Perry 1
4Q/2005 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
AUTOMATIC ESF ACTUATION DUE TO UNTIMELY CORRECTIVE ACTIONS AND INEFFECTIVE INTERIM ACTIONS
A finding of very low safety significance and a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was self-revealed on August 12, 2005, when licensee personnel failed to promptly correct a condition adverse to quality. Specifically, on July 2, 2005, licensee personnel identified that the reactor water cleanup system valve nest room had elevated temperatures. Shortly thereafter, the licensee's problem solving team identified that a leak detection thermocouple was not providing an indication representative of actual room temperature due to its location. The improper placement of the thermocouple was not promptly corrected. The licensee failed to resolve the issue in a timely manner in that a reactor water cleanup system automatic isolation, an engineered safety feature actuation, occurred on August 12, 2005. Additionally, interim licensee actions to reduce room temperature, such as through securing a reactor water cleanup pump, had an adverse impact on plant performance in that the licensee concluded that the system manipulations induced a reactor water cleanup system leak on a non-regenerative heat exchanger vessel flange. The reactor water cleanup system was placed back in service on August 12, 2005, the thermocouple was relocated on August 14, 2005, and the heat exchanger vessel flange leak was stopped on September 6, 2005.

The inspectors determined that the issue was more than minor because it could reasonably be viewed as a precursor to a more significant event. The inspectors determined that the finding was of very low safety significance because the finding: (1) did not contribute to the likelihood of a loss-of-coolant-accident initiator; (2) did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available; and (3) did not increase the likelihood of a fire or internal/external flooding. The primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution, subcategory corrective action, in that the condition adverse to quality was not promptly corrected.

Inspection Report# : 2005009*(pdf)*

Significance: G Jun 30, 2005
Identified By: NRC
Item Type: FIN Finding
UNTIMELY HOT WEATHER PREPARATIONS
The inspectors identified a finding of very low significance for the licensee's failure to sufficiently coordinate and adequately prepare for the onset of hot weather prior to May 1, 2005. Specifically, the licensee failed to complete work associated with critical components, in accordance with established expectations that specified completion prior to April 30, 2005. As a result, critical tasks had not been completed prior to the onset of near record warm weather beginning June 5, 2005.

The inspectors determined that the issue was more than minor because, if left uncorrected, the finding would become a more significant safety concern. The finding was also associated with the reactor safety initiating events cornerstone and affected the cornerstone's objective of limiting the likelihood of events that upset plant stability. The finding was of very low safety significance because no safety-related functions or mitigating systems were rendered inoperable and no plant transient was initiated. No violation of NRC requirements occurred.

Inspection Report# : 2005006*(pdf)*

Significance: G Jun 30, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
FAILURE TO IDENTIFY THE EFFECT OF DEENERGIZING BUS K-1-D ON DECAY HEAT REMOVAL
A finding of very low safety significance and a violation of 10 CFR 50.65(a)(4) was self-revealed during preparation for an electrical distribution panel F1F14 outage on April 4, 2005. The reactor was shutdown at the time of the event. Specifically, the licensee failed to identify the impact of planned breaker manipulations on the fuel pool cooling and cleanup (FPCC) system. Per an Operations Evolution Order, the K-1-D electrical bus was de-energized which de-energized the fuel pool filter demineralizer (FPFD) control panel, H51-P173. As a result, the demineralizer flow control valves shut. The flow control valve repositioned and reduced FPCC flow to the reactor cavity pool from 720 gpm to 520 gpm and flow to the spent fuel pool from 700 gpm to 600 gpm. At the time of the event, FPCC was the primary method of decay heat removal. Numerous alarms were received in the control room. Control room personnel assessed the transient and within 30 minutes opened the FPCC fuel pool filter demineralizer bypass valve to restore proper flow to the reactor pool and spent fuel pool. The primary cause of this finding was related to the cross-cutting area of Human Performance in that licensee personnel failed to properly assess the impact of a planned

maintenance activity on a key shutdown safety function.

The finding was more than minor because the failure to identify the impact of the planned maintenance activity adversely affected a protected train of equipment providing the key shutdown safety function of decay heat removal. The finding was associated with the reactor safety initiating events cornerstone attribute of configuration control and it affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations in that it adversely affected the FPCC decay heat removal function. The finding was of very low safety significance because FPCC decay heat removal function was restored promptly on discovery and alternate decay heat removal systems remained available. The issue was a Non-Cited Violation of 10 CFR 50.65(a)(4) which required the licensee to assess and manage the increase in risk that may result from proposed maintenance activities.
Inspection Report# : 2005006*(pdf)*

Significance: G Jun 30, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
INADVERTENT LOSS OF DECAY HEAT REMOVAL
A finding of very low safety significance and a violation of Technical Specification (TS) 5.4, "Procedures," was self-revealed during preparation for Division 2 loss of off-site power (LOOP) testing on April 5, 2005. The reactor was shutdown at the time of the event. Valves in the cooling water supply path to the FPCC system heat exchangers were unintentionally isolated. This resulted in loss of decay heat removal from the reactor pool and spent fuel pool for approximately two hours. Operators subsequently discovered the valves were out of position, restored the system to the correct lineup, and restored decay heat removal. The primary cause of this finding was related to the cross-cutting area of Human Performance in that licensee personnel failed to implement procedures as written. Specifically, the licensee personnel performing the test preparations performed a procedure step out of sequence which resulted in the loss of cooling water to the FPCC heat exchangers.

The finding was more than minor because the failure to follow procedures resulted in a loss of cooling for the reactor pool and spent fuel pool for approximately two hours. The finding was associated with the reactor safety initiating events cornerstone attribute of configuration control, and it affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations in that it resulted in loss of FPCC decay heat removal function. The finding was of very low safety significance because the FPCC decay heat removal function was restored promptly on discovery and alternate decay heat removal systems remained available. The issue was a Non-Cited Violation of TS 5.4 which required the implementation of written surveillance test procedures.
Inspection Report# : 2005006*(pdf)*

Significance: G Jun 30, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
FAILURE TO FOLLOW PROCEDURES AFFECTING SAFETY-RELATED DIVISION 3 BREAKERS
A finding of very low safety significance and a violation of TS 5.4, "Procedures," was self-revealed on April 21, 2005. While the plant was shutdown for a refuel outage, the licensee conducted LOOP response testing of the Division 3 high pressure core spray (HPCS) emergency diesel generator (EDG). The procedure required the installation of a jumper between terminal points in the HPCS preferred source breaker cubicle, EH1303. Contrary to procedure, technicians installed the jumper in the alternate preferred source breaker cubicle EH1302. The error was identified when control room operators attempted to close breaker EH1302 and it did not close as expected. The jumper was subsequently removed from the EH1302 cubicle without consequence. The primary cause of this finding was related to the cross-cutting issue of Human Performance. Specifically, licensee technicians failed to perform the procedure as written and failed to use independent verification and, as a result, installed the jumper in the wrong cubicle.

The finding was more than minor because it could reasonably be viewed as a precursor to a more significant event. Additionally, if left uncorrected, the failure to follow procedures affecting safety-related equipment would become a more significant safety concern. The inspectors determined that the finding was of very low safety significance because the finding did not involve a loss of safety function.
Inspection Report# : 2005006*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ADEQUATELY ADDRESS CONTROL ROD MOVEMENT CONCERNS
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was NRC-identified when licensee personnel failed to implement adequate corrective actions for root causes associated with a significant condition adverse to quality. Specifically, the licensee identified "management failures in identifying problems with reactivity control systems" as a root cause for unexpected control rod movement, however licensee corrective actions failed to address this issue.

The team determined that the finding was of more than minor significance since it could be reasonably viewed as a precursor to a more significant event. Specifically, the corrective action intended to address management's oversight of the reactivity control systems did not address the licensee's identified cause and did not cover all activities that involve significant rod movement such as short forced outages and control rod pattern changes.

Although not suited for SDP evaluation, the finding was determined to be of very low safety significance because no initiating event occurred.

As part of the licensee's corrective actions, Condition Report 03-05995 was previously generated to address organizational issues through the use of the Plant Health Committee, clarification of the roles and responsibilities of managers and directors, and to develop the Perry PII.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ADEQUATELY ADDRESS TRAINING DEVIATION CONCERNS
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was NRC-identified when licensee personnel failed to correct in a timely manner a condition adverse to quality regarding operators' failure to use required human performance error reduction tools during stressful situations. The finding was of more than minor significance because the finding could reasonably be viewed as a precursor to a significant event since the continued deviation from established procedures and training during stressful times had the potential to result in an initiating event or result in more significant consequence following an initiating event.

Using IMC 0609, "Significance Determination Process," the team determined that this finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, human performance tools were implemented which addressed the importance of procedure adherence during events and other stressful situations.

This finding affected the cross-cutting area of Problem Identification and Resolution because licensee personnel failed to take corrective actions to address a condition adverse to quality in a timely manner.
Inspection Report# : 2005003*(pdf)*

Significance: G Mar 31, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
INSTRUMENTATION AND CONTROL TECHNICIAN ERROR RESULTS IN INADVERTENT ESF ACTUATION
A finding of very low safety significance and a violation of Technical Specification 5.4, "Procedures" was self-revealed on February 3, 2005. Specifically, while calibrating the containment/drywell purge exhaust radiation monitor 1D17-K660, an error by an instrumentation and control (I&C) technician resulted in an engineered safety feature (ESF) actuation. Specifically, backup hydrogen purge system containment isolation valves M51-F090 and M51-F110 received an isolation signal. The valves functioned as designed and isolated the backup drywell hydrogen purge system. Control room personnel realigned the backup drywell hydrogen purge system in accordance with the system operating instruction. Additional I&C personnel reset the trip signal and completed the calibration procedure successfully. The primary cause of this finding was related to the cross-cutting issue of Human Performance because a personnel error was the primary cause of the event.

The inspectors determined that an inadvertent ESF actuation due to improper performance of an I&C procedure was a performance deficiency warranting significance evaluation. The inspectors determined that the issue was more than minor because it could reasonably be viewed as a precursor to a more significant event. The inspectors determined that the finding was of very low safety significance because the finding: (1) did not contribute to the likelihood of a loss of coolant accident initiator; (2) did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available; and (3) did not increase the likelihood of a fire or internal/external flooding.
Inspection Report# : 2005002*(pdf)*

Significance: G Feb 18, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
FAILURE TO INCORPORATE INDUSTRY OPERATING EXPERIENCE INTO PREVENTATIVE MAINTENANCE ACTIVITIES
A self-revealed finding of very low significance and a Non-Cited Violation of 10 CFR 50.65(a)(3) was identified. The finding involved the transient initiated as a result of a trip of "A" reactor recirculation pump low frequency motor generator and subsequent manual scram of the reactor. The Non-Cited Violation was associated with a failure to incorporate industry operating experience into preventive maintenance activities that would have prevented the failure of the "A" reactor recirculation pump. The primary cause of this violation was related to the cross-cutting area of Problem Identification and Resolution.

The finding was more than minor because the event caused an actual upset in plant stability and operation resulting in a plant transient, thereby directly affecting the objective for the Initiating Events Cornerstone. Additionally, the trip affected the equipment performance attributes of availability and reliability of the Initiating Events Cornerstone of Reactor Safety. The issue was of very low safety significance because the finding did not result in exceeding the Technical Specification limit for identified reactor coolant system leakage and did not affect other

mitigation systems; the finding did not contribute to both the likelihood of a reactor trip AND the likelihood that mitigation equipment or functions will not be available; and the finding did not increase the likelihood of a fire or internal/external flood. Proposed and completed corrective actions included a formal root cause analysis, replacement of the defective voltage regulator, and establishment of a process to review post-transient performance data.
Inspection Report# : 2005005*(pdf)*

Significance: G Feb 18, 2005
Identified By: NRC
Item Type: FIN Finding
FAILURE TO QUARANTINE EQUIPMENT AS REQUIRED BY PROCEDURES
A finding of very low significance was identified by the inspectors. The finding involved the licensee's failure to quarantine equipment after both reactor recirculation pumps experienced an unplanned downshift from fast to slow speed on December 23, 2004. The inspectors determined that the failure to quarantine equipment impaired the licensee's ability to identify the associated failure mechanism for the simultaneous downshifting of both reactor recirculation pumps. The primary cause of this finding was related to the cross-cutting area of Human Performance.

The finding was more than minor because the failure to quarantine equipment impaired the licensee's ability to identify the associated failure mechanism, and as a result, a plant transient was initiated on January 6, 2005, that caused an actual upset in plant stability, which directly affected the objective for the Initiating Events Cornerstone. Additionally, the reactor recirculation pump downshifts affected the equipment performance attributes of availability and reliability of the Initiating Events Cornerstone of Reactor Safety. The issue was of very low safety significance because the finding did not result in exceeding the Technical Specification limit for identified reactor coolant system leakage and did not affect other mitigation systems; the finding did not contribute to both the likelihood of a reactor trip AND the likelihood that mitigation equipment or functions will not be available; and the finding did not increase the likelihood of a fire or internal/external flood. No violation of NRC requirements occurred.
Inspection Report# : 2005005*(pdf)*

Significance: G Feb 18, 2005
Identified By: NRC
Item Type: FIN Finding
FAILURE TO EVALUATE AND DOCUMENT THE REMOVAL OF A MODE RESTRAINT AS REQUIRED BY PROCEDURES
A finding of very low significance was identified by the inspectors. The inspectors concluded that the licensee failed to properly assess and document the assessment for the removal of restart restraints prior to resuming reactor operation subsequent to the December 23, 2004, scram, and that the failure to appropriately close and document the basis for resolving a mode restraint prior to startup impaired the licensee's ability to identify the associated failure mechanism for the December 23 recirculation pump downshift event. The primary cause of this finding was related to the cross-cutting area of Human Performance.

The finding was more than minor because a plant transient was initiated on January 6, 2005, that caused an actual upset in plant stability, which directly affects the objective for the Initiating Events Cornerstone. Additionally, the reactor recirculation pump downshifts affected the equipment performance attributes of availability and reliability of the Initiating Events Cornerstone of Reactor Safety. The issue was of very low safety significance because the finding did not result in exceeding the Technical Specification limit for identified reactor coolant system leakage and did not affect other mitigation systems; the finding did not contribute to both the likelihood of a reactor trip AND the likelihood that mitigation equipment or functions will not be available; and the finding did not increase the likelihood of a fire or internal/external flood. No violation of NRC requirements occurred.
Inspection Report# : 2005005*(pdf)*

Mitigating Systems

Significance: G Dec 30, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
INADEQUATE FUEL OIL PUMP PROCEDURES RESULTED IN DIVISION 2 EDG UNABAILABILITY
A finding of very low safety significance and an associated non-cited violation of Technical Specification 5.4, "Procedures," was self-revealed during Division 2 Emergency Diesel Generator (EDG) post-maintenance testing on September 15, 2005, when the engine-driven fuel oil pump was discovered air bound after licensee personnel failed to implement appropriate procedures for the fill and vent of the pump suction and discharge lines following pump maintenance activities. As a result of operating the pump for about 40 minutes without proper fuel oil flow, the engine-driven fuel oil pump required replacement, which extended the Division 2 EDG maintenance outage by about 24 hours and incurred about 15 hours of unnecessary unavailability. As part of their corrective actions, the licensee removed the EDG from service, replaced the engine-driven fuel oil pump, and successfully re-tested the EDG on September 16, 2005. The primary cause of this finding was related to the cross-cutting area of Human Performance since licensee personnel failed to develop an appropriate fill and vent procedure for the engine-driven fuel oil pump.

This finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was of very low safety significance because: (1) it did not represent an actual loss of safety function of a system; (2) it did not represent an actual loss of safety function of a single train for greater than its Technical Specification allowed outage time; (3) it did not represent an actual loss of safety function of one or more non-Technical Specification trains of equipment designated as risk-significant per 10 CFR 50.65 for greater than 24 hours; and (4) it did not screen as potentially risk significant due to a seismic, fire, flooding, or severe weather initiating event.

Inspection Report# : 2005010*(pdf)*

Significance: G Dec 30, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
INADEQUATE OIL RESERVOIR MAINTENANCE PROCEDURE IMPLEMENTATION FOR ECC 'B' PUMP RESULTED IN OIL LEAK
A finding of very low safety significance and an associated non-cited violation of Technical Specification 5.4, "Procedures," was self-revealed on October 30, 2005, when licensee personnel failed to develop an appropriate procedure for the replacement of the ‘B' Emergency Closed Cooling (ECC) pump oil bearing reservoir, which resulted in an oil leak and unnecessary pump unavailability. As part of their corrective actions, licensee personnel completed repairs to the pump on November 1, 2005, which included establishing a correct reservoir height and performing post-maintenance testing with satisfactory results. The primary cause of this finding was related to the cross-cutting area of Human Performance because licensee personnel failed to develop appropriate oil reservoir maintenance procedures.

This finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was of very low safety significance because: (1) it did not represent an actual loss of safety function of a system; (2) it did not represent an actual loss of safety function of a single train for greater than its Technical Specification allowed outage time; (3) it did not represent an actual loss of safety function of one or more non-Technical Specification trains of equipment designated as risk-significant per 10 CFR 50.65 for greater than 24 hours; and (4) it did not screen as potentially risk significant due to a seismic, fire, flooding, or severe weather initiating event.

Inspection Report# : 2005010*(pdf)*

Significance: G Dec 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO CORRECT AN OIL RESERVOIR MAINTENANCE PROCEDURE ISSUE RESULTED IN ECC 'A' OIL LEAK
A finding of very low safety significance and an associated non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was self-revealed on November 19, 2005, when licensee personnel failed to promptly correct a condition adverse to quality associated with the development of appropriate procedures for oil reservoir replacement, which resulted in an oil leak on the ‘A' ECC pump, incurring unnecessary pump unavailability. As part of their corrective actions, licensee personnel completed repairs to the pump on November 29, 2005, which included establishing a correct reservoir height and performing post-maintenance testing with satisfactory results. The primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution because licensee personnel failed to correct an inadequate oil reservoir maintenance procedure in a timely manner.

This finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was of very low safety significance because: (1) it did not represent an actual loss of safety function of a system; (2) it did not represent an actual loss of safety function of a single train for greater than its Technical Specification allowed outage time; (3) it did not represent an actual loss of safety function of one or more non-Technical Specification trains of equipment designated as risk-significant per 10 CFR 50.65 for greater than 24 hours; and (4) it did not screen as potentially risk significant due to a seismic, fire, flooding, or severe weather initiating event.

Inspection Report# : 2005010*(pdf)*

Significance: G Oct 28, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO PROMPTLY CORRECT ONLINE WORK MANAGEMENT PRACTICES THAT RESULTED IN UNNECESSARILY HIGH SAFETY SYSTEM UNAVAILABILITY
The inspector identified a finding of very low safety significance and a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," when licensee personnel failed to correct a condition adverse to quality. Specifically, the licensee failed to correct a

condition of inadequate online maintenance management that adversely affected safety system availability. In the second quarter of 2000, the heat removal system unavailability performance indicator crossed the Green-to-White threshold due to inadequate online work management, which led to high safety system unavailability. Between the years 2000 and 2004, the licensee identified on several occasions that safety system unavailability was higher than the industry average and that the station lacked an adequate process to balance online maintenance with safety system unavailability. Additionally, poor work management processes were noted to unnecessarily extend maintenance activities and adversely affect safety system availability. In the second quarter of 2004, the residual heat removal safety system unavailability performance indicator crossed the Green-to-White threshold. The licensee again identified that inadequate online maintenance management and generally higher than industry average safety system unavailability were primary contributing causes. Licensee corrective actions included management of safety system unavailability to 50 percent of the NRC Green-to-White threshold and work management improvements. The primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution, subcategory corrective action, since a condition adverse to quality was not corrected in a timely manner.

The finding was more than minor because it was associated with the equipment performance attribute of the reactor safety mitigating systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, from 2000 to 2004, the failure to promptly correct the condition of inadequate management of online work adversely affected safety system availability. The inspector determined that the finding was of very low safety significance because: (1) it did not represent an actual loss of safety function of a system; (2) it did not represent an actual loss of safety function of a single train for greater than its Technical Specification allowed outage time; (3) it did not represent an actual loss of safety function of one or more non-Technical Specification trains of equipment designated as risk significant per 10 CFR 50.65 for greater than 24 hours; and (4) it did not screen as potentially risk significant due to a seismic, fire, flooding, or severe weather initiating event.

Inspection Report# : 2005012*(pdf)*

Significance: G Sep 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO CORRECT BORON LEAKAGE FROM THE STANDBY LIQUID CONTROL STORAGE TANK HEATER FLANGE
The inspectors identified a finding of very low safety significance and a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," when licensee personnel failed to correct a condition adverse to quality in a timely manner. Specifically, licensee personnel identified and documented on seven occasions from June 2002 through February 2005, boron accumulation on the standby liquid control system storage tank heater flange. In each instance the issue was identified as a "condition adverse to quality." The inspectors identified additional documentation of leakage and boron accumulation in the flange area dating back to April 28, 1997. As of July 29, 2005, the condition adverse to quality had not been corrected. The licensee entered the "untimely resolution of a condition adverse to quality" into their corrective action program and confirmed for the inspectors that the issue was included in the next planned refueling outage for resolution.

The finding was more than minor because, if left uncorrected, the finding would become a more significant safety concern. Specifically, the failure to repair the degraded flange connection allowed a condition to exist that could lead to increased leakage or premature failure of the connection. Further, as noted on multiple licensee condition reports, the leakage had on occasion migrated to other levels of containment which if left uncorrected could result in other adverse consequences. The inspectors determined that the finding (1) did not involve a loss of safety function and (2) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The inspectors therefore concluded that the finding was of very low safety significance. The primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution, subcategory corrective action, in that the condition adverse to quality was not corrected in a timely manner.

Inspection Report# : 2005009*(pdf)*

Significance: G Sep 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO EVALUATE INTERFERENCE WITH THE DESIGN RATTLE SPACE BETWEEN SAFETY CLASS BUILDINGS
The inspectors identified a finding of very low safety significance and a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," when licensee personnel failed to control deviations from design standards. On July 22, 2005, while performing a fire protection inspection in the intermediate building, the inspectors noted that a large storage cage (approximately 900 square feet in area and 10 feet high) was constructed in such a way that it interfered with the design rattle space between the containment shield building and the intermediate building column supports at several locations. The steel used to brace the cage directly communicated the containment shield building to the columns that supported the intermediate building. The inspectors reported the observation to the licensee and the licensee corrected the condition the same day. The primary cause of this finding was the failure to properly control deviations from design standards. The design seismic analysis of the building structures credited the rattle space in lieu of further analysis of the interaction between building structures; therefore, the interference of this space was not consistent with the design basis.

The finding was more than minor because it was associated with the mitigating system cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences in that it placed safety-related building structures in an unanalyzed condition. The inspectors determined that the safety functions

of the buildings were maintained and therefore concluded that the finding was of very low safety significance.

Inspection Report# : 2005009*(pdf)*

Significance: G Sep 30, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
FAILURE TO IMPLEMENT PROCEDURES TO ENSURE SATISFACTORY MAINTENANCE ON THE RHR CONTAINMENT SPRAY ISOLATION VALVE
A finding of very low safety significance and a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was self-revealed when residual heat removal containment spray isolation valve 1E12F028B failed to indicate open in the control room as expected during quarterly surveillance testing on June 25, 2005 due to inadequate maintenance. Operators declared the valve inoperable and isolated the associated penetration flow path for the valve in accordance with Technical Specification 3.6.1.3. This resulted in the unavailability of residual heat removal 'B' low pressure core injection and containment spray modes of operation. Subsequent visual inspection and electrical checks by licensee technicians revealed inadequate electrical connections in the electrical panel associated with the valve. The connections were repaired and the availability of residual heat removal 'B' low pressure core injection and containment spray was restored. The primary cause of this finding was the failure to promptly identify and correct conditions adverse to quality during maintenance associated with the valve actuator motor replacement that was performed in March 2005.

The finding was more than minor because it was associated with the reactor safety mitigating systems cornerstone attribute of equipment performance, and it affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable events. Specifically, the failure to identify the inadequate electrical connections following maintenance in the panel subsequently resulted in a failed control room indication on June 25, 2005, which caused operators to isolate the associated penetration flow path for the valve. This resulted in the unavailability of the residual heat removal 'B' low pressure core injection and containment spray modes of operation for about nine hours. The inspectors determined that the finding was of very low safety significance because the equipment safety function was not lost for greater than the Technical Specification allowed outage time. The primary cause of this finding was associated with the cross-cutting area of Problem Identification and Resolution, subcategory identification, in that improperly fastened electrical connections affecting a safety-related valve were not promptly identified.
Inspection Report# : 2005009*(pdf)*

Significance: G Sep 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO IMPLEMENT PROCEDURES TO ENSURE PROPER REASSEMBLY OF DIVISION 1 ESW PUMP
A finding of very low safety significance and a non-cited violation of Technical Specification 5.4, "Procedures," was self-revealed on March 2, 2005, during disassembly of the Division 1 emergency service water pump. Specifically, the licensee failed to provide adequate guidance in General Maintenance Instruction 0039, "Disassembly/Assembly of the Emergency Service Water Pumps," Revision 8, to ensure that the lineshaft sleeve spirol pins were adequately staked during pump assembly in May 2004. Due to the improper assembly, the pump's lineshaft sleeve spirol pins were found, in March 2005, to be extruded and sheared. Fortuitously, the pins galled to the shaft and the lineshaft sleeve remained in place. As a result, no actual loss of safety function occurred. The licensee's corrective actions included a procedure revision and subsequent pump repair.

The finding was more than minor because, if left uncorrected, the failure to implement appropriate procedures for safety-related pump maintenance activities could reasonably be viewed as a precursor for a more significant event as evidenced by two previous Division I emergency service water pump failures in September 2003 and May 2004. The inspectors determined that the finding was of very low safety significance because there was no loss of safety function. The finding affected the cross-cutting area of Human Performance, subcategory organization, because licensee personnel failed to establish appropriate procedures.
Inspection Report# : 2005009*(pdf)*

Significance: G Jun 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO IDENTIFY AND CORRECT INADEQUATELY THREADED BOLTS ON RHR 'B'/'C' WATERLEG PUMP
The inspectors identified a finding of very low safety significance and a violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to identify and correct a condition adverse to quality. Specifically, the licensee failed to identify the inadequate thread engagement of two bolts on the residual heat removal (RHR) 'B'/'C' waterleg pump discharge flange. Inspectors identified the non-conforming condition during a walkdown of the RHR 'C' system while RHR 'C' was designated as the primary water inventory source for the shutdown reactor. Inspectors promptly reported the condition to the licensee and the licensee entered it into the corrective action program. The licensee performed corrective maintenance to fix the inadequate thread engagement on May 19, 2005. The primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution.

The finding was more than minor because it could reasonably be viewed as a precursor to a more significant event. The failure to identify and correct inadequate thread engagement on bolted connections could allow premature failure and leakage from the connection. Additionally, the

finding was associated with the reactor safety mitigating systems cornerstone and affected the cornerstone's objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Failure to identify and correct non-conforming conditions on safety-related equipment degrades the reliability of the system to perform its safety function. The inspectors determined that the finding did not involve the loss of safety function and therefore concluded that the finding was of very low safety significance.
Inspection Report# : 2005006*(pdf)*

Significance: G Jun 30, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
FAILURE TO PERFORM ADEQUATE DESIGN REVIEW FOR TESTABLE RUPTURE DISK MODIFICATION
A finding of very low safety significance and a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was self-revealed on February 17, 2005, when the Division 2 EDG testable rupture disc (TRD) required excess force to lift during surveillance testing. A newly designed Division 2 TRD had been installed in October 2004 in an effort to address long-standing equipment performance issues. A similar design was installed on the Division 1 EDG in November 2004 and on the Division 3 EDG in April 2004. After the test failure on February 17, 2005, subsequent licensee inspection identified that the disc was warped. Due to potential common cause issues, the licensee declared all three EDGs inoperable and entered TS Limiting Condition for Operation (LCO) 3.0.3. The licensee unlatched all EDG TRDs to restore operability. The licensee's design review for the TRD did not adequately consider the potential for and the effect of deformation of the TRD disc due to heat. Additionally, the licensee's testing of the design modification was determined to be inadequate. The primary cause of this finding was related to the cross-cutting area of Human Performance in that licensee personnel failed to perform an adequate design review.

The finding was more than minor because it affected the mitigating systems cornerstone objective of ensuring the availability, reliability, and capability of the EDGs in response to initiating events. Specifically, if the TRD failed to lift at the appropriate pressure, excessive back-pressure would adversely affect fuel consumption rates. Further, if the TRD failed to open with the normal EDG exhaust blocked, conditions could be established which would result in stalling of the EDG. The finding was determined to be of very low safety significance because Significance Determination Process Phase 3 analysis determined the issue to not be greater than Green due to the low frequency of seismic and tornado events.
Inspection Report# : 2005006*(pdf)*

Significance: SL-IV Jun 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
UNREPORTED SAFETY-SYSTEM UNAVAILABILITY FOR RHR
The inspectors identified a Severity Level IV Non-Cited Violation associated with the failure to report residual heat removal (RHR) train 'B' unavailability from May 29, 2004, through June 3, 2004, while the emergency service water train ‘B' was inoperable for pump repairs. The second quarter 2004 data reported to the NRC included RHR 'A' unavailability following failure of the ESW 'A' pump on May 21, 2004, but did not include the subsequent RHR 'B' unavailability. Prior to removing the ESW 'B' pump from service, the licensee developed a reactor pressure vessel feed and bleed method which they subsequently credited as an alternate decay heat removal system when calculating RHR system unavailability. The inspectors, however, reviewed the definitions and guidance contained in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Indicator Guideline," Rev. 2, and could not conclude that the licensee's method met the "NRC approved method of decay heat removal." Due to the inspectors' concerns, the licensee submitted a "Frequently Asked Question." On May 19, 2005, the NRC determined that "NRC approval means a specific method or methods described in the technical specifications." As a result, the licensee recalculated and resubmitted RHR system unavailability on June 17, 2005. Had the performance indicator (PI) data been properly reported in the second quarter of 2004, the PI color would have been White. The failure to properly report the PI was considered a Severity Level IV Non-Cited Violation of 10 CFR 50.9.
Inspection Report# : 2005006*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ADEQUATELY ADDRESS SLC RELIEF VALVE TEST FAILURES
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was NRC-identified when licensee personnel failed to prevent repetition of a condition adverse to quality. Specifically, the standby liquid control (SLC) system pump discharge pressure relief valves failed to satisfy American Society of Mechanical Engineers (ASME) acceptance criteria for 6 of 10 in-service tests (ISTs) conducted over the last 20 years. On two occasions, in 1989 and 2001, the as-found relief valve condition would have prevented the SLC system from being able to perform its intended design function to mitigate an Anticipated Transient Without Scram (ATWS) event, coincident with a main steam isolation valve (MSIV) closure.

The finding was of more than minor significance since the finding was associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," the team determined that because this finding represented an actual loss of a safety function of one train of the system, a Phase 2 SDP analysis was required. In the Phase 2 SDP assessment, the ATWS event worksheet was

reviewed as specified by the Perry Plant Risk-Informed Inspection Notebook. The dominant core damage sequence was an ATWS event, followed by a loss of the SLC system. The Phase 2 SDP assessment determined that this finding was of very low safety significance (Green) because 1 of 2 SLC pumps remained available.

As part of the licensee's immediate corrective actions, licensee personnel compared the as-left setpoints for the currently installed relief valves to a design setpoint value, and ensured that an adequate margin existed for the SLC relief valves to adequately perform their safety function.

This finding affected the cross-cutting area of Problem Identification and Resolution since licensee personnel did not adequately evaluate prior SLC relief valve as-found test failures.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: Self-Revealing
Item Type: FIN Finding
DRYWELL SUPPLY FAN TRIPS DUE TO INADEQUATE MAINTENANCE
A finding of very low safety significance was self-revealed when repetitive drywell supply fan failures occurred due to inadequate maintenance and inadequate corrective actions to address a previous failure due to an identical root cause. No violation of regulatory requirements occurred.

The finding was of more than minor significance since the finding could reasonably be viewed as a precursor to a more significant event since identically designed fans existed in other risk-significant plant systems and a failure of those fans, under similar circumstances, could have also occurred.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, the affected fan was repaired and an extent of condition review was performed.

This finding affected the cross-cutting area of Problem Identification and Resolution since the finding involved inadequate corrective actions to address a previous failure.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ADEQUATELY ADDRESS LPCS/RHR 'A' AIR-BINDING
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was NRC-identified when the licensee's corrective actions following air-binding of the low-pressure core spray (LPCS)/RHR 'A' waterleg pump failed to identify that high point vent valves were omitted from venting procedures which had the potential to render the reactor core isolation cooling (RCIC) system inoperable, as discussed in prior operating experience information.

The team determined that the finding was of more than minor significance since the finding was associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, the affected high point vent was added to the licensee's venting procedures and the affected piping was verified to be properly vented and filled with water.

This finding affected the cross-cutting area of Problem Identification and Resolution because licensee personnel failed to perform an adequate extent of condition review for high point vent valves omitted from venting procedures.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation

FAILURE TO ADEQUATELY ADDRESS MOV STEM LUBRICATION CONCERNS

A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was NRC-identified when licensee personnel continued to use "Never-Seez" in safety-related motor-operated valve (MOV) applications although industry operating experience identified that "Never-Seez" was not an adequate MOV stem lubricant. As a result, over a 10-year period, licensee personnel deferred MOV stem lubricant replacement while multiple MOVs failed as-found test acceptance criteria and exhibited accelerated stem nut wear.

The team determined that the finding was of more than minor significance since the finding was associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, all affected safety-related valves were scheduled to have their stem lubrication changed by the end of RFO10 (May 2005).

This finding affected the cross-cutting area of Problem Identification and Resolution because licensee personnel failed to resolve a known condition adverse to quality in a timely manner.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation

FAILURE TO COMPLY WITH ARC PROCESS DURING EDG MODIFICATIONS

A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was NRC-identified when licensee personnel failed to adhere to At-Risk-Change (ARC) procedures used for the modification of safety-related equipment without a completed and approved modification package.

The team determined that the finding was of more than minor significance since the finding was associated with the configuration control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, all modification work associated with the ARC process was suspended until all cognizant personnel were provided training.

This finding affected the cross-cutting area of Problem Identification and Resolution because licensee personnel failed to adequately address implementation of the ARC process until questioned by the team.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation

FAILURE TO ADEQUATELY ADDRESS DIVISION 2 EDG OIL LEAK CONCERN

A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was NRC-identified when licensee personnel failed to repair a long-standing Division 2 EDG lubricating oil cooler packing leak that was identified in November 2000, until May 2004 when the leak degraded and required emergent maintenance, rendering the EDG unavailable.

The team determined that the finding was of more than minor significance since the finding was associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of

equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions the leak was repaired and the Division 2 EDG was returned to service.

This finding affected the cross-cutting area of Problem Identification and Resolution because station personnel missed several opportunities to implement repairs.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ADEQUATELY ADDRESS SCAFFOLDING ERECTION CONCERNS
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was NRC-identified when licensee personnel failed to correct an issue regarding the installation of scaffolding erected near safety-related equipment which did not meet the seismic bracing or clearance criteria of licensee procedures.

The team determined that the finding was of more than minor significance since the finding was associated with the equipment performance and human performance attributes of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of equipment that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, all scaffolding work was suspended and licensee personnel were required to obtain engineering approval of all scaffolding erections.

This finding affected the cross-cutting area of Human Performance because licensee personnel failed to follow both the scaffolding erection procedure and the temporary alterations procedure. This finding also affected the cross-cutting area of Problem Identification and Resolution because a condition adverse to quality regarding scaffolding controls was not corrected, despite numerous opportunities.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ADEQUATELY ADDRESS EDG DESIGN CONCERN
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was NRC-identified when licensee personnel failed to adequately address a nonconforming condition in the design of the EDGs which made the EDGs vulnerable to damage in response to a loss of offsite power (LOOP) signal under certain scenarios.

The team determined that the finding was of more than minor significance since the finding was associated with the design control and equipment performance attributes of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency confirmed not to result in a loss of function per Generic Letter 91-18; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, an engineering change to modify the EDG start circuitry was initiated.

This finding affected the cross-cutting area of Problem Identification and Resolution because licensee personnel failed to adequately resolve a previously identified condition adverse to quality.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation

FAILURE TO ADEQUATELY ADDRESS ECCW OILER CONCERNS
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was NRC-identified when licensee personnel failed to adequately review available industry operating experience information and failed to identify degraded oil reservoirs that could adversely impact the operability of both Emergency Closed Cooling Water (ECCW) pumps.

The team determined that the finding was of more than minor significance since the finding was associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, a walkdown of all potentially affected oil reservoirs was conducted and the reservoirs were verified to be able to properly provide makeup oil to all potentially affected pump bearings.

This finding affected the cross-cutting area of Problem Identification and Resolution because licensee personnel failed to adequately resolve a known industry problem associated with improper reservoir installation.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ADEQUATELY ADDRESS ESW COUPLING ASSEMBLY CONCERNS
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was NRC-identified when licensee personnel failed to correct a condition adverse to quality identified in IR 05000440/2004008 regarding an NCV for the failure to properly inspect the re-assembly of ESW pump couplings. During this inspection, the team identified that licensee corrective actions to address this issue were inadequate and again failed to prescribe an appropriate inspection of the ESW pump couplings during re-assembly.

The finding was of more than minor significance since the finding could be reasonably viewed as a precursor to a significant event. Specifically, the licensee failed to perform required inspections for the installation of mechanical equipment and this failure contributed to a previous ESW pump failure that was determined to be a White finding. The team noted that for both ESW pump failures, the pumps had satisfied post-maintenance testing acceptance criteria. Further, the team noted that improvements in quality control could have detected the conditions that led to premature pump failure. Specifically, inspections could have detected the misalignment of the coupling that led to the first pump failure and improved quality control of parts could have prevented the second failure.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single train for greater than its Technical Specification (TS) allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, this issue was entered into the CAP.

This finding affected the cross-cutting area of Problem Identification and Resolution because the finding was associated with the licensee's failure to adequately address a significant condition adverse to quality.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ADEQUATELY ADDRESS BREAKER TESTING CONCERNS
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was NRC-identified when licensee personnel failed to initiate a condition report to correct a condition adverse to quality following an error in the performance of a safety-related breaker overcurrent device calibration procedure step.

The team determined that the finding was of more than minor significance because the ineffective implementation of procedure steps by maintenance, if left uncorrected, could become a more significant safety concern since safety-related equipment may not be properly tested, reassembled, or maintained.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single

train for greater than its TS allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, procedure steps were re-performed, and the breaker was re-tested satisfactorily.

This finding affected the cross-cutting area of Problem Identification and Resolution because licensee personnel failed to generate a condition report to identify a condition adverse to quality which adversely impacted the licensee's ability to take effective corrective actions to address the issue.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO COMPLY WITH ARC PROCEDURE DURING EDG MODIFICATIONS
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was NRC-identified when licensee personnel failed to adhere to ARC procedures used for the modification of safety-related equipment and modified a portion of the Division 1, 2, and 3 EDG exhaust ventilation system without declaring the ventilation system unavailable, as required.

The team determined that the finding was of more than minor significance since the finding was associated with the configuration control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions the EDGs were declared inoperable until the modification was removed.

This finding affected the cross-cutting area of Human Performance since licensee personnel failed to adhere to the ARC procedure associated with the modification activities.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
IMPROPERLY PERFORMED VERIFICATION OF ELECTRICAL DISCONNECT STATUS
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed when licensee personnel improperly performed a procedure step for verification of the position of RCIC system electrical disconnects.

The team determined that the finding was of more than minor significance since the finding was associated with the configuration control and human performance attributes of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, the electrical disconnects were properly positioned.

This finding affected the cross-cutting area of Human Performance because licensee personnel failed to adhere to procedure steps for aligning RCIC system electrical disconnects.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation

IMPROPERLY PERFORMED VERIFICATION OF ELECTRICAL JUMPER REMOVAL
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed when maintenance personnel incorrectly performed a procedure step which verified that electrical jumpers had been removed from an electrical cabinet and as a result, inadvertently left an electrical jumper installed in the cabinet.

The team determined that the finding was of more than minor significance since the finding was associated with the configuration control and human performance attributes of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, the electrical jumper that was inadvertently left in the affected electrical cabinet was removed.

This finding affected the cross-cutting area of Human Performance because licensee personnel performed an incorrect procedure step which verified that electrical jumpers had been removed from an electrical cabinet.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
INADEQUATE TESTING FOLLOWING "HOT SHORT" MODIFICATIONS
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion III, "Design Control," was NRC-identified when licensee personnel failed to verify that the isolation function of the remote shutdown panel (RSP) emergency transfer switch was operable after a modification re-wired the switch and placed a previously unused set of contacts in the isolation circuit.

The team determined that the finding was of more than minor significance since the finding was associated with the equipment performance and procedure quality attributes of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," Appendix F, "Fire Protection Significance Determination Process," the team reviewed the finding against the Phase 1 Qualitative Screening criteria. The severity of the deficiency was determined to have a low degradation rating, because the reliability of the system function impacted by the finding was not significant. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, licensee personnel verified the adequacy of the design modification through the performance of a suitable test.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
INADEQUATE SAFE SHUTDOWN MOV DESIGN CHANGE ASSESSMENT
A finding of very low safety significance and an associated NCV of Perry Operating License Condition 2.C(6), "Fire Protection," was NRC-identified when licensee personnel revised the fire protection program to use manual actions for replacing fuses for safe post-fire shutdown, but did not adequately assess the ability to perform the actions and did not verify or validate that adequate time was available to perform the actions.

The team determined that the finding was of more than minor significance since the finding was associated with the design control, equipment performance, and procedure quality attributes of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," Appendix F, "Fire Protection Significance Determination Process," the team reviewed the finding against the Phase 1 Qualitative Screening criteria. The Phase 1 screening determined that a Phase 2 evaluation was required because the severity of the deficiency was determined to have a moderate degradation rating. The Phase 2 evaluation determined this finding was of very low safety significance, because no potentially challenging fire scenarios were developed.

As part of the licensee's immediate corrective actions, procedures were revised to add the affected fuses to the remote shutdown inventory and provide guidance regarding fuse replacement.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ADEQUATELY CONSIDER ENVIRONMENTAL IMPACT ON TRD MODIFICATION
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion III, "Design Control," was NRC-identified when licensee personnel failed to adequately evaluate the effect of water intrusion on the insulation composite installed in the EDG exhaust enclosure during modification activities.

The team determined that the finding was of more than minor significance since the finding was associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," the team determined that this finding was a design deficiency or qualification deficiency confirmed not to result in a loss of safety function per Generic Letter 91-18. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, engineering personnel re-calculated expected concrete temperatures, taking into account wetted insulation, and verified that the EDG exhaust enclosure remained operable.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO IDENTIFY A MAINTENANCE PREVENTABLE FUNCTIONAL FAILURE
A finding of very low safety significance and an associated NCV of 10 CFR 50.65(a)(1), associated with the requirements for monitoring the effectiveness of maintenance, was identified when licensee personnel failed to establish appropriate goals and monitor the performance of the Division 2 EDG when the demonstration of effective control of performance of the EDG through appropriate preventive maintenance became invalid following a lube oil heat exchanger gasket failure.

The team determined that the finding was of more than minor significance since the finding was associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) was not a design deficiency or qualification deficiency; 2) did not represent an actual loss of safety function of a system; 3) did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time; 4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and 5) did not screen as potentially risk significant due to seismic, flooding, or a severe weather initiating event. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's corrective actions, licensee personnel planned to discuss this issue with industry peers and determine whether the criteria used to categorize one of the EDG performance issues as a Maintenance Preventable Functional Failure was consistently understood and accepted.
Inspection Report# : 2005003*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO FOLLOW PROCEDURES FOR SCAFFOLD CONSTRUCTION IN SAFETY-RELATED AREAS
Inspectors identified a finding of very low safety significance and a violation of Technical Specification 5.4 when, during a walkdown of the high pressure core spray (HPCS) system, inspectors observed that the scaffolding constructed in the Division 3 emergency diesel generator (EDG) and HPCS pump rooms failed to meet the seismic clearance requirements specified in licensee procedure GCI-0016, "Scaffolding Erection, Modification or Dismantling Guidelines," Revision 4. The inspectors observed that the procedural deviations were not evaluated by engineering to ensure that the safety-related HPCS system would not be adversely impacted during a seismic event. Additionally, inspectors noted that the scaffolding constructions in the Division 3 EDG and HPCS pump rooms were not tracked as a temporary alteration as required by Perry Administrative Procedure (PAP)-0204, "Housekeeping/Cleanliness Control Program," Revision 14. The primary cause of this finding was the failure to implement appropriate procedures for construction of scaffolding that could affect safety-related equipment. The primary cause was related to the cross-cutting area of Human Performance in that the licensee failed to follow both procedures, GCI-0016 and PAP-0204.

The finding was more than minor because, if left uncorrected, the failure to follow procedures for scaffold construction in safety-related areas would become a more significant safety concern. Additionally, the failure to follow procedures designed to protect safety-related equipment from scaffold construction adversely affects the mitigating system cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The finding was determined to be of very

low safety significance because, assuming HPCS was rendered inoperable following a seismic event due to non-seismic scaffolding, Significance Determination Process Phase 3 analysis determined the issue to not be greater than Green due to the low frequency of seismic events and the operability of other mitigating systems. The issue was a Non-Cited Violation of Technical Specification 5.4 which required the implementation of written procedures for performing maintenance on safety-related systems.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO IMPLEMENT TS 5.4 REQUIRED PLANT FIRE PROCEDURES FOR DISCOVERY OF A FIRE
A finding of very low safety significance and a violation of Technical Specification 5.4 was self-revealed on January 13, 2005, when a chemistry technician failed to promptly notify the control room upon discovery of an unexpected fire. The fire was located in the chemistry oil lab room of the control complex building within the protected area. The primary cause of this finding was related to the cross-cutting area of Human Performance. The chemistry technician failed to recognize that, in accordance with the Fire Protection Program, prompt notification to the control room is required when a fire is discovered.

The finding was more than minor because the failure to promptly report a fire prevents plant operators in the control room and other plant personnel from taking prompt and appropriate action pursuant to Fire Protection Program procedures. The resulting failure to implement the Fire Protection Program procedure on discovery of a fire degrades the facility's ability to meet the cornerstone objective of mitigating systems. Although not suitable for Significance Determination Process review, the finding was determined, by regional management, to be of very low safety significance in that (1) the finding did not affect the operability of the automatic fire detection and suppression systems in the affected fire zone, (2) the fire zone was outside of the vital area of the plant, and (3) the fire zone did not contain safe shutdown systems. Additionally, there was no identified damage to safety-related equipment due to the fire, and the fire was observed to be confined to an oven.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
INADEQUATE RESTORATION OF IRM 'A'
A finding of very low safety significance and a violation of Technical Specification 5.4 was self-revealed during a reactor start-up on January 30, 2005, when the intermediate-range monitor (IRM) 'A' instrument was discovered to be inoperable after reactor criticality had been achieved. Prior to start-up, it had been established that IRM 'C' was inoperable. The inoperability of both IRM 'A' and IRM 'C' resulted in operability of less than the minimum required number of IRM channels per trip system of the reactor protection system (RPS) for Mode 2 operation. The licensee entered the appropriate Technical Specification action statement and, as required by licensee procedure, commenced a normal reactor shutdown. The primary cause of this finding was the failure to implement appropriate procedures during maintenance activities on IRM 'A'. A cable connection between the intermediate-range detector and the intermediate-range instrument was left loosely attached at the conclusion of the maintenance activity. This rendered the IRM 'A' instrument inoperable. Additionally, the maintenance procedure lacked appropriate acceptance criteria for determining that the maintenance had been satisfactorily accomplished. The primary cause of this finding was related to the cross-cutting area of Human Performance in that technicians failed to adequately attach and verify connection of the cable in the IRM 'A' system.

The finding was more than minor because it resulted in a reactor start-up and operation in Mode 2 with less than the required number of IRM trip function channels per RPS trip system. This degraded the plant's ability to meet the mitigating system cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Additionally, the finding resulted in an unplanned reactor shutdown. The finding was of very low safety significance because RPS trip capability was maintained due to designed redundancy in the system logic. The issue was a Non-Cited Violation of Technical Specification 5.4 which required the implementation of written procedures covering the intermediate-range nuclear instrument system.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO TAKE PROMPT CORRECTIVE ACTION AFTER IDENTIFYING THAT ERRONEOUS OR UNEXPLAINABLE DATA WAS RECORDED DURING TS REQUIRED TESTING
Inspectors identified a finding of very low safety significance and a violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions" on January 18, 2005. Specifically, the licensee failed to take prompt corrective action after identifying on January 17, 2005, that erroneous or unexplainable data was recorded during Technical Specification required emergency closed cooling water (ECCW) 'B' pump and valve operability testing. The primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution. After the inspectors brought the issue to the attention of control room personnel, the licensee initiated action to re-code the surveillance as "no credit" based on suspect data. Action was also initiated to reschedule the surveillance prior to its overdue date of February 4, 2005. The licensee's subsequent performance of the surveillance test was not properly performed which resulted in a missed Technical Specification 5.5.6 surveillance and an additional 10 CFR 50, Appendix B, Criterion XVI violation was identified by the inspectors. The test was performed correctly, with acceptable results, on February 5, 2005, to satisfy Technical Specification requirements.

The inspectors concluded that the failure of a system engineer, an engineering supervisor, and a senior reactor operator to take action to correct an identified condition adverse to quality was more than minor in that it could reasonably be viewed as a precursor to a significant event and, with respect to the performance of Technical Specification required surveillance testing, was associated with the reactor safety cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring mitigating system availability, reliability, and capability. The inspectors determined that the finding did not involve the loss of safety function in that ECCW 'B' subsequently satisfactorily completed the required quarterly pump and valve operability test. The inspectors therefore concluded that the finding was of very low safety significance.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO IDENTIFY AND CORRECT INADEQUATE CREW PERFORMANCE DURING ECCW TESTING
Inspectors identified a finding of very low safety significance and a violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions" on February 7, 2005. Specifically, the licensee failed to identify and correct a condition adverse to quality following the inspectors' identification, on January 18, 2005, of an improperly performed Technical Specification required surveillance. As a result of the licensee's failure to properly evaluate the January 5, 2005, performance deficiency and take appropriate corrective action, the surveillance test was again performed improperly on February 1, 2005. In addition to causing unnecessary safety system unavailability during repetitive performances of the procedure, the inadequate performance of the test on February 1, 2005, resulted in a missed Technical Specification 5.5.6 surveillance. The primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution. The test was performed correctly, with acceptable results, on February 5, 2005, to satisfy Technical Specification requirements. An apparent cause investigation was initiated to review surveillance performance issues.

The inspectors concluded that the failure of the licensee to adequately address performance issues with respect to a Technical Specification required surveillance procedure was more than minor in that it could reasonably be viewed as a precursor to a significant event and, in this case, resulted in a second improper performance and a missed Technical Specification surveillance. Additionally, the issue was associated with the reactor safety cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring mitigating system availability, reliability, and capability. The inspectors determined that the finding did not involve the loss of safety function in that emergency closed cooling water 'B' subsequently satisfactorily completed the required quarterly pump and valve operability test. The inspectors therefore concluded that the finding was of very low safety significance.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
INADVERTENT ESTABLISHMENT OF FLOW PATH FROM SUPPRESSION POOL TO AUXILIARY BUILDING FLOOR DRAINS DURING RHR LLRT
A finding of very low safety significance and a violation of Technical Specification 5.4 was self-revealed on February 27, 2005. Specifically, while performing a local leak rate test (LLRT) for the residual heat removal (RHR) 'A' suppression pool suction valve, 1E12-F004A, the valve was opened with the RHR 'A' system drained and vented. As a result, the suppression pool began draining through an open 8 inch drain valve and then overflowed to the auxiliary building floor. The draining was terminated within minutes when the valve was closed per the next step in the LLRT procedure.

The inspectors determined that inadvertent draining of the suppression pool to the auxiliary building floor was a performance deficiency warranting a significance evaluation. The inspectors determined that the issue was more than minor because it could reasonably be viewed as a precursor to a significant event. The inspectors determined that the finding: (1) did not increase the likelihood of a loss of reactor coolant system (RCS) inventory; (2) did not degrade the licensee's ability to terminate a leak path or add RCS inventory when needed; and (3) did not degrade the licensee's ability to recover decay heat removal if lost. The finding affected the cross-cutting issue of Human Performance because a personnel error resulted in a loss of suppression pool volume.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
INADEQUATE IMPLEMENTATION OF TS 3.4.10 FOR ALTERNATE HEAT DECAY REMOVAL
Inspectors identified a finding of very low safety significance for the licensee's failure to adequately implement Technical Specification 3.4.10 requirements for alternate decay heat removal methods as amended to the license during the Technical Specification improvement program to adopt Technical Specifications based on NUREG-1434 (Improved Standard Technical Specifications). The finding was considered to be a Non-Cited Violation of 10 CFR 50.36(c)(2)(I). The licensee has initiated action to install an alternate decay heat removal system.

The inspectors determined that the licensee's failure to adequately implement Technical Specification 3.4.10 was more than minor because it was directly associated with the mitigating system cornerstone objective of availability of a mitigating system. Although not suited for

Significance Determination Process review, the finding was determined to be of very low safety significance in that (1) the Mode 4 conditions were maintained by the inoperable, but running, RHR 'B' system and (2) the licensee maintained vacuum within the condenser to provide a method of decay heat removal had coolant temperature rose sufficiently to produce steam.
Inspection Report# : 2005002*(pdf)*

Significance: G Feb 18, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO PROVIDE GUIDANCE TO REFURBISH BREAKERS WITHIN VENDOR-SPECIFIED TIME FRAMES OR TO PROVIDE REASONABLE ALTERNATIVE PRREVENTATIVE MAINTENANCE PRACTICES
The inspectors identified a finding having very low safety significance and an associated Non-Cited Violation of Technical Specifications for inadequate safety-related breaker maintenance procedures. The inspectors determined that maintenance procedures for overhauling safety-related breakers were inappropriate, because they did not contain guidance to refurbish breakers within the vendor's specified time frames or provide reasonable alternative preventative maintenance practices to ensure that safety-related breakers remained operable.

The finding was more than minor because the procedure quality attribute of the Mitigating Systems Cornerstone was affected when the licensee failed to evaluate industry and vendor recommended changes and incorporate the changes into their breaker maintenance procedures. The issue was of very low safety significance because the deficiency did not result in any loss of function; the finding was not risk significant due to a seismic, a flooding, or a severe weather initiating event; and because other plant-specific analyses that identify core damage scenarios of concern were not impacted. The finding was a Non-Cited Violation of Technical Specification Section 5.4, and Regulatory Guide 1.33, for inadequate maintenance procedures. The issue was entered into the licensee's corrective action program and is being evaluated under multiple condition reports (CR 05-0187. CR 05-00230, CR 05-00253, CR 05-00274, CR 05-00283, CR 05-00295, CR 05-00359, CR 05-00459).
Inspection Report# : 2005005*(pdf)*

Significance: G Feb 18, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO INCORPORATE THE VENDOR'S GAP REQUIREMENTS INTO OPERATIONS MANUAL INSTRUCTIONS
The inspectors identified a finding having very low safety significance and associated Non-Cited Violation of Technical Specifications for inadequate procedures associated with safety-related breaker maintenance procedures. The inspectors determined that maintenance procedures for overhauling safety-related breakers were inappropriate, because they did not contain guidance to measure and monitor critical measurements identified by the vendor.

The finding was more than minor because the procedure quality attribute of the Mitigating Systems Cornerstone was affected when the licensee failed to evaluate industry and vendor recommended changes and incorporate the changes into their breaker maintenance procedures. The issue was of very low safety significance because the deficiency did not result in any loss of function; the finding was not risk significant due to a seismic, a flooding, or a severe weather initiating event; and because other plant-specific analyses that identify core damage scenarios of concern were not impacted. The finding was a Non-Cited Violation of Technical Specifications Section 5.4, and Regulatory Guide 1.33, for inadequate maintenance procedures. The finding was entered into the licensee's corrective action program and is being evaluated under condition reports CR 05-00364 and CR 05-00095.
Inspection Report# : 2005005*(pdf)*

Significance: G Feb 18, 2005
Identified By: NRC
Item Type: FIN Finding
FAILURE TO QUARANTINE EQUIPMENT AND PERFORM TROUBLESHOOTING WITHOUT FULL BENEFIT OF A TROUBLESHOOTING PLAN
A finding of very low significance was identified by the inspectors. The inspectors concluded that the licensee failed to quarantine equipment. The inspectors determined the failure to quarantine the motor feed pump (MFP) breaker cubicle impaired the licensee's ability to identify the associated failure mechanism for the January 6, 2005 failure of the MFP breaker to close. The primary cause of this finding was related to the cross-cutting area of Human Performance.

The finding was more than minor because the failure to quarantine the MFP breaker after the January 6, 2005 failure, if left uncorrected, could become a more significant safety concern. The finding affected the short term heat removal element of the Mitigating System Cornerstone and that the issue was not a design deficiency that resulted in a loss of function. The finding was of very low safety significance because the system was not a safety system and that the system was not a TS system. In addition, the finding did not represent an actual loss of safety function or equipment designed as risk-significant per 10 CFR 50.65 for greater than 24 hours, the finding was not risk significant due to a seismic, a flooding, or a severe weather initiating event, therefore the finding screened as Green. No violation of NRC requirements occurred.
Inspection Report# : 2005005*(pdf)*

Significance: W Dec 31, 2003

Identified By: NRC
Item Type: VIO Violation
INADEQUATE LPCS/RHR 'A' FILL AND VENT PROCEDURES RESULTS IN SYSTEM INOPERABILITY AFTER LOSS OF OFFSITE POWER
An apparent self-revealed violation of Technical Specification 5.4 occurred when the waterleg pump for low pressure core spray (LPCS) and residual heat removal (RHR) 'A' became air bound following a loss of offsite power. Subsequent investigation revealed that the procedures for venting these systems did not include the high point vent valve on the discharge of the pump, thus allowing gas to accumulate in a vertical section of system piping. When the waterleg pump lost power on August 14, 2003, the accumulated gas expanded and caused voiding of the pump. As a result, both LPCS and RHR 'A' were rendered inoperable.

The NRC assessed this finding through Phase 3 of the Significance Determination Process and made a preliminary determination that it is an issue with low to moderate safety significance.

After considering the information developed during the inspection, the NRC has concluded that the inspection finding is appropriately characterized as White (i.e., an issue with low to moderate increased importance to safety) and a final Significance Determination Process letter was issued on March 12, 2004, and will be inspected within the scope of a supplemental 95002 inspection in May 2004.

Inspection Report# : 2004006*(pdf)*
Inspection Report# : 2005003*(pdf)*

Significance: W Sep 30, 2003
Identified By: NRC
Item Type: VIO Violation
IMPROPER MAINTENANCE CAUSES EMERGENCY SERVICE WATER PUMP FAILURE
A self-revealed apparent violation of Technical Specification (TS) 5.4 occurred when the Division 1 emergency service water (ESW) pump failed during routine pump operation. The licensee rebuilt the pump in 1997 and during this reassembly, failed to properly reassemble the pump shaft connections. The improper reassembly led to pump failure on September 1, 2003.

The NRC assessed this finding through Phase 3 of the Significance Determination Process and made a preliminary determination that it is an issue with low to moderate safety significance. On January 28, 2004, a final significance determination letter was issued which characterized this issue as white.
Inspection Report# : 2004005*(pdf)*
Inspection Report# : 2005003*(pdf)*

Barrier Integrity

Significance: G Jun 30, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
FAILURE TO CONTROL LOW PRESSURE TEST GAGES
A finding of very low safety significance and a violation of 10 CFR 50, Appendix B, Criterion XII, "Control of Measuring and Test Equipment" was self-revealed on May 6, 2005. Specifically, on April 30, 2005, with the plant in a cold shutdown condition, the licensee installed temporary test gages to the tailpiece of residual heat removal (RHR) test connection isolation valve E12-F059B and to the test connection on the low pressure side of leak detection system (LDS) differential pressure detector E31-N077B associated with the reactor water clean-up (RWCU) return to the feedwater system flow instrument. The gages were installed to support operability testing of RWCU check valve G33-F052B. Contrary to the Perry Problem Solving Plan associated with work order (WO) 200147914, operators failed to remove the test gages following testing and prior to plant start-up. On May 6, 2005, a non-licensed operator in the RHR 'A' room noted that the temporary gage connected downstream of E12-F059B was still installed. After an extent of condition review was performed by the licensee, a second gage installed in the RWCU/LDS was identified. The primary cause of the finding was related to the cross-cutting issue of Human Performance in that the gages were not removed per the WO procedure.

The inspectors determined that leaving low pressure (300 psig) rated test equipment installed in a system (RWCU) that experiences normal operating pressure conditions of approximately 1000 psi was a performance deficiency warranting significance evaluation. The inspectors determined that the issue was more than minor because it could reasonably be viewed as a precursor to a more significant event. The inspectors determined that the finding was of very low safety significance because the finding only resulted in a degradation in the radiological barrier function of the Auxiliary Building and the finding did not result in an actual open pathway in the physical integrity of the reactor containment or involve an actual reduction in defense-in-depth for the atmospheric pressure control or hydrogen control functions of the reactor containment.
Inspection Report# : 2005006*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
PERMANENT STRUCTURES IN CONTACT WITH CONTAINMENT WALL
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was NRC-identified when licensee personnel failed to identify and correct numerous permanent structures (deck grating) that did not meet seismic separation distance requirements to the inside containment wall.

The team determined that the finding was of more than minor significance since the finding was associated with the configuration control attribute of the Barrier Integrity cornerstone and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) did not represent a degradation of the radiological barrier function of the control room, auxiliary building, spent fuel pool, or annulus exhaust gas treatment system; 2) did not represent a degradation of the barrier function of the control room against smoke or toxic gas; 3) did not represent an actual open pathway in the physical integrity of the containment; and 4) did not involve an actual reduction in the defense-in-depth for the atmospheric pressure control or the hydrogen control functions of containment. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions all identified deficiencies were corrected and required seismic separation distances were restored.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ADEQUATELY ADDRESS RWCU PCIV CLOSURE CONCERNS
A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was NRC-identified when licensee personnel failed to promptly identify, and therefore correct in a timely manner, the condition of the reactor water cleanup (RWCU) primary containment isolation valves (PCIVs) inability to close when being secured from a normal RWCU valve lineup.

The team determined that the finding was of more than minor significance since the finding was associated with the reactor coolant system (RCS) equipment and barrier performance attribute of the Barrier Integrity cornerstone and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events.

Using IMC 0609, "Significance Determination Process," the team determined that this finding 1) did not represent a degradation of the radiological barrier function of the control room, auxiliary building, spent fuel pool, or annulus exhaust gas treatment system; 2) did not represent a degradation of the barrier function of the control room against smoke or toxic gas; 3) did not represent an actual open pathway in the physical integrity of the containment; and 4) did not involve an actual reduction in the defense-in-depth for the atmospheric pressure control or the hydrogen control functions of containment. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

To address this issue, licensee personnel initiated actions to improve the performance margin of the affected valves and review calculations to clarify the design and licensing basis.

This finding affected the cross-cutting area of Problem Identification and Resolution because licensee personnel failed to correct the previously identified condition of the RWCU PCIVs inability to close under all operating conditions.
Inspection Report# : 2005003*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
INADEQUATE SAFETY EVALUATION FOR THE NOBLECHEMTM PROCESS
The inspectors identified a Severity Level IV Non-Cited Violation associated with the failure to perform an adequate safety evaluation review as required by 10 CFR 50.59 for changes made to the facility as described in the Updated Final Safety Analysis Report. The licensee initiated a NobleChemTM process, which involved deposition of noble metals on primary plant components, but failed to provide a basis for the determination that this change was acceptable without a license amendment. Specifically, the safety evaluation failed to address the impact of the NobleChemTM process on the fuel peak cladding temperature in a post loss-of-coolant accident environment due to catalytic action involving two exothermic reactions.

Because the Significance Determination Process is not designed to assess the significance of violations that potentially impact or impede the regulatory process, this issue was dispositioned using the traditional enforcement process in accordance with Section IV of the NRC Enforcement Policy. However, the results of the violation, that is, the failure to fully evaluate the NobleChemTM process, were assessed using

the Significance Determination Process.

The inspectors considered this issue of more than minor significance, because the finding could have become a more significant safety concern in that, the licensee failed to demonstrate through a documented analysis that the integrity of fuel cladding was not affected by the NobleChemTM process. Because a subsequent vendor analysis adequately demonstrated the integrity of fuel cladding, it was determined that the licensee's failure to provide an adequate basis for the safety evaluation 01-0007 was an issue of very low safety significance and the violation of 10 CFR 50.59 was classified as a Severity Level IV Non-Cited Violation, consistent with the NRC Enforcement Policy.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
DROPPED JET PUMP PLUG
A finding of very low safety significance and a violation of Technical Specification 5.4 was self-revealed on February 28, 2005. Specifically, while removing a jet pump plug assembly from the reactor vessel, the plug broke loose from the handling pole and roped L-hook while being lifted over the refuel floor auxiliary platform. As a result, the plug dropped approximately 60 feet, primarily through water, and landed on top of several fuel bundles in the reactor core.

The inspectors determined that dropping a jet pump plug assembly, weighing approximately 25 pounds, onto the top of the reactor core was a performance deficiency warranting significance evaluation. The inspectors determined that the issue was more than minor because it could reasonably be viewed as a precursor to a significant event. Further, the finding was associated with the barrier integrity cornerstone attribute of human performance and affected the cornerstone objective of providing reasonable assurance that physical design barriers (fuel cladding) protect the public from radionuclide releases caused by accidents or events. Although not suitable for Significance Determination Process review, regional management determined that the finding was of very low safety significance because the dropped plug was subsequently determined to not have caused damage to the fuel. The finding affected the cross-cutting issue of Human Performance because a personnel error caused the plug to be dropped.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
INADVERTENT CONTROL ROD WITHDRAWAL
A finding of very low safety significance and a violation of Technical Specification 5.4 was self-revealed on March 10, 2005. Specifically, while attempting to verify the position of control rod 18-55, a senior reactor operator (SRO) inadvertently withdrew control rod 58-35 from position 00 to position 02. Upon recognition of the condition, the SRO took the Technical Specification required actions and immediately reinserted the control rod.

The inspectors determined that a personnel error that resulted in the inadvertent withdrawal of a control rod was a performance deficiency warranting significance evaluation. The inspectors determined that the issue was more than minor because it could reasonably be viewed as a precursor to a significant event. Further, the finding was associated with the barrier integrity cornerstone attribute of human performance and affected the cornerstone objective of providing reasonable assurance that physical design barriers (fuel cladding) protect the public from radionuclide releases caused by accidents or events. Although not suitable for Significance Determination Process review, regional management determined that the finding was of very low safety significance because the rod movement had minimal impact of reactivity as evidenced by the lack of response by source range instrumentation and subsequent licensee shutdown margin assessment. Further, the error was immediately recognized and the control rod was inserted to position 00 in less than 15 seconds. Additionally, the SRO's use of the withdraw pushbutton self-limited the movement to one notch. The finding affected the cross-cutting issue of Human Performance because a personnel error resulted in an inadvertent step withdrawal of a control rod.
Inspection Report# : 2005002*(pdf)*

Emergency Preparedness

Significance: SL-IV May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
INAPPROPRIATE USE OF HP TECHNICIAN AS INTERIM OSCC
A finding of very low safety significance and an associated Severity Level IV NCV of 10 CFR 50.54(q) was NRC-identified when licensee personnel failed to obtain prior NRC approval for a change to the Perry Emergency Plan concerning emergency response organization (ERO) staffing and response timeliness. Because the issue affected the NRC's ability to perform its regulatory function, it was processed through the traditional enforcement process and evaluated using the SDP.

Using IMC 0612, Appendix B, "Issue Dispositioning Screening," the inspectors determined that the finding was more than minor because it

was associated with the ERO readiness and procedure quality attributes of the Emergency Preparedness cornerstone and affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency.

The finding was considered to be of only very low safety significance since the period of vulnerability to the issue was short.

As part of the licensee's corrective actions, the issue was entered in the licensee's corrective action program for resolution as CR 05-03271.
Inspection Report# : 2005003*(pdf)*

Significance: G May 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO IDENTIFY IMPACT OF SECURITY PLAN CHANGE ON EMERGENCY PLAN
A finding of very low safety significance and an associated NCV of 10 CFR 50.47(b)(4) was NRC-identified when a change was made that adversely impacted Emergency Action Level (EAL) implementation. Specifically, a Security Plan revision implemented on November 8, 2005, eliminated terms from the Security Plan and Security Event Checklists, which adversely affected EAL classifications.

The team determined that the finding was of more than minor significance since the finding was associated with the ERO performance and procedure quality attributes of the Emergency Preparedness cornerstone and affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency.

Using IMC 0609, "Significance Determination Process," Appendix B, "Emergency Preparedness Significance Determination Process," and Sheet 1, "Emergency Preparedness Significance Determination Process - Failure to Comply," the team determined that this finding involved a planning standard problem, involved a risk-significant planning standard (RSPS) problem, did not result in a planning standard function failure, and did not result in a RSPS degraded function. Therefore, the finding screened as Green and was considered to be of only very low safety significance.

As part of the licensee's immediate corrective actions, the licensee issued Security Operations Directive 05-0005 to require security personnel to use appropriate terms to communicate event information to the shift manager.
Inspection Report# : 2005003*(pdf)*

Significance: W Nov 19, 2004
Identified By: NRC
Item Type: VIO Violation
Failure to Perform Emergency Dose Assessment During an Alert Within 15 minutes Required by EAL HA1
The inspectors identified an apparent violation having preliminarily low-to-moderate safety significance when the licensee failed to follow the requirements of the Perry Emergency Plan during an Alert level event declared on July 20, 2004. During this event, the licensee staff failed to perform a Computer Aided Dose Assessment Program (CADAP) run within 15 minutes of the Alert declaration as required by the licensee's Emergency Plan.

The finding was determined to be greater than minor because it affected the Emergency Preparedness Cornerstone objective of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Specifically, the issue was more than minor because it represented a failure to implement a regulatory requirement during a real event which could have prevented the correct emergency classification. The finding was preliminarily determined to be of low to moderate safety significance because the licensee failed to implement a risk significant planning standard (10 CFR 50.47(b)(4)) during an actual Alert emergency.

After considering the information developed during the inspection and the additional information provided in your January 26, 2005, letter, the NRC has concluded that the inspection finding is appropriately characterized as White (i.e., an issue with low to moderate increased importance to safety, which may require additional NRC inspections).
Inspection Report# : 2004016*(pdf)*
Inspection Report# : 2005003*(pdf)*
Inspection Report# : 2005007*(pdf)*

Occupational Radiation Safety

Significance: G Sep 30, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
CONTRACTORS IN HIGH RADIATION AREA WITHOUT REQUIRED PERMIT
A finding of very low safety significance and a non-cited violation of Technical Specification 5.7.1 was self-revealed when, in two separate

instances, contractor radiation workers were found inside posted high radiation areas without being signed on the appropriate radiation work permits for these areas. Specifically, in the first instance, on January 10, 2005, a contractor supervisor was observed inside a posted high radiation area/contaminated area without the required protective clothing. The individual was determined to be signed on a low risk radiation work permit for heater bay work. The individual did not receive the required high radiation area briefing for the turbine condenser bay area (a posted high radiation area) and was not signed on the required higher risk radiation work permit. In the second instance, on March 8, 2005, a radiation protection technician discovered two contractor radiation workers, that were signed on a low risk radiation work permit for work in the turbine heater bay, in a high radiation area and had not received the required high radiation area briefing for the residual heat removal heat exchanger room. The workers failed to sign off of the low risk radiation work permit and to sign on to the medium risk radiation work permit and did not obtain a radiation protection brief prior to entry into this room. Corrective actions taken by the licensee included restricting the individuals from the radiologically restricted area.

The finding was more than minor because the finding was associated with the human performance attribute of the occupational radiation safety cornerstone and affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation. The finding was of very low safety significance because it did not involve: (1) as low as is reasonably achievable planning or controls, (2) an overexposure, (3) a substantial potential for an overexposure, or (4) an impaired ability to assess dose. The primary cause of this finding was related to the cross-cutting area of Human Performance, subcategory personnel, in that the individuals failed to follow licensee procedures.

Inspection Report# : 2005009*(pdf)*

Significance: G Sep 30, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
ENTRY INTO A LOCKED HIGH RADIATION AREA WITHOUT REQUIRED RADIATION PROTECTION BRIEFING
A finding of very low safety significance and a non-cited violation of Technical Specification 5.7.2 was self-revealed on March 31, 2005, when an operator working on a radiation work permit that did not permit entry into a locked high radiation area entered a posted locked high radiation area without having received the required radiation protection brief. The individual was tasked with performing a valve lineup on the N71 valve system in the turbine building catacombs. The N71 valve was located above a permanent valve platform that was posted and controlled as a locked high radiation area. Adjacent to the platform was scaffolding which provided access to a condenser man-way. The proximity of the scaffolding made it possible to access the permanent platform from the scaffolding platform. The individual ascended the scaffold to its platform, and while crossing to the permanent platform, was able to perform the required valve observation. After completing the task he stepped onto the permanent valve platform and noted a locked high radiation area posting. He exited the permanent platform via the temporary scaffolding that he originally used to access the area. Corrective actions taken by the licensee included restricting the individual from the radiologically restricted area for several days, counseling and coaching by radiation protection and operations management, and the individual prepared a job briefing sheet for co-workers.

The finding was more than minor because the finding was associated with the human performance attribute of the occupational radiation safety cornerstone and affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation. The finding was of very low safety significance because it did not involve: (1) as low as is reasonably achievable planning or controls, (2) an overexposure, (3) a substantial potential for an overexposure, or (4) an impaired ability to assess dose. The primary cause of this finding was related to the cross-cutting area of Human Performance, subcategory personnel, in that the individual failed to follow licensee procedures.

Inspection Report# : 2005009*(pdf)*

Public Radiation Safety

Significance: G May 26, 2005
Identified By: NRC
Item Type: FIN Finding
FAILURE TO ADEQUATELY ADDRESS ELEVATED DOSE RATE CONCERNS
A finding of very low safety significance was NRC-identified when licensee personnel failed to implement corrective actions to prevent recurrence of a significant condition adverse to quality in a timely manner. Specifically, corrective actions to investigate the organizational causes for elevated dose rates in Refueling Outage 9 (RFO9) failed to identify corrective actions to prevent recurrence. No violation of regulatory requirements occurred.

The team determined that the finding was of more than minor significance because, if left uncorrected, the finding would become a more significant safety concern. Although not suited for SDP evaluation, the finding was determined to be of very low safety significance because no safety-related equipment was rendered inoperable as a result of the performance deficiency.

This finding affected the cross-cutting area of Problem Identification and Resolution because the licensee failed to implement a corrective action to address a root cause of a condition adverse to quality.
Inspection Report# : 2005003*(pdf)*

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : March 03, 2006