

Pilgrim 1 2Q/2004 Plant Inspection Findings

Initiating Events

Significance: G Mar 06, 2004

Identified By: Self Disclosing

Item Type: FIN Finding

Maintenance Workers Did Not Adequately Evaluate Use of an Electrical Insulating Blanket Over Exposed Relays

A self-revealing finding of very low safety significance was identified because maintenance workers conducting trouble shooting did not adequately evaluate the potential consequence of installing an electrical insulating blanket over exposed relays. This led to the inadvertent trip of a motor generator and plant transient on March 6, 2004.

The finding is greater than minor because it is associated with the human performance attribute of the initiating event cornerstone and adversely affects the cornerstone objective; it upset plant stability and caused a plant transient. The finding is of very low safety significance because the finding did not increase the likelihood of a primary or secondary loss of coolant accident, did not contribute to the likelihood of both a reactor trip and loss of mitigating equipment, and did not increase the frequency of a fire or flood. Additionally, the overpower condition remained within the safety analysis and was below the automatic reactor trip setpoint. No violation of regulatory requirements occurred.

A contributing cause of this finding relates to the cross-cutting area of human performance in that maintenance workers during trouble shooting activities did not adequately evaluate the possible consequence of installing an electrical insulating blanket over the exposed relays.

Inspection Report# : [2004002\(pdf\)](#)

Significance: G Dec 01, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Inadvertent Trip of the B Reactor Recirculation Pump due to human performance error

A human performance error resulted in the inadvertent trip of the B reactor recirculation pump and subsequent plant transient and constituted a non-cited violation of Technical Specification 5.4.1, "Procedures."

This finding is greater than minor because it had an actual impact on plant stability by causing an unanticipated power reduction. The finding is not greater than very low safety significance because it did not increase the likelihood of a fire, flood, or LOCA; nor did it result in both the likelihood of a reactor trip and the likelihood that mitigating equipment or functions would not be available.

A contributing cause of this finding was related to the cross cutting area of human performance. Instrument and Control technicians did not properly implement a maintenance procedure.

Inspection Report# : [2003011\(pdf\)](#)

Mitigating Systems

Significance: G Jun 30, 2004

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Inadequate Corrective Actions for Bussmann Fuses Affecting High Pressure Coolant Injection

A very low safety significance self-revealing non-cited violation (NCV) of 10 CFR 50 Criterion XVI was identified because Entergy did not promptly identify a condition adverse to quality. Specifically, Entergy performed a limited review of Bussmann fuse problems in the industry and at Pilgrim station following failed 125 vdc Bussmann control power fuses that impacted the high pressure coolant injection (HPCI) system components in July 2002 and October 2003. As a result, Entergy did not assure that faulty Bussmann fuses would not be used in safety related systems at Pilgrim and did not identify, prior to February 2004, that the industry reported manufacturing problems with Bussmann fuses. The HPCI system was found inoperable on February 26, 2004, due to a faulty Bussmann fuse in the control power circuit for the HPCI gland seal condensate pump.

The finding is greater than minor since it is associated with Mitigating System Equipment and because it affected the associated cornerstone objective. The finding had very low safety significance when evaluated in a significance determination process (SDP) Phase 2 analysis, which determined that for the individual system failures when HPCI operability was impacted, the inoperability lasted less than 3 days which was much less than the technical specification allowed outage time of 14 days.

A contributing cause of this finding is related to the cross cutting area of problem identification and resolution. Entergy did not adequately take

corrective actions in response to industry operating experience to preclude the recurrence of a significant condition adverse to quality associated with Bussmann fuses.

Inspection Report# : [2004004\(pdf\)](#)

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Significance: Dec 05, 2003

Identified By: Self Disclosing

Item Type: FIN Finding

Plant Personnel Did Not Perform Adequate Trouble Shooting Activities on a Degraded Residual Heat Removal System Motor-Operated Valve

A self-revealing finding of very low safety significance was identified because on December 5, 2003, plant personnel did not perform trouble shooting activities on a degraded residual heat removal system motor-operated valve (MO-1001-7D), in accordance with the station's trouble shooting procedure. Specifically, maintenance workers did not adequately consider potential latent failures and as a result did not adequately diagnose the extent of the valve's degraded condition. During post maintenance testing, significant additional damage to the valve's motor and associated thermal overload heaters occurred causing additional unnecessary unavailability for the D train of the residual heat removal system.

The finding is greater than minor because it is associated with the equipment performance attribute of the mitigating system cornerstone and adversely affects the cornerstone objective; it resulted in the valve being inoperable and unnecessarily increased the unavailability of the D train of the residual heat removal system. The finding is of very low safety significance because the residual heat removal system's safety functions were not lost and the D train was not inoperable for more than the Technical Specification allowed outage time. No violation of regulatory requirements occurred.

A contributing cause of the finding relates to the human performance cross-cutting area in that plant personnel conducting trouble shooting did not adequately consider potential latent failures during trouble shooting activities as prescribed in the station's trouble shooting procedure.

Inspection Report# : [2004002\(pdf\)](#)

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Significance: Aug 29, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Failure to Implement Adequate Procedures Caused HPCI to be Inoperable for Maintenance for 3 days

The failure to provide adequate guidance in HPCI maintenance procedures resulted in the HPCI system being inoperable for repairs for about 3 days during plant operations. This issue constitutes a self-revealing finding of very low safety significance and a non-cited violation of Technical Specification (TS) 5.4, "Procedures."

The finding was greater than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone objective. The finding was assessed by a Significance Determination Process Phase 3 analysis to be of very low safety significance. The Phase 3 analysis determined that the change in core damage frequency for this finding was 9.3E-8 per year.

A contributing cause of the finding is related to the cross cutting area of problem identification and resolution. The maintenance procedures for the HPCI maintenance did not adequately incorporate operating experience.

Inspection Report# : [2003011\(pdf\)](#)

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Significance: Jul 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate diagnostic and indicating instrumentation was provided to the operators for post-fire shutdown outside the control room, contrary to requirements of license condition 2.F, Fire Protection.

The inspectors identified a non-cited violation of License Condition 2.F, Fire Protection, because the diagnostic and indicating instrumentation provided to the operators for post-fire shutdown outside the control room were inadequate for the operator to determine that actions were necessary, or that the manual action had caused the intended function to occur. The procedure for shutdown outside the control room called for evaluation of drywell temperature history prior to restoring the 'B' train of the reactor building closed cooling water system. This is due to the potential for high drywell temperatures to cause boiling, and voiding, in the non-essential loop of the reactor building closed cooling water system. The void collapse on subsequent starting of the system pump, could cause damage to the 'B' train piping system, rendering it unavailable for use. No protected train of drywell temperature instrumentation was provided for use in the post-fire operating environment. In addition, the instructions for operating motor control center (MCC) contactors manually at the MCC referred to the use of clamp-on ammeters to determine when valve motion had been completed, but no such ammeters were provided for use by the operators.

The finding was considered more than minor, in that the issue was associated with the protection against external factors attribute of the Mitigating Systems cornerstone, and it affects the cornerstone objective. The mitigating systems cornerstone objective was affected because the finding adversely impacted the ability of the operators to achieve and maintain safe shutdown conditions in the event that a plant shutdown from outside the control room due to a fire was required. The finding was evaluated using IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The inspectors determined the finding does not represent a design or qualification deficiency, or an actual loss of safety function for either internal or external initiating events. Therefore, the inspectors concluded that the finding was of very low safety significance.

Inspection Report# : [2003005\(pdf\)](#)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

[Physical Protection](#) information not publicly available.

Miscellaneous

Last modified : September 08, 2004