Diablo Canyon 1
2Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Aug 09, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate main turbine repair procedure resulted in an unplanned power reduction and forced outage
A self-revealing finding after an inadequate main turbine maintenance procedure resulted in an unplanned load reduction and a reactor shutdown. On August 9, 2007, Unit 1 generator output decreased by 60MW due to failed main turbine stop valve. Pacific Gas and Electric Company shutdown the plant the following day to repair the failed valve. The valve failed because the maintenance personnel did not properly adjust the external travel stop during outage related maintenance. The travel stop was not properly adjusted because the maintenance procedure used did not require the maintenance personnel to verify that the disc was properly back seated against the internal stop during adjustment. This issue was entered into Pacific Gas and Electric Company Corrective Action Program as Non Conformance Report N0002219.

The finding is greater than minor because if left uncorrected, the condition would become a more significant safety concern. Using Inspection Manual Chapter 0609, Significance Determination Process, Phase 1 Worksheet, the inspectors determined the finding to have very low safety significance because the condition did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. This finding has a crosscutting aspect in the area of human performance, associated with the resources component because PG&E failed to provide an adequate main turbine maintenance procedure (H.2.c).

Inspection Report# : 2007004 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Demonstrate that the Unit 2 Containment Atmosphere Particulate Radioactivity Monitor Performance was Being Effectively Controlled per 10 CFR 50.65(a)(2)
The inspectors identified a noncited violation of 10 CFR 50.65(a)(2), after Pacific Gas and Electric Company failed to effectively control performance monitoring of the Unit 2 containment atmosphere particulate radiation monitor through appropriate preventive maintenance. Eight functional failures of the radiation monitor occurred between November 2006 and January 2008. The licensee did not categorize any of these failures as Maintenance Rule functional failures.

This finding is greater than minor because it is associated with the mitigating systems cornerstone attribute of equipment performance and it affects the cornerstone objective to ensure the availability, reliability, and capability of the systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the significance of this finding using Inspection Manual Chapter 0609, “Significance Determination Process,” Phase 1, Appendix A. The inspectors determined that this finding was of very low safety significance because this is not a design or qualification deficiency, does not represent a loss of a system safety function or safety function of a single train, and does not screen as potentially risk significant due to external events. The inspectors also determined that this finding has a crosscutting aspect in the area of human performance associated with the work practices component because engineering staff failed to follow the November 2006 revision to the licensee maintenance rule procedure that would have required each failure to be counted as a maintenance rule functional failure. Engineering staff incorrectly concluded that the revision was not applicable to the radiation monitors and therefore did not implement the change.

[H4(b)]

Inspection Report# : 2008002 *(pdf)*

Significance: G Feb 17, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain the Integrity of an Auxiliary Building Fire Door
On February 17, 2008, the inspectors identified a noncited violation of Technical Specification 5.4.1.d, "Fire Protection Program," after Pacific Gas and Electric failed to maintain the integrity of an auxiliary building fire door. The inspectors identified that the latching mechanism on Fire Door 348 was degraded and not engaged. The unlatched fire door resulted in a reduction in fire confinement capability. The door was required to provide a 1½-hour fire barrier between two plant fire areas. The licensee had several prior opportunities to identify the degraded fire door. Security and operations personnel passed through the affected fire area several times each day.

This finding is greater than minor because the degraded fire barrier affected the mitigating systems cornerstone external factors attribute objective to prevent undesirable consequences due to fire. Using Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," the inspectors determined this finding is within the fire confinement category and the fire barrier was moderately degraded because the door latch was not functional. The inspectors concluded that this finding is of very low safety significance because a non-degraded automatic full area water based fire suppression system was in place in the exposing fire area. This finding was entered into the corrective action program as Action Request A0719774. This finding has a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component because plant personnel did not maintain a low threshold for identifying issues.

Inspection Report# : 2008002 *(pdf)*

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Plant Operators Failed to Identify a Degraded Emergency Diesel Generator
The inspectors identified a noncited violation of 10 CFR 50, Appendix B, "Corrective Action," after Pacific Gas and Electric failed to identify a degraded emergency diesel generator. On October 15, 2007, the inspectors identified a buildup of black soot on the Emergency Diesel Generator 1-1 exhaust manifold. Licensee personnel subsequently identified that one of the four fasteners connecting the exhaust manifold to the turbo charger was missing. The licensee declared the diesel generator inoperable based on the potential reduction of electrical power output due to exhaust gas bypassing the turbo charger and the adverse affect of the missing fastener on seismic qualification. Plant operators determined that overall plant risk was significantly degraded (Orange) due to the combination of the unavailable diesel generator and other plant equipment removed from service at the time. The licensee had prior opportunity to identify the degraded diesel generator during operator rounds between September 23 and October 15, 2007.

This finding is greater than minor because, if left uncorrected, continued failure to perform adequate operator rounds would become a more significant safety concern. This finding affected the mitigating systems cornerstone because the issue involved an emergency diesel generator. Using the Inspection Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheet, this finding was determined to have very low safety significance because it did not result in a loss of operability of a single train, for greater than Technical Specification allowed outage time, did not result in the loss of safety function, and was not potentially risk significant from a seismic, flooding or severe weather perspective. This finding has a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component because plant operators did not maintain a low threshold for identifying issues P.1(a). This issue was entered into the licensee's corrective action program as Action Request A0710082.

Inspection Report# : 2007005 *(pdf)*

Significance: SL-IV Dec 31, 2007
Identified By: NRC

Item Type: NCV NonCited Violation
Inadequate 50.59 Evaluation for Unit 1 Containment Sump Modification
The inspectors identified a noncited Severity Level IV violation of 10 CFR 50.59 after Pacific Gas and Electric failed to perform an adequate safety evaluation of Unit 1 containment sump modifications. As a result, the licensee failed to obtain prior NRC approval for a change to the technical specifications incorporated in the license. On March 6, 2007, the licensee identified that the current refueling water storage tank minimum technical specification level was not adequate to ensure that the new containment sump would perform the required safety function. On April 20, 2007, Pacific Gas and Electric completed a 10 CFR 50.59, "Licensing Basis Impact Evaluation Screen of the Containment Sump Modification." The licensee concluded that the modification did not involve a change to the plant technical specifications and that the required refueling water storage tank level was unaffected by the modification. On May 25, 2007, Pacific Gas and Electric placed Unit 1 into Mode 4 without an approved technical specification change.

The inspectors concluded that the finding was more than minor because the modification required prior NRC approval. Because the issue affected the NRC's ability to perform its regulatory function, this finding was evaluated using the traditional enforcement process. The issue was classified as Severity Level IV because the violation of 10 CFR 50.59 involved conditions evaluated as having very low safety significance by the Significance Determination Process. The finding was determined to be of very low safety significance because the safety function was maintained since Pacific Gas and Electric had administratively maintained the refueling water storage tank at an adequate level during plant operation. On this basis, the item impacts the mitigating systems cornerstone and screens to Green, using the Inspection Manual Chapter 0609, "Significance Determination Process," Phase 1 evaluation, Appendix A, because (a) the finding is not a design or qualification deficiency, (b) there is no loss of safety function for the mitigating system; and, (c) there are no seismic, fire, flooding or severe weather initiating implications associated with the finding. This finding has a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee did not appropriately prioritize and evaluate the problem of an inadequate refueling water storage tank level after the problem was entered into the corrective action program, P.1 (c). This issue was entered into the licensee's corrective action program as Action Request A07145625.

Inspection Report# : 2007005 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Feb 13, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedures, per Technical Specification 5.4.1
The inspectors identified a noncited violation of Technical Specification 5.4.1 for failure to follow a licensee procedure. Specifically, while touring the Unit 2 spent fuel pool on February 13, 2008, the inspectors observed workers performing fuel inspections on the fuel bridge. The inspectors noted that the physical location of a continuous air monitor, an AMS-4, was in the southeast corner of the floor. Ventilation flow in this area was north to south with negative ventilation centered on the spent fuel pool. Section 2.2 of Procedure RCP D-430 states, in part, the purpose of the continuous air monitors was to alert personnel to changes in radiological conditions and that locations are selected based on their potential as contributors to airborne activity. The location of the continuous air monitor was not appropriate to alert the workers of changing radiological conditions. During review of this occurrence, the inspectors were made aware of a similar issue. Specifically, Action Request A0666110 was opened on May 3, 2006, to evaluate the adequacy of AMS 4 placement in the fuel building during fuel moves. This action request was

currently open with a resolution date of December 15, 2008.

This finding is greater than minor because it is associated with the occupational radiation safety program and process attribute and affected the cornerstone objective, in that the failure to monitor for radioactive material in the air had the potential to increase personnel dose. This occurrence involves workers unplanned, unintended or potential for such dose; therefore, this finding was evaluated using the occupational radiation safety significance determination process. The inspectors determined that this finding was of very low safety significance because it did not involve: (1) an as low as is reasonably achievable planning or work control issue; (2) an overexposure; (3) a substantial potential for overexposure; or (4) an impaired ability to assess dose. This finding also has a crosscutting aspect in the area of problem identification and resolution, corrective action component, because the licensee failed to take timely corrective actions to address safety issues.

Inspection Report# : 2008002 *(pdf)*

Public Radiation Safety

Physical Protection

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

Miscellaneous

Last modified : August 29, 2008