. [Reference CA5]	P, EOCO, EOCA	D Bannister	7/27/2012
	CA13 - Prepare the Organizational Effectiveness Recovery Team Charter.	C	RJ Hovey	7/13/2012
	CA14 - Staff and implement the Organizational Effectiveness recovery team.	C	RJ Hovey	7/13/2012
	CA15 - Create an overall Organizational Effectiveness Metric.	C	M Ferm	7/13/2012
	CA21 - Develop a "Road Map" to Organizational Excellence	C	M Ferm	7/27/2012
	CA22 - Revise the MRM Agenda to have a standing line item to review the status of the Organizational Effectiveness recovery.	C	B Obermeyer	7/20/2012

Root Causes/Contributing Causes	Corrective Actions	Type	Assignee	Due Date
	CA16 - Revise FCSG-2, Observation Program, to include: <ul style="list-style-type: none"> • Conduct of peer observations. • Define specific rating criteria to evaluate field observation for EE, ME, BE, NI. • Assign responsibility for trending observation findings. 	C	M Ferm	8/24/2012
CC1 – The principles and attributes for a strong nuclear safety culture are not rigorously applied at FCS.	CA17 - Revise NPM-1.00, Nuclear Safety, to require: <ul style="list-style-type: none"> • Safety culture metrics • Use of INPO's Principles for a Strong Nuclear Safety Culture as the guiding principles for improving performance and nuclear safety margin. Examples include pre-job briefings, meetings, training sessions, and infrequently performed tests and evolution briefings. 	C, EOCO	D Bannister	7/27/2012
CC2 – The station leadership team does not consistently implement the FCS Change Management Policy to maintain trust in the organization.	CA18 – Determine policies, procedures and guidelines that should direct implementation of FCSG-17, Change Management.	RE, EOCO	M Ferm	7/13/2012
CC2 – The station leadership team does not consistently implement the FCS Change Management Policy to maintain trust in the organization.	CA19 – Revise the policies, procedure, and guidelines identified in CA-18 that direct implementation of FCSG-17, Change Management.	C, EOCO	M Ferm	8/10/2012

Root Causes/Contributing Causes	Corrective Actions	Type	Assignee	Due Date
CC3 - The implementation of the FCS Communication Policy is less than adequate to build trust and reinforce a healthy safety culture.	CA20 - Establish a communications policy to replace NPM-1.06 that provides direction and expectations based on the significance of the issue and the expected communication methods to be used. This policy should include development of an FCS communications strategy.	C, EOCO	L Olson	7/27/2012
	<p>EFR – At Management Review Meetings (conducted between 8/1/2012 and 2/1/2013), verify that CAPR1 implementation activities are on track and there is an overall improving trend in the indicators identified below:</p> <p>Interim Effectiveness Measures (reference INPO 01-005, Indicators of Changing Performance):</p> <ul style="list-style-type: none"> • Plant safety • Plant reliability • Personnel safety • Human Performance • CAP • Equipment performance • Work management • Training • Self-assessment • Configuration control • Attitude • Safety Culture • Staffing • Regulatory issues 	Effectiveness Review (RC1)	D Bannister	2/8/2013

Root Causes/Contributing Causes	Corrective Actions	Type	Assignee	Due Date
	EFR - A self-assessment determines that OPPD has established and implemented the essential attributes of governance and oversight, including the key elements of individual roles, responsibilities, and accountabilities, and station performance is improving. Complete the self-assessment with a team comprised of Industry and Station personnel.	Effectiveness Review (RC1)	R Haug	2/8/2013
	EFR - Leadership skill assessment indicates an improving trend in station leader performance. The specific attributes include: 1) Alignment 2) Accountability 3) High standards These attributes will be reviewed against the initial STS leadership assessment results.	Effectiveness Review (RC2)	M Sedky	2/28/2013
	EFR - Self-assessment indicates policies have been appropriately developed and effectively implemented, and leaders are holding themselves and others accountable to the implementation of these policies.	Effectiveness Review (RC3)	M Ferm	11/2/2012
	EFR - The Organizational Effectiveness Metric is developed and indicates an improving trend.	Effectiveness Review (RC3)	M Ferm	2/15/2013

L. SAFETY CULTURE REVIEW

See Attachment 4.

M. DOCUMENTS/DATA REVIEWED AND INTERVIEWEE LIST

See Attachment 5

N. ATTACHMENTS

1. RCA Charter
2. Nuclear Safety Assessment Form (FC-155)
3. MORT analysis, Barrier Analysis and Causal Factors Chart
4. Documents Reviewed/ Interviews/ Observations/ Timeline
5. Safety Culture Review
6. Cause – Corrective Action Matrix

Attachment 1 – Root Cause Analysis CharterCR No.: 2012-03986CR Title: Fort Calhoun Station's Organizational Effectiveness is Inadequate

RCA Team Members	Name / Title	TIME COMMITMENT
EXECUTIVE SPONSOR	Gary Gates / President & CEO / OPPD	AS NEEDED
CR Sponsor	Dave Bannister / SVP-CNO / OPPD	As needed
Team Member	Michael Marler / Exelon – Organizational Effectiveness Lead	Full Time
RCA Investigator	John Madera / Conger & Elsea	Full Time
Team Lead / CR Owner	Rich Haug / Training Manager / OPPD	Full Time
Team Member	Ray Reno / Manager, Operations Support / OPPD	Full Time
Team Member	Patty Yager / Manager, HR Nuclear / OPPD	Full Time
Team Member	Mike Stein / Conger & Elsea	Full Time 'til 6/1/12
Team Member	Michael Werner / Certrec	Full Time
Schedule of Activities:		
CR Owner Team Pre-job Briefing Date: 05/15/12		SCARB and PRC (for Nuclear Safety Significant) Review Due: 5/24/12
RCA Team Review of Draft Report Date: 5/30/12		Condition Report Response Due: 6/14/12
Submittal to CARB Secretary Due: 6/7/12		DCARB review Due: 6/5/12
Problem Statement: The Fort Calhoun Station (FCS) organization has been ineffective in meeting regulatory and industry standards, resulting in untimely and ineffective resolution of issues contributing to a significant decline in station performance.		
Consequence (Actual or Reasonable Potential based on the Problem Statement) Erosion of public and regulatory confidence in the FCS organization's ability to operate the plant safely and could potentially lead to plant events with increased consequence due to ineffective organizational decisions.		
Proposed Interim Actions: Continue the implementation of the Integrated Performance Improvement Plan (IPIP).		
Physical Evidence Collection Requirements (Ref. FCSG-24-2, Evidence Quarantining) None		
Additional Resource Needs: None at this time		

Attachment 2

Nuclear Safety Assessment – FC-155

FC-155
Nuclear Safety Assessment

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2012-03986
Condition Report No.

Page 1 of 3

NOTE: Reference FCSG-24-4 for completion instructions including form handling. Use continuation sheets if needed.

1)	<p>Briefly describe the condition to be evaluated (include any known causes and list applicable references).</p> <p>Condition Report 2012-03986 identifies the following:</p> <p>"Senior leaders and managers are not providing the necessary leadership to improve organizational performance. Additionally, leadership has failed to be intrusive, set the right priorities, and hold personnel accountable and understand major processes or issues affecting morale. As a result, timeliness and thoroughness of resolution of important issues has been lacking and station performance has declined significantly."</p> <p>Based on the this statement the following Root Cause Analysis problem statement was developed and approved by Station Corrective Action Review Board: The Fort Calhoun Station (FCS) organization has been ineffective in meeting regulatory and industry standards, resulting in untimely and ineffective resolution of issues contributing to a significant decline in station performance.</p> <p>This condition (Organizational Ineffectiveness) being evaluated potentially does impact nuclear safety.</p>
2)	<p>Identify structures, systems, components, procedures, administrative controls or activities which were affected and describe their safety function.</p> <p>NPM-1.00, Nuclear Safety, is the administrative procedure that establishes policy on nuclear safety of Fort Calhoun Nuclear Station (FCS). The external flooding findings (CR2010-2387) indicated a challenge to station structures, systems and components, required to achieve and maintain cold shutdown conditions.</p>

FC-155
Nuclear Safety Assessment
MAY 23 2012

Attachment 3

Events and Causal Factors Chart and Barrier Analysis and MORT Analysis

Attachment 3a – Causal Factors



Timeline for RCA
Plotter print version.v



Timeline for RCA
11x17 print version.v

Attachment 3b - Barrier Analysis:

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
Failure to effectively identify and correct station problems in a timely manner.	The Corrective Action Program (CAP).	<p>The FCS CAP Organizational Effectiveness Barrier failed as evidenced by the following facts:</p> <p>Expectations in procedures (pre-April 2012) for CAP are weak and/or ineffective. Personnel accountability is Less Than Adequate (LTA). Although the procedure is weak, the elements to report lower level issues, input cause determinations in the CR, and for the owner to provide good feedback to initiator are located in the procedure. (D100, NRC IR 05000285/2009007 PI&R)</p> <p>Corrective Actions from previous identified Self-Assessment and CAP issues have been ineffective and/or untimely. (D100, NRC IR 05000285/2009007 PI&R)</p> <p>The standards for implementing CAP have been ineffective in identifying and driving resolution of repeat and less-significant failures of equipment important to safety and/or operations... CR 2010-6190 (D-22)</p> <p>(b)(4)</p> <p>(b)(4)</p> <p>(D27)</p> <p>8.3: The organization has not consistently displayed the leadership and oversight skills necessary to reinforce expectations and hold personnel accountable for successful completion of PI&R activities. (D27)</p> <p>Training RCA – Management has not provided effective oversight and set appropriate priorities to resolve some long standing or recurring</p>

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
		<p>weaknesses in the Engineering Support Personnel Training Program. (D5)</p> <p>The results of this analysis concluded that the Root Cause of this event is that Station Leadership has not provided the support and leadership necessary to establish the organizational characteristics that support and enhance Self-Assessment and Corrective Action Program's effectiveness. (D16)</p> <p>The following Contributing Causes were also identified: Expectations in procedures (pre-April 2012) for CAP are weak and/or ineffective. Personnel accountability is Less Than Adequate (LTA). Although the procedure is weak, the elements to report lower level issues, input cause determinations in the CR, and for the owner to provide good feedback to initiator are located in the procedure. In addition, corrective Actions from previous identified Self-Assessment and CAP issues have been ineffective and/or untimely. (D16)</p>
Failure to provide a road map for success at FCS.	Strategic Plan – Providing Station Goals and Expectations	<p>The FCS Strategic Plan Organizational Effectiveness barrier failed as evidenced by the following facts:</p> <p>In 2006 FCS management eliminated the broad usage of Individual Performance Measures (D-26)</p> <p>The FCS does not have a strategic plan. Management didn't believe a strategic plan with goals and key milestones (setting priorities) was needed. (I-05)</p> <p>In 2008 the VP removed the strategic business plan initiative. He believed that we could drive the organization with our Vision and Mission Statement. (I-04)</p> <p>The corporate strategic plan doesn't take nuclear safety into account. It is focused on customer service. In hind-sight, we should have had our own strategic plan linked to a nuclear safety vision and</p>

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
		<p>mission. (I-04)</p> <p>(b)(4)</p> <p>(b)(4) (D1)</p> <p>(b)(4)</p> <p>(b)(4)</p> <p>(D1)</p> <p>8.1 Flawed mental models, misguided beliefs, and misplaced values have driven, influenced, and permitted the misalignment of the individual, leader, and organizational behaviors (norms) needed for effective and timely detection, (b)(4)</p> <p>(b)(4) (D16)</p>
<p>Failure to create a culture at FCS that is focused on achieving performance excellence with nuclear safety as the overriding priority.</p>	<p>Leadership/Management/Decision Making – to guide FCS in achieving performance excellence with nuclear safety as the overriding priority.</p>	<p>The FCS Leadership/ Management/Decision Making Organizational Effectiveness Barrier Failed as evidenced by the following facts:</p> <p>The FCS does not have a strategic plan. Management didn't believe a strategic plan with goals and key milestones (setting priorities) was needed. (I-05)</p> <p>(b)(4)</p> <p>(b)(4) (D31)</p> <p>(b)(4)</p>

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
		(b)(4)
		(b)(4) (D31)
		(b)(4)
		(b)(4) (D31)
		(b)(4)
		(b)(4) (I-05)
		<p>The results of this analysis concluded that the Root Cause of this event is that Station Leadership has not provided the support and leadership necessary to establish the organizational characteristics that support and enhance Self-Assessment and Corrective Action Program's effectiveness. (D16)</p> <p>Management has not established a culture for applying rigor on the use of SAT to assure that the organization has the technical knowledge of the FW-10 control systems and operating characteristics. (D17)</p> <p>There is no alignment among the management team. (I-05)</p>

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
		<p>(b)(4)</p> <p>Following facilitated discussions, it was determined that the following attributes that contribute to effective engineering support and leadership for station successes were not present or being addressed by the leadership team for the items above, thereby limiting progress:</p> <ul style="list-style-type: none"> • Common focus (including resources) between systems, design, and programs engineering • clear goals that everyone bought into • Teamwork (engineering, operations, maintenance), sense of purpose, worth of individuals • Clear, ongoing communication among departments • Clear roles and responsibilities with station endorsement • Deliberate planning for monitoring and feedback • Change management with critique • Being innovative, industry leading <p>2010 Engineering leadership showing: 1) No common focus, 2) No clear goals, 3) Teamwork lacking, 4) No clear roles and responsibilities, 5) Poor change management. (D34)</p>

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
		(b)(4)
		(b)(4) (D24)
		(b)(4)
		(b)(4) (D24)
		(b)(4)
		(b)(4) (D24)
		(b)(4)
		(b)(4) (D1)
		Station Managers did not implement operational decision making practices during several high risk activities. (D27)
		Organizational effectiveness continued to decline

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
		<div>(b)(4)</div> <div>(b)(4) (I-04)</div> <p>Senior Managers did not effectively lead 95002 recovery efforts to address the 2009 CDBI and FCS self-identified flooding issues in AOP-01, Acts of Nature. Certain members of Senior Management believed or assumed the comprehensive 95002 Flood Recovery Team Plan was being implemented to address flooding requirements, but did not intrusively follow-up to ensure the plan was effectively being implemented. (D36)</p> <p>Management was reluctant to change vision, mission, and strategic goals. (I-05)</p> <p>Integrated performance meetings were eliminated to focus on MRMs. In the IPAs, we diced and sliced indicators every which way and couldn't tell what was what. We needed good trend data and pared down the MRMs. (I-04)</p> <p>Integrated performance assessment meetings were eliminated because management didn't think the information was important. (I-05)</p>

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
Safety significant events and loss of regulator and public confidence.	Regulatory/Safety Margin	The FCS Regulatory/Safety Margin Organizational Effectiveness Barrier failed as evidence by the following facts:
		(b)(4)
		(b)(4) (D31)
		(b)(4)
		(b)(4) (D31)
		(b)(4)
		(b)(4) (D24)
		Management has not effectively enforced expectations of rigorous troubleshooting

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
		standards...CR 2010-6190 (D22)
		(b)(4)
		(b)(4) (D24)
		(b)(4)
		(b)(4)
		Station Managers did not implement operational decision making practices during several high risk activities. (D27)
		Key stakeholder (OPS, work planning, maintenance, and engineering) insufficient procedural guidance is deficient to ensure consistent recognition of non-conforming conditions resulting in failure to adequately evaluate operability and risk. (D11)
		The station recognized a need to improve Technical Specifications (TS) over 20 years ago. The funding for an improved TS initiative has been repeatedly deferred without compensatory actions considered and implemented to improve station understanding and clarity with existing TS. Failure to implement an interim TS strategy when funding was deferred was the root cause of this event. (D29)
		The design process failed to identify the silver

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
		<p>plating bus bar material as a critical interface when specifying replacements for the AKD-5 circuit breaker. (D23)</p> <p>The licensee is currently in the Repetitive Degraded (Column IV) Column for the mitigating systems cornerstone (MS) for two significant findings of NRC regulations: The facility transitioned to column IV because the MS cornerstone was degraded for more than four consecutive quarters (Yellow finding), with an additional input to the action matrix (White finding). (D38)</p> <p>The station identified a significant degradation in the Engineering support personnel (ESP) Training Programs. CR 2012-01604 (D5)</p> <p>The FCS does not have a composite Organizational Effectiveness PI to monitor station performance. Performance is poor and not improving. (D43)</p> <p>The execution of station engineering is ineffective. Assurance of long-term health of plant systems and components is significantly deficient. (D10)</p> <p>Senior Managers did not effectively lead 95002 recovery efforts to address the 2009 CDBI and FCS self-identified flooding issues in AOP-01, Acts of Nature. (D36)</p> <p>Certain members of Senior Management believed or assumed the comprehensive 95002 Flood Recovery Team Plan was being implemented to address flooding requirements, but did not intrusively follow-up to ensure the plan was effectively being implemented. (D36)</p> <p>The previous Plant Manager and Division Manager Nuclear Engineering knew a less comprehensive flooding recovery plan (Engineering Plan) was developed and being implemented to address flooding issues (Attachment M) rather than the comprehensive 95002 Team Flood Recovery Plan</p>

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
		<p>(Attachment L). These members of the management team did not support implementing the comprehensive 95002 Team Flood Recovery Plan and therefore decided to implement the scaled down recovery plan. (D36)</p> <p>The issue of inadequate procedures to protect FCS against external flooding was identified by the NRC during the 2009 CDBI and documented in CR 2010-2387 and RCA, "External Flooding Protection to 1014 Feet". The ability to protect FCS from external flooding to 1014 ft. MSL has been a longstanding issue since the site failed to meet the requirements of the Updated Safety Analysis Report (USAR) Section 2.7.1.2 and Section 9.8.6 regarding external flooding protection requirements. (D-36)</p> <p>Root Cause 8.1 – Senior Managers did not effectively lead recovery efforts to address CDBI and FCS self-identified flooding issues in AOP-01, "Acts of Nature". Important flooding related corrective actions were not effectively planned, prioritized or resource loaded to ensure a success path for AOP-01 within the established timeline. (D36)</p> <p>Contributing Cause 8.3 – The Site Nuclear Safety Culture Process (FCSG-62) has not been internalized at the site. Examples pertaining to this contributing cause include attributes: 5. Nuclear technology is recognized as special and unique., 6. A questioning attitude is cultivated, and 7. Organizational learning is embraced. (D36)</p> <p>Contributing Cause 8.4 Deficiencies identified during flooding readiness inspection self-assessments conducted in Feb 2011 and Mar 2011 to assess site readiness for flooding inspections were not effectively acted upon to close gaps in AOP-1 content and AOP-01 verifications and validations. (D36)</p>

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
Failure to hold managers and staff accountable contributes to an ineffective organization.	Effective Accountability Policy	<p>The FCS Accountability Policy Implementation Organizational Effectiveness Barrier failed as evidenced by the following facts:</p> <p>Policies and the implementing procedures are not in place at all organizational levels (CR#2012-03986). No record of a change plan. (D47, D51)</p> <p>There is no appropriate method used for implementing the policy, no criteria established for determining level of success, and no performance data collected. The FCS Nuclear Policy Manual does not include a policy on accountability and the FCS Accountability Model is not addressed in the Nuclear Policy Manual. (D51, D55)</p> <p>The FCS Nuclear Policy Manual does not include a policy on accountability and the FCS Accountability Model is not addressed in the Manual. Inconsistent implementation of standards and expectations in work activities are common and exacerbated by ineffective communication around the change management process. (D25, D51, D55)</p> <p>Management has not identified and specified the types of information that it needs, no methods have been specified for information gathering (no accountability measuring PI), and there is no information flow up and down the chain of command as it relates to the use of the accountability model. (D25, D43, D51)</p> <p>Line management is not held accountable for implementing and/or modeling the behaviors outlined in the FCS Accountability Model. (O-5, O6, O7, D1, D3, D24)</p> <p>Top level managers do not show a high level of interest in accountability by personal involvement at low levels of the organization, employees don't believe that top management is concerned about accountability, and some members of top management do not frequently visit the shop floor.</p>

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
		<p>(O5, O6, O7, D3, D24, D25)</p> <p>There is no site-wide analysis of trending performed to identify common issues or adverse trends across departments. The Observation Policy does not require any site-wide analysis or trending of observation results, levels of participation, or measurements of criticality. (D37, D69)</p> <p>Expectations for some aspects of the program have not been clearly established and senior managers do not adequately monitor the status of the program are achieved. There are no expectations for quality, duration of the observation, or site-wide analysis – only a required number of observations is specified (four per month). (D37, D69)</p> <p>There is no guidance in the observation training or the observation procedure, FCSG-2; to define scorecard ratings (exceeds expectations, meets expectations, below expectations, needs improvement, outstanding, satisfactory, unsatisfactory, etc.). Thus there is no assurance of consistency or an appropriate level of critical appraisal. (D37, D69)</p>
Failure to manage change contributes to an ineffective organization.	Effective Change Management Policy Implementation	<p>The FCS Change Management Policy Implementation Organizational Effectiveness Barrier failed as evidenced by the following facts:</p> <p>INPO facilitated off-site meeting of engineering leaders conducted on September 21, 2010, indicated that the Change Management attribute for effective engineering was not present. Major organizational changes in 2007 and 2010 did not utilize the FCS Change Management Policy. No formalized change management plan was developed for what Exelon's roles and responsibilities were at the station. Centralization of the nuclear procurement process did not include a change management process. (D34, I07, D25)</p>

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
		<p>The Line Organization does not consistently implement the FCS Change Management Policy. Major organizational changes in 2007 and 2010 did not utilize the FCS Change Management Policy. No formalized change management plan was developed for what Exelon's roles and responsibilities were at the station. Centralization of the nuclear procurement process did not include a change management process. (I07, D25)</p> <p>The status of open Change Management Plans is checked by MRM. However, there have been no MRM meetings since April 2011. In addition, a corporate procurement manager was unaware of the existence of a change management plan for centralizing the procurement program. (I07, D25)</p> <p>The Team determined through document reviews that there is no written directive above the implementing procedure, FCSG-17. In addition, other applicable station procedures do not require the use of the Change Management Policy/process (e.g., SO-G-30, SO-G-74, FCSG-44, NAI-19).</p>

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
Failure to be self-critical contributes to an ineffective organization.	Effective Self-Assessment Policy Implementation	<p>The FCS Self-Assessment Policy Implementation Organizational Effectiveness Barrier failed as evidence by the following facts:</p> <p>Some recommendations from self-assessments are not implemented. Operations managers are not routinely benchmarking and conducting self-assessments to verify they have an accurate picture of excellence for plant control and teamwork. Although Operations and Training conducted several self-assessments, only the self-assessment completed for Significant Operating Experience Report 96-1, <i>Control Room Supervision, Operational Decision-Making, and Teamwork</i>, specifically addressed plant control and narrowly focused on crew reconstitution. An October 2009 latent issues self-assessment of AFW performance noted some weaknesses in applying technical aspects of system operation to operating procedures. These included discrepancies between AOPs and EOPs for manual throttling of valves and the lack of a caution or action step to manually back up the automatic closure of a valve on loss of instrument air. To date, some of these identified issues have not been addressed. A thorough self-assessment of the FAC program has not been conducted in about 10 years, although a compliance audit with respect to industry guidance was completed in 2007. (D24, D95, D96)</p> <p>Numerous KPI action items (CRs) are open with the average age of the CRs exceeding station goals of 180 days. (D43, D95, D96)</p> <p>Based on the number of action items that are open with the average age greater than station goals, it</p>
Failure to learn from internal and external operating experience contributes to an ineffective	Effective Operating Experience Policy Implementation	<p>The FCS Operating Experience Policy Implementation Organizational Effectiveness Barrier failed as evidence by the following facts:</p> <p>The FCS response to NRC Information Notice 94-27, "Facility Operating Concerns Resulting From Local Area Flooding," basically credited the use of pre-</p>

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
organization.		<p>existing procedures; therefore, a detailed evaluation investigating water intrusion possibilities in the protected areas was not evident or documented. OE was not adequately addressed concerning the breaker modification which resulted in a fire in bus 1B4A. (D18, D23, D71)</p> <p>Responsibilities for the OE Program are clearly delineated for management. However, the responsibilities for the OE Program are not always implemented. For example, from interview information, "current upper management is not supportive of OE efforts, e.g., requirements assigned to managers, are up to six months past due and no one is covering OE at meetings anymore." (I3, D43, D71)</p> <p>OE Program owner no longer allowed to drive ownership and accountability regarding OE activities and deliverables. (I3, D43)</p> <p>The responsibilities for the OE Program are not always implemented. For example, from interview information, "current upper management is not supportive of OE efforts, e.g., requirements assigned to managers are up to six months past due and no one is covering OE at meetings anymore." (I3, D43, D71)</p> <p>The OE review group staffing level changed from four coordinators to one. (I3)</p>
Failure to observe the conduct of work and the associated behaviors contributes to an ineffective organization.	Effective Observation Policy Implementation	<p>The FCS Observation Policy Implementation Organizational Effectiveness Barrier failed as evidence by the following facts:</p> <p>The Observation Program Policy does not require peer observations. (D69)</p> <p>Lower level tier elements are not in place to achieve the Observation Program Policy. Specifically, the evaluation criteria for conducting</p>

CONTROL BARRIER ANALYSIS WORKSHEET		
CONSEQUENCES	BARRIER THAT SHOULD HAVE PRECLUDED THE EVENT	BARRIER ASSESSMENT
		<p>field observations are not provided. (D37, D69)</p> <p>The Observation program is not effectively implemented to critically assess performance and rigorously analyze results in order to identify station issues. Observations were not sufficiently critical (approximately 3% of the observation results required improvement). (D37, D69)</p> <p>While station managers and supervisors perform a large number of observations, there is no site-wide analysis or trending of observation data to identify common issues or adverse trends across departments. There is no clear responsibility delineated in the observation policy for trending observation findings. (D37, D69)</p> <p>Expectations for some aspects of the program have not been clearly established and senior managers do not adequately monitor the status of the program are achieved. There are no expectations for quality, duration of the observation, or site-wide analysis – only a required number of observations is specified (four per month). (D37)</p> <p>There is no site-wide analysis of trending performed to identify common issues or adverse trends across departments. The Observation Policy does not require any site-wide analysis or trending of observation results, levels of participation, or measurements of criticality. (D37, D69)</p> <p>There is no guidance in the observation training or the observation procedure, FCSG-2; to define scorecard ratings (exceeds expectations, meets expectations, below expectations, needs improvement, outstanding, satisfactory, unsatisfactory, etc.). Thus there is no assurance of consistency or an appropriate level of critical appraisal. (D37, D69)</p>

Attachment 3c – MORT

Management System
Overview

Overall Color:



MORT Item#: MA1

Label: Internal Communications Policy NPM-1.06

Conclusion: The Communications Policy at FCS is less than adequate to ensure that timely and accurate communications occur.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
MA1 (page 37)	Policy LTA			
a1	Up To Date LTA		The policy was last updated in March 2008 and it does not contain all the aspects of an adequate policy on communication. The policy does not include all of the required communications practices that are noted on the FCS home page under ensure effective communications, (See Apparent Cause Analysis 2009-4690 "Communications shortfalls that hinder ability to culturally align the organization, both vertically and horizontally."	D108, D110
a2	Written LTA	GREEN	The Policy is written.	D108
a3	Risk Assessment LTA	GREEN	The Policy is based on the risk of poor communication.	D108
a4	Technical Information LTA	BLACK	Not applicable	D108
a5	Did Not Conform To CS & R		No references cited to indicate the policy conforms to all the required communication practices that are noted on the FCS home page.	D108, D110
a6	In Place at all Organization Levels LTA		The policy is in place but does not provide the adequate information or details to conform to the required communication practices.	D108, D110

Attachment 3c – MORT

Management System
Overview

Overall Color:



MORT Item#: MA1

Label: Internal Communications Policy NPM-1.06

Conclusion: The Communications Policy at FCS is less than adequate to ensure that timely and accurate communications occur.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
a7	Consistent at all Organization Levels LTA	GREEN	It is in place at all organizational levels.	D108
a8	Clear and Understandable LTA	GREEN	Policy is clear and understandable.	D108
a9	Implementability LTA	GREEN	The policy is implementable.	D108
a10	Applicability to all Areas of Operations LTA	GREEN	The policy is applicable at all areas of operations.	D108
a11	Congruence with Organizational Goals LTA	GREEN	The policy is congruent with the organizational goals.	D108

**Management System
Overview**

Over All Color: [REDACTED]

MORT Item#: MA2

Label: Implementation of the Communication Policy NMP-1.06

Conclusion: The implementation of the FCS Communication Policy is less than adequate to address the problems likely to be encountered during the conduct of work at the plant as evidenced by the 2012 Independent Safety Culture Assessment where communication issues were identified by interviewees and results on the survey.

MA2 (page 38)	Implementation LTA		
a1	Methods, Criteria, Analysis LTA	[REDACTED]	<p>Criteria have not been established for determining the level of success. From the 2012 Independent Safety Culture Assessment: During this Assessment, the Team identified that the organizational change management process was often ineffective in communicating necessary information. Some examples include:</p> <ul style="list-style-type: none"> ○ No formalized procedure or change management plan had been implemented to date with regard to what Exelon's roles and responsibilities at the Station would be. ○ The centralization of a nuclear procurement process in Materials Management had not been formally communicated through a change management plan. ○ Communication around the restart of the Station had been largely informal and often through word of mouth information. <p>Communication issues were identified by almost all interviewees as well as by the results on the survey (see next bullet). Concerns include:</p> <ul style="list-style-type: none"> ○ Contractors don't have mailboxes and do not receive site communications. ○ Interviewees indicated that recently non-site employees were taken off the NUC distribution list, yet the CEO has indicated that all corporate functions need to have a site presence. ○ Many interviewees indicated that they perceive there is more concern about what information goes out to the public than what information employees need to perform their jobs. <p>D25, D110</p>

**Management System
Overview**

Over All Color: 

MORT Item#: MA2

Label: Implementation of the Communication Policy NMP-1.06

Conclusion: The implementation of the FCS Communication Policy is less than adequate to address the problems likely to be encountered during the conduct of work at the plant as evidenced by the 2012 Independent Safety Culture Assessment where communication issues were identified by interviewees and results on the survey.

			<ul style="list-style-type: none"> o Interviewees indicated many issues that they did not receive information on. Some examples identified were: <ul style="list-style-type: none"> - This Assessment Team's hot line telephone number. - The Meteorological Tower event or why it was important; heard about it from another employee. - Did not receive information about when Exelon was coming in, heard about it on the news. - No information on start-up and recovery schedules. - Had conflicting information on the new Plant Manager and the process of his selection. <p>The perceived accuracy of communication across the Fort Calhoun Station is low. The Electrical Maintenance and various Engineering Work Groups had statistically significantly higher scores on this scale than respondents in the Prefer Not to Respond, Security Shift, and Security Other Work Groups did.</p> <p>Desire for Interaction (Communication) is moderate across the Fort Calhoun Station. Survey respondents in the Prefer Not to Respond, Security Shift, and Security Other Work Groups had statistically significantly lower scores on this scale than respondents in other work groups.</p> <p>Data from the Behavioral Anchored Rating Scale on Communication indicated that overall only about 17% of the Station interviewee respondents perceive that departments keep each other well informed and that individuals can readily gain information when the need arises. The Maintenance Organization had the most positive perceptions about communication.</p>	
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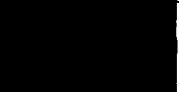

**Management System
Overview**

Over All Color: 

MORT Item#: MA2

Label: Implementation of the Communication Policy NMP-1.06

Conclusion: The implementation of the FCS Communication Policy is less than adequate to address the problems likely to be encountered during the conduct of work at the plant as evidenced by the 2012 Independent Safety Culture Assessment where communication issues were identified by interviewees and results on the survey.

a2	Line Responsibilities LTA		The policy does not specify the line responsibilities.	D25
a3	Staff Responsibilities LTA		The policy does not specify the staff responsibilities.	D25
a4	Information Flow LTA		Information flow is not shared freely up and down the chain of command. From the 2012 Independent Safety Culture Assessment Executive Summary: The presence of numerous statistically significant differences in the perceived cultural values across the Station work groups indicates that management has not been successful in communicating and reinforcing the values and attitudes that are important for enhancing safety culture. A specific example cited in the report: The Fort Calhoun Station Safety Communication on the Meteorological Tower/Shoot Range Event (CR-2012-02373) was distributed the day after the event. The Communication included an event summary, consequences, why it happened, and immediate actions. It did not include a takeaway or lessons learned for employees to consider in their own activities.	D25, D110
a5	Directives LTA	GREEN	Weekly discussion points are generated and communicated. From the 2012 Independent Safety Culture Assessment: Scores on the Communication Trust Scale on the electronic survey were relatively high indicating that respondents perceive freedom in discussing issues with	D111

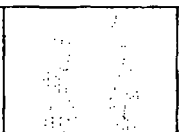


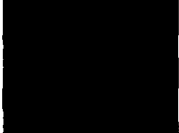
**Management System
Overview**

Over All Color: 

MORT Item#: MA2

Label: Implementation of the Communication Policy NMP-1.06

Conclusion: The implementation of the FCS Communication Policy is less than adequate to address the problems likely to be encountered during the conduct of work at the plant as evidenced by the 2012 Independent Safety Culture Assessment where communication issues were identified by interviewees and results on the survey.

			immediate supervision without jeopardy. There were no statistically significant differences across work groups, employee categories or tenure groups on this scale.	
a6	Management Services LTA (Go to Services Sheet MA2a6)		See Services branch SD6 of MORT	
a7	Budgets LTA	GREEN	FCS has a full time communications specialist on staff.	
a8	Delays		Ineffective Change Management process. Also, from the 2012 Independent Safety Culture Assessment: only approximately 20% of Station interviewee respondents believed that while the site usually holds review sessions to discuss operating problems and attempts to uncover solutions to past difficulties, the information is generally only communicated to the large site population when it concerns significant activities.	D47, MORT analysis on Change Mgt. policy
a9	Accountability LTA	GREEN	FCS has implemented a performance planning and review process.	D113
a10	Vigor and Example LTA		Also from the 2012 Independent Safety Culture Assessment: Interviewees indicated that the results of self and independent assessments are often not communicated back into the organization. And: Meetings take priority over managing by walking around.	D25

Services

Over All Color:

MORT Item#:SD6

Label:

Services for Communication Policy

Conclusion: People higher in the organization to do not provide people lower in the organization what they need to effectively implement the communication policy.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a1	Research and Fact Finding LTA	GREEN	If information wasn't available, it was actively sought out.	D25, D108
a2	Information Exchange LTA		The full disclosure of the Safety Culture Assessment was not shared with FCS staff.	D25, I-15
a3	Standards and Directives LTA	GREEN	Weekly discussions and station stand-downs are required and communicated.	D111
a4	Resources LTA	GREEN	See b1 – b5 below.	
b1	Training LTA	GREEN	Training was provided to all station leaders on communication	D112, D112
b2	Technical Assistance LTA	GREEN	Technical Assistance is provided through the site VP.	
b3	Program Aids LTA	GREEN	Standard weekly and monthly communication templates are provided.	

Services

Over All Color:



MORT Item#:SD6

Label:

Services for Communication Policy

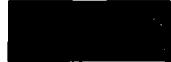
Conclusion:

People higher in the organization do not provide people lower in the organization what they need to effectively implement the communication policy.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
b4	Measure of Performance LTA	GREEN	Weekly discussion points are observed by senior leadership.	D110, D111
b5	Coordination LTA	GREEN	Communications such as weekly and monthly communications are coordinated to properly support the completion of individuals work.	D110
a5	Deployment of Resources LTA		FCS communications are perceived to be ineffective by FCS line and staff. (Safety Culture Assessment)	D25
a6	Referred Risk Response LTA		Safety culture assessment indicated that management doesn't accept some negative feedback or act upon it.	D25

**Management System
Overview**

Over All Color:



MORT Item#: MA1

Label:

FCS ACCOUNTABILITY MODEL

Conclusion:

FCS Accountability Model is less than adequate (LTA) because it was not effectively communicated and policies and implementing procedures are not in place at all organizational levels. Station performance has not improved as a result of implementing this accountability model.

MA1 and MA2	Description	Color	Notes / Facts	INFO #'s
MA1 (page 37)	Policy LTA			
a1	Up To Date LTA	GREEN	Up to date policy with current trends and needs	D51
a2	Written LTA	GREEN	Written policy exists	D51
a3	Risk Assessment LTA	BLACK		
a4	Technical Information LTA	GREEN	Benchmark information was used from INPO, Dominion Nuclear, and Palo Verde that was utilized to help draft FCS Accountability Model. (CR2010-3652-13).	D51, D54
a5	Did Not Conform To CS & R	GREEN	Benchmark information was used from INPO, Dominion Nuclear, and Palo Verde that was utilized to help draft FCS Accountability Model. (CR2010-3652-13).	D51, D54
a6	In Place at all Organization Levels LTA	BLACK	Policies and the implementing procedures are not in place at all organizational levels (CR#2012-03986). No record of a change plan.	D47, D51
a7	Consistent at all Organization Levels LTA		Policies and the implementing procedures are not in place at all organizational levels. (CR#2012-03986). No record of a change plan.	D47, D51
a8	Clear and Understandable LTA	GREEN	Policy is clear and understandable	D51
a9	Implementability LTA	GREEN	Policy is implementable	D51

**Management System
Overview**

Over All Color: 

MORT Item#: MA1

Label: FCS ACCOUNTABILITY MODEL

Conclusion: FCS Accountability Model is less than adequate (LTA) because it was not effectively communicated and policies and implementing procedures are not in place at all organizational levels. Station performance has not improved as a result of implementing this accountability model.

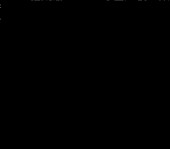
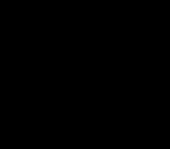

MA1 and MA2	Description	Color	Notes / Facts	INFO #'s
a10	Applicability to all Areas of Operations LTA	GREEN	Applicable to all areas	D51
a11	Congruence with Organizational Goals LTA	GREEN	The policy is congruent with organizational goals.	D51

Management System Overview Over All Color: 

MORT Item#: MA2

Label: FCS ACCOUNTABILITY MODEL

Conclusion: The implementation of the FCS Accountability Model is less than adequate (LTA) because it was not effectively communicated and policies and implementing procedures are not in place at all organizational levels. Station performance has not improved as a result of implementing this accountability model.

MA2 (page 38)	Implementation LTA			
a1	Methods, Criteria, Analysis LTA		There is no appropriate method used for implementing the policy, no criteria established for determining level of success, and no performance data collected. The FCS Nuclear Policy Manual does not include a policy on accountability and the FCS Accountability Model is not addressed in the Nuclear Policy Manual.	D51, D55
a2	Line Responsibilities LTA		The FCS Nuclear Policy Manual does not include a policy on accountability and the FCS Accountability Model is not addressed in the Manual. Inconsistent implementation of standards and expectations in work activities are common and exacerbated by ineffective communication around the change management process.	D25, D51, D55
a3	Staff Responsibilities LTA	GREEN	The appropriate staff responsibilities for accountability are appropriately identified in their position descriptions within departments. (OPPD Human Resources Position Descriptions Share Point sight).	D51, D56
a4	Information Flow LTA		Management has not identified and specified the types of information that it needs, no methods have been specified for information gathering (no accountability measuring PI), and there is no information flow up and down the chain of command as it relates to the use of the accountability model.	D25, D43, D51
a5	Directives LTA	GREEN	There is a clear written accountability directive which has been disseminated throughout the organization with top management approval and support	D51

a6	Supv Safety Observation Plan LTA (Go to Services Sheet MA2a6)		See SD6 MA2	
a7	Budgets LTA	BLACK	This is a behavior and there is no budget component	
a8	Delays LTA	BLACK	Delays are not applicable to this Label (Accountability Model)	
a9	Accountability LTA		Line management is not held accountable for implementing and/or modeling the behaviors outlined in the FCS Accountability Model.	O-5, O-6, O-7, D-1, D-3, D-24
a10	Vigor and Example LTA		Top level managers do not show a high level of interest in accountability by personal involvement at low levels of the organization, employees don't believe that top management is concerned about accountability, and some members of top management do not frequently visit the shop floor.	O-5, O-6, O-7, D-1, D-3, D-24, D-25

Services

Over All Color:



MORT Item#:SD6

Label:

Services for Accountability Model (D-51)

Conclusion:

Services for the FCS Accountability Model are less than adequate (LTA) because station management did not provide the people lower in the organization with what they needed to implement the FCS Accountability Model.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a1	Research and Fact Finding LTA	GREEN	Information was actively sought through a benchmarking trip at Palo Verde by the Training Manager and the Site VP.	D-51
a2	Information Exchange LTA	BLACK	The results of the INPO Organizational Assist Visit of March 2012 were not shared with FCS staff. Recommended actions from the INPO visit have not been implemented.	D-1, I-04
a3	Standards and Directives LTA		No directives were issued which required workers to meet standards within the Fort Calhoun Station's Accountability Model.	D-51
a4	Resources LTA		See b1-through b4 below	
b1	Training LTA		Communication was provided, however, formal training was not provided to upgrade supervisory and technical skills for implementing the FCS Accountability Model. There currently is no accountability module in the supervisor training program.	D-53
b2	Technical Assistance LTA	BLACK	This is not a technical issue	
b3	Program Aids LTA	GREEN	Program aids were provided	

Services

Over All Color:



MORT Item#:SD6

Label:

Services for Accountability Model (D-51)

Conclusion:

Services for the FCS Accountability Model are less than adequate (LTA) because station management did not provide the people lower in the organization with what they needed to implement the FCS Accountability Model.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
b4	Measure of Performance LTA	BLACK	No specific measures have been established for measurement of performance of accountability. There is no KPI for accountability in the FCS performance indicators.	D-51, D-43
b5	Coordination LTA		Coordination wasn't required	
a5	Deployment of Resources LTA		This is not a resource issue	
a6	Referred Risk Response LTA	GREEN	FCS has an Operational Decision Making procedure and PRA modeling. (FCSG-27)	D107

**Management System
Overview**

Over All Color:



MORT Item#: MA1

Label: Observation Program Policy (FCSG-2)

Conclusion: The Observation Program Policy is less than adequate. The policy does not require peer observations and the lower level tier elements are not in place to successfully implement the policy.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
MA1 (page 37)	Policy LTA			
a1	Up To Date LTA	GREEN	The Observation Program Policy is up to date.	D69
a2	Written LTA	GREEN	The Observation Program Policy is written.	D69
a3	Risk Assessment LTA	GREEN	The Observation Program Policy is based on INPO SOER 96-01 and SOER 10-02.	D69
a4	Technical Information LTA	GREEN	The Observation Program Policy is based on INPO SOER 96-01 and SOER 10-02.	D69
a5	Did Not Conform To CS & R	GREEN	The Observation Program Policy is based on INPO SOER 96-01 and SOER 10-02.	D69
a6	In Place at all Organization Levels LTA	[REDACTED]	The Observation Program Policy does not require peer observations.	D69
a7	Consistent at all Organization Levels LTA		Lower level tier elements are not in place to achieve the Observation Program Policy. Specifically, the evaluation criteria for conducting field observations are not provided.	D37, D69

**Management System
Overview**

Over All Color:



MORT Item#: MA1

Label: Observation Program Policy (FCSG-2)

Conclusion: The Observation Program Policy is less than adequate. The policy does not require peer observations and the lower level tier elements are not in place to successfully implement the policy.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
a8	Clear and Understandable LTA	GREEN	The policy is clear and understandable.	D69
a9	Implementability LTA	GREEN	The policy is implementable.	D69
a10	Applicability to all Areas of Operations LTA	GREEN	The policy is applicable to all areas of operations	D69
a11	Congruence with Organizational Goals LTA	GREEN	The policy is congruent with organizational goals	D69




**Management System
Overview**

Over All Color: 

MORT Item#: MA2

Label: Implementation of the FCS Observation Policy (FCSG-2)

Conclusion: Implementation of the Observation Program was less than adequate due to the lack of critical input and trending of observation data.

A2 (page 38)	Implementation LTA			
a1	Methods, Criteria, Analysis LTA		The Observation program is not effectively implemented to critically assess performance and rigorously analyze results in order to identify station issues. Observations were not sufficiently critical (approximately 3% of the observation results required improvement).	D37, D69
a2	Line Responsibilities LTA		While station managers and supervisors perform a large number of observations, there is no site-wide analysis or trending of observation data to identify common issues or adverse trends across departments. There is no clear responsibility delineated in the observation policy for trending observation findings.	D37, D69
a3	Staff Responsibilities LTA	GREEN	Appropriate detail on staff responsibilities are covered in the policy.	D69
a4	Information Flow LTA		Expectations for some aspects of the program have not been clearly established and senior managers do not adequately monitor the status of the program are achieved. For example, there are no expectations for quality, duration of the observation, or site-wide analysis – only a required number of observations is specified (four per month).	D37
a5	Directives LTA	GREEN	There is clear written directives which have been disseminated throughout the organization.	D69


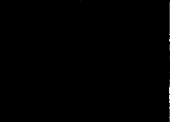
**Management System
Overview**

Over All Color: 

MORT Item#: MA2

Label: **Implementation of the FCS Observation Policy (FCSG-2)**

Conclusion: Implementation of the Observation Program was less than adequate due to the lack of critical input and trending of observation data.

a6	Management Services LTA (Go to Services Sheet MA2a6)		See MORT SD6	MORT SD6
a7	Budgets LTA	GREEN	The Team found no indication that budgets was LTA	
a8	Delays	GREEN	The Team found no indication that delays contributed to LTA observations.	
a9	Accountability LTA	GREEN	Training observations are reviewed by the Executive Nuclear Training Committee. (NOD-QP-2)	D72
a10	Vigor and Example LTA		Expectations for some aspects of the program have not been clearly established and senior managers do not adequately monitor the status of the program to ensure the goals of the program are achieved.	D37

Services

Over All Color:

MORT Item#:SD6

Label:

Observation Program Services

Conclusion: The people higher in the organization did not provide people lower in the organization what they needed to implement the observation program effectively.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a1	Research and Fact Finding LTA		There is no site-wide analysis of trending performed to identify common issues or adverse trends across departments. The Observation Policy does not require any site-wide analysis or trending of observation results, levels of participation, or measurements of criticality.	D37, D69
a2	Information Exchange LTA		There is no site-wide analysis of trending performed to identify common issues or adverse trends across departments. The Observation Policy does not require any site-wide analysis or trending of observation results, levels of participation, or measurements of criticality.	D37, D69
a3	Standards and Directives LTA		Expectations for some aspects of the program have not been clearly established and senior managers do not adequately monitor the status of the program are achieved. There are no expectations for quality, duration of the observation, or site-wide analysis – only a required number of observations is specified (four per month).	D37, D69
a4	Resources LTA		See b1 – b5 below	

Services

Over All Color:



MORT Item#:SD6

Label:

Observation Program Services

Conclusion: The people higher in the organization did not provide people lower in the organization what they needed to implement the observation program effectively.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
b1	Training LTA		There is no guidance in the observation training or the observation procedure, FCSG-2; to define scorecard ratings (exceeds expectations, meets expectations, below expectations, needs improvement, outstanding, satisfactory, unsatisfactory, etc.). Thus there is no assurance of consistency or an appropriate level of critical appraisal.	D37, D69
b2	Technical Assistance LTA	GREEN	A subject matter expert was available to provide assistance.	D69
b3	Program Aids LTA	GREEN	There are sufficient job aids within the observation program.	D69
b4	Measure of Performance LTA		There is no guidance in the observation training or the observation procedure, FCSG-2; to define scorecard ratings (exceeds expectations, meets expectations, below expectations, needs improvement, outstanding, satisfactory, unsatisfactory, etc.). Thus there is no assurance of consistency or an appropriate level of critical appraisal.	D37, D69
b5	Coordination LTA	GREEN	Observation software facilitates timely reviews of observation data.	D69
a5	Deployment of Resources LTA	GREEN	Appropriate resources are available.	D69

Services

Over All Color:



MORT Item#:SD6

Label:

Observation Program Services

Conclusion:

The people higher in the organization did not provide people lower in the organization what they needed to implement the observation program effectively.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a6	Referred Risk Response LTA	GREEN	The observation template includes a statement on maintaining shut down safety, defense in depth, and key safety functions outlined in the shut down operations protection plan.	D69

**Management System
Overview**

Over All Color:



MORT Item#: MA1

Label: Nuclear Safety Policy NPM-1.00, Rev. 3

Conclusion: The Nuclear Safety Policy is less than adequate to achieve a strong nuclear safety culture at FCS.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
MA1 (page 37)	Policy LTA			
a1	Up To Date LTA	GREEN	The policy is up to date.	D87
a2	Written LTA	GREEN	The policy is written	D87
a3	Risk Assessment LTA	GREEN	The policy is based on INPO Principles of Strong Nuclear Safety Culture dated 11/04, INPO, Principles of Strong Nuclear Safety Culture, Addendum 1., dated 10/09, and NEI 09-07, Rev. 0, Fostering a Strong Nuclear Safety Culture.	D87
a4	Technical Information LTA		The policy is based on and references INPO Principles of Strong Nuclear Safety Culture dated 11/04, INPO, Principles of Strong Nuclear Safety Culture, Addendum 1., dated 10/09, and NEI 09-07, Rev. 0, Fostering a Strong Nuclear Safety Culture, however, the policy does not contain the necessary content of the references it is based on.	D87
a5	Did Not Conform To CS & R		The policy is based on and references INPO Principles of Strong Nuclear Safety Culture dated 11/04, INPO, Principles of Strong Nuclear Safety Culture, Addendum 1., dated 10/09, and NEI 09-07, Rev. 0, Fostering a Strong Nuclear Safety Culture, however, the policy does not contain the necessary content of the references it is based on.	D87

**Management System
Overview**

Over All Color:

**MORT Item#: MA1**Label: **Nuclear Safety Policy NPM-1.00, Rev. 3**
Conclusion: The Nuclear Safety Policy is less than adequate to achieve a strong nuclear safety culture at FCS.


MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
a6	In Place at all Organization Levels LTA		The policy has been widely communicated, however, the programs and procedures necessary to interpret the policy are not adequate.	D87
a7	Consistent at all Organization Levels LTA	GREEN	The policy is consistent at all organizational levels.	D87
a8	Clear and Understandable LTA		The policy does not explain how to achieve adherence to the policy. It lacks clarity and instruction for implementation.	D87
a9	Implementability LTA		The policy does not explain how to achieve adherence to the policy. It lacks clarity and instruction for implementation	D87
a10	Applicability to all Areas of Operations LTA	GREEN	The policy is applicable to all areas of the organization.	D87
a11	Congruence with Organizational Goals LTA	GREEN	The policy is congruent with organizational goals.	D87

**Management System
Overview**
Over All Color: 

MORT Item#: MA2

Label: **Implementation of Nuclear Safety Policy NMP-1.00, Rev. 3**

Conclusion: Implementation of the Nuclear Safety Policy was less than adequate to ensure that Nuclear Safety is the overriding priority at FCS.

MA2 (page 38)	Implementation LTA			
a1	Methods, Criteria, Analysis LTA		FCS does not have a system for measuring nuclear safety.	D43
a2	Line Responsibilities LTA		Safety responsibility is not a part of all managerial job descriptions at FCS.	D88
a3	Staff Responsibilities LTA		Nuclear safety attributes are not discussed at pre-job briefings and during IPTE briefings.	D89
a4	Information Flow LTA		FCS does not have a system for measuring nuclear safety, and information relating to nuclear safety is not collected or analyzed.	D43
a5	Directives LTA		The Team did not identify any written directives associated with Nuclear Safety.	
a6	Management Services LTA (Go to Services Sheet MA2a6)		People higher in the organization did not provide people lower in the organization what they needed to implement the Nuclear Safety Policy.	MORT analysis SD6-Services
a7	Budgets LTA	BLACK	Budget is not an issue for implementing the nuclear safety policy.	
a8	Delays	GREEN	There were no delays identified by the Team.	

**Management System
Overview**

Over All Color: [REDACTED]

MORT Item#: MA2

Label: Implementation of Nuclear Safety Policy NMP-1.00, Rev. 3**Conclusion:** Implementation of the Nuclear Safety Policy was less than adequate to ensure that Nuclear Safety is the overriding priority at FCS.


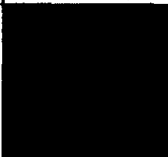
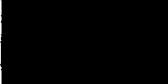
a9	Accountability LTA	[REDACTED]	Accountability is not expected for responsibilities regarding implementing the Nuclear Safety Policy. FCS does not have a system for measuring nuclear safety, and information relating to nuclear safety is not collected or analyzed.	D43
a10	Vigor and Example LTA	[REDACTED]	People higher in the organization did not provide people lower in the organization what they needed to implement the Nuclear Safety Policy.	MORT analysis SD6- Services

ServicesOver All Color: 

MORT Item#:SD6

Label:**Services for Nuclear Safety Policy (NPM-1.00, Rev. 3)****Conclusion:**

People higher in the organization did not provide people lower in the organization what they needed to implement the Nuclear Safety Policy.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a1	Research and Fact Finding LTA		FCS does not have a system for measuring nuclear safety and it was not actively sought out.	D43
a2	Information Exchange LTA		Nuclear safety was not covered at SO-G-92 briefing for mid-loop operations. Further, it is not included in the pre-job brief template for IPTE.	D89
a3	Standards and Directives LTA		Standards were not included in the NPM-1.00, Rev 3, and the Team did not identify any applicable written directives.	D87
a4	Resources LTA		See b1 – b6 below.	
b1	Training LTA	GREEN	FCS leaders received training on INPO and NEI principles and traits Nuclear Safety.	
b2	Technical Assistance LTA		There is no assigned station nuclear safety advocate. There is a Nuclear Safety Culture Advocate, however, the purpose of this position is to provide coaching and assess safety culture during specified station meetings.	D87
b3	Program Aids LTA		INPO safety culture principles are posted throughout the station.	D80
b4	Measure of Performance LTA		FCS does not have a system for measuring nuclear safety and it was not actively sought out.	D43

Services

Over All Color:



MORT Item#:SD6

Label:

Services for Nuclear Safety Policy (NPM-1.00, Rev. 3)

Conclusion:

People higher in the organization did not provide people lower in the organization what they needed to implement the Nuclear Safety Policy.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
b5	Coordination LTA	GREEN	There is a Nuclear Safety Culture Advocate that assesses safety culture during specified station meetings.	D87
a5	Deployment of Resources LTA	BLACK	Resources are not an issue for nuclear safety.	
a6	Referred Risk Response LTA	GREEN	There is an established method for assessing nuclear safety risk when identified.	D90

**Management System
Overview**

Over All Color:

GREEN

MORT Item#: MA1

Label:

FCS Change Management Policy

Conclusion: The FCS Change Management Policy meets industry standards.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
MA1 (page 37)	Policy LTA			
a1	Up To Date LTA	GREEN	Meets the policy elements.	D47
a2	Written LTA	GREEN	The Policy is written.	D47
a3	Risk Assessment LTA	GREEN	Based on INPO Change Model and Managing Organizational Transitions (Bridges & Associates)	D47
a4	Technical Information LTA	GREEN	Based on INPO Change Model and Managing Organizational Transitions (Bridges & Associates)	D47
a5	Did Not Conform To CS & R	GREEN	Based on INPO Change Model and Managing Organizational Transitions (Bridges & Associates)	D47
a6	In Place at all Organization Levels LTA	GREEN	This Policy has sufficient detail to be implemented at all levels of the organization.	D47
a7	Consistent at all Organization Levels LTA	GREEN	This policy is consistent at all organizational levels	D47
a8	Clear and Understandable LTA	GREEN	The policy is clear and understandable.	D47

**Management System
Overview**

Over All Color:

GREEN

MORT Item#: MA1

Label:

FCS Change Management Policy

Conclusion: The FCS Change Management Policy meets industry standards.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
a9	Implementable LTA	GREEN	The policy is implementable.	D47
a10	Applicability to all Areas of Operations LTA	GREEN	The policy encompasses the breadth of the organization.	D47
a11	Congruence with Organizational Goals LTA	GREEN	The policy is congruent with organizational goals.	D47

**Management System
Overview**

Over All Color:



MORT Item#: MA2

Label: Implementation of the FCS Change Management Policy

Conclusion: The Change Management Policy has not been effectively implemented at FCS.

MA2 (page 38)	Implementation LTA			
a1	Methods, Criteria, Analysis LTA		INPO facilitated off-site meeting of engineering leaders conducted on September 21, 2010, indicated that the Change Management attribute for effective engineering was not present. Major organizational changes in 2007 and 2010 did not utilize the FCS Change Management Policy. No formalized change management plan was developed for what Exelon's roles and responsibilities were at the station. Centralization of the nuclear procurement process did not include a change management process.	D34, I-07, D25
a2	Line Responsibilities LTA		The Line Organization does not consistently implement the FCS Change Management Policy. Major organizational changes in 2007 and 2010 did not utilize the FCS Change Management Policy. No formalized change management plan was developed for what Exelon's roles and responsibilities were at the station. Centralization of the nuclear procurement process did not include a change management process.	I-07, D25
a3	Staff Responsibilities LTA	GREEN	The roles and responsibilities are defined in the policy.	D34


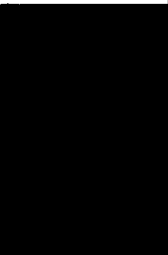
**Management System
Overview**

Over All Color: 

MORT Item#: MA2

Label: Implementation of the FCS Change Management Policy

Conclusion: The Change Management Policy has not been effectively implemented at FCS.

a4	Information Flow LTA		The status of open Change Management Plans is checked by MRM. However, there have been no MRM meetings since April 2011. In addition, a corporate procurement manager was unaware of the existence of a change management plan for centralizing the procurement program.	I-07, D25
a5	Directives LTA		The Team determined through document reviews that there is no written directive above the implementing procedure, FCSG-17. In addition, other applicable station procedures do not require the use of the Change Management Policy/process (e.g., SO-G-30, SO-G-74, FCSG-44, NAI-19).	
a6	Management Services LTA (Go to Services Sheet MA2a6)		The people higher in the organization failed to provide people lower in the organization what they needed to implement the Change Management Policy.	MORT MA2a6-Services
a7	Budgets LTA	GREEN	The Change Management Plan is adequately funded, that is, when a Plan is approved, the staff/resources are implicitly approved.	D-59
a8	Delays LTA		Applicable station procedures for BURC approved projects do not require the use of the Change Management Policy/process, e.g., FCSG-44, Project Management. In addition, other projects and initiatives often do not include Change Management plans, e.g., Exelon Nuclear Partners' support of Station Recovery.	D-60
a9	Accountability LTA		Members of Line Management are not held accountable to consistently	D-47

**Management System
Overview**

Over All Color:

**MORT Item#: MA2****Label: Implementation of the FCS Change Management Policy****Conclusion:** The Change Management Policy has not been effectively implemented at FCS.

			implement FCSG-17, Change Management.	
a10	Vigor and Example LTA	BLACK	Execution of Change Management Plans is generally at Supervisory Level and above.	

Over All Color:

MORT Item#:SD6

Services

Label:

Services for Change Management (D-47)

Conclusion:

The people higher in the organization failed to provide people lower in the organization what they needed to implement the Change Management Policy.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a1	Research and Fact Finding LTA	BLACK	FCSG-17, Change Management, was available, but not actively sought to implement. There is no written directive above the implementing procedure, FCSG-17. In addition, other applicable station procedures do not require the use of the Change Management Policy/process (e.g., SO-G-30, SO-G-74, FCSG-44, NAI-19).	
a2	Information Exchange LTA			
a3	Standards and Directives LTA		A separate directive was not issued to ensure proper implementation of Change Management Plans and applicable station procedures do not require the use of the Change Management Policy/process (e.g., SO-G-30, SO-G-74, FCSG-44, NAI-19).	D-57
a4	Resources LTA		See b1-through b5 below	
b1	Training LTA	GREEN	Training records identify that training was conducted for Change Management	D-66

Over All Color:

MORT Item#:SD6

Services

Label: Services for Change Management (D-47)

Conclusion: The people higher in the organization failed to provide people lower in the organization what they needed to implement the Change Management Policy.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
b2	Technical Assistance LTA	BLACK	This is not a technical issue	
b3	Program Aids LTA	GREEN	Job Aids are provided in FCSG-17, Change Management, in Attachments 1 and 2.	D-47
b4	Measure of Performance LTA		FCSG-17, Change Management, does not require a measure to determine the effectiveness of the implemented Change Management Plans.	D-47, I-07
b5	Coordination LTA		Lack of a change management plan for bringing Exelon on site to identify the impacts on other activities/departments. It was not recognized that a change management plan was needed to transition from development to implementation of the new EROP PMs. An apparent cause performed on the ineffectiveness of the ALARA Committee during the 2008 refueling outage determined the cause was ineffective change management, resulting in committee members not fully understanding their roles and responsibilities.	(D30, D47, I-09)

Over All Color:



MORT Item#:SD6

ServicesLabel: **Services for Change Management (D-47)**

Conclusion: The people higher in the organization failed to provide people lower in the organization what they needed to implement the Change Management Policy.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a5	Deployment of Resources LTA	GREEN	Examples provided of in-progress Change Management Plans indicate adequate deployment of resources to support work by the supervisors/workers.	D-58, D-59
a6	Referred Risk Response LTA	GREEN	Various methods exist to assess risk and impact with implementation of the Change Management process.	D-58, D-59

**Management System
Overview**

Over All Color:

GREEN

MORT Item#: MA1

Label: Self-Assessment Policy - FCSG-4 / NOD-QP-48 (SARB)

Conclusion: The Self-Assessment Policy is adequate to achieve high standards of performance and quality at FCS.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
MA1 (page 37)	Policy LTA			
a1	Up To Date LTA	GREEN	Policy is up to date (3/20/12, 4/30/12)	D95, D96
a2	Written LTA	GREEN	Policy is written	D95, D96
a3	Risk Assessment LTA	GREEN	Policy is based on INPO SOER 10.2, INPO Principles for Effective Operational Decision Making, INPO Safety Culture Performance Objectives and Criteria.	D95, D96
a4	Technical Information LTA	GREEN	Policy is based on INPO SOER 10.2, INPO Principles for Effective Operational Decision Making, INPO Safety Culture Performance Objectives and Criteria.	D95, D96
a5	Did Not Conform To CS & R	GREEN	Policy is based on INPO SOER 10.2, INPO Principles for Effective Operational Decision Making, INPO Safety Culture Performance Objectives and Criteria.	D95, D96
a6	In Place at all Organization Levels LTA	GREEN	The policy is in place at organizational levels.	D95, D96
a7	Consistent at all Organization Levels LTA	GREEN	The Team determined that lower level policies on self-assessments are consistent with FCSG-4.	D95, D96

**Management System
Overview**

Over All Color:

GREEN

MORT Item#: MA1

Label:

Self-Assessment Policy - FCSG-4 / NOD-QP-48 (SARB)

Conclusion:

The Self-Assessment Policy is adequate to achieve high standards of performance and quality at FCS.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
a8	Clear and Understandable LTA	GREEN	The policy is clear and understandable.	D95, D96
a9	Implementability LTA	GREEN	The policy is implementable.	D95, D96
a10	Applicability to all Areas of Operations LTA	GREEN	The policy encompasses the breath of the organization.	D95, D96
a11	Congruence with Organizational Goals LTA	GREEN	The policy is congruent with organizational goals.	D95, D96

**Management System
Overview**

Over All Color: 

MORT Item#: MA2

Label: Implementation of the Self-Assessment Policy - FCSG-4 / NOD-QP-48 (SARB)

Conclusion: Implementation of the FCS Self-Assessment Policy - FCSG-4 / NOD-QP-48 (SARB) was less than adequate.

MA2 (page 38)	Implementation LTA			
a1	Methods, Criteria, Analysis LTA	GREEN	The station has performance indicators and a score card for self-assessments.	D43, D95, D96
a2	Line Responsibilities LTA	GREEN	There are clear written statements of responsibility for the Line management and they are understood.	D95, D96
a3	Staff Responsibilities LTA	GREEN	There are the appropriate staff responsibilities for self-assessments.	D95, D96

**Management System
Overview**

Over All Color:



MORT Item#: MA2

Label: Implementation of the Self-Assessment Policy - FCSG-4 / NOD-QP-48 (SARB)

Conclusion: Implementation of the FCS Self-Assessment Policy - FCSG-4 / NOD-QP-48 (SARB) was less than adequate.

a4	Information Flow LTA		<p>Some recommendations from self-assessments are not implemented. Operations managers are not routinely benchmarking and conducting self-assessments to:</p> <p>verify they have an accurate picture of excellence for plant control and teamwork. Although Operations and Training conducted several self-assessments, only the self-assessment</p> <p>completed for Significant Operating Experience Report 96-1, <i>Control Room Supervision, Operational Decision-Making, and Teamwork</i>, specifically addressed plant control and narrowly focused on crew reconstitution. An October 2009 latent issues self-assessment of AFW performance noted some weaknesses in applying technical aspects of system operation to operating procedures. These included discrepancies between AOPs and EOPs for manual throttling of valves and the lack of a caution or action step to manually back up the automatic closure of a valve on loss of instrument air. To date, some of these identified</p> <p>issues have not been addressed. A thorough self-assessment of the FAC program has not been conducted in about 10 years,</p> <p>although a compliance audit with respect to industry guidance was completed in 2007.</p>	D24, D95, D96
a5	Directives LTA	GREEN	There are written directives which have been disseminated throughout the organization with top management approval and support.	D95, D96

**Management System
Overview**
Over All Color: **MORT Item#: MA2****Label:** Implementation of the Self-Assessment Policy - FCSG-4 / NOD-QP-48 (SARB)**Conclusion:** Implementation of the FCS Self-Assessment Policy - FCSG-4 / NOD-QP-48 (SARB) was less than adequate.

a6	Management Services LTA (Go to Services Sheet MA2a6)	BLACK	FCS management did not provide people lower in the organization what they needed to implement the self-assessment policy.	MORT analysis MA2a6
a7	Budgets LTA		Budget is not applicable.	D95, D96
a8	Delays		Numerous KPI action items (CRs) are open with the average age of the CRs exceeding station goals of 180 days.	D43, D95, D96
a9	Accountability LTA		Based on the number of action items that are open with the average age greater than station goals, it is evident that there is no accountability for action completion (average age of CRs is 323 days with a station goal less than 180; 77 of the 107 CRs are above station goals).	D43, D95, D96
a10	Vigor and Example LTA		Based on the number of action items that are open with the average age greater than station goals, it is evident that there is no accountability for action completion (average age of CRs is 323 days with a station goal less than 180; 77 of the 107 CRs are above station goals). Some recommendations from self-assessments are not implemented. Operations managers are not routinely benchmarking and conducting self-assessments to verify they have an accurate picture of excellence for plant control and teamwork.	D24, D95, D96

Services

Over All Color:



MORT Item#:SD6

Label:

Services for Self-Assessment Policy - FCSG-4 / NOD-QP-48 (SARB)

Conclusion:

FCS people higher in the organization did not provide people lower in the organization what they needed to implement the self-assessment policy.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a1	Research and Fact Finding LTA	GREEN	The station has performance indicators and a score card for self-assessments.	D43, D95, D96
a2	Information Exchange LTA	GREEN	The information is sought, analyzed, and shared.	D43, D95, D96
a3	Standards and Directives LTA	[REDACTED]	The Team did not identify any written directives which required that the standards be met. In addition, based on the number of action items that are open with the average age greater than station goals, it is evident that there is no accountability for action completion (average age of CRs is 323 days with a station goal less than 180; 77 of the 107 CRs are above station goals). Some recommendations from self-assessments are not implemented. Operations managers are not routinely benchmarking and conducting self-assessments to verify they have an accurate picture of excellence for plant control and teamwork.	D24, D43, D95, D96
a4	Resources LTA		Reference b1-b5 below.	
b1	Training LTA		Training to conduct Self-Assessments was not provided. No qualification card was required. Currently, a new qualification card has been established.	D95, D96, D97
b2	Technical Assistance	GREEN	Self-Assessment technical assistance is available for staff conducting	I-03

Services

Over All Color:

MORT Item#:SD6

Label:

Services for Self-Assessment Policy - FCSG-4 / NOD-QP-48 (SARB)

Conclusion:

FCS people higher in the organization did not provide people lower in the organization what they needed to implement the self-assessment policy.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
	LTA		assessments. (PIP Supervisor).	
b3	Program Aids LTA	GREEN	There are sufficient job aids provided.	D95, D96,
b4	Measure of Performance LTA		The station has performance indicators and a score card for self-assessments with goals for timeliness of CR completion. However, the Team did not identify any written directives which required that the standards be met. In addition, based on the number of action items that are open with the average age greater than station goals, it is evident that there is no accountability for action completion (average age of CRs is 323 days with a station goal less than 180; 77 of the 107 CRs are above station goals).	D24, D43, D95, D96
b5	Coordination LTA		Self-assessment schedule changes due to recovery activities have resulted in deferrals and/or cancellations have challenged coordination among departments.	D43
a5	Deployment of Resources LTA		See Resources Section above. The deployment of resources has been challenged by a number of deferrals and cancellations of self-assessments.	

Services

Over All Color:

MORT Item#:SD6

Label:

Services for Self-Assessment Policy - FCSG-4 / NOD-QP-48 (SARB)

Conclusion:

FCS people higher in the organization did not provide people lower in the organization what they needed to implement the self-assessment policy.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a6	Referred Risk Response LTA		The Team did not identify any written directives which required that the standards be met. In addition, based on the number of action items that are open with the average age greater than station goals, it is evident that there is no accountability for action completion (average age of CRs is 323 days with a station goal less than 180; 77 of the 107 CRs are above station goals). Some recommendations from self-assessments are not implemented. Operations managers are not routinely benchmarking and conducting self-assessments to verify they have an accurate picture of excellence for plant control and teamwork.	D24, D43, D95, D96

**Management System
Overview**

Over All Color:

GREEN

MORT Item#: MA1

Label: FCS Operating Experience (OE) Program Policy (NMP-1.13)

Conclusion: Insert Concluding Statements.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
MA1 (page 37)	Policy LTA			
a1	Up To Date LTA	GREEN	The FCS OE Program Policy is up to date.	D67
a2	Written LTA	GREEN	There is a written FCS OE Program Policy.	D67
a3	Risk Assessment LTA	GREEN	The program requires risk screening on OE when required and a procedure to conduct the risk assessment is provided.	D67
a4	Technical Information LTA	GREEN	The program is based on current applicable INPO information. (See document references).	D67
a5	Did Not Conform To CS & R	GREEN	The program is based on current applicable INPO information. (See document references).	D67
a6	In Place at all Organization Levels LTA	GREEN	NPM-1.13 outlines roles and responsibilities at all levels of the FCS organization.	D67
a7	Consistent at all Organization Levels LTA	GREEN	The Team did not identify any conflicting policies.	D67
a8	Clear and Understandable LTA	GREEN	The Team determined that the OE program policy is clear, understandable, and implementable.	D67

**Management System
Overview**

Over All Color:

GREEN

MORT Item#: MA1

Label: FCS Operating Experience (OE) Program Policy (NMP-1.13)

Conclusion: Insert Concluding Statements.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
a9	Implementability LTA	GREEN	The Team determined that the OE program policy is clear, understandable, and implementable.	D67
a10	Applicability to all Areas of Operations LTA	GREEN	The policy is applicable to all areas of Operations.	D67, D105
a11	Congruence with Organizational Goals LTA	GREEN	The Team determined that the FCS OE Program Policy is congruent with other organizational goals.	D67

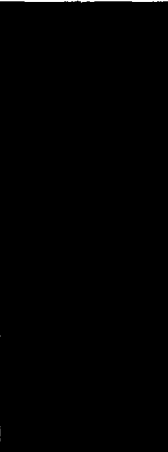

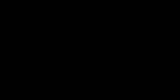
**Management System
Overview**

Over All Color: 

MORT Item#: MA2

Label: **Implementation of FCS OE Program Policy (NOD-QP-21)**

Conclusion: Implementation of the FCS OE program is less than adequate. Management has not provided appropriate support and has not held Line and Staff accountable for implementing the OE Program Policy.

MA2 (page 38)	Implementation LTA			
a1	Methods, Criteria, Analysis LTA		The FCS response to NRC Information Notice 94-27, "Facility Operating Concerns Resulting From Local Area Flooding," basically credited the use of pre-existing procedures; therefore, a detailed evaluation investigating water intrusion possibilities in the protected areas was not evident or documented. (D18). OE was not adequately addressed concerning the breaker modification which resulted in a fire in bus 1B4A. (D23)	D18, D23, D71
a2	Line Responsibilities LTA		Responsibilities for the OE Program are clearly delineated for management. However, the responsibilities for the OE Program are not always implemented. For example, from interview information, "current upper management is not supportive of OE efforts, e.g., requirements assigned to managers are up to six months past due and no one is covering OE at meetings anymore."	I-3, D43, D71
a3	Staff Responsibilities LTA	GREEN	OE leads are assigned for each departments.	D106
a4	Information Flow LTA		OE Program owner no longer allowed to drive ownership and accountability regarding OE activities and deliverables.	I-3, D43

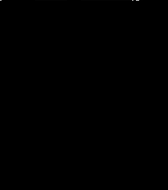
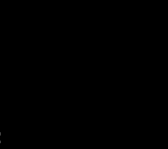

**Management System
Overview**

Over All Color: 

MORT Item#: MA2

Label: Implementation of FCS OE Program Policy (NOD-QP-21)

Conclusion: Implementation of the FCS OE program is less than adequate. Management has not provided appropriate support and has not held Line and Staff accountable for implementing the OE Program Policy.

a5	Directives LTA		The responsibilities for the OE Program are not always implemented. For example, from interview information, "current upper management is not supportive of OE efforts, e.g., requirements assigned to managers are up to six months past due and no one is covering OE at meetings anymore."	I-3, D43, D71
a6	Management Services LTA (Go to Services Sheet MA2a6)		People higher in the FCS organization did not provide people lower in the organization what they needed to implement the OE Program correctly. Specifically, management did not provide the staffing or the accountability on timeliness of reviews.	MORT SD6
a7	Budgets LTA	GREEN	The OE budget is adequate.	I-3
a8	Delays		Responsibilities for the OE Program are clearly delineated for management. However, the responsibilities for the OE Program are not always implemented. For example, from interview information, "current upper management is not supportive of OE efforts, e.g., requirements assigned to managers are up to six months past due and no one is covering OE at meetings anymore."	I-3, D43

**Management System
Overview**

Over All Color:



MORT Item#: MA2

Label: Implementation of FCS OE Program Policy (NOD-QP-21)

Conclusion: Implementation of the FCS OE program is less than adequate. Management has not provided appropriate support and has not held Line and Staff accountable for implementing the OE Program Policy.

a9	Accountability LTA		Responsibilities for the OE Program are clearly delineated for management. However, the responsibilities for the OE Program are not always implemented. For example, from interview information, "current upper management is not supportive of OE efforts, e.g., requirements assigned to managers are up to six months past due and no one is covering OE at meetings anymore."	I-3, D43
a10	Vigor and Example LTA		Responsibilities for the OE Program are clearly delineated for management. However, the responsibilities for the OE Program are not always implemented. For example, from interview information, "current upper management is not supportive of OE efforts, e.g., requirements assigned to managers are up to six months past due and no one is covering OE at meetings anymore." In addition, "the requirements to use OE are not enforced and management doesn't provide accountability for OE."	I-3, D43, D71

Services

Over All Color:

MORT Item#:SD6

Label:

OE Program Services

Conclusion:

People higher in the FCS organization did not provide people lower in the organization what they needed to appropriately implement the OE Program correctly. Specifically, lack of management support with staffing and accountability on timeliness of reviews.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a1	Research and Fact Finding LTA	GREEN	Training is provided and resources available on searching OE.	I-3
a2	Information Exchange LTA	GREEN	The Team did not identify any issues with information exchange regarding OE.	
a3	Standards and Directives LTA	GREEN	The Team determined that the appropriate standards and directives are required to be followed.	D68
a4	Resources LTA	GREEN	See b1 – b5 below.	I-3
b1	Training LTA	GREEN	Training information on how to search for OE is provided.	I-3
b2	Technical Assistance LTA	GREEN	Experts are available and publicized for technical assistance on OE searches.	I-3
b3	Program Aids LTA	GREEN	Manuals or other reference materials are available to assist workers conduct OE searches.	I-3, D68
b4	Measure of Performance LTA	GREEN	Performance Indicators are implemented and used to track OE Program performance (CCA-36)	D43

Services

Over All Color:



MORT Item#:SD6

Label:

OE Program Services

Conclusion:

People higher in the FCS organization did not provide people lower in the organization what they needed to appropriately implement the OE Program correctly. Specifically, lack of management support with staffing and accountability on timeliness of reviews.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
b5	Coordination LTA	GREEN	The Team, through document reviews and personnel interviews did not identify any coordination issues regarding OE.	
a5	Deployment of Resources LTA		The OE review group staffing level changed from four coordinators to one.	I-3
a6	Referred Risk Response LTA		Current upper management is generally not supportive of OE efforts, e.g., requirements assigned to managers are up to six months past due and no one is covering OE at many important meetings.	I-3

**Management System
Overview**

Overall Color:



MORT Item#: MA1

Label: Corrective Action Program (CAP) Policy – SO-R-2 (Rev. 50a and previous) / FCSG-24, Rev. 42 (and previous)

Conclusion: The Corrective Action Program (CAP) policy as stated in FCSG-24 / SO-R-2 was not up to industry standards.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
MA1 (page 37)	Policy LTA			
a1	Up To Date LTA		FCSG-24 / SO-R-2 were not up to Industry Standards. For example, Quarantining (FCSG-24-2), Cause Evaluation Manual enhancement (FCSG-24-5), and Corrective Action Program Coordinator (CAPCO – FCSG-24-12), are new guidelines to support CAP written policy.	D-16, D-61, D-62
a2	Written LTA	GREEN	FCSG-24 and SO-R-2 policies exist in written form.	D-61, D-62
a3	Risk Assessment LTA	GREEN	FCSG-24 incorporates guidance to screen, assign ownership, and corrective actions/approvals based upon risk, for i.e., Level A – Level D, based upon safety significance/risk.	D-61
a4	Technical Information LTA		The CAP written Policy was determined to be obsolete and not current with Industry Standards.	D-16
a5	Did Not Conform To CS & R		The CAP written Policy was determined to be obsolete and not current with Industry Standards.	D-16
a6	In Place at all Organization Levels LTA	GREEN	CAP written Policy is in place in both SO-R-2 and FCSG-24, which includes all organization levels.	D-61, D-62

**Management System
Overview**

Overall Color:



MORT Item#: MA1

Label: Corrective Action Program (CAP) Policy – SO-R-2 (Rev. 50a and previous) / FCSG-24, Rev. 42 (and previous)

Conclusion: The Corrective Action Program (CAP) policy as stated in FCSG-24 / SO-R-2 was not up to industry standards.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
a7	Consistent at all Organization Levels LTA	GREEN	CAP written Policy is consistent in both SO-R-2 and FCSG-24, at all organization levels.	D-61, D-62
a8	Clear and Understandable LTA	GREEN	There is no ambiguity in the CAP written policy; it is clear and understandable.	D-61, D-62
a9	Implementability LTA	GREEN	CAP written Policy is reasonable and implementable.	D-61, D-62
a10	Applicability to all Areas of Operations LTA	GREEN	CAP written Policy applies to all aspects of Station Operations and all activities within the Owner Controlled Area.	D-61, D-62
a11	Congruence with Organizational Goals LTA	GREEN	The policy is congruent with organizational goals.	

**Management System
Overview**

Overall Color:



MORT Item#: MA2

Label:

Implementing the Corrective Action Program (CAP) Policy – SO-R-2 (Rev. 50a and previous) / FCSG-24, Rev. 42 (and previous)

Conclusion:

The CAP implementation is less than adequate which has led to long standing issues not being addressed or effectively corrected. For example: the non-standard TS issues; AOPs, AOP-1 (flooding related), AOP-6 (fire protection), initial licensing (AOP/ARP).

MA2 (page 38)	Implementation LTA			
a1	Methods, Criteria, Analysis LTA		NRC Inspection findings and Causal Analyses identified significant issues with the CAP. For example, corrective actions did not address the concerns; KPIs indicate excessive delays (overdue/extensions); individuals did not have sufficient skills and knowledge to perform cause analysis using a systematic method. In addition, station effectiveness reviews are not conducted in a manner and to a depth that assures that corrective actions for precluding problem repetition have been institutionalized.	D-16, D-18, D-35, D-36
a2	Line Responsibilities LTA	GREEN	CAP roles and responsibilities are clearly written.	D-61, D-62
a3	Staff Responsibilities LTA	GREEN	CAP roles and responsibilities are clearly written.	D-61, D-62
a4	Information Flow LTA	GREEN	The CAP written policy provides implementation guidance which identifies the required information to assess the conditions.	D-61, D-62
a5	Directives LTA	GREEN	The CAP Policy has top management approval and support.	D-61, D-62

**Management System
Overview**

Overall Color:



MORT Item#: MA2

Label:


Implementing the Corrective Action Program (CAP) Policy – SO-R-2 (Rev. 50a and previous) / FCSG-24, Rev. 42 (and previous)

Conclusion:

The CAP implementation is less than adequate which has led to long standing issues not being addressed or effectively corrected. For example: the non-standard TS issues; AOPs, AOP-1 (flooding related), AOP-6 (fire protection), initial licensing (AOP/ARP).

a6	Management Services LTA (Go to Services Sheet MA2a6)		Reference Service Sheet SD6 for CAP Policy	
a7	Budgets LTA	GREEN	The budget for CAP is adequate. For example, when outside support is required for analysts, funding is provided.	I-02
a8	Delays		In some cases, delays in hiring outside Analyst support for Root and Apparent Causal analysis have been identified as a delay in implementing CAP Policy. In addition, KPIs CCA-11 and CCA-12 indicate excessive delays (overdue/extensions).	I-02, D-43
a9	Accountability LTA		Members of the line management are not held accountable for implementing responsibilities associated with CAP; for example KPIs CCA-11 and CCA-12 indicate excessive delays (overdue/extensions).	D-43
a10	Vigor and Example LTA		KPIs CCA-11 and CCA-12, and others indicate excessive delays (overdue/extensions). These delays have been longstanding as indicated in the Station PIs.	D-43

Services

Overall Color: 

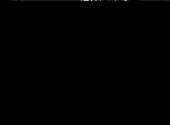
MORT Item#:SD6

Label:

Services for Corrective Action Program (CAP) Policy – SO-R-2 (Rev. 50a and previous) / FCSG-24, Rev. 42 (and previous)

Conclusion:

The people higher in the organization did not provide people lower in the organization what was needed to implement an adequate CAP.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a1	Research and Fact Finding LTA	GREEN	The CAP Policy provides written guidance for executing responsibilities; the ActionWay/DevonWay application provides triggers and tools for effectively researching and fact-finding.	D-61
a2	Information Exchange LTA	GREEN	Software tools incorporated in DevonWay provide unimpeded access to CAP information.	D-61
a3	Standards and Directives LTA	GREEN	Station has sufficient standards (KPIs, Metrics, etc.) to determine CAP health. In addition, FCSG-24 and SO-R-2 provide examples and state responsibility for threshold for documenting conditions in CAP.	D-43, D-61, D-62
a4	Resources LTA		The backlog of CRs, delays in commencing Causal Analyses, excessive delays (overdue/extensions) as indicated by KPIs have been longstanding issues as documented in the Station PIs.	D-43, I-02
b1	Training LTA	GREEN	The initiation of the CR process is generally viewed by Station personnel as easily accessible and well-used by most employees at all levels.	D-25

**Management System
Overview**

Overall Color:



MORT Item#: MA2

Label:

Implementing the Corrective Action Program (CAP) Policy – SO-R-2 (Rev. 50a and previous) / FCSG-24, Rev. 42 (and previous)

Conclusion:

The CAP implementation is less than adequate which has led to long standing issues not being addressed or effectively corrected. For example: the non-standard TS issues; AOPs, AOP-1 (flooding related), AOP-6 (fire protection), initial licensing (AOP/ARP).

b2	Technical Assistance LTA	GREEN	A dedicated Corrective Action Group (CAG) provides a broad level of support for all phases of implementation of CAP.	D-61, D-62
b3	Program Aids LTA	GREEN	Sufficient job aids exist and are in-place to support CAP.	D-61, D-62
b4	Measure of Performance LTA		General KPIs are in-place; however, specific measures are not in-place to measure CAP performance – such as, re-work as a result of poor corrective action determination or implementation for supervisors and workers. Effectiveness reviews are too narrowly focused and the timing is not commensurate with the implementation of the corrective action.	D-43
b5	Coordination LTA		The coordination of developing and completing CAP products in a timely and quality manner, such as RCAs, ACAs, Corrective Actions, etc. is a challenge when coordinating Team member assignments that have other job duties to complete.	I-02
a5	Deployment of Resources LTA		The backlog of CRs, delays in commencing Causal Analyses, excessive delays (overdue/extensions) as indicated by KPIs have been longstanding issues as documented in the Station PIs.	D-43, I-02
a6	Referred Risk Response LTA	GREEN	Risk response is adequate in the Corrective Action Program.	D-61, D-63

**Management System
Overview**

Over All Color:



MORT Item#: MA1

Label: Succession Planning

Conclusion: The succession planning policy is written, but it does not meet the requirements of, or format of other policies at the station. For example, there is no policy number, cover page, signature, and no conventional formatting. The policy is not housed with other policies at the station.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
MA1 (page 37)	Policy LTA			
a1	Up To Date LTA		The current succession planning process is detailed in the "Principles of Succession Planning" documented on the succession planning SharePoint site. This document is of sufficient scope to address problems encountered during work at the facility. However, it does not meet the requirements of or format of other policies at the station.	D-84, D-85
a2	Written LTA		While the policy is written, it does not meet the requirements of or format of other policies at the station. For example, there is no policy number, cover page, signature, and there is no conventional formatting.	D-84, D-85
a3	Risk Assessment LTA	GREEN	The station understood the risk of not having a policy on succession planning and formulated this policy.	D-84, D-85
a4	Technical Information LTA		While the policy is written, it does not state what technical information it was based upon.	D-84, D-85
a5	Did Not Conform To CS & R		While the policy is written, it does not state what codes or standards it is in conformance with.	D-84, D-85

**Management System
Overview**

Overall Color:



MORT Item#: MA2

Label:

Implementing the Corrective Action Program (CAP) Policy – SO-R-2 (Rev. 50a and previous) / FCSG-24, Rev. 42
(and previous)

Conclusion:

The CAP implementation is less than adequate which has led to long standing issues not being addressed or effectively corrected. For example: the non-standard TS issues; AOPs, AOP-1 (flooding related), AOP-6 (fire protection), initial licensing (AOP/ARP).

a6	In Place at all Organization Levels LTA		While the policy is written, and is in place for all organizational levels, procedures related to this policy are vague or non –existent and therefore there is no way to ensure that the policy is implemented appropriately.	D-84, D-85
a7	Consistent at all Organization Levels LTA		While the policy is written, and is consistent for all organizational levels, procedures related to this policy are vague or non –existent and therefore there is no way to ensure that the policy is implemented appropriately.	D-84, D-85
a8	Clear and Understandable LTA		While the policy is written clearly and understandably, it does not meet the requirements of or format of other policies at the station. For example, there is no policy number, cover page, signature, and there is no conventional formatting.	D-84, D-85
a9	Implementability LTA		While the policy is written, procedures related to this policy are vague or non –existent and therefore there is no way to ensure that the policy is implemented appropriately.	D-84, D-85

**Management System
Overview**

Overall Color:



MORT Item#: MA2

Label: **Implementing the Corrective Action Program (CAP) Policy – SO-R-2 (Rev. 50a and previous) / FCSG-24, Rev. 42 (and previous)**

Conclusion:

The CAP implementation is less than adequate which has led to long standing issues not being addressed or effectively corrected. For example: the non-standard TS issues; AOPs, AOP-1 (flooding related), AOP-6 (fire protection), initial licensing (AOP/ARP).

a10	Applicability to all Areas of Operations LTA		While the policy is written and applies to the breadth of the organization, procedures related to this policy are vague or non – existent and therefore there is no way to ensure that the policy is implemented appropriately.	D-84, D-85
a11	Congruence with Organizational Goals LTA	GREEN	The policy is in congruence with organizational goals.	D-84, D-85

**Management System
Overview**

Over All Color:



MORT Item#: MA2

Label: Succession Planning

Conclusion: Implementation of Succession Planning at the station is less than adequate as formal succession planning has not been conducted at the station for over six months, in spite of a relatively large number of openings being filled in leadership positions across the station.

MA2 (page 38)	Implementation LTA			
a1	Methods, Criteria, Analysis LTA		Formal succession planning has not been conducted at the station for over six months, in spite of a relatively large number of openings being filled in leadership positions across the station. No criteria for determining success were established, and no analysis is being performed on data collected	D-84, D-85
a2	Line Responsibilities LTA		There is a brief written guidance sheet for line and other managers on implementation steps, but it is not part of job descriptions, and responsibilities are not currently being performed.	D-84, D-85
a3	Staff Responsibilities LTA		There is a brief written guidance sheet for line and other managers on implementation steps, but the team could not find where there are staff responsibilities written or being performed.	D-84, D-85
a4	Information Flow LTA		Management has not specified the information it needs.	D-84, D-85
a5	Directives LTA		Management did not disseminate a clear written directive on succession planning, but did provided presentation materials on succession planning to managers and supervisors.	D-84, D-85

**Management System
Overview**

Over All Color:



MORT Item#: MA2

Label: Succession Planning

Conclusion: Implementation of Succession Planning at the station is less than adequate as formal succession planning has not been conducted at the station for over six months, in spite of a relatively large number of openings being filled in leadership positions across the station.

a6	Management Services LTA (Go to Services Sheet MA2a6)	BLACK	Deployment of resources to this policy was ineffective because succession planning isn't currently being performed at the station.	D-84, D-85
a7	Budgets LTA		The budget is not a factor in this process	D-84, D-85
a8	Delays		Formal succession planning has not been conducted at the station for over six months, in spite of a relatively large number of openings being filled in leadership positions across the station. This is related to the suspension of the Nuclear Leadership Development Steering Committee.	D-84, D-85
a9	Accountability LTA		Line managers are not currently being held accountable for succession planning and no measures have been established for their performance.	D-84, D-85
a10	Vigor and Example LTA		Formal succession planning has not been conducted at the station for over six months, in spite of a relatively large number of openings being filled in leadership positions across the station. This is related to the suspension of the Nuclear Leadership Development Steering Committee.	D-84, D-85

Services

Over All Color:



MORT Item#:SD6

Label:

Succession Planning

Conclusion:

Deployment of resources to this policy was ineffective because succession planning isn't currently being performed at the station.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a1	Research and Fact Finding LTA	GREEN	There are several references in the policy to INPO documents, corporate HR policies, nuclear procedures, and other research.	D-85
a2	Information Exchange LTA		There were presentations made upon implementation, but no change management was utilized.	D-85
a3	Standards and Directives LTA		Appropriate standards were required by management, but no directives were issued that the team could find.	D-85
a4	Resources LTA			D-85
b1	Training LTA	GREEN	Presentations and presentation materials were provided to all supervisors and management at the station.	D-85
b2	Technical Assistance LTA	GREEN	There was a very qualified organizational development specialist provided to assist in the policy development and implementation.	D-85
b3	Program Aids LTA		No program aids could be located by the team other than previously existing forms.	D-85
b4	Measure of Performance LTA		No performance measures were established for this policy.	D-85

Services

Over All Color:



MORT Item#:SD6

Label:

Succession Planning

Conclusion: Deployment of resources to this policy was ineffective because succession planning isn't currently being performed at the station.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
b5	Coordination LTA	GREEN	The team could find no evidence that the work on this policy was not properly coordinated.	D-85
a5	Deployment of Resources LTA		Deployment of resources to this policy are ineffective because succession planning isn't currently being performed.	D-85
a6	Referred Risk Response LTA	GREEN	The team could find no evidence that management was not informed of the potential risks and problems associated with this policy, or that management did not respond when notified of risks and problems.	D-85

**Management System
Overview**

Over All Color:



MORT Item#: MA1

Label: Leadership Skill Assessment

Conclusion: There is no policy or procedure that drives or governs the process of Leadership Skill Assessment at the Station, as such the state of Leadership in terms of competency and alignment was declining and no process was in place to discover this until a consultant's study was completed in late 2011.

MA1 and MA2	Description	Color	Notes/ Facts
MA1 (page 37)	Policy LTA		
a1	Up To Date LTA		There is no policy or procedure that drives or governs the process of Leadership Skill Assessment at the Station.
a2	Written LTA		There is no policy or procedure that drives or governs the process of Leadership Skill Assessment at the Station.
a3	Risk Assessment LTA		<p>Since there is no policy, there was no assessment of risk. By not assessing risk the following conditions were discovered when Strategic Talent Solutions (STS) completed a comprehensive Leadership Assessment and Alignment process at FCS in November, 2011:</p> <ul style="list-style-type: none"> As a group, station leaders possess critical development gaps that have contributed to and resulted from a significant erosion of standards across the site. As a group FCS leaders are more tactical than strategic. They often prioritize poorly, delegate little, work levels down and surrender oversight. They regularly enable and protect, rationalize low standards and hesitate to issue consequences. They also seldom prioritize leadership development for themselves and their reports. These issues cut across all levels of leadership and all departments.


**Management System
Overview**

Over All Color: 

MORT Item#: MA1

Label: Leadership Skill Assessment

Conclusion: There is no policy or procedure that drives or governs the process of Leadership Skill Assessment at the Station, as such the state of Leadership in terms of competency and alignment was declining and no process was in place to discover this until a consultant's study was completed in late 2011.

MA1 and MA2	Description	Color	Notes/ Facts
			<ul style="list-style-type: none"> • A relationship-centric culture has taken hold. The culture and its leaders have come to value harmony and loyalties over standards, accountability and performance. Relationships have been prioritized over what is in the best interest of individuals, the station and the community. As is oft repeated, "This is the OPPD way." • Station leaders have lost sight of the wisdom of leadership and held tightly to the virtues of a hard work ethic and technical competence. FCS Leaders try to run the plant themselves rather than develop high-functioning, cohesive teams that leverage collective knowledge and experience to lead a safe and reliable plant. • While this formula may have been successful with a newer, more reliable power plant, it is no longer working. Plant hardware has aged and a litany of challenges have manifested, many preventable, others not. The leadership has been overrun and slow to make the difficult decisions and take the necessary actions required to manage these challenges. As a consequence, the status quo has been continually reinforced while confidence in the leadership's ability to right the ship is trending downward.

**Management System
Overview**

Over All Color:

GREEN

MORT Item#: MA1

Label: Hiring, Staffing, Promoting, and Establishing New Positions

Conclusion: Hiring, Staffing, Promoting, and Establishing New Positions policies have broad enough scope to appropriately staff the Station.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
MA1 (page 37)	Policy LTA			
a1	Up To Date LTA	GREEN	Policies (NAI - 11 and 19 and Corporate Policies 7.01, 7-05,and 7.06) are up to date.	
a2	Written LTA	GREEN	Policies (NAI - 11 and 19 and Corporate Policies 7.01, 7-05,and 7.06) are clearly written.	
a3	Risk Assessment LTA	GREEN	Policies (NAI - 11 and 19 and Corporate Policies 7.01, 7-05,and 7.06) have the flexibility to deal with unique situations.	
a4	Technical Information LTA	GREEN	Policies (NAI - 11 and 19 and Corporate Policies 7.01, 7-05,and 7.06) include adequate guidance, including flow-charts.	
a5	Did Not Conform To CS & R	GREEN	Policies (NAI - 11 and 19 and Corporate Policies 7.01, 7-05,and 7.06) conform to applicable hiring, staffing, and promoting, standards and regulations.	
a6	In Place at all Organization Levels LTA	GREEN	Policies (NAI - 11 and 19 and Corporate Policies 7.01, 7-05,and 7.06) are in place for all organizational levels.	
a7	Consistent at all Organization Levels LTA	GREEN	Policies (NAI - 11 and 19 and Corporate Policies 7.01, 7-05,and 7.06) are consistent for all organizational levels.	

**Management System
Overview**

Over All Color:

GREEN

MORT Item#: MA1

Label: Hiring, Staffing, Promoting, and Establishing New Positions

Conclusion: Hiring, Staffing, Promoting, and Establishing New Positions policies have broad enough scope to appropriately staff the Station.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
a8	Clear and Understandable LTA	GREEN	Policies (NAI - 11 and 19 and Corporate Policies 7.01, 7-05,and 7.06) are clear and understandable.	
a9	Implementability LTA	GREEN	Policies (NAI - 11 and 19 and Corporate Policies 7.01, 7-05,and 7.06) are reasonable and implementable.	
a10	Applicability to all Areas of Operations LTA	GREEN	Policies (NAI - 11 and 19 and Corporate Policies 7.01, 7-05,and 7.06) are applicable to all areas of the station.	
a11	Congruence with Organizational Goals LTA	GREEN	Policies (NAI - 11 and 19 and Corporate Policies 7.01, 7-05,and 7.06) support hiring, staffing and promoting people for an effective organization	

**Management System
Overview**

Over All Color:



MORT Item#: MA2

Label: Hiring, Staffing, Promoting, and Establishing New Positions

Conclusion: Problems with success criteria and position competencies along with a lack of accountability causing some unneeded delays lead to less than adequate implementation of the Hiring, Staffing, Promoting, and Establishing Positions policies.

MA2 (page 38)	Implementation LTA			
a1	Methods, Criteria, Analysis LTA		Hiring effectiveness criteria has not been established.	
a2	Line Responsibilities LTA	GEEEN	Policies clearly state management responsibilities for hiring, staffing, promoting and establishing new positions. (NAI - 11 and 19 and Corporate Policies 7.01, 7-05, and 7.06)	
a3	Staff Responsibilities LTA	GEEEN	Policies clearly state staff responsibilities for hiring, staffing, promoting and establishing new positions. (NAI - 11 and 19 and Corporate Policies 7.01, 7-05, and 7.06)	
a4	Information Flow LTA		There is inconsistency with position competencies across the organization. Competencies are the basis for identifying hiring and staffing needs, as well as criteria for leadership and professional development training and performance management.	
a5	Directives LTA	GREEN	Policies clearly state management responsibilities for hiring, staffing, promoting and establishing new positions. (NAI - 11 and 19 and Corporate Policies 7.01, 7-05, and 7.06)	


**Management System
Overview**

Over All Color: 

MORT Item#: MA2

Label: Hiring, Staffing, Promoting, and Establishing New Positions

Conclusion: Problems with success criteria and position competencies along with a lack of accountability causing some unneeded delays lead to less than adequate implementation of the Hiring, Staffing, Promoting, and Establishing Positions policies.

a6	Management Services LTA (Go to Services Sheet MA2a6)	GREEN	Services for Hiring, Staffing, Promoting and Establishing Positions is less than adequate due to the fact that specific measures for evaluating the effectiveness of these policies and programs have not been established.	
a7	Budgets LTA	GREEN	Team identified no instances where lack of sufficient budget for these policies was an issue.	
a8	Delays		Some unnecessary delays detract from the ability to hire, staff and promote individuals expediently. For example, HR not reviewing a candidate pool in a timely manner, or slow management decision making on employment offers or promotions.	
a9	Accountability LTA		As evidenced by delays, line managers are not always held accountable to these processes.	
a10	Vigor and Example LTA	GREEN	Senior leadership often provides insight and feedback on hiring, staffing and promoting of individuals at the station.	

Services

Over All Color:



MORT Item#:SD6

Label:

Hiring, Staffing, Promoting, and Establishing New Positions

Conclusion:

Hiring, Staffing, Promoting and Establishing Positions is less than adequate due to the fact that specific measures for evaluating the effectiveness of these policies and programs have not been established.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a1	Research and Fact Finding LTA	GREEN.	Information is available to do hiring and staffing well.	
a2	Information Exchange LTA	GREEN.	Team did not identify any issues with information exchange.	
a3	Standards and Directives LTA	GREEN.	Team did not identify any instances of management requiring the use of inappropriate standards.	
a4	Resources LTA		Specific measures for evaluating the effectiveness of these programs have not been established.	
b1	Training LTA	GREEN.	Training on the hiring process was formally conducted by corporate HR as part of the basic supervisory skills classes.	
b2	Technical Assistance LTA	GREEN.	HR on site to provide assistance.	
b3	Program Aids LTA	GREEN.	HR has templates and forms available to support these processes.	
b4	Measure of Performance LTA		Resources were less than adequate because specific measures for evaluating the effectiveness of these policies and programs were not established.	

Services

Over All Color:



MORT Item#:SD6

Label:

Hiring, Staffing, Promoting, and Establishing New Positions

Conclusion:

Hiring, Staffing, Promoting and Establishing Positions is less than adequate due to the fact that specific measures for evaluating the effectiveness of these policies and programs have not been established.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
b5	Coordination LTA	GREEN.	Team did not identify any lack of coordination on this issue.	
a5	Deployment of Resources LTA	GREEN.	Team found no evidence that resources were not deployed effectively.	
a6	Referred Risk Response LTA	GREEN.	Team found no evidence that risks associated with these policies could not be acted on appropriately or timely.	

**Management System
Overview**

Over All Color:

GREEN

MORT Item#: MA1

Label: Leadership Development (Formal Training)

Conclusion: The Leadership Development (formal training) program and process is contemporary and relevant and based on current research and industry guidance.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
MA1 (page 37)	Policy LTA			
a1	Up To Date LTA	GREEN	The structure and process of Leadership Development at the station has been kept current and relevant.	D53, I6, I12, I19, D116, D117, D118
a2	Written LTA	BLACK	There is no one written policy, but there are many guidance documents, training matrices, curricula, and learning materials that are very structured and understood.	D53, I6, I12, I19, D116, D117, D118
a3	Risk Assessment LTA	GREEN	Training offerings are based on clear objectives and competencies and are targeted to certain populations which is done to mitigate the risk of having less than adequate leaders in place.	D53, I6, I12, I19, D116, D117, D118
a4	Technical Information LTA	GREEN	The Leadership training menu for leaders at the station are research based, including based on INPO and other industry guidance.	D53, I6, I12, I19, D116, D117, D118
a5	Did Not Conform To CS & R	GREEN	The Leadership training menu for leaders at the station are research based, including based on INPO and other industry guidance.	D53, I6, I12, I19, D116, D117, D118

**Management System
Overview**

Over All Color:

GREEN**MORT Item#: MA1****Label:****Leadership Development (Formal Training)****Conclusion:**

The Leadership Development (formal training) program and process is contemporary and relevant and based on current research and industry guidance.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
a6	In Place at all Organization Levels LTA	GREEN	The Leadership Development process and structure is in place at all organizational levels.	D53, I6, I12, I19, D116, D117, D118
a7	Consistent at all Organization Levels LTA	GREEN	The Leadership Development process and structure is consistent across all organizational levels.	D53, I6, I12, I19, D116, D117, D118
a8	Clear and Understandable LTA	BLACK	There is no one written policy, but there are many guidance documents, training matrices, curricula, and learning materials that are very structured and understood.	D53, I6, I12, I19, D116, D117, D118
a9	Implementability LTA	GREEN	The Leadership Development process and structure is very implementable.	D53, I6, I12, I19, D116, D117, D118
a10	Applicability to all Areas of Operations LTA	GREEN	The Leadership Development process and structure is applicable to all areas of the station's operation.	D53, I6, I12, I19, D116, D117, D118
a11	Congruence with Organizational Goals LTA	GREEN	The Leadership Development process and structure is congruent with organizational goals.	D53, I6, I12, I19, D116, D117, D118


**Management System
Overview**

Over All Color: 

MORT Item#: MA2

Label: Leadership Development (Formal Training)

Conclusion: Leadership Development training is not highly in relation to operational commitments, as line managers are not held accountable for this training, and there are no rigorous measures of the success of the training.

MA2 (page 38)	Implementation LTA			
a1	Methods, Criteria, Analysis LTA		Good methods are used for implementation of Leadership Development training, and criteria are established for measuring the success achieved, but the rigor of this measurement is less than adequate. No strict analysis of the data collected is completed. The performance improvement is not measured.	D53, I6, I12, I19, D116, D117, D118
a2	Line Responsibilities LTA		Line management responsibilities for ensuring that leaders attend leadership development training is understood and is included in the station's managers and supervisors key accountability documents. However, leadership development training is not prioritized in comparison to operational commitments.	D53, I6, I12, I19, D116, D117, D118 D53, I6, I12, I19, D116, D117, D118
a3	Staff Responsibilities LTA		Staff responsibilities for leaders attending leadership development training is understood and is included in the station's managers and supervisors key accountability documents. However, leadership development training is not prioritized in comparison to operational commitments.	
a4	Information Flow LTA		Management is not always engaged around leadership development training once the training has been signed off on.	D53, I6, I12, I19, D116, D117, D118

**Management System
Overview**

Over All Color:

GREEN**MORT Item#: MA1**

Label:

Leadership Development (Formal Training)

Conclusion: The Leadership Development (formal training) program and process is contemporary and relevant and based on current research and industry guidance.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
a5	Directives LTA		Management is not always clear on the requirements for this program once the training has been signed off on.	D53, I6, I12, I19, D116, D117, D118
a6	Management Services LTA (Go to Services Sheet MA2a6)	GREEN	Senior management provides adequate resources and support for the development and delivery of leadership training.	D53, I6, I12, I19, D116, D117, D118
a7	Budgets LTA	GREEN	Budgets for leadership development training have been adequate.	D53, I6, I12, I19, D116, D117, D118
a8	Delays		Delays are experienced due to operational commitments and scheduling frequency of leadership development training impacting the delivery of training.	D53, I6, I12, I19, D116, D117, D118
a9	Accountability LTA		Managers are not held accountable for this training. There are no measures of this performance.	D53, I6, I12, I19, D116, D117, D118
a10	Vigor and Example LTA	GREEN	There is a high degree of commitment and involvement in the leadership development training programs by top management, including involvement and participation in the training itself.	D53, I6, I12, I19, D116, D117, D118

Services

Over All Color:

GREEN

MORT Item#:SD6

Label:

Leadership Development (Formal Training)

Conclusion: Senior management provides adequate resources and support for the development and delivery of leadership training.

SD6 (page 31)	Description	Color	Notes/ Facts	INFO #'s
a1	Research and Fact Finding LTA	GREEN	Training program development is very well researched to ensure the quality of the information.	D53, I6, I12, I19, D116, D117, D118
a2	Information Exchange LTA	GREEN	Information flow on leadership development training is adequate and there generally is interest in this information.	D53, I6, I12, I19, D116, D117, D118
a3	Standards and Directives LTA	GREEN	Senior management conveys expectations for the standards and quality of the content of training. There is a very strong message from upper management that all sessions will be attended.	D53, I6, I12, I19, D116, D117, D118
a4	Resources LTA	GREEN	The resources available to support formal Leadership Development were adequate to support the program.	D53, I6, I12, I19, D116, D117, D118
b1	Training LTA	GREEN	Training staff have the needed training and development to do a good job.	D53, I6, I12, I19, D116, D117, D118

**Management System
Overview**

Over All Color:

GREEN

MORT Item#: MA1
Label: Leadership Development (Formal Training)

Conclusion: The Leadership Development (formal training) program and process is contemporary and relevant and based on current research and industry guidance.

MA1 and MA2	Description	Color	Notes/ Facts	INFO #'s
b2	Technical Assistance LTA	GREEN	Technical staff provided to this effort are generally good.	D53, I6, I12, I19, D116, D117, D118
b3	Program Aids LTA	GREEN	Program aids provided are of good quality.	D53, I6, I12, I19, D116, D117, D118
b4	Measure of Performance LTA	GREEN	Performance measures were implicit for this work but not clearly spelled out.	D53, I6, I12, I19, D116, D117, D118
b5	Coordination LTA	GREEN	Coordination of work on leadership training has been effective.	D53, I6, I12, I19, D116, D117, D118
a5	Deployment of Resources LTA	GREEN	Resources provided to the development and implementation of training were used effectively.	D53, I6, I12, I19, D116, D117, D118
a6	Referred Risk Response LTA	GREEN	Potential risks were effectively evaluated by management with respect to leadership development training.	D53, I6, I12, I19, D116, D117, D118

Management System Overview

Over All Color:



MORT Item#: MA1

Label: Workforce Planning

Conclusion: There was no policy or procedure, either corporate or FCS, in effect for the conduct of comprehensive, station-wide workforce planning, other than simple headcount budgeting being performed for financial planning purposes.

Services

Over All Color:



MORT Item#:SD6

Label: Workforce Planning

Conclusion: There was no policy or procedure, either corporate or FCS, in effect for the conduct of comprehensive, station-wide workforce planning, other than simple headcount budgeting being performed for financial planning purposes.

SAFETY CULTURE QUESTIONS
FROM THE MORT USER'S MANUAL

(based on NRC Inspection Manual Chapter 0310 and Inspection Procedure 95002; to be used with the
MORT Chart Safety Culture Supplement - copyright 2009)

MSC. Safety Culture LTA

Was the safety culture of the organization healthy? Did the safety culture of the organization as established through the characteristics and attitudes of the personnel demonstrate that nuclear plant safety is the overriding priority and receives the attention warranted by its significance? Did top management consistently demonstrate commitment to safety culture through the actions taken on a daily basis? Do the working level personnel believe that top management is committed to a healthy safety culture?

H. Human Performance (H)

Does the organization's decision-making, resource allocation, work control and work practices demonstrate a commitment to achieving a high level of human performance with safety as the overriding priority?

a. Decision-Making

Did the organization's decisions demonstrate that nuclear safety is an overriding priority? Did the systematic decision making related to this issue reflect a value and priority for nuclear safety?

1. Risk significant decisions

Did the organization make safety-significant or risk-significant decisions using a systematic process, especially when faced with uncertain or unexpected plant conditions, to ensure safety is maintained? Did this include formally defining the authority and roles for decisions affecting nuclear safety, communicating these roles to applicable personnel, implementing these roles and authorities as designed, and obtaining interdisciplinary input and reviews on safety-significant or risk-significant decisions? H.1(a)

(b)(4)

The 2012 FCS Independent Safety Culture Assessment stated that while some examples of conservative decision making were identified at the Station, examples of non-conservative decision making were more prevalent in evaluating significant events. Decisions with respect to prioritization of work and schedule are perceived to be absent. For example: The M2 coil problem in the Reactor Protection System started in 2008 and was scheduled to be fixed during the 2009 outage. It was taken out of the scope of work to avoid impacting the outage duration. As a result of this decision, the M2 coil failed while at power. (D25)

2. Conservative assumptions

Did the organization use conservative assumptions in decision-making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action? Did the organization conduct effectiveness reviews of safety-significant decisions to verify the validity of the underlying assumptions, identify possible unintended consequences, and determine how to improve future decisions? H.1(b)

The 2012 FCS Independent Safety Culture Assessment stated that while some examples of conservative decision making were identified at the Station, examples of non-conservative decision making were more prevalent in evaluating significant events. Decisions with respect to prioritization of work and schedule are perceived to be absent. For example: The M2 coil problem in the Reactor Protection System started in 2008 and was scheduled to be fixed during the 2009 outage. It was taken out of the scope of work to avoid impacting the outage duration. As a result of this decision, the M2 coil failed while at power. (D25)

Decision making around the repair of the 1B4A switch gear was completed at risk, in that the breaker modification was performed on-site by the vendor with their own quality assurance program rather than the station's. (D23)

3. Timely communication

Did the organization communicate decisions and the basis for decisions to personnel who have a need to know the information in order to perform work safely, in a timely manner? H.1(c)

From the 2012 FCS Independent Safety Culture Assessment:

- Communication issues were identified by almost all interviewees as well as by the results on the survey (see next bullet). Concerns include:
 - Contractors don't have mailboxes and do not receive site communications.
 - Interviewees indicated that recently non-site employees were taken off the NUC distribution list, yet the CEO has indicated that all corporate functions need to have a site presence.
 - Many interviewees indicated that they perceive there is more concern about what information goes out to the public than what information employees need to perform their jobs.

interviewees indicated many issues that they did not receive information on. Some examples identified were:

- This Assessment Team's hot line telephone number.
- The Meteorological Tower event or why it was important; heard about it from another employee.
- Did not receive information about when Exelon was coming in, heard about it on the news.
- No information on start-up and recovery schedules.
- Had conflicting information on the new Plant Manager and the process of his selection.
- The perceived accuracy of communication across the Fort Calhoun Station is low. The Electrical Maintenance and various Engineering Work Groups had statistically significantly higher scores on this scale than respondents in the Prefer Not to Respond, Security Shift, and Security Other Work Groups did.
- Desire for Interaction (Communication) is moderate across the Fort Calhoun Station. Survey respondents in the Prefer Not to Respond, Security Shift, and Security Other Work Groups had statistically significantly lower scores on this scale than respondents in other work groups. (D25)

The Station didn't respond to late reportability determinations without prompting from new Plant Manager (I-11)

b. Resources

Did the organization ensure that personnel, equipment, procedures, and other resources are available and adequate to assure nuclear safety? Were necessary resources (including time, equipment, personnel and money) provided to assure that this issue did not adversely impact nuclear safety?

1. Managing maintenance

Was long-term plant safety maintained by maintenance of design margins, minimization of longstanding equipment issues, minimizing preventative maintenance deferrals, and ensuring maintenance and engineering backlogs that are low enough to support safety? H.2(a)

- Station personnel expressed a number of concerns about resources. Some issues that were identified include:
 - Operations personnel are involved in a lot of the activities for the Recovery and Restart activities. Concerns about being able to give people much needed time off and maintain a normal shift schedule are being raised.
 - System Engineering has only 6 fully qualified individuals.

- Some pieces of equipment have only one individual qualified to work on that equipment and the perception is that if it costs money to train more people or acquire the expertise, it won't happen.
- Design Engineering has been augmenting staff even prior to the flooding issues. Over 50% of the design engineers have less than 2 years of experience and consequently 6 retirees were brought back as contractors.
- Interviewees indicated that management allowed the Machine Shop to be decimated and consequently there are only 2 journeymen and the rest of the shop has apprentices with no experience.

The Station is attempting to maintain 3 work schedules, on-line, outage, and recovery. Interviewees indicated that this is creating staffing issues across many groups (D25)

(b)(4)

(b)(4) (D24)

(b)(4)

(b)(4) (D24)

(b)(4)

(b)(4) (D24)

(b)(4)

(b)(4) (D24)

2. Training and qualification personnel

Were training of personnel and sufficient qualified personnel to maintain work hours within working hour guidelines? H.2(b)

Resource allocations affecting work planning and schedules:

- System Engineering has only 6 fully qualified individuals. (D25)
- Interviewees indicated that management allowed the Machine Shop to be decimated and consequently there are only 2 journeymen and the rest of the shop has apprentices with no experience. (D25)

3. Work documents

Were design documentation, procedures, and work packages, and correct labeling of components complete, accurate, and up-to-date? H.2(c)

- Interviewees indicated that the Maintenance Procedure Upgrade Project which originated in 2008 has failed miserably.
 - Out of the 2300 procedures included into the Project approximately 400 have been completed.
 - Since the procedures had been in place for a long time, there was an assumption that they were technically correct and the decision was made that formal verification and validation was not needed. Consequently technical problems were discovered when the procedures were actually used and the reviewers hadn't caught them.
 - No work on the procedures was conducted for 6 months because of the flooding.
 - Prioritization of which procedures to work on is not tied to the work week schedule, although there are work orders placed on procedure hold.
 - Some interviewees believe that the project is eliminating all the accumulated years of craft input to the procedures.
- Interviewees indicated that the vendor technical manuals and the Bill of Materials have not been maintained for some time. The planners get information from them and therefore work packages don't always have the most updated information.
- Procedural use and adherence issues are a concern. Some reasons identified by interviewees as to why this occurs are:
 - It is fairly common for administrative procedures to reference other procedures and lead to a dead end.
 - Verbatim compliance is expected of procedures that aren't written for that type of use.
 - Continuous use procedures don't require place keeping if you are not working on plant equipment, but who makes that determination?
 - Reference use procedures have become 'verbatim' compliance and almost continuous use.
 - Many procedures were written before human performance tools existed, e.g., not amenable to circle/slash.
 - The blue copy process (temporary procedure change) is not feasible if the operators don't have computer access to the copies and then end up with the wrong revision
 - Interviewees indicated that in some groups no one has been trained on how to retrieve procedures out of the system and not all revisions get to the hard copy.
 - All completed procedures must be submitted and there is a fear that it will be used punitively if all the place keeping, times, values, etc. are not indicated. (D25)

Operations procedure change backlog is over 4 times the goal of 50 and with a negative trend
 EOP/AOP procedure change backlog is more than twice the goal with a negative trend. (D3)

(b)(4)

(b)(4)

(D24)

4. Facilities and Equipment

Were facilities and equipment adequate and available, including physical improvements, simulator fidelity and emergency facilities, and equipment? H.2(d)

- During this assessment both the Team and interviewees identified many examples of missed opportunities to demonstrate the value and priority of safety. Some of these included:
 - The Meteorological Tower was out of service from the time of the flood (approximately June 2011) until March 29, 2012. This was justified by being able to get data from the National Weather Service. The driver to repair it was the upcoming NRC graded Emergency Exercise.
 - Interviewees indicated that the Process Radiation Monitors break all the time and since they are important from a public health and safety perspective the perception is that the Station could be doing better at maintaining that equipment. (D25)

(b)(4)

(b)(4)

(D24)

c. Work Control

Did the organization plan and coordinate work activities, consistent with nuclear safety? Were the planning and coordination of work activities associated with this issue sufficient to ensure nuclear safety?

1. Work planning

Did the organization appropriately plan work activities by incorporating: H.3(a)

- risk insights?
- job site conditions, including environmental conditions that may impact human performance; plant structures, systems, and components; human-system interface; or radiological safety?
- the need for planned contingencies, compensatory actions, and abort criteria?

The M2 coil problem in the Reactor Protection System started in 2008 and was scheduled to be fixed during the 2009 outage. It was taken out of the scope of work to avoid impacting the outage duration. As a result of this decision, the M2 coil failed while at power. (D25)

The shutdown safety software (ORAM) color was stated to be yellow, but no discussion of why or whether any compensatory actions were required;

Individual watch standers did not brief the crew on their respective watch stations or discuss any compensatory actions that might be in place;

A job on the day's schedule presented the risk of the loss of critical AC power supplies. An SRO stated that in the event of the loss of an inverter, "we'll have to help speed the electricians through their work" to restore the bus. There was no discussion of what steps could be taken to prevent or reduce the likelihood of such an occurrence. (D25)

(b)(4)

(b)(4)

(D24)

2. Work coordination

Did the organization appropriately coordinate work activities by incorporating actions to address: H.3(b)

- the impact of changes to the work scope or activity on the plant and human performance?
- the impact of the work on different job activities and the need for work groups to maintain interfaces with offsite organizations and communicate, coordinate, and cooperate with each other during activities in which interdepartmental coordination is necessary to assure plant and human performance?
- the need to keep personnel apprised of work status, the operational impact of work activities, and plant conditions that may affect work activities?
- the need to plan work activities to support long-term equipment reliability by limiting temporary modifications, operator workarounds, safety systems unavailability, and reliance on manual actions? Was maintenance scheduling more preventive than reactive?
- Interviewees identified several issues in the coordination of work. Examples included:
 - Many interviewees indicated that planning is really poor across the Station, e.g., plan in place to take down scaffolding that hasn't been put up yet (to be done in June 2012).
 - The Station is still in a discovery phase to know exactly what needs to be done.
 - Interviewees indicated that work is not getting done because scheduling conflicts with equipment issues, e.g., crane not available, bus not energized.

- There is a lack of qualified people who can work on several different systems.
- Some interviewees indicated that they believe that coordination of work is not working because management is not listening, there is a lack of understanding of the big picture of the Station's situation, everything is emergent, and there is no leadership to make decisions. (D25)

d. Work Practices

Did personnel work practices support human performance? Were human error prevention techniques effectively communicated, understood and used (commensurate with the risk of this issue) such that work activities associated with this issue could be performed safely?

1. Error prevention techniques

Did the organization communicate human error prevention techniques, such as holding pre-job briefings, self- and peer checking, and proper documentation of activities? Were these techniques used commensurate with the risk of the assigned task, such that work activities are performed safely? Were personnel fit for duty? In addition, did personnel proceed in the face of uncertainty or unexpected circumstances? H.4(a)

Standards and expectations with respect to work practices and work control need to be more clearly identified, communicated and reinforced. The development of a formal and consistently implemented human performance program needs to be addressed. (D25)

- Observations conducted during this assessment of Control Room activities and turnovers generally indicated they were conducted informally with an infrequent use of error prevention tools including three way communication, panel walk downs, and alarm acknowledgements.
- The importance and recognition of human performance for safety is not consistently demonstrated and internalized by all members of the organization and needs to be improved.
 - Interviewees indicated that contractors do not receive formal training on the Human Performance Cards (tools).
 - Until recently, the Human Performance Committee and the line Human Performance Organizations had not been meeting.
 - The industrial safety record for the Station last year was extremely poor.
 - Observations during this Assessment indicated that expectations and standards are not being consistently met with regard to housekeeping and material condition.
- Interviewees indicated that the Maintenance Procedure Upgrade Project which originated in 2008 has failed miserably.
 - Out of the 2300 procedures included into the Project approximately 400 have been completed

- o Since the procedures had been in place for a long time, there was an assumption that they were technically correct and the decision was made that formal verification and validation was not needed. Consequently technical problems were discovered when the procedures were actually used and the reviewers hadn't caught them.
- o No work on the procedures was conducted for 6 months because of the flooding.
- o Prioritization of which procedures to work on is not tied to the work week schedule, although there are work orders placed on procedure hold.
- o Some interviewees believe that the project is eliminating all the accumulated years of craft input to the procedures.
- Interviewees indicated that the vendor technical manuals and the Bill of Materials have not been maintained for some time. The planners get information from them and therefore work packages don't always have the most updated information. (D25)

2. Procedure compliance

Did the organization define and effectively communicate expectations regarding procedural compliance, and did personnel follow procedures? H.4(b)

- Procedural use and adherence issues are a concern. Some reasons identified by interviewees as to why this occurs are:
 - o It is fairly common for administrative procedures to reference other procedures and lead to a dead end.
 - o Verbatim compliance is expected of procedures that aren't written for that type of use.
 - o Continuous use procedures don't require place keeping if you are not working on plant equipment, but who makes that determination?
 - o Reference use procedures have become 'verbatim' compliance and almost continuous use.
 - o Many procedures were written before human performance tools existed, e.g., not amenable to circle/slash.
 - o The blue copy process (temporary procedure change) is not feasible if the operators don't have computer access to the copies and then end up with the wrong revision.
 - o Interviewees indicated that in some groups no one has been trained on how to retrieve procedures out of the system and not all revisions get to the hard copy.
 - o All completed procedures must be submitted and there is a fear that it will be used punitively if all the place keeping, times, values, etc. are not indicated. (D25)

(b)(4)

(b)(4)

(b)(4)

(D24)

3. Supervision and management oversight

Did the organization ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported? H.4(c)

Examples of a lack of accountability at all levels at the Station were evident. Accountability is described by most of the individuals interviewed as the biggest issue for the Station. Many individuals in management and supervision do not consistently exhibit desired behaviors and are not challenged by their managers or peers. Inconsistent implementation of standards and expectations in work activities are common and may be facilitated by ineffective communication around the change management process. Significant management oversight and attention is needed to communicate the standards and expectations and implement the appropriate and consistent performance management system to hold individuals accountable. (D25)

(b)(4)

(b)(4)

(D24)

(b)(4)

(b)(4)

(D24)

P. Problem Identification and Resolution (P)

Does the organization demonstrate a commitment to identifying, analyzing and resolving problems at all levels commensurate with their risk significance? Does the organization make adequate use of operating experience data before and during investigations? Does the organization perform thorough and timely extent of condition and extent of cause evaluations? Does the organization make appropriate use of critical self- and independent assessments?

a. Corrective Action Program

Did the organization ensure that issues potentially impacting nuclear safety are promptly identified, fully evaluated, and that actions are taken to address safety issues in a timely manner, commensurate with their significance? Was this issue accurately identified at a level commensurate with its significance and was this identification timely? Has the organization (internal and/or external) that identified the issue been properly identified?

1. Risk-based identification threshold

Did the organization implement a corrective action program with a low threshold for identifying issues? Did the organization identify such issues completely, accurately, and in a timely manner commensurate with their safety significance? P.1(a)

2. Trending program

Did the organization periodically trend and assess information from the corrective action program and other assessments in the aggregate to identify programmatic and common-cause problems? Did the organization communicate the results of the trending to applicable personnel? P.1(b)

(b)(4)
(b)(4)
(D30)

The Safety Culture Component Assessment Tree identified a high number of deficiencies in level A condition reports on CAP trending (D73).

Review of the station's trending program noted a failure to identify adverse trends. (D16)

3. Cause evaluations

Did the organization thoroughly evaluate problems such that the resolutions address the causes and extent of conditions, as necessary? Did this include properly classifying, prioritizing, and evaluating for operability and reportability conditions adverse to quality? Did this also include, for significant problems, conducting effectiveness reviews of corrective actions to ensure that the problems are resolved? P.1(c)

Individuals across the organization have indicated their willingness to raise issues. The CR process however, is perceived by many Station personnel to not be as effective as it should be. The value of the Corrective Action Program to create a learning organization is not being fully realized. Senior leadership provides weak oversight of the process and management engagement with the process has been very limited. The criticality and ability to self identify issues and causes needs to be enhanced. Operating experience needs to be better integrated into a learning process and a stronger independent oversight organization is needed to help identify areas for performance improvement.

There is a lack in the belief that Fort Calhoun Management really wants problems or concerns reported or that the issues will be addressed. The way that CAP is currently being implemented is not perceived

as a value added process for the Station. The relationship of the CAP to performance improvement and the role it plays in the development of a learning organization is not understood or recognized by most individuals. (D25)

4. Corrective actions

Did the organization take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity? P.1(d)

- (CR 2008-4823) Common Cause 3: Station management has tolerated longstanding outage process problems in areas of long term planning, pre-outage milestones, scope control, preoutage work, and scheduling. Outage readiness assessments conducted in 2003, 2004, 2006, and 2008 identified repetitive problems that the station has not resolved. Elements of the contributing cause (longstanding and repetitive problems not resolved) are still evident in current station CAP performance.
- (CR 2011-0451) Root Cause 8.6 Contributing causes include: Corrective actions to prevent recurrence from previous FCS root cause events have not been fully effective in preventing station events where form, fit, or function have been altered during maintenance activities without an adequate engineering evaluation.
- (CR 2009-4305) Root Cause: The Fort Calhoun organization has placed less value and priority on timely resolution of Fire Protection equipment concerns than on other degraded conditions considered more significant relative to challenging production, Technical Specifications, or regulatory requirements
- (CR 2010-2614) Cause: Repeat equipment failures identify weaknesses in causal analysis and corrective action implementation.
- (CR 2011-2162) Contributing Cause: The station has not effectively used the Corrective Action Program to correct the problems that cause mispositioning events. As a result some corrective actions to address mispositioning events have not been implemented as written. (D16)

5. Alternative processes

If an alternative process (i.e., a process for raising concerns that is an alternate to the organization's corrective action program or line management) for raising safety concerns exists, then did it result in appropriate and timely resolutions of identified problems? P.1(e)

- A significantly large number of individuals that completed the electronic survey chose the 'Prefer Not to Respond' category when asked about their demographic information. The size of this group indicates a concern about being identified and in some way penalized for their responses. This group had a consistently negative profile on almost all of the survey scales.

- Many individuals indicated that the ECP was not perceived as a confidential and anonymous process and therefore not a viable mechanism for them for reporting concerns. Some interviewees also indicated that ECP should report to someone outside the Site Vice President.
- Several interviewees indicated that they were told not to write CRs and 'don't rock the boat'. Some individuals stated that they would never write a CR on management because it would have career limiting consequences.
- Several interviewees indicated that many things eventually lead to some type of perceived retaliation, e.g., negative labeling, preventing job mobility, assigning lower performance ratings, or reduced opportunities for promotion.
- The Assessment Team observed an occurrence indicating the lack of recognition for the importance of anonymity. During a meeting, a manager indicating that the Independent Safety Culture Assessment Team had set up a hotline for those individuals that wanted to speak to the Team directly, instructed the individuals interested in obtaining the number to see him for the information.
- Overall, only 35% of all survey respondents feel that they can openly challenge decisions made by management. Respondents in the Operations Shift, Electrical Maintenance, RP EP HP, and SFM Maintenance Work Groups had statistically significantly higher scores on this question than respondents in the Prefer Not to Respond, Other, Security Shift, Security Other, and Engineering Programs/Performance Groups. Senior Managers had statistically significant higher scores on this question than any other employee category.
- About 48% of survey respondents agreed with the statement that they feel that they can approach the management team with concerns. Respondents in the SPII CAP and Operations Shift Work Groups had statistically significantly higher scores on this question than respondents in the Prefer Not to Respond, Security Shift, Security Other, and Site Support Groups. Individuals in the Prefer Not to Respond Category had the lowest belief that management could be approached with concerns. The Individual Contributor (Union) and Supplemental Groups believed that management could be approached with concerns statistically significantly more than respondents in the Prefer Not to Respond Category did. (D25)

b. Operating Experience

Did the organization use operating experience (OE) information, including vendor recommendations and internally generated lessons learned, to support plant safety? Was relevant internal and external operating experience related to this issue available to and used by people involved?

1. Systematic process

Did the organization systematically collect, evaluate, and communicate to affected internal stakeholders in a timely manner relevant internal and external operating experience? P.2(a)

There is a number of overdue OE evaluations, indicates a failure of FCS to evaluate issues in a timely manner. (D76)

- Several interviewees indicated that the concept of a 'learning organization' used to be one of the platforms for the Station and no longer is.
- Many interviewees ask the question, how much have we learned if the management team that got this (sic) in this situation is still here?
- While the presence of Operating Experience at Fort Calhoun was identified by many interviewees, the organization is missing opportunities to use this information as part of a learning process.
 - Interviewees indicated that too often the OE discussion is around big industry events that may not be directly applicable to Fort Calhoun Station.
 - It was not clear to many interviewees what information was actually captured on flood protection for potential use in the future. The initial version of the Flood Recovery Plan was not approved by the NRC.
 - Many interviewees have the perception that it takes an accident or significant event to make a change, even if the information was provided previously.
 - The Fort Calhoun Station Safety Communication on the Meteorological Tower/Shoot Range Event (CR-2012-02373) was distributed the day after the event. The Communication included an event summary, consequences, why it happened, and immediate actions. It did not include a takeaway or lessons learned for employees to consider in their own activities.
 - An observation of the Plan of the Day Meeting after the firing range incident indicated that some managers did not consider this an example of not fixing the Station's problems because they had no evidence that this had ever happened at the Station before. There was no discussion about any lessons learned from the event or how it could be prevented in the future. (D25)

NRC Cross Cutting Issue: PAR upgrade requirements (CR2010-2174/ NRC Inspection Report No. 2010-003), FW-10 no procedure guidance for full engagement (CR2010-0813/ NRC Inspection Report No. 2010-006). Failure to provide adequate engineering analysis for multiple RPS power supply failures (CR2011-1655/ NRC Inspection Report No. 2011-003). (D52)

2. Process changes

Did the organization implement and institutionalize operating experience through changes to station processes, procedures, equipment, and training programs? P.2(b)

Based on Level A assessment cause codes, the station did not effectively use external OE or vendor recommendations to support plant safety. (D73)

c. Self- and Independent Assessments

Did the organization conduct self- and independent assessments of their activities and practices, as appropriate, to assess performance and identify areas for improvement? Did independent or self-assessments of activities related to this issue identify concerns or areas for improvement that if properly acted upon, could have prevented or mitigated this issue?

1. Nature of assessments

Did the organization conduct self-assessments at an appropriate frequency; are such assessments of sufficient depth, are comprehensive, are appropriately objective, and are self-critical? Did the organization periodically assess the effectiveness of oversight groups and programs, such as the corrective action program, and policies? P.3(a)

(CR 2007-4988 Root Cause) Station leadership has not provided the support, oversight and leadership necessary to establish the organizational characteristics that support and enhance Self-Assessment and CAP program effectiveness. High standards and expectations are not being implemented or reinforced. (D16)

Operating experience self assessments and audits were not effectively used to prevent or correct issues at the station. (D16)

(b)(4)	
(b)(4)	(D30)

2. Tracking and trending

Did the organization track and trend safety indicators that provide an accurate representation of performance? P.3(b)

Station trending does not appear to be consistently identifying adverse trends. (D16)

It used to be common at FCS to not have trending reports. (I-02)

3. Coordination and communication

Did the organization coordinate and communicate results from assessments to affected personnel and take corrective actions to address issues commensurate with their significance? P.3(c)

- Some individuals perceive that what QA does are peer assessments.
- The value of the SARC's recommendations are not fully realized and accepted by the Station, e.g., SARC recommendations were not properly acted upon (i.e., closed without addressing the issues) and all SARC recommendations were graded to the lowest level in the CAP, including the recommendation of instilling more vigor into CAP implementation (CR-2011-8023 and CR-2011-8027)
- The expectations for the use and implementation of self-assessment within the different departments at Fort Calhoun Station are not obvious. Interviewees did not often identify or discuss

the use of the self-assessment process as a way to identify areas for improvement in the organization.

- Fort Calhoun Station has not conducted a safety self-assessment in 3 – 4 years.
- Interviewees indicated that while Engineering conducted a few self-assessments last year, the vendor manual self-assessment may have been the result of the NRC PI&R Inspection and not self-identified by the Station.
- Interviewees indicated that the results of self and independent assessments are often not communicated back into the organization, e.g., previous Safety Culture Assessments.
- Several interviewees indicated that Fort Calhoun does not capture lessons learned well. Consequently, the use of post activity critiques from meetings, assessments, and routine activities as a learning tool or a way to improve performance has not been well understood or utilized. (D25)

S. Safety Conscious Work Environment (S)

Does the organization actively strive for and encourage employees to raise concerns without the perception of retaliation? Do the employees believe that the organization is committed to a healthy safety conscious work environment?

a. Environment for Raising Concerns

Does an environment exists in which employees feel free to raise concerns both to their management and/or the NRC without fear of retaliation and are employees encouraged to raise such concerns? Was there a free and unhampered flow of information (including CR initiations and self-assessment results) within the organization relative to this issue?

1. Free and open information exchange

Do behaviors and interactions encourage the free flow of information related to raising nuclear safety issues, differing professional opinions, and identifying issues in the corrective action program and through self-assessments? Do such behaviors include supervisors responding to employee safety concerns in an open, honest, and non defensive manner and provide complete, accurate, and forthright information to oversight, audit, and regulatory organizations? Are past behaviors, actions, or interactions that may reasonably discourage the raising of such issues actively mitigated? As a result, do personnel freely and openly communicate in a clear manner conditions or behaviors, such as fitness for duty issues that may impact safety and do personnel raise nuclear safety issues without fear of retaliation? S.1(a)

- A significantly large number of individuals that completed the electronic survey chose the 'Prefer Not to Respond' category when asked about their demographic information. The size of this group indicates a concern about being identified and in some way penalized for their responses. This group had a consistently negative profile on almost all of the survey scales.

- Many individuals indicated that the ECP was not perceived as a confidential and anonymous process and therefore not a viable mechanism for them for reporting concerns. Some interviewees also indicated that ECP should report to someone outside the Site Vice President.
- Several interviewees indicated that they were told not to write CRs and 'don't rock the boat'. Some individuals stated that they would never write a CR on management because it would have career limiting consequences.
- Several interviewees indicated that many things eventually lead to some type of perceived retaliation, e.g., negative labeling, preventing job mobility, assigning lower performance ratings, or reduced opportunities for promotion.
- The Assessment Team observed an occurrence indicating the lack of recognition for the importance of anonymity. During a meeting, a manager indicating that the Independent Safety Culture Assessment Team had set up a hotline for those individuals that wanted to speak to the Team directly, instructed the individuals interested in obtaining the number to see him for the information.
- Overall, only 35% of all survey respondents feel that they can openly challenge decisions made by management. Respondents in the Operations Shift, Electrical Maintenance, RP EP HP, and SFM Maintenance Work Groups had statistically significantly higher scores on this question than respondents in the Prefer Not to Respond, Other, Security Shift, Security Other, and Engineering Programs/Performance Groups. Senior Managers had statistically significant higher scores on this question than any other employee category.
- About 48% of survey respondents agreed with the statement that they feel that they can approach the management team with concerns. Respondents in the SPH CAP and Operations Shift Work Groups had statistically significantly higher scores on this question than respondents in the Prefer Not to Respond, Security Shift, Security Other, and Site Support Groups. Individuals in the Prefer Not to Respond Category had the lowest belief that management could be approached with concerns. The Individual Contributor (Union) and Supplemental Groups believed that management could be approached with concerns statistically significantly more than respondents in the Prefer Not to Respond Category did.
- Overall only 46% of survey respondents agreed with the statement related to management wants concerns reported, and only 35% believe that concerns raised are addressed. For both questions, respondents in the Electrical Maintenance, SFM Maintenance and RP EP HP Work Groups had statistically significantly higher scores on these questions than respondents in the Security Shift, Security Other, Prefer Not to Respond, and Site Support Groups did. Differences in the Employee Categories were primarily in the direction of Senior and Middle Management responding more positively than Individual Contributors.
- Approximately 40% of survey respondents agreed with the statement that constructive criticism is encouraged. Respondents in the Design Engineering, Systems Engineering, Electrical Maintenance,

Operations Shift, RP EP HP, and Training had statistically significantly higher scores on this question than respondents in the Security Shift, Security Other, Site Support and Prefer Not to Respond Groups did. No statistically significant differences were obtained on this question between any of the Employee Categories.

- There is a perceived constructive organizational culture style at the Fort Calhoun Station as indicated by the slightly higher scores on questions related to the sensitivity to the needs of others, the value of achievement, and professional actualization. However, scores on some of the scales that comprise the Passive-Defensive and Aggressive-Defensive Cultural Styles were among the highest in the database of other nuclear plants that have taken the same survey.
- In particular, scores for the Station on behaviors related to the perceived importance of the value of the approval of others, avoiding responsibility for fear of punishment, and the perceived value of confrontation and negativism were the highest in the database.
- Statistically significant differences were obtained between many of the work groups on many of the behaviors associated with several cultural styles suggesting a high degree of variability horizontally in the organization in which values and behaviors are perceived to be important.
- There were no statistically significant differences between any of the employee categories on the same behaviors that differentiated the work groups. This suggests that the cultural differences in the Station are being driven by their functional group and validates the interviewees' perceptions around the organization operating in silos.
- The highest scores on the Organizational Commitment Scale on the electronic survey were obtained in the SFM Maintenance Work Group. These were statistically significantly different from many other work groups. The Prefer Not to Respond, Security Shift, and Security Other Work Groups had the lowest scores on the Commitment Scale.
- Survey respondents in the Operations Shift Work Group had the highest scores on the Work Group Cohesion Scale. These were statistically significantly different from many other work groups. The Prefer Not to Respond, Security Shift, and Security Other Work Groups had the lowest scores on the Work Group Cohesion Scale.
- The Site VP Direct Reports ECP, Design Engineering, Electrical Maintenance, SFM Maintenance, and RP EP HP Work Groups had the more positive organizational cultural profiles.
- The Planning Scheduling Outage, Security Shift, Security Other, Site Support, and Prefer Not to Respond Work Groups had the more negative organizational cultural profiles.
- There is a high to moderate degree of trust in terms of communication within the overall Fort Calhoun Organization. Differences do exist between work groups and they tend to follow those already outlined above. (D25)

(b)(4)

CR 2011-8761, indicates a concern for a potential chilling environment related to the manner in which self declaration of fatigue within the security department has resulted in unpaid time off for security force members. The language in this CR is clear and should have prompted an emergent review and analysis for prompt action by the Station Safety Culture Monitoring Panel as directed by Section 4.5 of FGSG-62, Site Nuclear Safety Culture Process. (D3)

2. Alternate processes

If alternative processes (i.e., a process for raising concerns or resolving differing professional opinions that are alternates to the organization's corrective action program or line management) for raising safety concerns or resolving differing professional opinions exist, then are they communicated, accessible, have an option to raise issues in confidence, and are independent in the sense that the program does not report to line management (i.e., those who would in the normal course of activities be responsible for addressing the issue raised)? S.1(b)

- A significantly large number of individuals that completed the electronic survey chose the 'Prefer Not to Respond' category when asked about their demographic information. The size of this group indicates a concern about being identified and in some way penalized for their responses. This group had a consistently negative profile on almost all of the survey scales.
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b. Preventing, Detecting, and Mitigating Perceptions of Retaliation

Does a policy for prohibiting harassment and retaliation for raising nuclear safety concerns exist and is it consistently enforced? Was there a policy for prohibiting harassment and retaliation for raising nuclear safety concerns in place and was it consistently enforced?

1. Training

Were all personnel effectively trained that harassment and retaliation for raising safety concerns is a violation of law and policy and will not be tolerated? S.2(a)

Contract employees who do not have access to the protected area do not receive General Employee Training. (D78)

FCS did not provide SCWE training for Crew Leaders and above in 2011 because of the flood. (D80)

The Nuclear Supervisor Training Program does not contain a SCWT training component. (D53)

2. Investigation

Were claims of discrimination investigated consistent with the content of the regulations regarding employee protection and any necessary corrective actions taken in a timely manner, including actions to mitigate any potential chilling effect on others due to the personnel action under investigation? S.2(b)

3. Chilling effect

Were potential chilling effects of disciplinary actions and other potentially adverse personnel actions (e.g., reductions, outsourcing, and reorganizations) considered and compensatory actions taken when appropriate? S.2(c)

- A significantly large number of individuals that completed the electronic survey chose the 'Prefer Not to Respond' category when asked about their demographic information. The size of this group

indicates a concern about being identified and in some way penalized for their responses. This group had a consistently negative profile on almost all of the survey scales.

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O. Other Safety Culture Components (O)

Does the organization take necessary steps to assure accountability? Does the organization encourage a continuous learning environment? Does the organization have and implement a systematic change management process? Does the organization have and implement adequate safety policies that demonstrate the overriding priority of nuclear safety?

a. Accountability

Does management define the line of authority and responsibility for nuclear safety? Was a line of authority, responsibility and accountability for decisions related to this issue in place and maintained?

1. Alignment of safety and rewards

Was accountability maintained for important safety decisions in that the system of rewards and sanctions is aligned with nuclear safety policies and reinforces behaviors and outcomes that reflect safety as an overriding priority? O.1(a)

- Accountability for safety is an issue at Fort Calhoun. During this assessment, interviewees and the Assessment Team identified multiple examples indicative that accountability has not been internalized by the Station. Some include:
 - Some Senior Management interviewees did not identify safety in describing their roles and responsibilities.
 - Several interviewees indicated that people generally don't take personal responsibility for their actions, with respect to safety or otherwise, and if they make a mistake they look everywhere but themselves for attribution.
 - Many interviewees believe that individuals at all levels in the organization are inconsistently held accountable for behavior, e.g., self-reporting is handled differently in different departments, manager violated procedure concerning safeguards material and security was given push back not to write a CR.
- Strong perceptions among many interviewees that the individuals that "led us to this situation are still here and have not been held accountable for their actions", many individuals are surprised that only two managers are gone.
- Interviewees and the Team observed that Security did not accept accountability for the firing range incident and rather were upset that Maintenance raised it to such a visible level.
- Many managers and supervisors do not exhibit the desired behaviors and standards and are not challenged by their managers or peers:
- Questions in meetings aren't answered and people have stopped asking;
 - Management is not being held accountable for CAP;
 - After failing the readiness inspection for flooding, there was no accountability for the decisions that were made and the plan that was used,

Early signs of declining performance were there but nothing was done, e.g., flood protection was raised years ago; inattention to detail by managers, no common sense used in the schedule even when it is clear it cannot be done; management has disregarded the issue of qualifications. (D25)

2. Reinforcement

Did management reinforce safety standards and display behaviors that reflect safety as an overriding priority? O.1(b)

Regardless of current station reward recognition initiatives and the OPPD awards process, the 2012 Safety Culture Assessment indicated that management did not reinforce safety standards and display behaviors that reflect safety as an overriding priority. See Alignment of safety and rewards section above. (D25)

3. Safety focus

Did the workforce demonstrate a proper safety focus and reinforce safety principles among their peers? O.1(c)

Several interviewees indicated that people generally don't take personal responsibility for their actions, with respect to safety or otherwise, and if they make a mistake they look everywhere but themselves for attribution.

Many interviewees believe that individuals at all levels in the organization are inconsistently held accountable for behavior, e.g., self-reporting is handled differently in different departments; manager violated procedure concerning safeguards material and security was given push back not to write a CR.

Interviewees and the Team observed that Security did not accept accountability for the firing range incident and rather were upset that Maintenance raised it to such a visible level.

b. Continuous learning environment

Did organization ensure that a learning environment exists? Were adequate training or knowledge transfer activities available and used to either obtain or maintain stakeholder competency related to this issue?

1. Training and knowledge

Did the organization provide adequate training and knowledge transfer to all personnel on site to ensure technical competency? O.2(a)

- The technical training programs were placed on probation in 2009 due to a lack of use of the Systematic Approach to Training (D25) (D30)

(b)(4)

2. Internal and external learning

Did personnel continuously strive to improve their knowledge, skills, and safety performance through activities such as benchmarking, being receptive to feedback, and setting performance goals? Did the organization effectively communicate information learned from internal and external sources about industry and plant issues? O.2(b)

Individuals across the organization have indicated their willingness to raise issues. The CR process however, is perceived by many Station personnel to not be as effective as it should be. The value of the Corrective Action Program to create a learning organization is not being fully realized. Senior leadership provides weak oversight of the process and management engagement with the process has been very limited. The criticality and ability to self-identify issues and causes needs to be enhanced. Operating experience needs to be better integrated into a learning process and a stronger independent oversight organization is needed to help identify areas for performance improvement.

There is a lack in the belief that Fort Calhoun Management really wants problems or concerns reported or that the issues will be addressed. The way that CAP is currently being implemented is not perceived as a value added process for the Station. The relationship of the CAP to performance improvement and the role it plays in the development of a learning organization is not understood or recognized by most individuals. (D25)

Implementation of the FCS OE program is less than adequate. Management has not provided appropriate support and has not held Line and Staff accountable for implementing the OE Program Policy. (MORT analysis MA2-OE)

The people higher in the organization did not provide people lower in the organization what was needed to implement an adequate CAP. (MORT analysis SD6-CAP)

The people higher in the organization did not provide people lower in the organization what they needed to implement the observation program effectively. (MORT analysis SD6-Observations)

c. Organizational change management

Did management use a systematic process for planning, coordinating, and evaluating the safety impacts of decisions related to major changes in organizational structures and functions, leadership, policies, programs, procedures, and resources? Did management effectively communicate such changes to affected personnel? Were organizational, functional, leadership, policy, program or procedure changes associated with this issue effectively communicated and managed? O.3

- During this Assessment the Team identified that the organizational change management process was often ineffective in communicating necessary information. Some examples include:
 - No formalized procedure or change management plan had been implemented to date with regard to what Exelon's roles and responsibilities at the Station would be.
 - The centralization of a nuclear procurement process in Materials Management had not been formally communicated through a change management plan.

Communication around the restart of the Station had been largely informal and often through word of mouth information. (D25)

The lack of a change management plan for bringing Exelon on site resulted in the failure to identify the impacts on other activities/departments. (D47, I-09)

(b)(4)

(b)(4) (D30)

(b)(4)

(b)(4) (D30)

The Change Management Policy has not been effectively implemented at FCS. (MORI analysis MA2)

d. Safety policies

Did safety policies and related training establish and reinforce that nuclear safety is an overriding priority? Were formal safety policies and training related to this issue established and enforced?

1. Raising concerns

Did these policies require and reinforce that individuals have the right and responsibility to raise nuclear safety issues through available means, including avenues outside their organizational chain of command, and to external agencies, and obtain feedback on the resolution of such issues? O.4(a)

2. Safety policy training

Were personnel effectively trained on these policies? O.4(b)

3. Decisions consistent with safety priority

Were organizational decisions and actions at all levels of the organization consistent with the policies? Were production, cost, and schedule goals developed, communicated, and implemented in a manner that reinforces the importance of nuclear safety? O.4(c)

The Team noted that while some examples of conservative decision making were identified at the Station, examples of non-conservative decision making were more prevalent in evaluating significant events. Decisions with respect to prioritization of work and schedule are perceived to be absent. While significant resources have been spent to replace equipment at the Station, resource allocation to meet the current work load and regulatory requirements of the Station's situation are uncertain. Standards and expectations with respect to work practices and work control need to be more clearly identified, communicated, and reinforced. The development of a formal and consistently implemented human performance program needs to be addressed. (D25)

FCS has made a number of non-conservative decisions and decisions that did not appropriately consider risk, (b)(4) (Nuclear Safety Culture MORT Tree H.1.a.b)

4. Top management commitment

Did senior managers and corporate personnel periodically communicate and reinforce the primacy of nuclear safety through their actions and decisions such that personnel understand that safety is the highest priority? O.4(d)

(b)(4)

(b)(4)

(D24)

(b)(4)

(b)(4) (D24)

"SARC findings are circulating the bullet holes. They don't identify anything new; they bring up old items we haven't addressed." (I-04)

Attachment 4 – Documents Reviewed / Interviews / Observations / Timeline Comparison:**Documents Reviewed**

D-1	INPO OR Assist Recommendations: March 2012
D-2	Managing Complex Change
D-3	SARC Minutes: January 2011, September 2011, December 2011, March 2012
D-4	Fatigue Rule Assessment: February 2012
D-5	Training RCA (CR 2012-01604)
D-6	Operability/Reportability Evaluation Backlog: May 7, 2012
D-7	Procedure Backlog (1 st Quarter 2012 Ops Pls)
D-8	NRC Crosscutting Report: March 6, 2012
D-9	Nuclear Oversight Products: July – December 2011
D-10	Nuclear Oversight Audit No. 68: 5/14/2012
D-11	NRC Inspection Results – M-2 Contactor Failure (CR 2011-0451)
D-12	CAP Backlog KPIs: February 2012
D-13	CR on Unattended Safeguards Information (CR 2011-0299)
D-14	Restart Checklist
D-15	Preventive Maintenance Status
D-16	PI&R RCA (CR 2011-10135)
D-17	FW-10 NRC-6 MSPI (a), (CR 2010-0910) FW-10 Trip RCA (b) (CR 2010-0813)
D-18	Flood RCA – Executive Summary (CR 2010-2387)
D-19	Current Nuclear Business Unit Organizational Chart: 5-15-2011

D-20	History of Organizational Changes – FCS DM and above: 2007 through 4-1-2012
D-21	Organizational Effectiveness Cause Code (SA, SQSC): 2006-2011
D-22	CR 2010-6190 Out of Spec Voltage Reading RCA
D-23	CR 2011-5414 Breaker Cubicle Fire RCA
D-24	INPO Evaluation: March 2011
D-25	2012 Independent Safety Culture Assessment (Conger & Elsea): May 11, 2012
D-26	History of OPPD Performance Management: May 16, 2012
D-27	2011 INPO Plant Evaluation AFI (EN.1-1) CR 2011-3025
D-28	FCS SARC Board Updates: December 22, 2011 and March 8, 2012
D-29	CR 2011-1719 Incorrect TS entered – M-2 Contactor Failure
D-30	INPO Plant Evaluation April, 2009
D-31	WANO 2007 Report (Plant Evaluation): September 21, 2007
D-32	2011 NRC P I & R Inspection Report: March 16, 2012 and Response: April 13, 2012
D-33	INPO Training Probation Letter: September 28, 2009
D-34	INPO Engineering Assist Visit: October 5, 2010
D-35	CAP Effectiveness RCA (CR 2007-4988)
D-36	Flooding Procedure AOP-01 (trend) RCA (CR 2012-01021)
D-37	IACPD – Observation Program Assessment: May 2012s
D-38	NRC Notification of Change to Regulatory Oversight (Chapter 0350): December 13, 2011
D-39	Gallup Q-12 Employee Engagement Surveys (Last Five): March 2007, January 2008, October 2008, October 2009, October 2010
D-40	INPO Senior Management Representative Feedback: June 1, 2009
D-41	HU Level A/B Cross-Cutting CR Coding Trend: May 2012

D-42	ACA on OR 1-1 AFI CR 2011-3004: July 19, 2011
D-43	FCS KPIs: March 2012, December 2011, December 2010, December 2009, December 2008, December 2007 December 2006
D-44	Quality Surveillance on MRM (09-QUA-06); March 18, 2009
D-45	Preliminary Historical Report, Level A CR Analysis: 2006-2011
D-46	Goodnight Staffing Data – FCS: 2005, 2007, 2009, 2010, 2011
D-47	Change Management Plan: January 31, 2012 and Examples: 2011 and 2012
D-48	I&C Qualification Letters: 2009-2012
D-49	OPPD Strategic Plan Book: 2011 – 2013
D-50	INPO Organizational Effectiveness (OR) Assist Visit: January 18-22, 2010
D-51	Accountability Model: November 2010
D-52	Cross-cutting Issues: 2006 through 1Q 2012
D-53	Supervisor Training Program Master Plan: May 31, 2012
D-54	Excellence In Leadership (CR 2010-3652-13)
D-55	Nuclear Policy Manual: May 22, 2012
D-56	HR Nuclear Position Description Share Point: May 24, 2012
D-57	Procedures with no Change Management Trigger Points: Project Plan Development: December 01, 2011, Staffing of Positions: December 20, 2004, Procedure Changes and Generation: March 6, 2012
D-58	Change Management Plan (SO-O-21): October 25, 2011
D-59	Change Management Plan (CAP Change Plan): May 4, 2012
D-60	FCSG-44, Project Management: December 1, 2011
D-61	FCSG-24, Corrective Action Program Guideline: April 5, 2012
D-62	SO-R-2, Condition Reporting and Corrective Action: June 1, 2011
D-63	Memo from SVP/CNO – CAP Interim Corrective Action Program Expectations: March 2, 2012

D-64	Quality Reports: 4 th Quarter 2010, Feb. 8, 2011
D-65	Change Plan – Nuclear Procurement Services Reorganization: 2010
D-66	Training Records on Training for FCSG-17, Change Management: December 8, 2008
D-67	NPM-1.13, Operating Experience Program Policy: May 4, 2010
D-68	NOD-QP-21, Operating Experience (OE) Program: February 16, 2012
D-69	FCSG-2, Observation Program: May 15, 2012
D-70	Excel Leadership Curriculum: January 14, 2012
D-71	Condition Report 2012-04361 (OE Issues)
D-72	NOD-QP-2, Conduct of Training: May 10, 2012
D-73	Safety Component Assessment Tree
D-74	NPM-2.04, Establishing and Maintaining a SCWE: July 27, 2010
D-75	Safety Culture Supplement to the MORT (Conger & Elsea): June 2012
D-76	Overdue OE Evaluations: May 29, 2012
D-77	FCSG-62, Site Nuclear Safety Culture Process: May 1, 2012
D-78	General Employee Training, Training Program Master Plan: May 21, 2012
D-79	Accreditation Renewal for Training Programs (INPO Letter): April 25, 2012
D-80	SCWE Training e-mail: May 31, 2012
D-81	OPPD Supervisor's Manual Policy 7.06, Staffing of Positions: April 1, 2002
D-82	OPPD Supervisor's Manual Policy 7.05, Establishment or Maintenance of Bargaining Unit & Exempt Positions (Regular – Full Time): October 1, 1998
D-83	NAI-11, Promotion and Merit Increase Recommendations: April 22, 2003
D-84	Succession Planning Guidance: May 2010

D-85	Principles of Succession Planning (FCS): May 25, 2010
D-86	NAI-19, Staffing of Positions: August 30, 2011
D-87	NPM-1.00, Nuclear Safety: February 9, 2012
D-88	FCS Position Descriptions (Manager – Training, Manager – Security): February 2007
D-89	SO-G-87(a), SO-G-92 (b), FC-1349 (c): May 24, 2011
D-90	FCSG-19, Performing Risk Assessments: October 20, 2011
D-91	Fort Calhoun Nuclear Station HR Roles and Responsibilities for Recovery: December 9, 2011
D-92	OPPD Key Accountability HR DM: March 2012
D-93	Culture Survey Projected Timeline – Key Milestones
D-94	Managing New Leader Acceptance: 2012
D-95	FCSG-4, Performance of Self-Assessments: March 20, 2012
D-96	NOD-QP-48, Site Assessment Review Board: March 16, 2011
D-97	PI & CA TPMP (Self – Assessment Team Leader Qualification Checklist [SATL01])
D-98	FCS Plant Information Center (PIC) Data: 2007 thru 2012
D-99	NRC IR 05000285/2007010 PI&R: October 26, 2007
D-100	NRC IR 05000285/2009007 PI&R: July 14, 2009
D-101	STS Leadership Assessment & Alignment OPPD FCS: November 2011
D-102	2009 NRC CDBI Inspection: December 30, 2009
D-103	2008 Supplemental Inspection Report 95002: May 21, 2008
D-104	Governance Examples (Southern Companies, Xcel, INPO 11-007 – Preliminary): October 29, 2010
D-105	Operating Experience (OE) for Neil Ferguson (Facilities): May 31, 2012
D-106	OE Department Leads: December 13, 2011
D-107	FCSG-27, FCS Decision Making Process: April 30, 2012

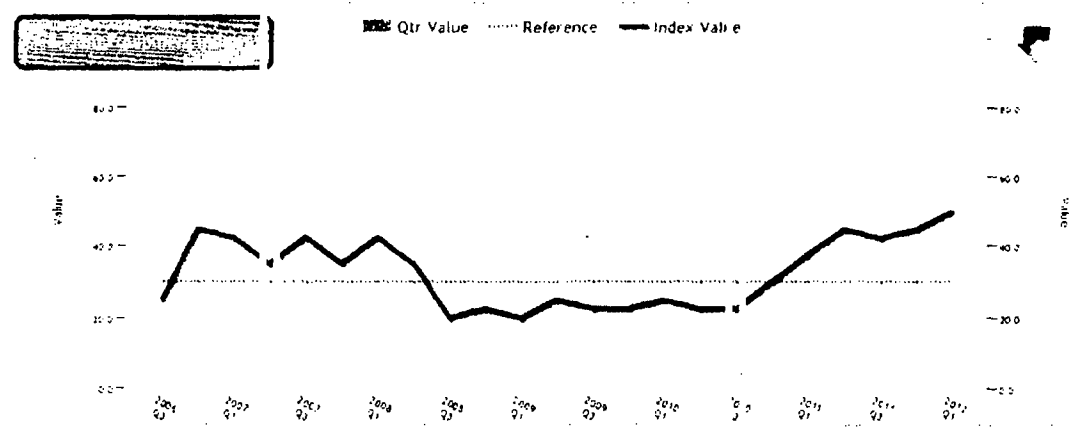
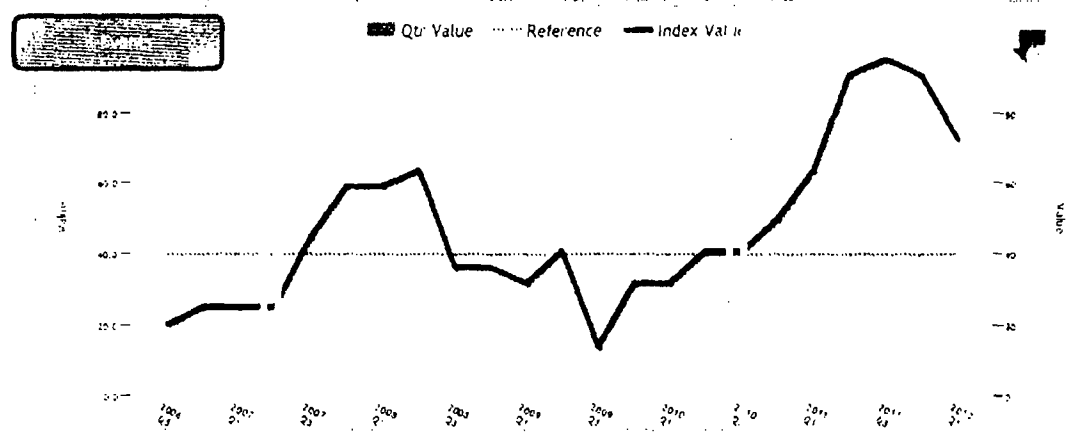
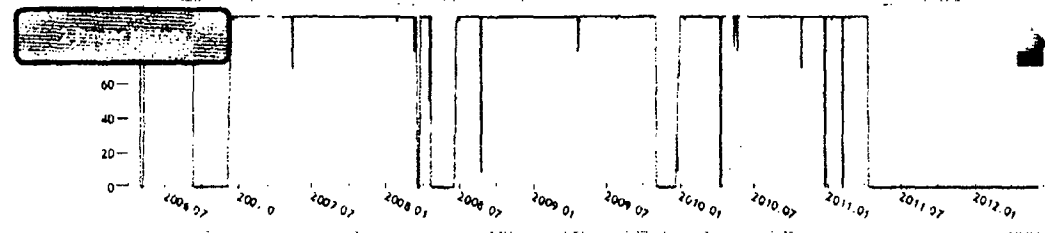
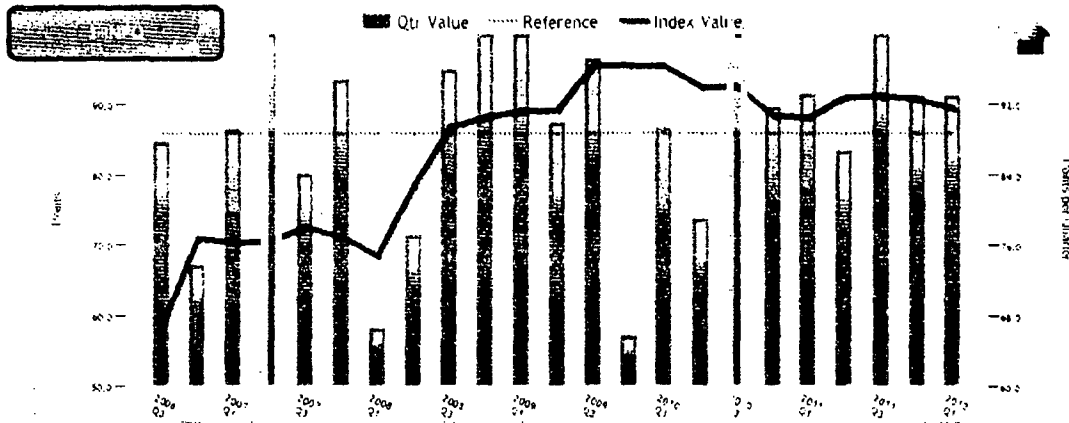
D-108	NPM-1.06, Internal Communications Policy: March 19, 2008
D-109	ESAD-11, OE Training: June 5, 2012
D-110	CR 2009-4690 (ACA)
D-111	Weekly Discussion Points (Site Communication): June 2012
D-112	Weekly Discussion Points Training (Effective Communications Training): June 5, 2012
D-113	2012 FCS Performance Planning and Review Form: February 12, 2012
D-114	Licensing – ROP Action Matrix: 2012
D-115	FCS Achieving Excellence Booklet: 2010
D-116	HR Org Development Docs: Succession Planning, KTR, New Leader Development Strategy, Competencies: May 2012
D-117	HR Org Development Docs Part 2: Workforce Planning, Staffing History, Leadership Assessment & Alignment Methodology: May 2012
D-118	FCS Leadership Academy Changes, Nuclear Supervisor Training Master Plan, Maintenance Supervisor Training Master Plan: May 2012

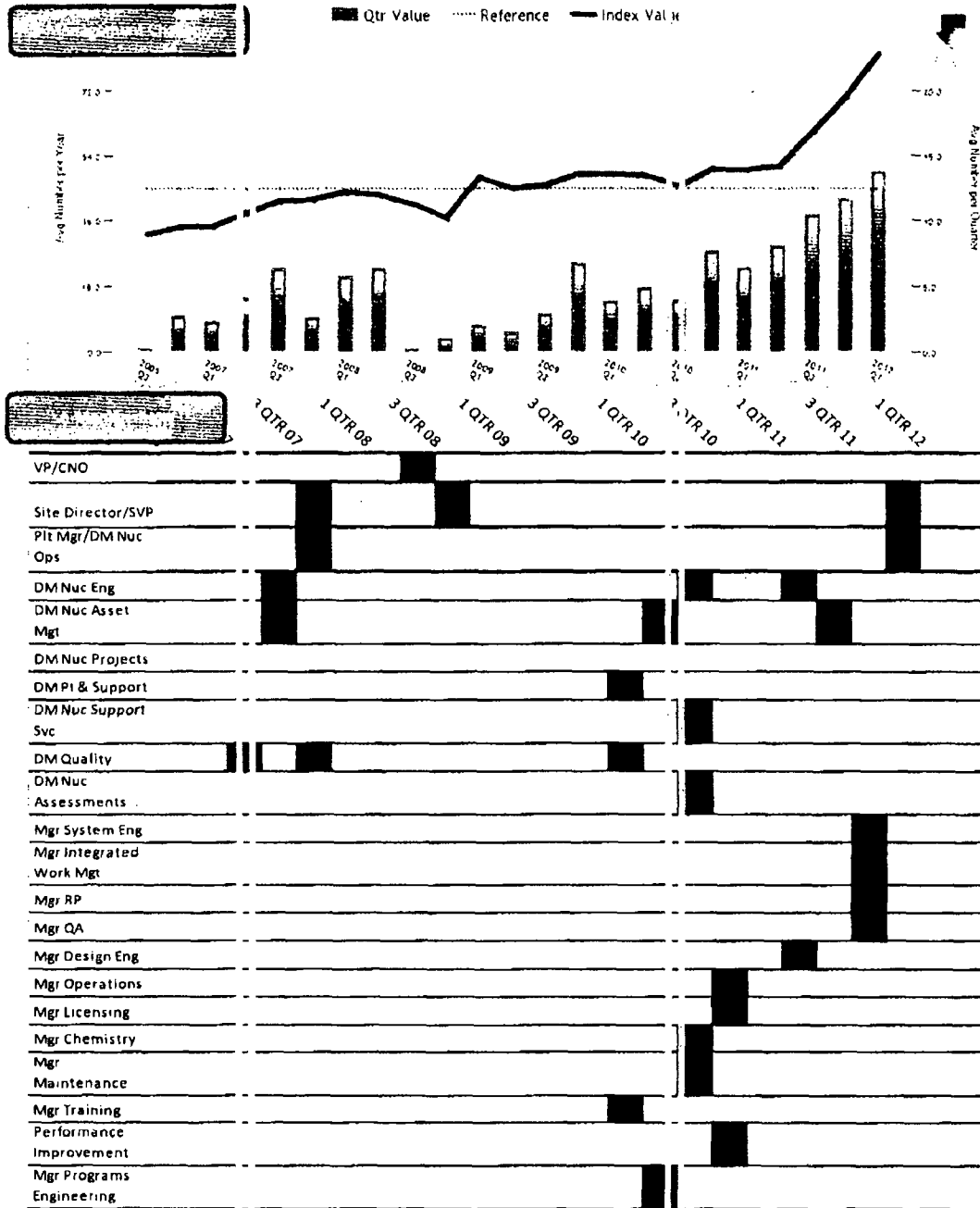
Interviews

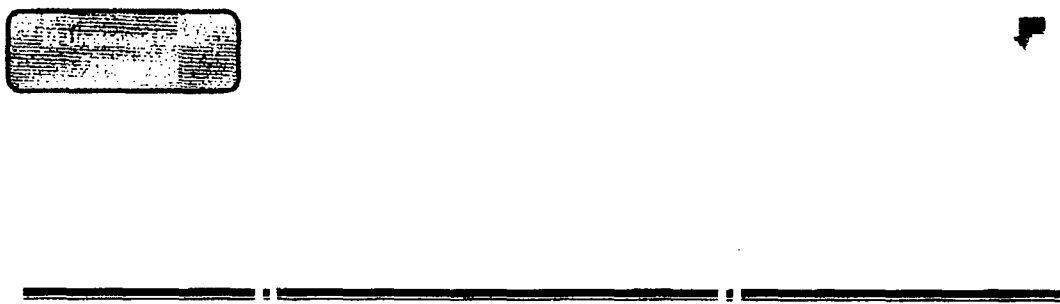
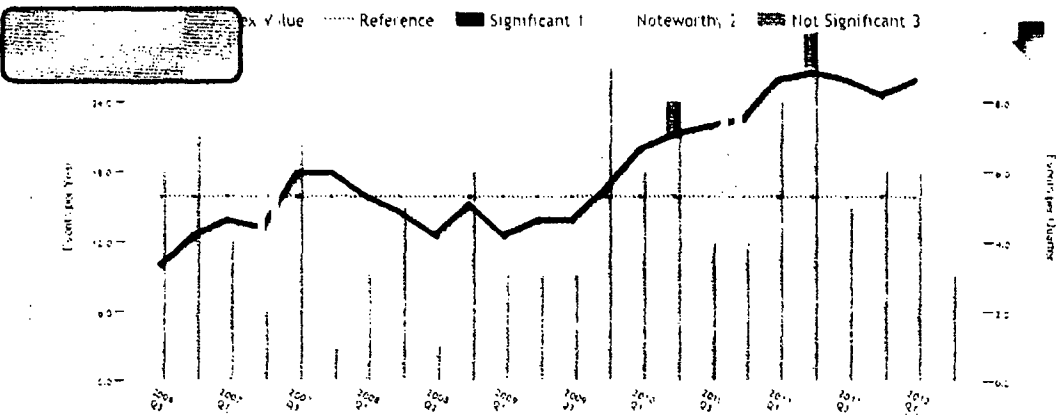
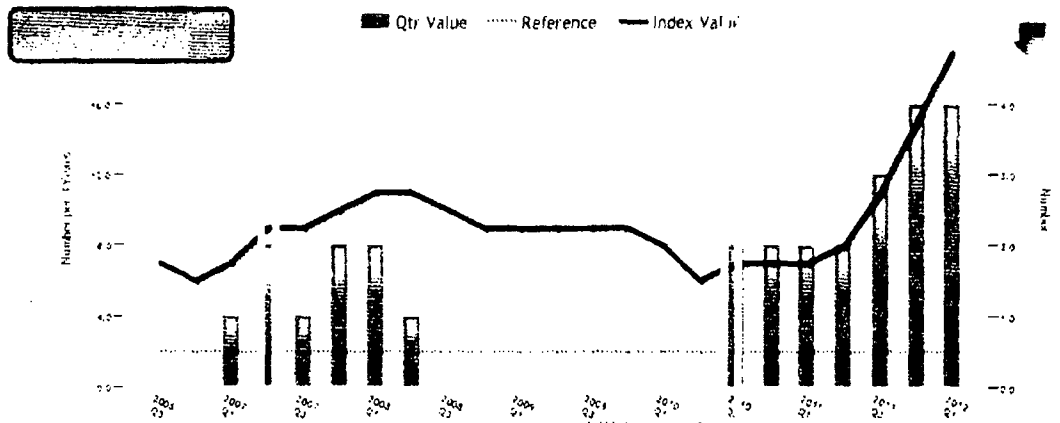
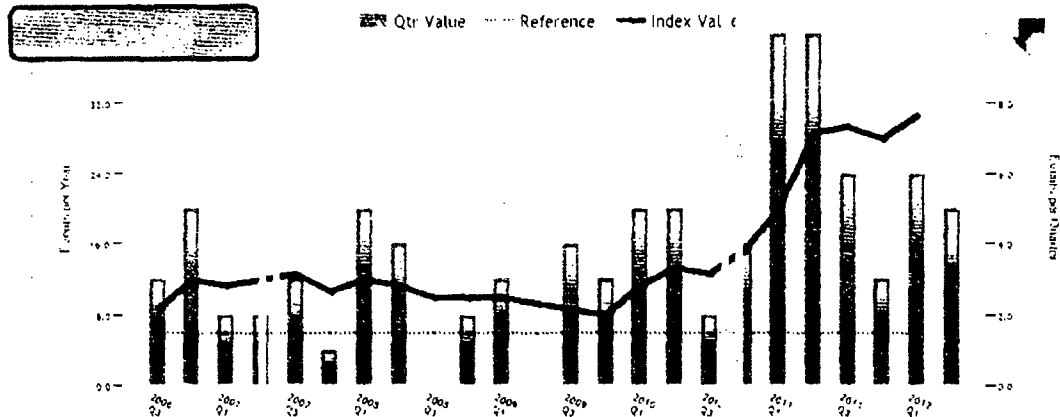
I-1	SARC Chairman (Marler/Werner): May 16, 2012
I-2	Brian Obermeyer (CAP Manager): May 18, 2012
I-3	Amy Hansen (PI Supervisor) Joe Venditte (PI): May 21, 2012
I-4	Dave Bannister (VP/CNO): May 21, 2012
I-5	John Herman (Engineering Division Manager): May 22, 2012
I-6	Rich Haug, Tad Leeper, Tom McShane (Org Development): May 21, 2012
I-7	Del Trausch (Assistant Plant Manager): May 23, 2012
I-8	Tom Mickells (Industrial Safety): May 22, 2012
I-9	W. Gary Gates (CEO): May 25, 2012
I-10	Mike Smith (Manager – Operations): May 20, 2012
I-11	Susan Baughn (Manager – Licensing): May 30, 2012
I-12	Mart Sedky (DM – HR): May 31, 2012
I-13	Brian Obermeyer – (CR trending during 2011): May 31, 2012
I-14	Mike Ferm (Manager – Performance Improvement): May 31, 2012
I-15	Woody Goodell (Division Manager, Performance Improvement): June 1, 2012
I-16	Lloyd Montgomery (I&C Supervisor): June 1, 2012
I-17	Dennis McGranaghan (Manager-Nuclear Cost Mgmt and Planning – Interim): May 29, 2012
I-18	Steve Straub (Supv – NOS): June 4, 2012
I-19	Rich Haug (Accredited/Non-Accredited Training): May 22, 2012

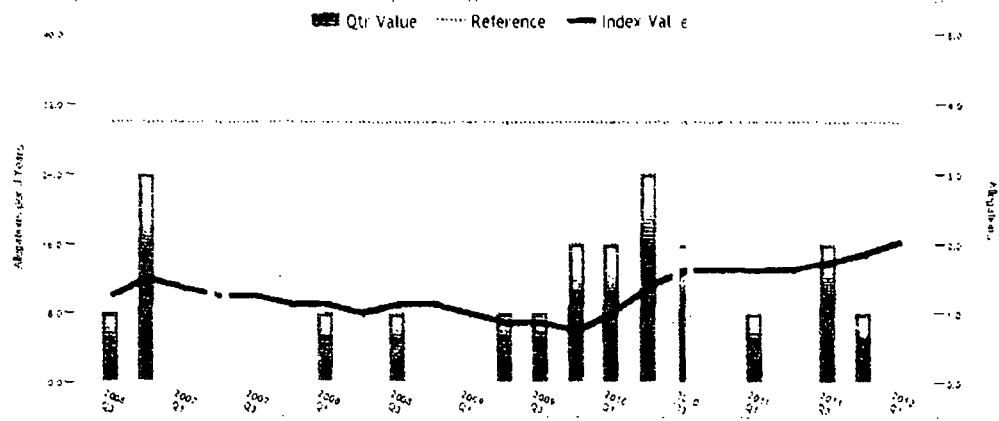
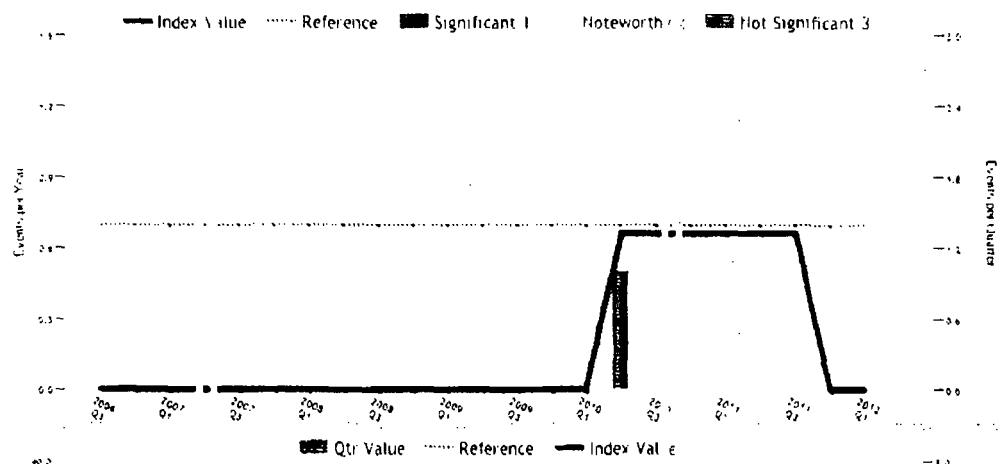
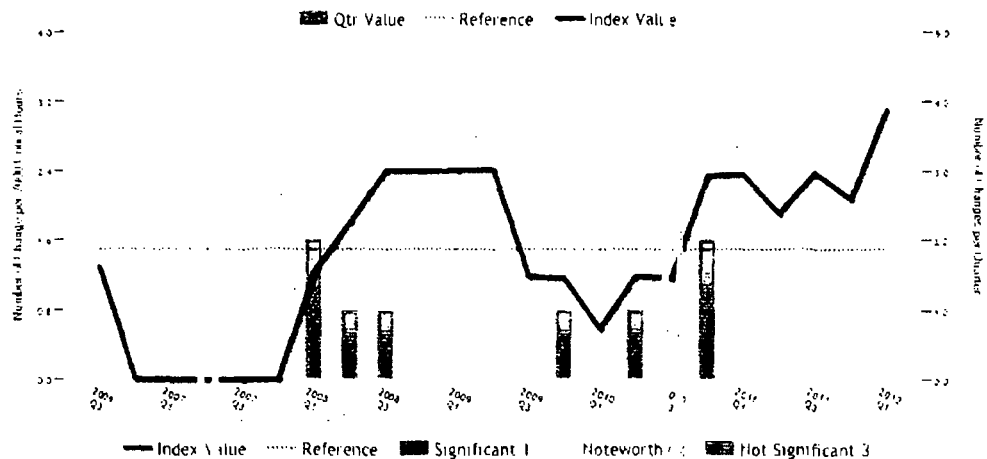
Observations

O-1	0800 Outage Management Meeting: May 15, 2012
O-2	0830 CRG: May 15, 2012
O-3	1100 DM Staff Meeting: May 16, 2012
O-4	1000 OPS DCARB: May 05, 2012
O-5	0900 Weekend SM Call: May 19, 2012
O-6	0900 Weekend SM Call: May 20, 2012
O-7	Ops Focus Meeting: May 21, 2012
O-8	Outage Management Meeting: May 15, 2012
O-9	CRG Meeting: May 15, 2012









Attachment 5

Safety Culture Review
Condition Report 2012-03986

Human Performance (H)

a. Decision-Making. - Licensee decisions demonstrate that nuclear safety is an overriding priority. Specifically (as applicable):

1. The licensee makes safety-significant or risk-significant decisions using a systematic process, especially when faced with uncertain or unexpected plant conditions, to ensure safety is maintained. This includes formally defining the authority and roles for decisions affecting nuclear safety, communicating these roles to applicable personnel, and implementing these roles and authorities as designed and obtaining interdisciplinary input and reviews on safety-significant or risk-significant decisions. H.1(a)
- 2.

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

(b)(4)

(b)(4)

The 2012 Independent Safety Culture Assessment stated that while some examples of conservative decision making were identified at the Station, examples of non-conservative decision making were more prevalent in evaluating significant events.

3. The licensee uses conservative assumptions in decision making and adopts a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action. The licensee conducts effectiveness reviews of safety-significant decisions to verify the validity of the underlying assumptions, identify possible unintended consequences, and determine how to improve future decisions. H.1(b)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment stated that while some examples of conservative decision making were identified at the Station, examples of non-conservative decision making were more prevalent in evaluating significant events.

4. The licensee communicates decisions and the basis for decisions to personnel who have a need to know the information in order to perform work safely, in a timely manner. H.1(c)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated communication issues were identified by almost all interviewees as well by the results of the survey.

- b. Resources - The licensee ensures that personnel, equipment, procedures, and other resources are available and adequate to assure nuclear safety. Specifically, those necessary for:**

1. Maintaining long term plant safety by maintenance of design margins, minimization of long-standing equipment issues, minimizing preventative maintenance deferrals, and ensuring maintenance and engineering backlogs which are low enough to support safety. H.2(a)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment identified that System Engineering only has 6 fully qualified individuals and that over 50% of the Design Engineers have less than 2 years of experience.

2. Training of personnel and sufficient qualified personnel to maintain work hours within working hour guidelines. H.2(b)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that management has allowed the Machine Shop to be decimated and consequently there are only 2 journeymen and the rest of the shop has apprentices with little or no experience.

3. Complete, accurate and up-to-date design documentation, procedures, and work packages, and correct labeling of components. H.2(c)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that the Maintenance Procedure Upgrade Project which originated in 2008 has failed miserably. Furthermore, interviewees indicated that vendor technical manuals and Bill of Materials have not been maintained for some time.

4. Adequate and available facilities and equipment, including physical improvements, simulator fidelity and emergency facilities and equipment. H.2(d)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that many examples existed of missed opportunities to demonstrate the value and priority of safety. An example includes; the meteorological tower was out of service at the time of the flood from June of 2011 until March of 2012.

- c. **Work Control - The licensee plans and coordinates work activities, consistent with nuclear safety. Specifically (as applicable):**

1. The licensee appropriately plans work activities by incorporating H.3(a):

- (a) risk insights;
- (b) job site conditions, including environmental conditions which may impact human performance; plant structures, systems, and components; human-system interface; or radiological safety; and
- (c) The need for planned contingencies, compensatory actions, and abort criteria.

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment cited as an example that the M-2 coil problem in the Reactor Protection System started in 2008 and was scheduled to be fixed during the 2009 outage. It was taken out of the scope of work to avoid impacting outage duration. As a result of this decision, the M-2 coil failed while at power.

2. The licensee appropriately coordinates work activities by incorporating actions to address H.3(b):
 - (a) the impact of changes to the work scope or activity on the plant and human performance,
 - (b) the impact of the work on different job activities, and the need for work groups to maintain interfaces with offsite organizations, and communicate, coordinate, and cooperate with each other during activities in which interdepartmental coordination is necessary to assure plant and human performance,
 - (c) the need to keep personnel apprised of work status, the operational impact of work activities, and plant conditions that may affect work activities,
 - (d) The licensee plans work activities to support long-term equipment reliability by limiting temporary modifications, operator workarounds, safety systems unavailability, and reliance on manual actions. Maintenance scheduling is more preventive than reactive.

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated through interviews that there were several issues related to the coordination of work. As an example, work is not

getting done because scheduling conflicts with equipment issues, e.g. crane not available, bus not energized.

d. Work Practices - Personnel work practices support human performance. Specifically (as applicable):

1. The licensee communicates human error prevention techniques, such as holding pre-job briefings, self and peer checking, and proper documentation of activities. These techniques are used commensurate with the risk of the assigned task, such that work activities are performed safely. Personnel are fit for duty. In addition, personnel do not proceed in the face of uncertainty or unexpected circumstances. H.4(a)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that standards and expectations with respect to work practices and work control need to be more clearly identified, communicated, and reinforced. The development of a formal and consistently applied human performance program needs to be addressed.

2. The licensee defines and effectively communicates expectations regarding procedural compliance and personnel follow procedures. H.4(b)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that procedural use and adherence issues are a concern. As an example; it is fairly common for administrative procedures to reference other procedures and lead to a dead end.

3. The licensee ensures supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported. H.4(c)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment identified that there is a lack of accountability at all levels of the station. (b)(4)

(b)(4)

(b)(4)

(b)(4)

Problem Identification and Resolution (P)

- a. **Corrective Action Program** - The licensee ensures that issues potentially impacting nuclear safety are promptly identified, fully evaluated, and that actions are taken to address safety issues in a timely manner, commensurate with their significance. Specifically (as applicable):

1. The licensee implements a corrective action program with a low threshold for identifying issues. The licensee identifies such issues completely, accurately, and in a timely manner commensurate with their safety significance. P.1(a)

Answer (Mark X to applies): Applicable:

Not Applicable: X

Basis:

2. The licensee periodically trends and assesses information from the CAP and other assessments in the aggregate to identify programmatic and common cause problems. The licensee communicates the results of the trending to applicable personnel. P.1(b)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

From the review of the applicable MORT analysis of the station trending program, a failure to identify adverse trends was noted. In addition, the Safety Culture Assessment Tree identified a high number of deficiencies in Level A condition reports on CAP trending.

3. The licensee thoroughly evaluates problems such that the resolutions address causes and extent of conditions, as necessary. This includes properly classifying, prioritizing, and evaluating for operability and reportability conditions adverse to quality. This also includes,

for significant problems, conducting effectiveness reviews of corrective actions to ensure that the problems are resolved. P.1(c)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that the CR process is perceived by many Station personnel to be not as effective as it should be and the value of the Corrective Action Program to create a learning organization is not fully realized.

4. The licensee takes appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity. P.1(d)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

As indicated in the review of various Root Cause Analysis indicated the following:

(CR 2011-0451) Root Cause 8.6 contributing causes include: Corrective actions to prevent recurrence from previous FCS root cause events have not been fully effective in preventing station events where form, fit, or function have been altered during maintenance activities without an adequate engineering evaluation.

5. If an alternative process (i.e., a process for raising concerns that is an alternate to the licensee's corrective action program or line management) for raising safety concerns exists, then it results in appropriate and timely resolutions of identified problems. P.1(e)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment identified that a significantly large number of individuals that completed the electronic survey chose the "Prefer Not to

Respond" category when asked about their demographic information. The assessment also identified that many individuals did not perceive the ECP Program as a confidential and anonymous process.

- b. Operating experience - The licensee uses operating experience (OE) information, including vendor recommendations and internally generated lessons learned, to support plant safety. Specifically (as applicable):**

1. The licensee systematically collects, evaluates, and communicates to affected internal stakeholders in a timely manner relevant internal and external OE. P.2(a)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that interviewees felt that the concept of a "learning organization" used to be one of the platforms for the Station and no longer is. In addition, it was indicated that while the presence of Operating Experience exists at the station, the organization is missing opportunities to use this information as part of a learning process.

2. The licensee implements and institutionalizes OE through changes to station processes, procedures, equipment, and training programs. P.2(b)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

Based on the Recovery Team Level A assessment cause codes, the station did not effectively use external OE or vendor recommendations to support plant safety.

- c. Self- and Independent Assessments - The licensee conducts self- and independent assessments of their activities and practices, as appropriate, to assess performance and identify areas for improvement. Specifically (as applicable):**

1. The licensee conducts self-assessments at an appropriate frequency; such assessments are of sufficient depth, are comprehensive, are appropriately objective, and are self-critical. The licensee periodically assesses the effectiveness of oversight groups and programs such as CAP, and policies. P.3(a)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The review of the Self-Assessment Process indicated that Self-Assessments and benchmarking activities are not being used effectively to ensure that station standards do not fall behind typical industry standards.

2. The licensee tracks and trends safety indicators which provide an accurate representation of performance. P.3(b)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

Based on interview responses it is common for FCS to not have trending reports.

3. The licensee coordinates and communicates results from assessments to affected personnel, and takes corrective actions to address issues commensurate with their significance. P.3(c)

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that recommendations of the SARC are not fully realized and accepted by the Station. In addition, Fort Calhoun Station has not conducted a safety self-assessment in 3-4 years yet safety performance in 2011 was unacceptable.

Safety Conscious Work Environment (S)

- a. **Environment for Raising Concerns - An environment exists in which employees feel free to raise concerns both to their management and/or the NRC without fear of retaliation and employees are encouraged to raise such concerns. Specifically (as applicable):**
1. Behaviors and interactions encourage free flow of information related to raising nuclear safety issues, differing professional opinions, and identifying issues in the CAP and through self-assessments. Such behaviors include supervisors responding to employee safety concerns in an open, honest, and non-defensive manner and providing complete, accurate, and forthright information to oversight, audit, and regulatory organizations. Past behaviors, actions, or interactions that may reasonably discourage the raising of such issues are actively mitigated. As a result, personnel freely and openly communicate in a clear manner conditions or behaviors, such as fitness for duty issues that may impact safety and personnel raise nuclear safety issues without fear of retaliation. S.1(a)

Answer (Mark X to applies): Applicable: X Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that several individuals were told not to write CRs and "don't rock the boat". Some individuals indicated that they would never write a CR on management because it would have career limiting consequences.

2. If alternative processes (i.e., a process for raising concerns or resolving differing professional opinions that are alternates to the licensee's corrective action program or line management) for raising safety concerns or resolving differing professional opinions exists, then they are communicated, accessible, have an option to raise issues in confidence, and are independent, in the sense that the program does not report to line management (i.e., those who would in the normal course of activities be responsible for addressing the issue raised). S.1(b)

Answer (Mark X to applies): Applicable: X Not Applicable: ____

Basis:

From the 2012 Independent Safety Culture Assessment many individuals indicated that ECP was not perceived as a confidential and anonymous process and therefore is not a viable mechanism for them for reporting concerns.

b. Preventing, Detecting, and Mitigating Perceptions of Retaliation - A policy for prohibiting harassment and retaliation for raising nuclear safety concerns exists and is consistently enforced in that:

1. All personnel are effectively trained that harassment and retaliation for raising safety concerns is a violation of law and policy and will not be tolerated. S.2(a)

Answer (Mark X to applies): Applicable: X Not Applicable: ____

Basis:

A review of the Nuclear Supervisor Training Program indicated that the training does not contain a SCWE training component.

2. Claims of discrimination are investigated consistent with the content of the regulations regarding employee protection and any necessary corrective actions are taken in a timely manner, including actions to mitigate any potential chilling effect on others due to the personnel action under investigation. S.2(b)

Answer (Mark X to applies): Applicable: Not Applicable: X

Basis:

3. The potential chilling effects of disciplinary actions and other potentially adverse personnel actions (e.g., reductions, outsourcing, and reorganizations) are considered and compensatory actions are taken when appropriate. S.2(c)

Answer (Mark X to applies): Applicable: X Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that only 35% of all survey respondents feel they can openly challenge decisions made by management.

Other Components.

This section describes components of safety culture which are not associated with cross-cutting areas. These components, when combined with the cross-cutting area components described above for human performance, problem identification and resolution and safety conscious work environment, comprise the safety culture components. Components in this section are considered during the conduct of the supplemental inspection program, while the cross-cutting area components are considered during the conduct of both the baseline and supplemental inspection programs. [O]

a. Accountability - Management defines the line of authority and responsibility for nuclear safety. Specifically (as applicable): O1.

1. Accountability is maintained for important safety decisions in that the system of rewards and sanctions is aligned with nuclear safety policies and reinforces behaviors and outcomes which reflect safety as an overriding priority.

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that there were early signs of declining performance but nothing was done, e.g. flood protection was raised years ago; Inattention to detail by managers, no common sense used in the schedule even when it was clear it cannot be done; management has disregarded the issue of qualifications.

2. Management reinforces safety standards and displays behaviors that reflect safety as an overriding priority.

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that management did not reinforce safety standards and display behaviors that reflect safety as an overriding priority.

3. The workforce demonstrates a proper safety focus and reinforces safety principles among their peers.

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that many interviewees believe that individuals at all levels in the organization are inconsistently held accountable for behaviors.

- b. Continuous learning environment - The licensee ensures that a learning environment exists. Specifically (as applicable): O2**

1. The licensee provides adequate training and knowledge transfer to all personnel on site to ensure technical competency.

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that Technical Training Program was placed on Probation in 2009 due to a lack of use of the Systematic Approach to Training.

2. Personnel continuously strive to improve their knowledge, skills, and safety performance through activities such as benchmarking, being receptive to feedback, and setting performance goals. The licensee effectively communicates information learned from internal and external sources about industry and plant issues.

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that there is a lack in the belief that Fort Calhoun Management really wants problems or concerns reported or that issues will be addressed.

- c. **Organizational change management -Management uses a systematic process for planning, coordinating, and evaluating the safety impacts of decisions related to major changes in organizational structures and functions, leadership, policies, programs, procedures, and resources. Management effectively communicates such changes to affected personnel. O3**

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that it was not recognized that a change management plan was needed to transition from development to implementation of the new EROP PMs.

- d. **Safety policies - Safety policies and related training establish and reinforce that nuclear safety is an overriding priority in that: O4**
1. These policies require and reinforce that individuals have the right and responsibility to raise nuclear safety issues through available means, including avenues outside their organizational chain of command and to external agencies, and obtain feedback on the resolution of such issues.

Answer (Mark X to applies): Applicable: X

Not Applicable: X

Basis:

2. Personnel are effectively trained on these policies.

Answer (Mark X to applies): Applicable:

Not Applicable: X

Basis:

3. Organizational decisions and actions at all levels of the organization are consistent with the policies. Production, cost and schedule goals are developed, communicated, and implemented in a manner that reinforces the importance of nuclear safety.

Answer (Mark X to applies): Applicable: X

Not Applicable: ____

Basis:

The 2012 Independent Safety Culture Assessment indicated that while some examples of conservative decision making were identified there were other examples provided where non-conservative decision making were more prevalent in evaluating significant events.

4. Senior managers and corporate personnel periodically communicate and reinforce nuclear safety such that personnel understand that safety is of the highest priority.

Answer (Mark X to applies): Applicable: X Not Applicable: ____

Basis:

(b)(4)

Attachment 6 – Cause to Corrective Action Matrix

Root and Contributing Causes	Corrective Action	Responsible Person	Due Date	Effectiveness Review
RC1 – Less than adequate Governance and Oversight: The OPPD organization failed to establish and implement the essential attributes of <i>governance and oversight</i> , including the key elements of individual roles, responsibilities, and accountabilities to enable FCS to achieve and maintain high levels of operational nuclear safety and reliability.	CAPR1 – Establish corporate governance and oversight policies, processes, and programs by which OPPD directs and controls FCS. Include the roles, responsibilities, and accountability of individuals in the organization for implementing the governance.	WG Gates	7/27/2012	<p>At Management Review Meetings (conducted between 8/1/2012 and 2/1/2013), verify that CAPR1 implementation activities are on track and there is an overall <i>improving trend in the indicators</i> identified below:</p> <p>Interim Effectiveness Measures (reference INPO 01-005, Indicators of Changing Performance):</p> <ul style="list-style-type: none"> • Plant safety • Plant reliability • Personnel safety • Human Performance • CAP • Equipment performance • Work management • Training • Self-assessment • Configuration control • Attitude • Safety Culture • Staffing

Root and Contributing Causes	Corrective Action	Responsible Person	Due Date	Effectiveness Review
				<ul style="list-style-type: none"> Regulatory issues (Due 2/8/2013 – owner: D Bannister). <p>A self-assessment determines that OPPD has established and implemented the essential attributes of governance and oversight, including the key elements of individual roles, responsibilities, and accountabilities, and station performance is improving.</p> <p>Complete the self-assessment with a team comprised of industry and OPPD personnel. (Due 2/15/2013 – owner: R Haug).</p>
Strategic Business Planning	CA1 - Prepare new corporate strategic plan to cover activities of the corporation including nuclear safety.	WG Gates	7/27/2012	
Strategic Business Planning	CA2 - Establish a corporate support group that includes a focus on nuclear safety that reports directly to the CEO.	WG Gates	7/27/2012	
Vision, Mission, Values (Direction)	CA3 - Implement the revised FCS Vision, Mission, and Values to align with the OPPD strategic plan.	D Bannister	7/27/2012	

Root and Contributing Causes	Corrective Action	Responsible Person	Due Date	Effectiveness Review
Alignment	CA4 - Align the FCS organization to the FCS Vision, Mission, and Values using training, coaching, performance reviews, accountability, and communications, as applicable.	D Bannister	8/31/2012	
Accountability	CA5 - Implement an accountability model for the FCS organization.	D Bannister	7/27/2012	
Accountability	CA6 - Implement a performance management process for FCS employees.	M Sedky	10/30/2012	

Root and Contributing Causes	Corrective Action	Responsible Person	Due Date	Effectiveness Review
Effectiveness measures	<p>CA7 - Implement a process including developing effectiveness measures for the following key programs (but not limited to):</p> <ul style="list-style-type: none"> • Corrective Action Program • Operating Experience • Self-Assessment • Observations • Benchmarking • Human Performance • Safety Culture • Leadership development • Leadership skills assessment • Succession planning • Hiring • Knowledge transfer • Workforce planning 	M Ferm	8/17/2012	

Root and Contributing Causes	Corrective Action	Responsible Person	Due Date	Effectiveness Review
RC2 - Station leaders are more tactical than strategic, prioritize poorly, delegate little, surrender oversight, rationalize low standards, and hesitate to hold personnel accountable, resulting in a culture that values harmony and loyalties over standards, accountability and performance.	CAPR2 – Implement a management model with an emphasis on nuclear safety and continuous improvement that defines the FCS fundamental objectives, through the mission, vision, values, guiding principles, and fundamentals of the organization.	D Bannister	7/20/2012	Leadership skill assessment indicates an improving trend in station leader performance. The specific attributes include: 1) Alignment 2) Accountability 3) High standards These attributes will be reviewed against the initial STS leadership assessment results. (Due 2/28/2013 – Owner: M Sedky)
Leadership skills assessment	Conduct the Strategic Talent Solutions (STS) Leadership Assessment and prepare Individual Development Plans (IDP's).	NA	Complete	
Leadership skills assessment and development	CA8 - Assess the leadership and management capabilities of the entire leadership team and make any needed changes. (Independent assessor)	S Hutcherson	8/24/2012	
Succession planning (future leadership)	CA9 - Implement a revised succession planning process for FCS.	M Sedky	8/31/2012	

Root and Contributing Causes	Corrective Action	Responsible Person	Due Date	Effectiveness Review
Succession planning	CA10 - Link the leadership certification assessment results to the FCS succession plan.	M Sedky	8/31/2012	
Knowledge transfer	CA11 – Implement the existing knowledge transfer process for FCS.	M Sedky	8/31/2012	
Workforce planning	CA12 - Implement a Strategic Workforce Planning .	M Sedky	9/30/2012	
RC3 – Less than adequate Policy Implementation: The FCS leaders failed to develop, implement, and hold people accountable for implementation of important policies and programs, to achieve organizational effectiveness. These include, but are not limited to the Corrective Action, Operating Experience and Observation Programs.	CAPR3 – Implement an accountability model for the FCS organization. [Reference CA5]	D Bannister	7/27/2012	Self-assessment indicates policies have been appropriately developed and effectively implemented, and leaders are holding themselves and others accountable to the implementation of these policies. (Due: 11/2/2012- owner: M Ferm) The Organizational Effectiveness Metric is developed and indicates an improving trend. (Due: 2/15/2013- owner: M Ferm)
	CA13 - Prepare the Organizational Effectiveness Recovery Team Charter.	RJ Hovey	7/13/2012	

Root and Contributing Causes	Corrective Action	Responsible Person	Due Date	Effectiveness Review
	CA14 - Staff and implement the Organizational Effectiveness recovery team.	RJ Hovey	7/13/2012	
	CA15 - Create an overall Organizational Effectiveness Metric.	M Ferm	7/13/2012	
	CA21 – Develop a “Road Map” to Organizational Excellence	M Ferm	7/27/2012	
	CA22 – Revise the MRM Agenda to have a standing line item to review the status of the Organizational Effectiveness recovery.	B Obermeyer	7/20/2012	
Corrective Action Program	Corrective actions are addressed in CR 2010-2387 and CR 2011-10135 (SO-R-2 and FCSG-24 policy and implementation revisions). These actions include CR2011-10135 action items 21 – 26 (completed), action item 27 scheduled to be completed 8/17/12 and CR2010-2387 action items 87, 88, 93 - 103 (completed)	NA	8/17/2012	

Root and Contributing Causes	Corrective Action	Responsible Person	Due Date	Effectiveness Review
Operating Experience	Implement an accountability model for the FCS organization. [Reference CA5] Further analysis will be addressed by the Fundamental Performance Deficiency process.	NA	See CA5 Above	
Observations	CA16 - Revise FCSG-2, Observation Program, to include: <ul style="list-style-type: none"> • Conduct of peer observations. • Define specific rating criteria to evaluate field observation for EE, ME, BE, NI. • Assign responsibility for trending observation findings. 	M Ferm	8/24/2012	
CC1 – The principles and attributes for a strong nuclear safety culture are not rigorously applied at FCS.	CA17 - Revise NPM-1.00, Nuclear Safety, to require: <ul style="list-style-type: none"> • Safety culture metrics • Use of INPO's Principles for a Strong Nuclear Safety Culture as guiding principles for improving performance and nuclear safety margin. Examples include pre-job briefings, meetings, training sessions, and infrequently performed tests and evolution briefings. 	D Bannister	7/27/2012	

Root and Contributing Causes	Corrective Action	Responsible Person	Due Date	Effectiveness Review
CC2 – The station leadership team does not consistently implement the FCS Change Management Policy to maintain trust in the organization.	CA18 – Determine policies, procedures and guidelines that should direct implementation of FCSG-17, Change Management.	M Ferm	7/13/2012	
CC2 – The station leadership team does not consistently implement the FCS Change Management Policy to maintain trust in the organization.	CA19 – Revise the policies, procedures, and guidelines identified in CA-18 that direct implementation of FCSG-17, Change Management.	M Ferm	8/10/2012	
CC3 - The implementation of the FCS Communication Policy is less than adequate to build trust and reinforce a healthy safety culture.	CA20 - Establish a communications policy to replace NPM-1.06 that provides direction and expectations based on the significance of the issue and the expected communication methods to be used. This policy should include development of an FCS communications strategy.	L Olson	7/27/2012	