South Texas 1
3Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Aug 14, 2008
Identified By: NRC
Item Type: FIN Finding
Ineffective Corrective Actions on the Equipment Clearance Order Process
The team identified a finding involving ineffective corrective actions for the equipment clearance order process. Despite the identification of numerous related failures of the equipment clearance order process in various significant conditions adverse to quality condition reports and recent audit reports, the licensee had not performed an effective overall assessment of the equipment clearance order/work process control to determine the extent of the condition and therefore, had not implemented effective corrective actions to address the underlying causes.

The team determined that the ineffective corrective actions associated with the equipment clearance order process, which continues to result in equipment clearance order errors affecting personnel and equipment safety, was a performance deficiency. The team determined that the finding was more than minor because it affected the Initiating Events cornerstone objective to limit those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The team evaluated the finding using the Phase 1 worksheet in Inspection Manual Chapter 0609, "Significance Determination Process," and determined the finding to have very low safety significance because: it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would be unavailable; it did not contribute to the likelihood of a loss-of-coolant accident; and it did not increase the likelihood of a fire or flooding. This issue has a crosscutting aspect in the area of human performance, specifically, the work practices aspect, in that, the licensee failed to adequately define and communicate expectations regarding procedural compliance and personnel following procedures. [H.4(b)]
Inspection Report# : 2008009 *(pdf)*

Significance: G Jun 28, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to evaluate and/or Document Multiple Boric Acid Leaks with Changed Conditions
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for failure to follow Procedure 0PGP03-ZE-0133, “Boric Acid Corrosion Control Program,” Revision 0 and Revision 1, which resulted in the licensee not re-evaluating changes to the material condition of plant equipment. On February 26, 2008, in preparation for Unit 1 Refueling Outage 1RE14, the inspectors identified boric acid deposits that appeared brown in color on spent fuel pool Valve 1-FC-0010B. Additional examples were identified by both the licensee and the inspectors where a changed condition was not re-evaluated. These examples point to multiple examples of the licensee failing to follow the established procedure for boric acid corrosion. The licensee entered this issue into their corrective action program as Condition Report 08-8059.

The finding is more than minor because if the failure to ensure that the original assumptions remain valid when the leakage type or color changes continued, then unevaluated degradation of safety-related components could continue and lead to a more significant safety concern. The finding is associated with the Initiating Events cornerstone attribute of human performance and it affects the cornerstone objective of limiting those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. This finding was determined to be of very low safety significance based on Inspection Manual Chapter 0609, Appendix A, Phase 1 worksheet of the Significance Determination Process because it did not result in exceeding the Technical Specification limit for reactor coolant system leakage or affect other mitigating systems resulting in a loss of safety function. In addition, this finding had human performance crosscutting aspects associated with resources, in that, station personnel had a high number of backlog items related to the boric acid corrosion control program resulting in personnel not following the timelines established by the procedure [H.2(a)].

Inspection Report# : 2008003 *(pdf)*

Mitigating Systems

Significance: G Jun 28, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedure Results in Motor Operated Valve Motor Damage

The inspectors reviewed a self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for the failure to follow Work Order 452133, “Terminate Replacement Cables for MCC E1C3 in Accordance with Design Change Package 05-1437-4 during 1RE14,” Revision 0 and Procedure 0PGP03-ZM-0021, “Control of Configuration Changes,” Revision 15. On March 31, 2008, electrical maintenance personnel failed to follow the procedures by not documenting the cable terminations, as a result, 2 of 3 cables were swapped and the Essential Cooling Water Pump 1C discharge isolation valve motor operator was damaged. Additionally, electrical maintenance personnel did not complete the work order when they did not perform the required postmaintenance test on the motor control center electrical terminations. Per the Control of Configuration Changes procedure, maintenance personnel should have documented the lifting/terminating of cable connections and per the work order complete the postmaintenance test which would have identified the swapped electrical connections. The licensee entered this issue into their corrective action program as Condition Report 08-5486.

The finding is more than minor because if left uncorrected, failure to properly document cable lifting/terminating and perform the postmaintenance test could lead to a more significant event as was evidenced by the damage caused to the Essential Cooling Water Pump 1C discharge isolation motor operated valve motor. This finding is associated with the Mitigating Systems cornerstone attribute of human performance and it affects the cornerstone attribute to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. This finding was determined to be of very low safety significance based on Inspection Manual Chapter 0609, Appendix G, Phase 1 worksheet of the Shutdown Significance Determination Process because it did not screen as needing a quantitative assessment due to the licensee maintaining an adequate mitigation capability. In addition, this finding had human performance crosscutting aspects associated with work practices, in that, station personnel failed to follow the expectation regarding procedure compliance by failing to follow the work order and the procedure to ensure that the cables were correctly landed before performing subsequent surveillance tests [H.4 (b)].

Inspection Report# : 2008003 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Specify Setpoint Calibration Limits in Relay Setpoint Calculations
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance for the failure to specify in a design calculation allowable relay setpoint tolerances. Specifically, the licensee failed to specify and verify in the relay setpoint calculations the relay setpoint tolerances used in the calibration test procedures. The issue was documented in the corrective action program as Condition Record 07-15443.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. The failure to verify the effects of relay setpoint tolerances on relay coordination time intervals could have resulted in a loss-of-relay coordination and could lead to either a loss of power to safety-related components or lead to a potential for compromising other equipment on a single fault that the relay was designed to isolate. Using Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because the condition did not represent a loss of safety function of a system or a train.
Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Manual Loads not Considered for Fuel Oil Storage Tank Sizing Calculation
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance for the failure to include all potential loads in the standby diesel generator fuel oil sizing calculation. Specifically, the licensee did not account for increased standby diesel generator fuel oil usage resulting from the addition of manual electrical loads during the 7-day mission run time. The licensee entered this finding into their corrective action program as Condition Record 07-15592. The licensee subsequently demonstrated that the spent fuel pool cooling pumps would be the only additional manual loads actually used during the 7 days of operation in the bounding design basis scenario and that there were additional conservative assumptions in the sizing calculation to demonstrate sufficient margin.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it was a design or qualification deficiency confirmed not to result in loss of operability or functionality.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC

Item Type: NCV NonCited Violation
Failure to Use Correct Design Inputs in Determination of the Weak Link for the Auxiliary Feedwater System Outside Containment Isolation Motor Operated Valves
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria III, "Design Control," of very low safety significance for the failure to translate design basis information into specifications and procedures. Specifically, a non-conservative system pressure was used as an input to an engineering design calculation for the auxiliary feedwater outside containment isolation valves. This finding has been entered into the licensee's corrective action program as Condition Record 07-15455.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not represent a loss safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Surveillance Procedure Lacked Check for Timing of Chiller Loading on the Bus
The team identified a noncited violation of Technical Specification Surveillance Requirement 4.8.1.1.2.E.11, having very low safety significance for the licensee’s failure to adequately perform the technical specification surveillance requirement. Specifically, the licensee failed to verify the loading times of the essential chillers in order to verify the automatic load sequence timer was operable. This issue was entered into the licensee’s corrective action program as Condition Records 07 14903 and 07-14959.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not represent a loss of safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Test Program for 125V DC Molded Case Circuit Breakers
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," having very low safety significance for the licensee’s failure to implement a test program to assure that all installed safety-related molded case circuit breakers will perform satisfactorily in service. Specifically, the licensee had not adequately exercised or subjected to periodic testing all of the 125V dc molded case circuit breakers since initial plant operation. The licensee entered the finding into their corrective action program as Condition Record 07-15817.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Equipment Performance.” It impacts the cornerstone objective of ensuring the availability, reliability, capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not result in a loss of safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Incorporate Instrument Uncertainties into Surveillance Requirements for Technical Specification Limiting Condition for Operation 3.5.2 (Specifically Surveillance Requirement 4.5.2.f)
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria III, "Design Control," of very low safety significance for the failure to adequately translate design basis information into specifications and procedures. Specifically, measurement instrument uncertainties were not included in the determination of minimum allowed high head safety injection pump and low head safety injection pump developed head values used during periodic technical specification surveillance testing. The licensee entered the finding into their corrective action program as Condition Record 07-15752.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design

Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not result in a loss of safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Incorrect Count Rate Board Installed in Extended Range Nuclear Instrument Channel
The inspectors reviewed a self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criteria V, for the failure to follow Procedure STI 32174927, “Conduct of Maintenance,” Revision 5. On April 6, 2007, operations declared extended range nuclear instrument Channel NI46 inoperable due to erratic low range indications, as a result, the licensee replaced the log count rate circuit board in Slot A4 of the processor. On April 14, 2007, operations was taking shiftly logs and recognized that the startup rate channel check was approaching the limit of 0.5 decades per minute. The log count rate circuit board in Slot A4 was replaced again and it was determined that the wrong board had been installed. The licensee’s root cause determined that the wrong board was installed because maintenance personnel were not using appropriate reference material to ensure that the correct part was installed.

The inspectors determined that the finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment and human performance, and it affected the cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix M, “Significance Determination Process Using Qualitative Criteria,” and determined that the finding screened as Green because: (1) the licensee had all power, intermediate, and source range nuclear instruments available; (2) the extended range nuclear instruments provide no protective functions other than alarms and indications; (3) the primary function is to provide indication to the operators to assess the sub-criticality critical safety function, and this was only impacted in the "Yellow" path; (4) the Updated Final Safety Analysis Report does not take credit for the extended range nuclear instruments except to provide the operators with a minimum of 15 minutes to respond to a dilution event pending a loss of shutdown margin; and (5) very low likelihood that shutdown margin would be challenged post trip. This finding also had human performance crosscutting aspects associated with work practices, in that, the licensee did not effectively communicate human error prevention techniques such as self and peer checking [H.4(a)], and maintenance personnel did not verify the replacement part using controlled documentation.
Inspection Report# : 2007005 *(pdf)*

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Incorrectly Installed Safety-Related Solenoid Valve Results in Unexpected Steam Dump Valve Operation
The inspectors reviewed a self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criteria V, for an inadequate procedure for testing safety-related solenoid valves that operate the steam dump valves. On December 18, 2006, during troubleshooting activities on Unit 1 to investigate the unexpected response of steam dump Valve N1MSPV7489, the licensee discovered that the safety-related solenoid valve instrument air line connections were crossed, such that the steam dump valve would not close. The licensee had incorrectly connected the instrument air lines in April 1999, and they also identified that they missed several opportunities to identify and correct this condition. The licensee determined that the maintenance procedure for the safety-related solenoid valves was inadequate because it only tested the function of the solenoid, electrical connection, and not the operation of the steam dump valve, instrument air line connection. As part of the corrective actions the licensee corrected the cross connection of the instrument air lines, walked down the other steam dump safety-related solenoid valves, and changed the maintenance procedure.

This finding is more than minor because it affected the Mitigating Systems cornerstone attribute of procedural quality and the objective of ensuring the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. Using the Significance Determination Process Phase 1 worksheets, this finding was determined to have very low safety significance (Green) because it did not result in the actual loss of safety function of one or more non-Technical Specification trains of equipment for greater than 24 hours and it did not screen as risk significant due to seismic, flooding, or severe weather. This issue had no crosscutting aspects because the cross connection of the instrument air lines occurred in 1999.
Inspection Report# : 2007005 *(pdf)*

Significance: G Oct 11, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedure Leads to Inoperable Turbine-Driven AFW Pump for Longer than TSs Allowed Outage Time
The inspectors reviewed a self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criteria V, "Instructions, Procedures, and Drawings," for an inadequate surveillance test procedure on the turbine-driven auxiliary feedwater pump, due to inadequate acceptance criteria for the trip hook and the latch-up lever and the impact distance. As a result, on December 12, 2006, auxiliary feedwater Pump 14 failed to reach rated speed and tripped.

The inspectors determined that the issue was more than minor because it affected the mitigating systems cornerstone attributes of equipment performance and procedure quality, and it affected the cornerstone objective to ensure the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the violation using the significance determination process and determined that it required a Phase 2 analysis. The Phase 2 analysis screened as White and the resultant Phase 3 SPAR model result was an incremental conditional core damage probability of 3E-07. The licensee's Phase 3 analysis gives recovery credit for manual operator action to locally start the turbine-driven pump and resulted in a probability of 3.3E-07, or very low safety significance. This issue had problem identification and resolution crosscutting aspects in that the licensee did not implement and institutionalize operating experience through changes to procedures and training programs [P.2(b)]. The licensee failed to fully evaluate specific operating experience to conclude that the maintenance, surveillance, and operating procedures were inadequate to ensure consistent, repeatable, and reliable measurements to critical components. This lack of fully implementing and institutionalizing operating experience directly contributed to the event.
Inspection Report# : 2007004 *(pdf)*

Barrier Integrity

Significance: G Apr 08, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
CRE HVAC Makeup Fan 11B Failure to Start
The inspectors reviewed a self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criteria III, for an inadequate design control package that resulted in incorrect instantaneous over current breaker trip point settings. On September 11, 2006, control room envelope heating, ventilation, and air conditioning make up Fan 11B failed to start due to an incorrect instantaneous over current breaker setting, set as part of Design Change Package 98-687-4. When the package was prepared the Class 1E design criteria that was in effect led the licensee to set the instantaneous over current breaker settings based on locked rotor nameplate data “G” motors. Because the locked rotor nameplate data of the motor control fed motors were not documented the licensee failed to identify that some of the motors were locked rotor nameplate data “J” motors. As a result, the breaker trip point setting was set too low leaving some motors susceptible to spurious tripping since the implementation of the change in 2000. Further investigation revealed several missed opportunities in previous years to identify the incorrect settings, resulted from human performance and program and process issues. There are no crosscutting aspects since the issue is greater than 2 years old and the licensee’s processes have changed considerably between 1998 and 2006.

This finding was more than minor because it affected the Barrier Integrity attribute of structure, system, and component and barrier performance under maintaining the radiological barrier function of the control room and it affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events by maintaining the operational capability of the control room envelope heating, ventilation, and air conditioning boundary. Using the Significance Determination Process Phase 1 worksheets the finding was determined to have very low safety significance because the finding only represented a degradation of the radiological barrier function of the control room.

Inspection Report# : 2008002 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Jun 28, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Conduct Adequate Radiation Surveys in the Pressurizer Cubicle
The inspectors reviewed a self-revealing noncited violation of 10 CFR 20.1501 because radiation protection staff failed to perform an adequate survey to evaluate and determine the radiological hazards in the pressurizer cubicle on March 31, 2008. Consequently, a worker’s electronic dosimeter unexpectedly alarmed at 277 millirem per hour after entering the pressurizer cubicle. A chemically induced crud burst occurred in the reactor primary coolant system, which affected the pressurizer radiological conditions. The licensee entered this issue into the corrective action program as Condition Report 08 5399.

The finding was greater than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute (exposure control) of Program and Process and affected the cornerstone objective, in that failure to conduct a radiation survey had the potential to increase

personnel dose. This occurrence involved a worker's unplanned and unintended exposure to radiation. Therefore, using the Occupational Radiation Safety Significance Determination Process, the finding was determined to be of very low safety significance because it was not an as low as is reasonably achievable finding, there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised. The finding was self-revealing because the licensee was alerted to the elevated pressurizer cubicle dose rates by the alarming electronic dosimeter. Additionally, this finding has human performance crosscutting aspects associated with work practices, because the licensee failed to ensure interdepartmental communication and coordination during the crud burst between radiation protection, chemistry, and operations to assure timely radiation safety information was provided to workers [H.3(b)].

Inspection Report# : 2008003 *(pdf)*

Significance: G Jan 17, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Conspicuously Post a Radiation Area
The team identified a noncited violation of 10 CFR 20.1902(a) because the licensee failed to conspicuously post a radiation area in the radwaste storage yard with a sign or signs bearing the radiation symbol and the words "Caution, Radiation Area." The licensee had posted radiation area signs only at the entrances to the outdoor radwaste storage yard, instead of a discrete radiation area within the yard. The outdoor radwaste storage yard is a large area that, with the exception of this one area, had radiation levels measuring less than 2 millirem per hour. However, the general area dose rate in the unposted discrete radiation area was as high as 10 millirems per hour. As corrective action, the licensee posted the discrete areas. Additional corrective action is still being evaluated under Condition Report 08¬0887.

The finding was greater than minor because it was associated with one of the cornerstone attributes (exposure control and monitoring) and the finding affected the Occupational Radiation Safety cornerstone objective, in that, workers could receive unexpected radiation dose. Using the Occupational Radiation Safety Significance Determination Process, the team determined that the finding was of very low safety significance because it did not involve: (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. Also, this finding had a cross-cutting aspect in the area of human performance related to the component of decision making because management did not adopt conservative assumptions in implementing regulatory requirements to decrease the likelihood of radiation workers receiving unintended dose (H1.b).

Inspection Report# : 2008006 *(pdf)*

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Reportability Review Results in Missed Reporting Requirement
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria V, for the failure to follow Procedure 0POP03-ZX-0002, "Condition Reporting Process," Revision 31. On April 14, 2007, operations recognized that the extended range nuclear instrument startup rate channel check was approaching the limit of 0.5 decades per minute. The log count rate circuit board was determined to be faulty and was replaced. Operations requested an operability/reportability review since the same circuit board had been previously replaced on April 7, 2007. The inspectors questioned the licensee on the review, because the review did not appear to be performed in the normal manner and did not answer questions related to the indications that were observed, namely the shutdown monitor alarm. The second more thorough review determined that the extended range nuclear instrument had been inoperable for longer than its technical specification allowed outage time and resulted in the requirement to submit a Licensee Event Report. The licensee's root cause determined that the original reviewer did not adhere to the Condition Reporting Process procedure, in that, the reviewer did not review applicable design inputs, and since the reviewer did not have the technical expertise in this area, a technical review should have been requested.

The inspectors determined that the finding was more than minor because it resulted in the licensee not recognizing that an extended range nuclear instrument was inoperable for longer than its Technical Specification allowed outage time. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix M, “Significance Determination Process Using Qualitative Criteria,” and determined that the finding screened as Green because: (1) the licensee had all power, intermediate, and source range nuclear instruments available; (2) the extended range nuclear instruments provide no protective functions other than alarms and indications; (3) the primary function is to provide indication to the operators to assess the sub-criticality critical safety function, and this was only impacted in the "Yellow" path; (4) the Updated Final Safety Analysis Report does not take credit for the extended range nuclear instruments except to provide the operators with a minimum of 15 minutes to respond to a dilution event pending a loss of shutdown margin, and (5) very low likelihood that shutdown margin would be challenged post trip. This finding also had problem identification and resolution cross cutting aspects associated with the corrective action program in that the licensee did not thoroughly evaluate for operability and reportability conditions adverse to quality [P.1(c)], the reviewer did not consider all Technical Specifications and design requirements in his evaluation.
Inspection Report# : 2007005 *(pdf)*

Significance:  Oct 11, 2007
Identified By: NRC
Item Type: FIN Finding
Loss of Control Room Annunciators due to Poor Worker Material Control for ERFDADS Inverter Upgrade
The inspectors reviewed a self-revealing finding for an inadequate procedure, STI 32174927, "Conduct of Maintenance," Revision 5, for work associated with the Unit 1 emergency response facility data acquisition and display systems inverter modification activities. On August 27, 2007, maintenance personnel were installing a 4-inch diameter conduit in the Unit 1 Train B 4160 volt switchgear room in close proximity to a voltage regulating transformer which was powering Distribution Panels DP 200 and DP 300, which powers approximately 25 percent of the control room annunciators. While installing the conduit, it came into contact with the input breaker on the transformer causing it to open and de-energized Distribution Panels DP 200 and DP 300. All loads lost were recovered in approximately 30 minutes with no additional challenges. As a result of this lack of procedural guidance for working around sensitive equipment, the crews' prejob and at the work site briefs did not recognize the potential impact of working in close proximity to the transformer powering Distribution Panels DP 200 and DP 300.

The failure to adequately control the conduit being installed, as a result of inadequate procedural guidance and which resulted in 25 percent of control room annunciators being lost, was considered a performance deficiency. This finding was more than minor because it could impact the operator's ability to respond to unusual plant conditions due to lack of control room annunciators, and the reliance on reports from operators in the field; and if left uncorrected, this type of control room deficiency could become a more significant safety concern. The inspectors evaluated the significance of this finding using Inspection Manual Chapter 0609, Appendix M, "Significance Determination Process using Qualitative Criteria," and determined that the finding was of very low safety significance based on the fact that the loss of annunciators did not challenge the ability to determine emergency action levels, was of short duration, did not impact any automatic actuation systems, and the operations crew took immediate corrective and compensatory actions to restore the transformer. This finding had a crosscutting aspect in the area of human performance associated with the work control component because the licensee failed to ensure that adequate guidance was available to properly evaluate specific job site conditions, and the potential for human-system interface [H.3(a)] with regard to sensitive equipment. This directly contributed to the event because the workers were unaware of how their activities could have an impact on sensitive equipment.
Inspection Report# : 2007004 *(pdf)*

Last modified : November 26, 2008