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Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2
Commitment Change Summary Report, January 1, 2002 through
December 31, 2002

Dear Commissioners and Staff:

In accordance with NEI 99-04, "Guidelines for Managing NRC Commitment Changes," Revision 0, endorsed by the NRC in SECY-00-0045, Pacific Gas and Electric Company is submitting the enclosed Commitment Change Summary Report for Diablo Canyon Power Plant, Units 1 and 2. The report provides a summary of the regulatory commitment changes that occurred during the period of January 1, 2002, through December 31, 2002. The summary for each change includes identification of the source document(s), a description of the original and revised commitments, and a justification for the change.

The regulatory commitment changes described in the report were processed in accordance with the NEI guideline and were determined to not require prior NRC approval.

Sincerely,

David H. Oatley

smg/4692/R0238875
Enclosure

cc: Thomas P. Gwynn
Girija S. Shukla
David L. Proulx
Diablo Distribution

A001

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1. Perform Void Testing

Source Document(s): Licensee Event Report (LER) 1-98-011, Non-Conformance Report (NCR) N0002076, Significant Operating Experience Report (SOER) 97-01, Diablo Canyon Letter (DCL) 98-173, DCL-99-091, DCL-99-101

Original Commitment (T35999)

Surveillance Test Procedure (STP) M-89A, "Void Volume Measurement in Safety Injection Pump (SIP)/Centrifugal Charging Pump (CCP) Suction Crosstie Piping," was to be performed using ultrasonic testing (UT) monitoring on a weekly basis and venting, if necessary. Testing and venting at this frequency would continue until it was determined that STP M-89A was no longer needed.

Revised Commitment

Pacific Gas and Electric Company (PG&E) is currently performing UT of the subject piping on a monthly basis and venting, as necessary, via STP M-89. Testing and venting at this frequency will continue until PG&E determines it is no longer necessary. STP M-89A, "Void Volume Measurement in the SIP/CCP Suction Crosstie Piping," is no longer needed on a weekly frequency. This test will be used on an "as-needed" basis only.

Justification for Change

The corrective actions taken for NCR N0002076 are complete. The significant items were:

- Design Change Package to add vents,
- Operations and STP procedural changes,
- Detailed evaluation of the suction and discharging piping to determine locations that could have potential adverse consequences to the emergency core cooling system (ECCS) function, and
- A process to address On-line Maintenance.

The primary cause of voiding was identified as improperly refilling systems during refueling outages. Based on both deterministic analysis and

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probabilistic risk analysis, the condition screened out as low safety significance (DCL-99-101 Enclosure 3).

Based on past surveillance data and additional monitoring of the ECCS following plant evolutions, weekly monitoring, and during refueling outages, PG&E concluded that there are currently no ongoing void generation mechanisms in the ECCS with the plant at power (except the potential for voids to be introduced during maintenance activities). Thus, PG&E determined that performing STP M-89 on a monthly basis is acceptable.

2. Ocean Water Temperature

Source Document(s): Letter from Central Coast Regional Water Quality Control Board dated December 9, 1998, and PG&E Letter DCL-99-503 to the Central Coast Regional Water Quality Control Board revising the Receiving Water Monitoring Program

Original Commitment (T04070)

Water temperature shall be measured hourly at twelve intertidal (+2 ft. mean lower low water) stations NC-2, FC-1, FC-2, FC-3, NDC-1, NDC-2, NDC-3, SDC-2, SDP-1, SDP-2, SC-1, SC-1V, and at eight subtidal stations FC1-3M, NDC2-3M, NDC3-3M, NDC4-4M, SC2-6M, SDC2-3M, SDC3-4M, SC1-3M.

Precision of measurements shall be within plus or minus 0.5 degrees F.

Receiving water pH and dissolved oxygen sampling shall be conducted with grab samples collected at ocean surface, midwater, and bottom depths and returned to a laboratory environment for analysis.

Revised Commitment

Water temperature shall be measured hourly at twelve intertidal (+2 ft. MLLW) stations NC-2, FC-1, FC-2, FC-3, NDC-1, NDC-2, NDC-3, SDC-2, SDP-1, SDP-2, SC-1, SC-1V, and at eight subtidal stations FC1-3M, NDC2-3M, NDC3-3M, NDC4-4M, SC2-6M, SDC2-3M, SDC3-4M, SC1-3M.

Precision of measurements shall be within plus or minus 0.5 degrees F.

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Justification for Change

The dissolved oxygen/receiving water pH requirements have been removed from the Receiving Water Monitoring Program (National Pollutant Discharge Elimination System (NPDES) discharge permit) at the request of the Regional Water Quality Control Board. This task is no longer required.

3. Dissolved Oxygen

Source Document(s): Letter from Central Coast Regional Water Quality Control Board dated December 9, 1998, and PG&E Letter DCL-99-503 to the Central Coast Regional Water Quality Control Board revising the Receiving Water Monitoring Program

Original Commitment (T36051)

Revise BIO C-4 procedure for dissolved oxygen to remove discrepancies noted in the NPDES self-assessment.

Revised Commitment

Commitment deleted.

Justification for Change

This dissolved oxygen sampling requirement has been removed from the Receiving Water Monitoring Program (NPDES discharge permit) at the request of the Regional Water Quality Control Board. This task is no longer required.

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4. Detection of Leakage – Boron Injection Tank (BIT) Bypass Valve

Source Document(s): PG&E Licensing Basis Impact Evaluation (LBIE) 01-042 "Revise Commitment T31460," PG&E Calculation STA-133, "Maximum Allowable Leakage from the High-Head Safety Injection Header into RCS," NRC Inspection and Enforcement Bulletin (IEB) 88-08, Thermal Stresses in Piping Connected to Reactor Coolant Systems (RCS) and 3 supplements, PG&E Interim Response to the original IEB (DCL 88-217), PG&E Second Interim Response to the original IEB (DCL 88-308), PG&E Final Response to the original IEB (DCL 90-004), NRC acceptance of the PG&E final response to IEB 88-08, NECS evaluation of IEB 88-08 Supplement 3

Original Commitment (T31460)

STP I-1C, "Routine Weekly Checks," has been revised to require verification that the pressure indicator (PI-155) indicates less than RCS pressure during Modes 1, 2, 3, and 4, thereby eliminating the possibility of undetected leakage past the Boron Injection Tank bypass valve (Charging Injection Line).

Revised Commitment

Calculation STA-133 provides criteria for allowable seepage into the RCS from the charging injection header flow path such that there will be no thermal stratification in the injection lines and the cyclic fatigue discussed in IEB 88-08 would be precluded. STP I-1D will monitor charging injection header pressure at pressure indicators PI-947 and PI-155 monthly, and contain guidance to initiate venting of the charging injection header if the rate of seepage contained in STA-133 is exceeded.

Justification for Change

Calculation STA-133 demonstrates that a small amount of seepage past the SI-8803 valves will not result in the cyclic thermal fatigue phenomenon detailed in NRC Bulletin 88-08. The fluid in piping near the RCS is stagnant and nearly the same temperature as the RCS. A small rate of fluid flow that moves toward the RCS increases in temperature as a result of convective heat transfer. The temperature of seepage will therefore

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maintain thermal equilibrium with piping fluid as it moves toward the RCS and not result in any undesirable temperature distributions.

The NRC Bulletin recommends three methods that will provide assurance that unisolable sections of piping connected to the RCS will not be subjected to combined cyclic and static thermal stresses and other stresses that could cause fatigue failure during the remaining life of a unit. As stated in the Bulletin, "This assurance may be provided by (1) redesigning and modifying these sections of piping to withstand combined stresses caused by various loads including temporal and special distributions of temperature resulting from leakage across valve seats, (2) instrumenting this piping to detect adverse temperature distributions, or (3) providing a means for ensuring that pressure upstream from block valves which might leak is monitored and does not exceed RCS pressure."

This change assures that there will be no adverse temperature distributions based on calculation STA-133. If pressure is observed to exceed RCS pressure, STP I-1D will check for the rate of pressure increase. If the rate of pressure increase exceeds 20 psig per hour, the STP will require initiation of an Action Request and initiation of routine venting to maintain charging injection header pressure less than RCS pressure.

5. Diesel Generator Fails Due to Degraded Fuel (IEIN 87-04)

Source Document(s): IE Information Notice 87-04 (IEIN 87-04)

Original Commitment (T32285)

The 12-year maintenance schedule described in STP M-81 includes an 18-month renewal of the engine fuel oil primary and secondary filters and removal, disassembly, cleaning, and inspection of the fuel oil day tank foot valves.

Note: STP M-81 was replaced by STP M-81A through STP M-81I.

Revised Commitment

The diesel-engine generator maintenance schedule includes renewal of the engine fuel oil primary and secondary filters, and testing of the fuel oil day tank foot valve every refueling cycle (up to 24 months).

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Justification for Change

- Malfunction of the diesel engine foot valve was not a contributing factor to the incident described in the commitment source document (IEIN 87-04).
- The preventive maintenance program for the foot valves was originally put in place in 1984 due to NCR DC1-83-TN-N085. Foot valve inspection is not listed as a corrective action to prevent recurrence on the NCR. No commitments are made that list DC1-83-TN-N085 as a source document.
- In place of a disassembled inspection, the foot valve will undergo an in-place seat leakage test as part of STP M-21-ENG.1.
- The engineering evaluation to extend the interval from the original 18-month duration to the extended fuel cycle duration (up to 24 months) was previously provided as justification for going to the extended fuel cycle.

6. Clarification of Overtime Restriction Requirements

Source Document(s): DCL 00-081, DCL 93-070, DCL 98-071

Original Commitment (T35087)

No individual shall work more than six consecutive days without written pre-approval from a manager (director). No individual shall work more than 13 consecutive days without the written pre-approval of a vice-president or the station director, except during refueling outages and forced shutdowns. When working on a shut down unit, no worker shall work more than 20 consecutive days and no supervisor more than 13 consecutive days without the written pre-approval from a vice-president.

Revised Commitment

No supervisor shall work more than 13 consecutive days without the written pre-approval of a vice-president or the station director. No worker shall work more than 20 consecutive days without the written pre-approval from a vice-president.

Justification for Change

As currently structured, the intent of the overtime control program is to minimize worker fatigue and prevent Technical Specification (TS) violations. The revised commitment continues to satisfy the program's intent. Since the specific overtime limits were removed from the TS with

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the implementation of the improved TS, retention of the six consecutive work day limit as a tool to prevent TS violations is unnecessary. Although the specific overtime limits were removed from the TS, the overtime guidelines stated in Generic Letter (GL) 82-12 are stated in the overtime control program as limits that must be followed. To ensure continued compliance with overtime control program limits and adequate management involvement in overtime usage, current information technology will be used to provide managers and supervisors with tools that show real-time overtime usage.

Certain insights indicate that human performance can influence plant risk in a shut down unit as much as in an operating unit. Therefore, having different limits for operating units and shut down units seems to be an unnecessary program complication. Elimination of the distinction between operating and shutdown unit limits will remove this program complication without unduly increasing plant risk. Managers and supervisors, using overtime usage monitoring tools, will ensure compliance with the consecutive workday limits and the GL 82-12 overtime guidelines. Additionally, the revised commitment continues to maintain management involvement in the overtime control program at the proper level.

**7. Annual Sling Inspection and Load Rating
Crane Restrictions/Lift/Visual/Speed**

Source Document(s): DCL-84-373, December 5, 1984; NUREG-0612
Submittal, Section 2.1.3.d.1

Original Commitments

Commitment Data Record T03482, Item 4:

The load rating marked on sling ID tags (shall) be 10 percent less than the rating allowed by ANSI B30.9-1971.

This commitment appears in design criteria memorandum (DCM) T-11 (Section 4.4.1.5.a.4), General (Purpose) Lifting Devices, where it states for slings involved in heavy load lifts near safety-related equipment: "The load rating marked on the sling shall be 10 percent less than the rating allowed by ANSI B30.9-1971 to account for the effects of dynamic loading [PG&E NUREG-0612 Submittal Section 2.1.3.d.1]."

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Commitment Data Record T03502:

Dynamic loading of slings {shall be} limited by design speed limitations of the heavy load carrying cranes, and {shall be} further limited by restricting the hoist speed to 20 feet per minute (fpm), {per} administration procedure C-702. This loading is conservatively accounted for by derating the slings by 0.5 percent per fpm of hoisting speed; further conservatism is introduced by setting the hoist speed for derating to the administrative maximum of 20 fpm, regardless of the lower maximum speeds of most of the hoists.

This commitment appears in Design Criteria Memorandum T-11, Section 4.4.1.5.a.4, General (Purpose) Lifting Devices, where it states for slings involved in heavy load lifts near safety-related equipment that: "The load rating marked on the sling shall be 10 percent less than the rating allowed by ANSI B30.9-1971 to account for the effects of dynamic loading [PG&E NUREG-0612 Submittal Section 2.1.3.d.1]."

Revised Commitments

Commitment Data Record T03482:

Item 4 deleted.

Commitment Data Record T03502:

Should it be necessary to lift a heavy load with the containment structure polar crane during operational MODES 1, 2, 3, or 4, approval {shall} be obtained prior to the lift from the Plant Staff Review Committee verifying that the lift complies with the guidelines of NUREG-0612.

Dynamic loading of slings {shall be} limited by design speed limitations of the heavy load carrying cranes, and {shall be} further limited by restricting the hoist speed to 20 feet per minute {fpm}.

Justification for Change

The plant-specific need for a different load rating tag requires special manufacturer action that complicates purchasing and increases expense. Other nuclear power plants responding to a PG&E inquiry identified that they do not take this action. The Crane Manufacturer's Association of America (CMAA) staff, contacted by PG&E, was asked why CMAA-70 addresses dynamic loading for crane structure, load blocks, and wheels,

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but not for ropes. The CMAA's response was that ropes use a higher safety factor (on the order of 5). The CMAA pointed out that while Diablo Canyon Power Plant uses a slow (20 fpm) hoisting speed appropriate for maintenance, similar ropes are often used in manufacturing facilities at up to 100 fpm without additional dynamic loading consideration [January 15, 1996 Telecon, Ellis to Dave Weber, Chairman-CMAA Engineering Committee].

Furthermore, the NRC transmitted to PG&E on August 19, 1993, a synopsis of staff interpretations of the guidelines contained within NUREG-0612. Concerning Guideline 5, it notes: "Licensees have taken exception to the requirement to select slings in accordance with the maximum working load tables of ANSI B30.9 considering the sum of static and dynamic loads. Most commonly it is the licensee's position that the approximate factor of safety of five on rope breaking strength inherent in these tables adequately accommodates dynamic loading." The synopsis goes on to conclude that the following is an approach consistent with the NUREG guideline: "The licensee has evaluated the potential routine dynamic loading for lifting devices not specially designed and found them to be a relatively small fraction (typically 5-15 percent) of static load. This estimate has been made on the basis of either calculated acceleration and deceleration rates or through use of the industrial standard for impact loading of cranes specified in CMAA-70. In either case, having verified that routine dynamic loading of a specific hoist is indeed small, the licensee has drawn the conclusion that revised selection criteria to accommodate such minor additional loads will not have a substantial effect on overall load handling reliability."

Through the use of the procedural crane speed limitation to 20 fpm (Commitment T03502), and with the use of CMAA-70 estimates of dynamic loading of 0.5 percent static load per fpm, PG&E has determined that all cranes subject to heavy loads considerations will see dynamic loads of no more than 10 percent of static load. Therefore, PG&E has concluded, consistent with the above-cited staff interpretation, for sling selection, use of a 10 percent margin over the load rating allowed by ANSI B30.9-1971 will not have a substantial effect on reliability/safety and can be discontinued. Thus, special tagging of the slings is not required.

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8. High Radiation Boundary Door Left Unlocked

Source Document(s): LER 1-87-015-00, LER Submittal, and
NCR DC0-87-TC-N107

Original Commitment (T31326)

Very High Radiation Area (VHRA) keys for areas defined in plant procedures, as being potentially debilitating will be segregated into a separate locked box. The concurrence of the senior radiation protection engineer prior to issuance of the special VHRA keys will be required.

Revised Commitment

Commitment deleted.

Justification for Change

Radiation Protection key controls require that Locked High (also called High-High) radiation areas and Very-High radiation area keys be stored in the same key box. This will simplify the program and help reduce the number of key boxes currently in use.

9. Mandatory Acceptance Criteria for All Post-Maintenance Testing (PMT) Procedures

Source Document(s): DCL 92-233

Original Commitment (T35029)

The PMT procedure writer's guide, DLAP AD1.DC18, will be revised to clearly state that either quantitative or qualitative acceptance criteria shall be specified for all PMT procedures. In addition, a checklist summarizing procedural requirements will be incorporated into the writers guide to aid in the preparation and review of PMT procedures.

Revised Commitment

Revise AD1.ID1, "Format, Content, and Style of Procedures," to require that either quantitative or qualitative acceptance criteria shall be specified for inspection and test procedures. A checklist is provided in AD1.ID2, "Procedure Review and Approval" to aid procedure writers and independent reviewers.

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Justification for Change

This change relocates the commitment to a higher-tiered administrative procedure that governs all inspection and test procedure format content and style requirements. The PMT procedures, as well as all other lower-tiered writer's guides are required to comply with the requirements of the higher-tiered procedure.

10. Independent Verification for Removal of Temporary Test Equipment

Source Document(s): PG&E Letter DCL 88-036, dated February 19, 1988, NCR DC0-89-TN-N025, NRC Inspection Reports 50-275/87-42 and 50-323/87-43, dated January 20, 1988

Original Commitment (T31175)

PG&E will include an additional step in appropriate Surveillance Test Procedures, i.e., those which provide for installation and removal of equipment, to require that the shift foreman verify that the temporarily installed test equipment has been removed.

Revised Commitment

Appropriate Surveillance Test Procedures (i.e., those which provide for installation and removal of equipment) shall provide for written independent verification that temporary installations have been removed.

Justification for Change

NRC Inspection Reports 50-275/87-42 and 50-323/87-43 contained two Notices of Violation concerning procedural control for the installation of temporary gauges and concerning the sequence of procedural steps being altered. In response to the latter, the original commitment was made in PG&E Letter DCL 88-036 as a corrective step to prevent future violations.

This change preserves compliance with the intent of the original statement of commitment by requiring written independent verification that temporary equipment is removed prior to the shift foreman review of the completed STP.