



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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August 23, 2004

Gregg R. Overbeck, Senior Vice
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SUBJECT: ERRATA FOR PALO VERDE NUCLEAR GENERATING STATION - NRC
INTEGRATED INSPECTION REPORT 05000528/2004003, 05000529/2004003,
05000530/2004003

Dear Mr. Overbeck:

Please replace pages 3 and 4 of the Summary of Findings, and pages 11,12, 24, and 25 of the Report Details in NRC Inspection Report 05000528/2004003, 05000529/2004003, 05000530/2004003, dated August 9, 2004, with the attached revised pages. The changes are necessary to clarify the basis for using traditional enforcement instead of the significance determination process for two of the noncited violations described in the report.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions concerning this correction, we will be pleased to discuss them with you.

Sincerely,

/RA/

Troy W. Pruett, Chief
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Enclosure:
Errata pages for NRC Inspection Report 05000528/2004003,
05000529/2004003, and 05000530/2004003

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Revised Pages For NRC Integrated Report

05000528/2004003, 05000529/2004003, 05000530/2004003

plate inside the Unit 2 containment. The drop was due to a series of errors between the engineering contractor and rigging crews. The snubber plate was dropped in the vicinity of reactor coolant and shutdown cooling piping. This issue was entered into the corrective action program as Condition Report/Disposition Request 2639721.

The finding was greater than minor because it affects the equipment performance and human performance attributes of the initiating events cornerstone objective to limit the likelihood of events that challenge safety functions during shutdown conditions. Using Manual Chapter 0609, "Significance Determination Process," Appendix G, "Shutdown Operations Significance Determination Process," the senior reactor analyst concluded that this finding did not significantly increase the likelihood of losing the residual heat removal function and did not significantly increase the likelihood that systems that could mitigate a loss of residual heat removal function would be degraded. Therefore, this finding is of very low safety significance (Section 4OA5).

- Green. A noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified for the failure to identify the root cause of spent fuel pool inventory loss events and implement corrective actions to preclude recurrence. Specifically, the improper positioning of a fuel pool cleanup suction valve and inadequate level monitoring resulted in three losses of spent fuel pool inventory events. This finding involves problem identification and resolution crosscutting aspects associated with the failure to identify root causes and implement corrective actions. The issue also involved human performance crosscutting aspects associated with mispositioned valves and awareness of plant conditions by operations personnel. This issue was entered into the corrective action program as Condition Report/Disposition Request 2599869.

The finding is greater than minor because it affected the configuration control and human performance attributes of the initiating events cornerstone objective. This finding cannot be evaluated by the significance determination process because Manual Chapter 0609, "Significance Determination Process," Appendix A, "Significance Determination of reactor Inspection Findings for At-Power Situations," and Appendix G, "Shutdown Operations Significance Determination Process," do not apply to the spent fuel pool. This finding is determined to be of very low safety significance by management review because radiation shielding was provided by the spent fuel pool water level, the spent fuel pool cooling and fuel building ventilation systems were available, and there were multiple sources of makeup water (Section 4OA5).

Cornerstone: Mitigating Systems

- SLIV. A Severity Level IV noncited violation of Technical Specification 3.3.11 and 10 CFR 50.73(a)(2)(i)(B) was identified for the failure to: (1) include the resistance temperature detectors in the channel calibration for the shutdown cooling heat exchanger temperature instruments, and (2) report the prohibited

Technical Specification condition. Specifically, prior to the implementation of Improved Technical Specifications, the licensee did not perform testing of the resistance temperature detectors. Following the implementation of Improved Technical Specifications, the licensee did not perform an in-place qualitative assessment of the resistance temperature detectors' behavior. This issue was entered into the corrective action program as Condition Report/Disposition Request 280178.

The failure to perform a complete shutdown cooling heat exchanger temperature loop channel calibration is determined to have greater than minor significance because the licensee's failure to report the condition impacted the NRC's ability to perform its regulatory function. Therefore, this finding was considered applicable to traditional enforcement. Although the significance determination process is not designed to assess the significance of violations that potentially impact or impede the regulatory process, the finding can be assessed using the significance determination process. Using the Phase 1 worksheet in Manual Chapter 0609, "Significance Determination Process," this finding is determined to be of very low safety significance because it only affected the mitigating system cornerstone and the resistance temperature detectors were found to be within calibration (Section 4OA2).

- Green. The inspectors identified a noncited violation of Technical Specification 5.2.2.d for the failure of authorized individuals to review monthly overtime reports to ensure that excessive hours have not been assigned. Specifically, following the implementation of an electronic reporting system in 2001, the licensee did not ensure that all managers continued to receive and approve the Excess Hours Report.

The finding is greater than minor because if left uncorrected it could become a more significant safety concern, in that exceeding the NRC Generic Letter 82-02, "Nuclear Power Plant Staff Working Hours," guidelines for overtime limits is a contributor to worker fatigue. Using the Phase 1 worksheet in Manual Chapter 0609, "Significance Determination Process," this finding is determined to be of very low safety significance because there were no known actual adverse plant or equipment conditions that could be attributed to worker fatigue (Section 4OA2).

Cornerstone: Barrier Integrity

- SLIV. A Severity Level IV noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," and 10 CFR 50.59(c)(1) was identified for the failure to: (1) correct a nonconforming condition in a timely manner, and (2) obtain a license amendment. Specifically, since June 2001, the licensee discontinued implementation of required Technical Specification surveillance testing for the containment purge valves by declaring the valves inoperable and installing blind flanges. This issue was entered into the corrective action program as Condition Report/Disposition Request 2711167.

Enclosure

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors evaluated the six operability determinations listed below for technical adequacy and assessed the impact of the condition on continued plant operation. Additionally, the inspectors reviewed Technical Specification entries, CRDRs, and equipment issues to verify that operability of plant structures, systems, and components was maintained or that Technical Specification actions were properly entered.

- May 5, 2004; resolution of equipment failures following emergency diesel generator Train A outage maintenance and associated operability justifications documented in CRDRs 2703945 and 2705929 (Unit 1)
- May 11, 2004; assessed the resolution of azimuthal tilt and increase of core operating limits report limit documented in CRDR 2707812 (Unit 1)
- April 15, 2004; operability evaluation for Snubber 2SI123H001 installed on the containment spray/low pressure safety injection system discharge piping that was identified as potentially locked-up on March 30, 2004, as documented in CRDRs 2693663 and 2704218 (Unit 2)
- Reviewed Technical Specification Component Condition Record 2375153, "LCO 3.6.3 Containment Isolation Valves SR 3.6.3.6 Not Performed Adequately for CP 2B and 3A," and the licensee's overall response to the degraded and nonconforming condition (Units 1, 2, and 3)
- April 27, 2004; assessed the impact of potential unqualified coatings being identified in at least five areas at the 80-foot elevation of containment (Unit 1)
- June 25, 2004; assessed available thrust for motor-operated Valve 2JSGNHV1143 was less than minimum administrative limit as documented in CRDR 2639681 (Unit 2)

b. Findings

Introduction. A Severity Level IV noncited violation was identified for failure to correct a nonconforming condition in a timely manner and submit a license amendment. The issue involved long-term actions taken to compensate for containment purge isolation valve design deficiencies.

Description. In March 2001, the licensee determined that the 42-inch containment purge isolation Valve CP-UV-2A/3B, had unreliable seals against containment pressure and declared the valves inoperable. On June 15, 2001, the licensee developed an interim strategy for containment purge Penetrations 56 and 57 due to the inability to satisfy Technical Specification Surveillance Requirement 3.6.3.6. The interim strategy involved declaring the inboard and outboard valves inoperable and installing blind

flanges to comply with the required actions of Technical Specification 3.6.3, Condition D, in Modes 1-4. This strategy discontinued the performance of leak rate testing of the valves and enabled continued operations with the installation of blind flanges on Units 1, 2, and 3. On June 18, 2002, the licensee approved a long-term strategy to make the 42-inch containment purge penetration blind flanges part of the permanent plant configuration.

Technical Specification Bases 3.0.2 states, in part, that intentional entry into ACTIONS should not be made for operational convenience. The inspectors determined that the interim strategy adopted by the licensee inappropriately used Technical Specification actions. Further, the inspectors observed that the licensee planned to use the actions required by Technical Specification 3.6.3, Condition D, to continue plant operations until implementation of a permanent modification in 2005 and 2006. The inspectors concluded that the licensee's schedule to correct the nonconforming condition through permanent plant modification did not meet NRC guidelines. Generic Letter 91-18, "Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions," states, in part, that the NRC expects time frames longer than the next refueling outage to be explicitly justified by the licensee as part of the deficiency tracking documentation. The inspectors concluded that a permanent plant modification should have been implemented at the first available opportunity following identification of the degraded and nonconforming condition. This conclusion is based, in part, on the lack of justification for intentional entry into the actions of Technical Specification 3.6.3, Condition D, during Modes 1-4. Timely correction of the nonconforming condition would have identified the need for NRC review of a license amendment through 10 CFR 50.59(c)(1).

Analysis. The failure to correct the nonconforming condition in a timely manner through permanent plant modification is determined to have more than minor significance because the licensee's failure to submit a license amendment impacted the NRC's ability to perform its regulatory function. This finding is associated with the barrier integrity cornerstone. This finding was considered applicable to traditional enforcement. Although the significance determination process is not designed to assess the significance of violations that potentially impact or impede the regulatory process, the finding can be assessed using the significance determination process. Using the Phase 1 worksheet in Manual Chapter 0609, "Significance Determination Process," the finding is determined to have very low safety significance because it only affected the barrier integrity cornerstone and the installation of blind flanges adequately maintained containment integrity.

Enforcement. 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires in part, that conditions adverse to quality be promptly identified and corrected. 10 CFR 50.59(c)(1) specifies that a license amendment be submitted for changes to the facility that require a change to the Technical Specifications. Contrary to the above, the licensee did not correct a condition adverse to quality in a timely manner and did not submit a license amendment. Specifically, the licensee failed to correct the 42-inch containment purge penetration nonconforming condition at the first available opportunity. In place of promptly correcting the condition, the licensee elected to implement the actions of Technical Specification 3.6.3, Condition D, in Modes 1-4 instead of restoring the purge

2. Annual Sample Review

1. SDC Heat Exchanger Temperature Loop Channel Calibration

a. Inspection Scope

The inspectors selected CRDRs 280178 and 2686919 for detailed review. The CRDRs were associated with Technical Specification required calibration of resistance temperature detectors (RTDs) for SDC heat exchanger temperature Loops JSIA351X/Y and JSIB352X/Y. The reports were reviewed to ensure that the full extent of the issues were identified, appropriate evaluation was performed, and adequate corrective actions were identified. The inspectors evaluated the reports against the requirements of licensee Procedure 90DP-0IP10, "Condition Reporting," Revision 16, and 10 CFR Part 50, Appendix B.

b. Findings

Introduction. A Severity Level IV noncited violation finding was identified for the failure to perform a complete SDC heat exchanger temperature loop channel calibration as required by Technical Specification 3/4.3.3.5 (Improved Technical Specification requirement is 3.3.11), "Remote Shutdown System," and the failure to report a prohibited Technical Specification condition.

Description. On June 11, 1998, the licensee initiated CRDR 280178 in response to concerns regarding the implementation of surveillance requirements associated with Technical Specification 3/4.3.3.5, which specified that the channel calibration shall encompass the entire channel, including the sensor RTD. Specifically, the licensee had not performed calibrations of the SDC heat exchanger temperature instrument. The inspector determined that the licensee's response to CRDR 280178 provided an adequate justification for why the RTDs remained functional. Although the need to calibrate the RTDs to comply with the Technical Specifications was mentioned, the licensee failed to institute corrective actions to ensure compliance with the Technical Specifications.

Due to the licensee's failure to properly evaluate CRDR 280178 and correct the noncompliant condition, this same issue regarding Technical Specification compliance was questioned on February 27, 2004, in CRDR 2686919 following an engineering review. The inspectors determined that the licensee's response to CRDR 2686919 was adequate in that immediate actions were taken to calibrate the RTDs while the licensee determined whether a qualitative assessment had been performed as allowed by Improved Technical Specifications. Improved Technical Specifications were incorporated into the PVNGS license in August 1998, which revised the definition for channel calibration. The revised definition states, in part, that calibration of instrument channels with RTD sensors may consist of an in-place qualitative assessment of sensor behavior. The licensee determined through review of Procedure 36ST-9SI07, "Remote Shutdown Monitoring System Instrumentation Calibration for the SI System," Revision 5, that the

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calibration of the SDC heat exchanger temperature elements included a check of instrument output to verify that it reads as expected, which satisfies the Technical Specification required in-place qualitative assessment.

The inspectors identified that the licensee failed to properly review this condition for reportability during their evaluation of CRDR 2686919. Procedure 36ST-9SI07 provided for an in-place qualitative assessment when revised on February 17, 2000. The licensee based the reportability review on the current surveillance procedure revision and incorrectly concluded that the qualitative assessment had been performed since the implementation of improved Technical Specifications in August 1998. The instrument output verification was incorporated into Procedure 36ST-9SI07 on February 17, 2000. The inspectors determined that the Technical Specification required in-place qualitative assessment for the SDC heat exchanger temperature instruments had been performed during channel calibrations since February 2000. Nevertheless, with respect to the SDC heat exchanger temperature instruments, the inspectors determined that between August 1998 and January 25, 2001 (Unit 1), and on June 15 (Unit 2) and May 18, 2001 (Unit 3), the licensee did not perform either a qualitative assessment of sensor behavior or a calibration of the sensor. The inspectors identified that the past noncompliant condition was reportable per 10 CFR 50.73, "Licensee Event Report System."

Analysis. This finding is greater than minor because the licensee's failure to report the condition impacted the NRC's ability to perform its regulatory function. This finding is associated with the mitigating systems cornerstone. This finding was considered applicable to traditional enforcement. Although the significance determination process is not designed to assess significance of violations that potentially impact or impede the regulatory process, the finding can be assessed using the significance determination process. Using the Phase 1 worksheet in Manual Chapter 0609, "Significance Determination Process," this finding is determined to be of very low safety significance because it only affected the mitigating system cornerstone and the RTDs were found to be within calibration.

Enforcement. Technical Specification 3.3.11, "Remote Shutdown System," requires that the remote shutdown system instrumentation functions in Table 3.3.11-1 be operable. Item 4.a of Table 1 includes SDC heat exchanger temperature. Technical Specification Surveillance Requirement 3.3.11.3 required that a channel calibration be performed every 18 months. Technical Specification Surveillance Requirement 3.0.1 specified that a failure to meet a surveillance requirement is a failure to meet the Technical Specification. 10 CFR 50.73(a)(2)(i)(B) requires that the licensee report prohibited Technical Specification conditions. Contrary to this, the licensee failed to complete channel calibrations on the SDC heat exchanger temperature elements and failed to report the prohibited Technical Specification condition. Specifically, the licensee did not test the RTD or perform an in-place qualitative assessment. The inspectors also determined that the licensee's failure to implement effective corrective actions following the identification of the issue documented in CRDR 280178 resulted in the violation of Technical Specification 3.3.11 existing for an extended duration. This Severity Level IV violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as

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