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PG&E Letter DCL-12-052

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2

Reply to a Notice of Violation; EA-12-075

- References:
1. NRC Letter, "Diablo Canyon Power Plant – NRC Integrated Inspection Report 05000275/2012002 and 05000323/2012002 and Notice of Violation," dated May 4, 2012.
 2. Pacific Gas and Electric Company (PG&E) Letter DCL-11-120, "Licensee Event Report 1-2011-007-00 Diablo Canyon Power Plant - Inadequate Control Room Envelope Testing Due to Inadequately-Documented In-leakage Test Data," dated November 14, 2011.
 3. PG&E Letter DCL-11-127, "Control Room Envelope Testing," dated December 2, 2011.
 4. PG&E Letter DCL-12-001, "Licensee Event Report 1-2011-008-00 Diablo Canyon Power Plant - Control Room Ventilation System Design Vulnerability," dated January 3, 2012.
 5. PG&E Letter DCL-12-011, "Licensee Event Report 1-2011-007-01 Diablo Canyon Power Plant - Inadequate Control Room Envelope Testing Due to Inadequately-Documented In-leakage Test Data," dated January 30, 2012.

Reference 1 provided a notice of violation involving the failure to provide complete and accurate information to the NRC regarding control room habitability test results conducted in 2005. PG&E made an 8-hour non-emergency notification to the NRC on September 12, 2011 (EN #47258) when the error was identified. PG&E submitted a licensee event report and supplement to the NRC as References 2 and 5, respectively. PG&E reperformed the testing and provided the results to the NRC in Reference 3. Reference 4 documented a design vulnerability discovered during testing of the Control Room Ventilation System (CRVS), which PG&E accounts for in current administrative controls of the system.



In Reference 1, the NRC characterized the violation as Severity Level III in accordance with the NRC's Enforcement Policy. The NRC assessed no civil penalty because PG&E promptly reported the erroneous report and provided corrected test results. In addition, the NRC recognized this violation occurred more than 5 years ago, making the violation beyond the normal statute of limitations.

This letter provides PG&E's 30-day response to the violation as required by Reference 1. PG&E makes no regulatory commitments (as defined by NEI 99-04) in this letter. If you should have any questions regarding this submittal, please contact Mr. Thomas Baldwin at (805) 545-4720, or via email at trb1@pge.com.

Sincerely,

A handwritten signature in blue ink, appearing to read 'James R. Becker', with a large, stylized flourish extending to the right.

James R. Becker
Site Vice President

Enclosure

cc/enc: Michael S. Peck, NRC Senior Resident Inspector
Joseph M. Sebrosky, NRR Senior Project Manager
Elmo E. Collins, NRC Region IV Regional Administrator

Background

I. CRVS LICENSING BASIS

Final Safety Analysis Report Update (FSARU) Section 15.5.17.10, "Post-Accident Control Room Exposures," states that the control room design bases limits post-accident operator radiation exposure to 5 rem equivalent for the duration of the accident, consistent with General Design Criteria 19 (GDC), "Control Room," of 10 CFR, Part 50, Appendix A. Technical Specification Basis 3.7.10, "Control Room Ventilation System (CRVS)," states that each individual ventilation train is required to limit operator dose to 5 rem whole body or its equivalent to any part of the body. The habitability system limits operator radiation exposure by filtering and pressurizing the air in the control room envelope (CRE).

II. GENERIC LETTER 2003-01

Generic Letter (GL) 2003-01, "Control Room Habitability," requested that Diablo Canyon Power Plant (DCPP) submit information demonstrating that the control room habitability system was in compliance with the current licensing and design bases, and applicable regulatory requirements, and that suitable design, maintenance and testing control measures were in place for maintaining this compliance. As part of this request, the plant was requested to verify that the most limiting unfiltered in-leakage into the CRE was no more than the value assumed in the design basis radiological analyses for control room habitability.

To comply with the GL 2003-01, Pacific Gas and Electric Company (PG&E) tested the CRVS in 2005. Test results indicated that unfiltered inleakage to the CRE ranged from 59 cubic feet per minute (CFM) to -10 CFM depending on the test configuration. Evaluation of the test results concluded that the CRE had no unfiltered in-leakage. The licensing and design basis requirement was met with no in-leakage using Calculation STA-195, "Design Bases Dose Consequences and Recirculation Loop Margin Leakage Rates," Revision 0. Calculation STA-195 indicated that 10 CFM unfiltered in-leakage into the envelope would result in control room operators receiving 5 rem equivalent dose.

On April 22, 2005, PG&E Letter DCL-05-042, "Control Room Envelope In-Leakage Test Results Relative to GL 2003-01, Control Room Habitability," reported to the NRC that testing performed in the most limiting configuration for operator dose demonstrated that there was no unfiltered in-leakage into the CRE.

III. ERROR DISCOVERED

In September 2011, NRC inspectors identified that the control room test results from 2005 were greater than the value assumed in the design basis radiological analysis and that the control room habitability testing conducted in 2005 was not performed in the most limiting configuration for operator dose. Using the actual control room in-leakage rates from the 2005 testing, the inspectors concluded that the resultant operator dose could have exceeded the limit established by current licensing and design bases during an accident.

IV. IMMEDIATE RESPONSE

PG&E entered the issue into its corrective action program as 50426925 "Eval Control Room Envelope Testing." As stated in Licensee Event Report (LER) 1-2011-007, "Inadequate Control Room Envelope Testing:"

On September 12, 2011, at 1745 PDT, operators declared the Unit 1 and 2 common control room envelope (CRE) boundary inoperable and entered Technical Specification (TS) 3.7.10, "Control Room Ventilation System (CRVS)." This was due to discovery of inadequately-documented CRE in-leakage test data. Plant personnel reviewing the test report (dated February 3, 2005) for the common CRE identified that three of the four ventilation alignments tested had values of in-leakage greater than zero standard cubic feet per minute (SCFM), yet Pacific Gas & Electric (PG&E) had concluded that these results were adequate to show that the CRE had no unfiltered in-leakage. At 2257 PDT on September 12, 2011, PG&E made an 8-hour non-emergency report (reference NRC Event Notification 47258) under 10 CFR 50.72(b)(3)(ii)(B). On September 13, 2011, plant personnel verified that administrative controls were in place to maintain post-loss-of-coolant accident emergency core cooling system leakage at a rate that would ensure operator doses were maintained less than the Final Safety Analysis Report accident analysis results for the highest in-leakage rate reported in the test. On October 18, 2011, plant staff further identified that inadequate information was available in the report to conclude that the limiting condition for testing (where only one train of the CRVS was functioning) would result in zero SCFM in-leakage into the CRE. This was contrary to Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors." PG&E updated Event Notification 47258 on September 16 and October 18, 2011.

Reply to Notice of Violation; EA-12-075

I. VIOLATION:

The NRC's Notice of Violation states the following:

Title 10 CFR 50.9(a), "Completeness and Accuracy of Information," requires, in part, that information provided to the Commission by a licensee shall be complete and accurate in all material respects.

Contrary to the above, on April 22, 2005, the licensee provided information to the Commission that was not complete and accurate in all material respects. Specifically, on April 22, 2005, the licensee stated to the NRC in their response to Generic Letter 2003-01 that: (1) test results confirmed that no unfiltered control room in-leakage existed; and (2) tracer gas in-leakage testing was performed in the alignment that results in the greatest consequence to the control room operator. However, the test results from licensee Procedure PMT 23.39 "PMT to Document Control Room Ventilation Test to Satisfy Generic Letter 2003-01," conducted prior to the licensee response to Generic Letter 2003-01, clearly indicated that the test identified unfiltered in-leakage greater than the value assumed in design basis radiological analyses, and the in-leakage test was not performed in the system alignment that resulted in the greatest consequence to the control room operator. This was material because the staff would not have closed the Generic Letter 2003-01 had the correct test results been reported.

II. REASON FOR THE VIOLATION:

The cause of PG&E incorrectly stating to the NRC that test results confirmed that no unfiltered control room in-leakage existed was the "mental mindset" among the DCP staff involved in the testing which precluded the ability of the organization to challenge the conclusion of "no unfiltered in-leakage." A contributing cause was the use of a less than adequate independent technical review process for verifying statements requiring verification.

The cause of PG&E incorrectly stating to the NRC that tracer gas in-leakage testing was performed in the CRVS alignment that results in the greatest consequence to the control room operator was an unclear licensing basis for the CRVS between the FSAR and the Technical Specifications (TS).

III. CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

In response to a Severity Level IV violation of 10 CFR 50.9 in 2010, PG&E took corrective steps to assure the completeness and accuracy of information provided to the NRC to address a performance deficiency. These included:

- Establishing a requirement in XI1.ID1, "Regulatory Correspondence Processing," to verify any statements requiring verification in NRC submittals.
- Implementing a 10 CFR 50.9 awareness plan and proceduralized expectation of complete and accurate information to be provided to the NRC in written and verbal communications in XI1.ID4, "NRC Interface and Inspection Support," and XI1.ID1.

- Issuing procedure XI3.ID12, "Current Licensing Basis Determination," to specify the actions to accurately identify and validate the current licensing basis.

In addition, PG&E took corrective steps to assure the proper identification and use of licensing basis information to address performance deficiencies experienced in 2008 through 2010. These included:

- Providing improved licensing-basis search tools, and
- Training technical staff to search, identify, and validate the current DCPP licensing basis.

October 24, 2011 - PG&E submitted License Amendment Request 11-06 via letter DCL-11-072 to revise, in part, the control room dose analysis of record. This revised control room operator dose analysis assumed in-leakage that bounds the 2005 maximum recorded in-leakage and reduced allowable emergency core cooling system leakage. The analysis confirmed that operator dose following a loss-of-coolant accident would remain within allowable values.

November 8, 2011 - PG&E re-performed the CRE in-leakage test which confirmed that the CRE was not leak tight.

December 2, 2011 - PG&E submitted letter DCL-11-127 to communicate the actual in-leakage test results from each of the four CRVS alignments and the 2011 re-test results. This letter states that the November 2011 testing was performed with one CRVS train in Mode 4 and the other train in Mode 3, which was the most limiting for operator dose consequences that could be obtained under existing plant configuration controls. This was recommunicated on January 30, 2012, in PG&E Letter DCL-12-011. These plant configuration controls ensure the operator dose will continue to meet GDC 19 limits following an accident.

In addition to meeting the requirements of GDC 19, the above changes have correctly communicated the actual 2005 CRE in-leakage test data and addressed the PG&E staff misconceptions regarding the actual CRE performance with respect to the concerns raised by GL 2003-01.

IV. CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER 10 CFR 50.9 VIOLATIONS

For responses to generic communications (Bulletins, GLs and 50.54(f) requests), PG&E will revise procedure XI1.ID1 to specify that licensing will identify the technical concerns requiring response from the line organizations and require the line organizations to provide source references with their responses.

PG&E will revise procedure XI1.ID1 to require "statements requiring verification" in response to generic communications (Bulletins, GLs and 50.54(f) requests), to be verified by a knowledgeable individual independent from the line organization addressing the concern.

PG&E will correct the FSAR CRVS system description to describe the limiting design basis operation and eliminate discrepancies and areas lacking clarity between the TS and the FSAR.

PG&E is continuing actions to improve the accuracy and completeness of the current licensing basis via the Licensing Basis Verification Project. PG&E will complete the CRVS Licensing Basis Verification and revise the FSAR to accurately and completely reflect the current licensing basis.

PG&E has initiated a project to permanently modify the CRVS to eliminate the design vulnerabilities that were discovered during the 2011 CRVS testing.

By implementing the above changes PG&E will avoid further 10 CFR 50.9 violations.

V. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

DCPP is currently in full compliance with 10 CFR 50.9 regulatory requirements.

VI. LIST OF COMMITMENTS

PG&E makes no regulatory commitments (as defined by NEI 99-04) in this response.

VII. REFERENCES

1. NRC Letter, "Diablo Canyon Power Plant – NRC Integrated Inspection Report 05000275/2012002 and 05000323/2012002 and Notice of Violation," dated May 4, 2012.
2. PG&E Letter DCL-11-120, "Licensee Event Report 1-2011-007-00 Diablo Canyon Power Plant - Inadequate Control Room Envelope Testing Due to Inadequately-Documented In-leakage Test Data," dated November 14, 2011.
3. PG&E Letter DCL-11-127, "Control Room Envelope Testing," dated December 2, 2011.
4. PG&E Letter DCL-12-001, "Licensee Event Report 1-2011-008-00 Diablo Canyon Power Plant - Control Room Ventilation System Design Vulnerability," dated January 3, 2012.
5. PG&E Letter DCL-12-011, "Licensee Event Report 1-2011-007-01 Diablo Canyon Power Plant - Inadequate Control Room Envelope Testing Due to Inadequately-Documented In-leakage Test Data," dated January 30, 2012.
6. UFSAR, Sections 9.4.1.2 and 15.5.17.10, Revision 20.
7. Calculation STA-195, "Design Bases Dose Consequences and Recirculation Loop Margin Leakage Rates," Revision 0.
8. PG&E Letter to NRC, DCL-05-042, "Control Room Envelope In-Leakage Test Results Relative to Generic Letter 2003-01, Control Room Habitability," dated April 22, 2005.

9. SAP Notification 50426925, "Eval Control Room Envelope Testing," dated September 12, 2011.
10. SAP Notification 50466123, "1Q12 50.9 Violation-GL2003-01," ACE, dated March 14, 2012.
11. SAP Notification 50484832, "1Q12 Violation – Sev Lvl 3 - 50.9 Issue," ACE, dated May 23, 2012.
12. DCPD Technical Specification Bases 3.7.10.
13. NRC Generic Letter 2003-01: Control Room Operability, dated June 12, 2003.
14. NUCON Test Report, "Control Room Habitability: Tracer Gas Leak Testing of the Diablo Canyon Power Plant," dated February 3, 2005.
15. Code of Federal Regulations 10CFR50.9, "Completeness and Accuracy of Information."
16. DCPD Procedure XI3.ID12, Revision 0, "Current Licensing Basis Determination," dated December 6, 2010.
17. SAP Notification 50344822, "NRC IR 2010-006 NCV of 10CFR50.9(a)," dated September 23, 2010.
18. SAP Notification 50331845, "LTCA: Revise Traditional Enforcement CCA," dated August 1, 2010.
19. PG&E Letter to NRC, DCL-11-072, "License Amendment Request 11-06: Revision to Technical Specification 3.3.5, 'Loss of Power (LOP) Diesel Generator (DG) Start Instrumentation,'" dated October 24, 2011.