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Attachment 6

Corrective Action Program

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1. PROGRAM OVERVIEW

1.1 Scope

1.1.1 This Program Directive (PD) specifies the methods to promptly report, evaluate, resolve, and prevent recurrence of problems, commensurate with the significance of the problem. Timely problem identification, resolution, and prevention are necessary to ensure the plant is run at the highest level of safety and reliability and thereby minimizing any risk to members of the public.

1.1.2 The methods include, but are not limited to:

- Problem identification.
- Problem reporting.
- Immediate response.
- Investigative action to determine the cause(s).
- Evaluation of the extent of condition and extent of cause.
- Assessment of impact on operability and assessment for reportability.
- Classification of the problem significance and required response.
- The determination of corrective action to prevent recurrence or minimize the consequences.
- The performance, verification of their completion, and evaluation of their effectiveness of corrective actions.

a. This PD also specifies special requirements for resolving problems that are Significant Conditions Adverse to Quality (SCAQ) that must be prevented from recurring. These special requirements include independent review and approval by the Corrective Action Review Board (CARB).

1.1.3 The Corrective Action Program (CAP) utilizes the work control process, as governed by the AD7 series of procedures, for equipment repair.

1.2 Process Description

The CAP provides a process for Problem Identification and Resolution (PI&R) and includes the following elements, depending on the significance of the problem:

1.2.1 Identify the problem.

1.2.2 Implement immediate corrective action(s) when required.

1.2.3 Report the problem in the corrective action program.

1.2.4 Evaluate the problem and perform investigative action(s) necessary to determine the extent of condition (initial).

1.2.5 Determine the impact of the problem on plant operability.

1.2.6 Report the problem to regulatory agencies when required.

1.2.7 Determine the significance of the problem and required response for resolving the problem.

1.2.8 Determine the cause of the problem, extent of condition, the extent of cause, and required corrective actions.

1.2.9 Implement corrective action(s) and corrective action(s) to prevent recurrence.

1.2.10 Verify that corrective action(s) to resolve the problem and corrective action(s) to prevent recurrence have been implemented.

1.2.11 Perform an evaluation subsequent to corrective action implementation to ensure corrective action was effective.

1.3 This document was converted; therefore, revision bars are not included.

2. APPLICABILITY

2.1 This PD is applicable to DCPP and Applied Technology Services (ATS) hardware problems, administrative and organizational issues, human performance issues, or any other activities that have actual or potential problem implications, regardless of the quality classification.

2.2 This PD is not applicable to Humboldt Bay Power Plant (HBPP). HBPP is addressed by the HBPP Quality Assurance Program as dictated by HB1.

2.3 This PD is applicable to all company employees engaged in nuclear activities and contractors performing nuclear-related services under nuclear generation procedures. This includes all nuclear generation personnel, personnel assigned to nuclear generation from other business units, personnel in other business units that are engaged in plant activities in support of nuclear generation, and contractor personnel who augment the nuclear generation staff.

2.4 This program may also be used for problem resolution of items or activities for contractors or suppliers that do not work under nuclear generation procedures.

3. DEFINITIONS

3.1 Apparent Cause Evaluation (ACE): An evaluation based upon readily available information that provides reasonable assurance that the cause of a problem is determined and will be corrected.

3.2 Condition Adverse to Quality (CAQ): A failure, malfunction, deficiency or defect that renders a quality related or graded quality related SSC or process unacceptable or indeterminate.

3.3 Corrective Action Review Board (CARB): A senior-level management board that provides oversight and steering for the implementation of the Corrective Action Program per OM4.ID15, "Corrective Action Review Boards (CARB and D-CARB)."

3.4 Extent of Cause: The extent to which the cause of an identified problem has impacted, or has the potential to impact, other plant equipment, processes, or human performance.

3.5 Extent of Condition: The extent to which the actual condition exists, or has the potential to exist, with other plant equipment, processes or human performance.

3.6 Notification Review Team (NRT): A group of management-designated representatives that routinely screens notifications per OM7.ID1, "Problem Identification and Resolution."

3.7 Quality Problem: A quality problem is a condition or outcome that is adverse to quality and renders a quality related item or activity unacceptable or indeterminate. There are two types of quality problems: an SCAQ and a CAQ.

3.8 Quality Related: Items and activities covered by the Quality Assurance Program as defined in the FSAR Update, Chapter 17, and OM5, "Quality Assurance Program." This includes safety-related and graded QA items and activities.

3.9 Root Cause Analysis: A root cause analysis is a formal and rigorous investigation methodology used to determine the root cause(s) and contributing cause(s) of an unwanted or unacceptable outcome or condition (event). The RCA uses structured industry-accepted investigation methods to determine the root cause(s) and contributing cause(s) for an event, including what happened, how it happened, and why it happened. The analysis identifies required corrective actions that rectify adverse conditions associated with the root cause(s) and contributory cause(s).

3.10 Significant Condition Adverse to Quality (SCAQ): A condition or problem that is a significant risk to the safe and reliable operation of the plant.

4. PROGRAM OBJECTIVES AND REQUIREMENTS

4.1 Corrective Action Program Objectives:

4.1.1 The objective of the CAP is to provide measures that assure:

a. Adverse conditions are promptly identified, documented, evaluated, and corrected. This assures that the risk to members of the public is minimized.

b. Effective problem identification and resolution are fostered and championed throughout the organization.

4.1.2 As a minimum the CAP should provide measures to:

a. Encourage employees at all levels to identify and report a broad range of issues and problems. The result should be a safety conscious work environment and assurance that the problem identification and reporting process is effective.

b. Define the problem reporting criteria, the problem reporting systems to be used, the desired levels of problem evaluation, and the timeliness of corrective actions. The result should be a prompt and accurate identification of problems commensurate with the significance and ease of discovery.

c. Promptly screen new problems for impact on safety, reliability, operability, and reportability. The result should be the proper level of evaluation of problems and their appropriate disposition.

d. Evaluate problems commensurate with their significance to determine the cause(s). The result should be the proper evaluation and resolution of repeat occurrences, the extent of the condition, extent of cause, common cause(s), and human performance and organizational weaknesses.

e. Evaluate significant adverse conditions using individuals or teams trained in cause analysis techniques and a structured cause analysis methodology to identify the cause(s), corrective actions, and corrective action(s) to prevent recurrence.

f. Evaluate moderate risk problems and determine the apparent cause using an appropriate apparent cause evaluation methodology.

g. Ensure that corrective actions are approved, classified, prioritized, and completed in a timely manner consistent with the problem significance. The result should minimize out-of-service time for critical plant equipment and improve overall equipment reliability, plant operation, human performance, and organizational effectiveness.

h. Provide feedback to the person who reported the problem that describes the corrective actions taken. The result should encourage active participation in the problem identification and resolution process.

i. Trend problems and associated causes to identify repeat occurrences, common causes, and vulnerabilities at a low level before significant problems occur. The result should be the identification of adverse trends that may be precursors to more significant problems that require management attention.

j. Periodically assess whether information in lower-tier performance observation or reporting programs is indicative of an adverse trend and requires additional evaluation or corrective action. The result should be the proper evaluation of day-to-day lower significance events that may go undetected by the casual observer and the implementation of corrective action to reverse adverse trends that may lead to more significant problems.

k. Confirm the effectiveness of corrective actions designed to prevent problem recurrence. The result should substantiate that corrective action taken resolved the significant adverse condition.

l. Monitor and assess the effectiveness of the overall corrective action program on a specified periodic basis. The result should be an opportunity for management to determine whether the corrective action program objectives are being met.

4.2 Regulatory Requirements

The CAP shall comply with the following:

4.2.1 USNRC Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operation)," Revision 2, February 1978.

4.2.2 ANS-3.2/ANSI N18.7-1976, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants."

4.3 Non-Conforming Conditions

4.3.1 The responsibility and authority for the disposition of non-conforming conditions are set forth in the documents implementing this PD.

4.3.2 Rework or repair of non-conforming items and the disposition of operational non-conforming conditions are set forth in the documents implementing this PD.

4.3.3 Dispositions involving design changes shall be approved by the organization with the authority for design.

4.3.4 Only personnel with assigned authority in the relevant disciplines shall make technical decisions for the disposition of each non-conforming condition.

4.3.5 Non-conforming conditions shall be documented and the affected organizations notified.

4.3.6 Non-conforming items and activities shall be controlled in a manner that prevents their inadvertent use or installation. That control is accomplished by tagging or by other processes designed to prevent the inadvertent use or installation of non-conforming items and activities.

5. RESPONSIBILITIES

The responsibilities of officers and direct reports are as follows:

5.1 The Chief Nuclear Officer is responsible for the overall implementation of the requirements of this Program Directive.

5.2 The site vice president is responsible for the implementation of this Program Directive.

5.3 The Station Director is responsible for providing human performance program expertise.

5.4 The site services director is responsible for providing performance improvement support. Relative to the CAP, this includes:

5.4.1 The overall implementation, maintenance, and continuing improvement of performance improvement processes.

5.4.2 Providing root cause analysis and trending expertise.

5.5 The quality director is responsible for the oversight of the CAP and monitoring incidents and problems (with independence from the facility organizations).

5.6 Directors/managers/supervisors are responsible for ensuring all decisions affecting safety are made at the proper level of responsibility and with the necessary technical advice and review.

6. KEY IMPLEMENTING DOCUMENTS

6.1 Inter-Departmental Administrative Procedures (IDAPs) shall be developed to address the following:

6.1.1 Problem Identification and Resolution: A procedure shall specify the requirements, methods, and process for the identification, resolution, and documentation of adverse conditions. The procedure should provide requirements for problem identification, reporting, significance classification, evaluation, resolution, and closure.

- DCPP Procedures:
  - OM7.ID1, "Problem Identification and Resolution"
  - AD7.ID2, "Daily Notification Review Team (DRT) & Standard Plant Priority Assignment Scheme"
  - AD7.ID4, "On-Line Maintenance Scheduling"
  - AD7.DC8, "Work Planning"
- ATS Procedure:
  - OM7.TE1, "Problem and Nonconformance Resolution"

6.1.2 Problems Requiring a Root Cause Analysis: A procedure shall specify the requirements, methods, and process for the resolution of all adverse conditions requiring a root cause investigation by a root cause analysis team. (OM7.ID3, "Root Cause Evaluations")

6.1.3 Apparent Cause Evaluations: A procedure shall specify the requirements, methods and process for performing an apparent cause evaluation. (OM7.ID4, "Apparent Cause Evaluation")

6.1.4 Supplier Quality Problems: A procedure shall specify the requirements, methods, and process for the documentation, coordination, and resolution of quality-related supplier services or material problems. (OM7.ID6, "Supplier Quality Problems")

6.1.5 Expedited Problem Response Using An Integrated Problem Response Team (IPRT): A procedure shall specify the requirements, methods, and processes for responding to significant plant problems and should ensure there are adequate resources for a thorough investigation on an expedited basis. (OM7.ID7, "Emergent Issue and Event Investigations")

6.1.6 Trending and Analysis: A procedure shall specify the requirements, methods, and processes for trending events and conditions that may be adverse to quality or precursors to quality problems. (OM7.ID10, "Trending Analysis Program")

6.1.7 10 CFR 21 Reportability Review: A procedure shall specify the requirements, methods, and processes for evaluating deviations and compliance failures that may be reportable to the US Nuclear Regulatory Commission as required by Title 10 of the Code of Federal Regulation, Part 21. (OM7.ID11, "10 CFR 21 Reportability Review Process")

6.1.8 Operability Determination: A procedure shall specify the requirements, methods, and processes for assessing the operability of affected equipment (degraded or non-conforming conditions) and documenting Prompt Operability Assessments (POAs) as required. (OM7.ID12, "Operability Determination")

6.2 Department-Level Administrative Procedures (DLAPs)

6.2.1 Departments should develop DLAPs, as needed, to assign responsibilities and implement the program requirements specified in this PD and associated IDAPs.

7. CLOSELY RELATED PROGRAMS

7.1 AD7, "Work Control"

7.1.1 Establishes the policy for controlling maintenance on plant equipment.

7.2 OM3, "Communications"

7.2.1 Establishes the policy for open, timely, accurate, complete, understandable communications throughout the organizations involved in nuclear generation activities.

7.3 OM4, "Nuclear Oversight Program"

7.3.1 Provides different types of oversight, assessment, and verification that are performed.

7.4 OM5, "Quality Assurance Program"

7.4.1 The overall Quality Assurance Program requirements that apply to the plant.

7.5 OM15, "Performance Monitoring and Improvement"

7.5.1 Requirements for monitoring and implementing solutions to improve performance (e.g., human performance, management observations, self-assessments).

8. RECORDS

None

9. REFERENCES

9.1 Final Safety Analysis Report Update, Units 1 and 2, Diablo Canyon Power Plant

9.1.1 Section 17.2, "Quality Assurance Program"

9.1.2 Section 17.15, "Control of Nonconforming Conditions"

9.1.3 Section 17.16, "Corrective Action"

9.2 ANS-3.2/ANSI N18.7 - 1976, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants"

9.3 ANSI N45.2, "Quality Assurance Program Requirements, 1971 for Nuclear Power Plants"

9.4 DCL 89-004, "Response to Concerns in NRC Inspection Report 88-26"

9.5 INPO "Principles for Effective Self-Assessment and Corrective Action Programs," December 1999

9.6 NCR N0002178, "NRC Cross-Cutting Issue in Problem Identification and Resolution"

9.7 NRC Inspection Procedure 71152, "Identification and Resolution of Problems"

9.8 NRC Inspection Procedure 95002, "Inspection For One Degraded Cornerstone Or Any Three White Inputs In a Strategic Performance Area"

9.9 USNRC Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operations)," Revision 2, February 1978