Summer
4Q/2005 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2005
Identified By: Self-Revealing
Item Type: FIN Finding
Failure of 1" Extraction Steam Line Due to Inadequate On-Line Leak Repair Procedure
A self-revealing finding was identified for the use of an inadequate on-line leak repair procedure, which resulted in the line break of a 1" diameter Main Steam Turbine Casing Drain / 3rd Stage Extraction Steam Equalization Line. The on-line leak repair procedure, MMP-105.005, did not contain any instruction to verify that the subject piping maintained adequate wall thickness prior to installation of the leak sealant enclosure cavity. The licensee has performed a root cause investigation of the line failure and has entered the results into their corrective action program.

This finding is greater than minor because the procedure, if left uncorrected, could be applied to more safety significant piping systems where a similar failure could initiate a plant transient or cause complications such as loss of normal heat sink. The finding is considered to be of very low safety significance because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The cause of this finding was an evaluation issue of the cross-cutting aspect of Problem Identification and Resolution.
Inspection Report# : 2005003*(pdf)*

Significance: G Jun 30, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Adequately Review and Understand the Impact of Relay Maintenance Resulting in Loss of Class 1E "B" Train Power and Automatic Start of "B" EDG and ESF Loading Sequencer
A self-revealing non-cited violation of Technical Specification 6.8.1.a was identified for the failure to adequately review and understand the impact of protective relay maintenance/testing on the plant prior to allowing the work to commence.

This finding is greater than minor because it affected the human performance attribute of the Initiating Events cornerstone and affected the cornerstone objective, in that, the failure to adequately review and understand the impact of the work activity resulted in a perturbation in plant stability by causing a loss of power to the Class 1E "B" train vital safeguards bus (1DB), loss of power to all balance of plant buses, and automatic start of the "B" train emergency diesel generator and actuation of the Engineered Safety Features (ESF) loading sequencer. The finding is of very low safety significance because all necessary plant safety equipment responded as designed to the loss of power event, shutdown cooling flow was restored within 20 seconds without any appreciable reactor coolant system (RCS) heatup, and all "A" train redundant ESF equipment remained functional during the period. The direct cause of this finding was an organizational issue of the cross-cutting aspect of Human Performance.
Inspection Report# : 2005003*(pdf)*

Mitigating Systems

Significance: G Aug 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Prevent Spurious Operation of Charging Pump Suction From Volume Control Tank Valves LCV-115C and LCV-115E
A non-cited violation of V.C. Summer Facility Operating License No. NFP-12, Condition 2.C.(18) and 10 CFR 50, Appendix R, Section III.G.2, was identified for failure to protect the control circuits for level control valves (LCV) LCV-115C and LCV-115E, (charging pump suction valves from the Volume Control Tank), to prevent spurious operation during a severe fire.

The finding adversely impacted the reliability and capability of equipment required to achieve and maintain a safe shutdown condition following a severe fire. The finding is greater than minor because it is associated with the protection against external factors attribute and degraded the reactor safety mitigating systems cornerstone objective. The finding degraded the defense-in-depth for fire protection. The safety significance of this finding was not more than very low because of the installed spare charging pump, redundancy in reactor coolant pump seal cooling, limited ignition sources, and current protection transformers.
Inspection Report# : 2005009*(pdf)*

Significance: G Aug 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Emergency Procedure Implementation Not Timely To Maintain Pressurizer Level In Indicating Range
A non-cited violation of V.C. Summer Facility Operating License No. NFP-12, Condition 2.C.(18) and 10 CFR 50, Appendix R, Sections III.G and III.L. was identified for failure to establish timely performance of key steps in the fire emergency procedures to ensure that pressurizer level would be maintained in the indicating range during plant fires that involved evacuation of the control room and use of alternative shutdown methods.

The finding adversely impacted the reliability and capability of equipment required to achieve and maintain a safe shutdown condition following a severe fire. The finding is greater than minor because it is associated with the protection against external factors attribute and degraded the reactor safety mitigating systems cornerstone objective. The finding degraded the defense-in-depth for fire protection. The safety significance of this finding was not more than very low because of the operator action timelines and thermo-dynamic analysis.

Inspection Report# : 2005009*(pdf)*

Significance: G Aug 26, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Post-Fire Operator Actions For Reactor Coolant Pump Seal Cooling Were Not Adequate
A non-cited violation of V.C. Summer Technical Specification 6.8.1 regarding written procudures was identified for failure to ensure that vendor recommendations related to operation of reactor coolant pump seals would be followed during a severe fire.

The finding adversely impacted the reliability and capability of equipment required to achieve and maintain a safe shutdown condition following a severe fire. The finding is greater than minor because it is associated with the protection against external factors attribute and degraded the reactor safety mitigating systems cornerstone objective. The finding degraded the defense-in-depth for fire protection. The safety significance of this finding was not more than very low because of the redundancy in reactor coolant pump seal cooling, limited amounts of ignition sources, and current protection transformers.
Inspection Report# : 2005009*(pdf)*

Significance: G Jun 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Startup Procedure for Aligning RHR System During Plant Heatup
The NRC identified a non-cited violation of Technical Specification 6.8.1.a for the failure to place the "B" train Residual Heat Removal (RHR) pump control switch in pull-to-lock (PTL) prior to heating up the reactor coolant system (RCS) greater than 250 F during plant restart from the refueling outage.

This finding is more than minor because if left uncorrected, it could have resulted in a more significant safety concern, in that, had RCS heatup continued without the "B" RHR pump in PTL, it could have resulted in the pump being incapable of performing its design safety function during shutdown accident conditions. The finding is of very low safety significance because after being alerted by the NRC, the condition was corrected prior to the RCS exceeding temperatures that could have allowed flashing to occur in the "B" RHR pump suction piping had the pump automatically started and aligned to the refueling water storage tank. The direct cause of this finding was an attention issue of the cross-cutting aspect of Human Performance.
Inspection Report# : 2005003*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish Procedures for Responding to a Loss of Control Room Annunciators Emergency Event (Section 1R14)
A Non Cited Violation of Technical Specification (TS) 6.8.1.a was identified by the NRC for the failure to establish and implement procedures for events involving the loss of control room annunciators. This resulted in delays in implementing appropriate compensatory actions during an actual event involving partial loss of control room annunciators.

The inspectors determined that the licensee's failure to establish and implement written procedures for responding to loss of control room annunciators was a performance deficiency because the licensee is expected to meet TS requirements for having procedures for abnormal or emergency conditions. This finding is not suitable for Significance Determination Process (SDP) evaluation, however, this issue has been reviewed by NRC management and is determined to be a Green finding of very low safety significance because the annunciators are an aid to control room operators to enhance human performance and the lack of specific response procedures could adversely affect the licensee's ability to monitor and control the response of mitigating system equipment. The loss of annunciators was limited to only one train of safety equipment, there was no actual loss of mitigating system equipment, and no other plant transients occurred during the time period the annunciators were inoperable (Section 1R14).

Inspection Report# : 2005002*(pdf)*

Significance: G Mar 10, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to appropriately design the Emergency Feedwater System to prevent a common mode failure of the flow control valves when the backup service water supply source is used
An NRC identified, non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control, was identified in that the licensee failed to adequately select and review for suitability, the application of materials, parts, equipment and processes that are essential to the safety-related functions of the Emergency Feedwater (EFW) System. Specifically, under certain conditions, the EFW flow control valves could become plugged from tubercles or other debris when aligned to the backup service water supply.

This finding is greater than minor because it affected the Mitigating System Cornerstone objective of equipment reliability, in that, potential plugging of the EFW flow control valves could result in a common mode failure of the EFW System. The finding is of very low significance because of the low likelihood of an event requiring the use of the backup service water supply source to the EFW pumps.
Inspection Report# : 2005007*(pdf)*

Significance: G Mar 10, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure of corrective actions to adequately resolve a design vulnerability of the Emergency Feedwater System
An NRC identified, non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, was identified, in that, corrective actions taken since 1986 failed to adequately resolve a design vulnerability of the Emergency Feedwater (EFW) System. Specifically, tubercles and other debris from the backup service water source could plug the EFW flow control valves.

This finding is greater than minor because it affected the Mitigating System Cornerstone objective of equipment reliability, in that, potential plugging of the EFW flow control valves could result in a common mode failure of the EFW system. The finding is of very low significance because of the low likelihood of an event requiring the use of the backup service water suction source to the EFW pumps. This finding has cross-cutting aspects related to problem identification and resolution.
Inspection Report# : 2005007*(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : March 03, 2006