



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION IV
1600 E. LAMAR BLVD.
ARLINGTON, TX 76011-4511

January 23, 2018

EA-16-168

Mr. James M. Welsch
Senior Vice President
and Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Power Plant
P.O. Box 56, Mail Code 104/6
Avila Beach, CA 93424

**SUBJECT: DIABLO CANYON POWER PLANT – NRC SUPPLEMENTAL INSPECTION
REPORT AND ASSESSMENT FOLLOW-UP LETTER; 05000275/2017040 AND
05000323/2017040**

Dear Mr. Welsch:

On November 30, 2017, the NRC completed the on-site portion of a follow-up supplemental inspection using Inspection Procedure 95001, "Supplemental Inspection Response to Action Matrix Column 2 Inputs." The enclosed inspection report documents the inspections results, which were discussed at the exit meeting on December 12, 2017, with you and other members of your staff.

The NRC performed this inspection to review your station's actions in response to a White finding in the Mitigating Systems cornerstone which was documented in NRC Inspection Reports 05000275/2016010 and 05000323/2016010, dated October 3, 2016, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16277A340), and finalized in a letter to you from Kriss Kennedy, Regional Administrator, dated December 28, 2016 (ADAMS Accession No. ML16363A429).

An earlier 95001 inspection conducted to review this event (reference inspection report No. 05000275;323/2017008, dated September 27, 2017, ADAMS Accession No. ML17271A431) concluded that your staff's cause evaluations were not performed to the depth and breadth described in Inspection Procedure 95001. The NRC found the root cause evaluations were not at the appropriate level of detail commensurate with the significance of the problem (White Finding). In particular, the questioning process concluded prior to the cause identified being beyond the licensee's control as described in Section 03.03.b of Inspection Procedure 95001. Had continued questioning occurred, additional organizational and programmatic causes associated with the failure to provide supervisory oversight and the failure to provide adequate guidance for developing work instructions would likely have been identified. Accordingly, the NRC held open the White finding and identified the need to conduct a follow-up supplemental inspection after your staff re-evaluated the causal evaluations and informed the NRC staff of their readiness for re-inspection.

The objectives of the follow-up supplemental inspection are: 1) to review changes made to the cause evaluations and corrective actions for the White finding; 2) to evaluate the adequacy of the extent of cause, and extent of condition; and 3) to evaluate the adequacy of corrective actions required to prevent recurrence.

On November 16, 2017, you informed the NRC that your station was ready for the follow-up supplemental inspection. The NRC determined that your staff's evaluation identified two primary root causes of the White finding, one associated with a failure of station leadership to ensure that line workers met expectations for performing procedures as written, and a second concerning a failure to recognize that additional testing associated with operation of the external limit switch was required resulting in inadequate procedural guidance for post maintenance testing and work instructions. To address these causes, your staff implemented additional supervisory oversight of affected activities, revised the affected procedure to direct more specific work instruction guidance, and increased monitoring and testing activities for the affected equipment. Based on the results of this inspection, the NRC concluded the supplemental inspection objectives were met and no findings of significance were identified.

The NRC also noted that your staff's re-evaluation of the root and contributory causes identified additional organizational weaknesses that resulted in changes to previous causal factors, new corrective actions, prudent actions, and identification of several missed opportunities. The NRC determined the associated additional corrective actions taken or planned to address the identified performance deficiencies that contributed to the White finding were appropriate. The NRC concluded that the root and contributing causes of the White finding condition were understood, and that the extent of condition and extent of cause were properly identified and addressed. The NRC also determined corrective actions taken to address and preclude repetition were effectively implemented, and that additional planned actions, if completed, were appropriate to correct the identified performance deficiencies. In summary, your staff's re-evaluation and revision of their root cause evaluations represents a thorough investigation that resulted in significant additional corrective actions and contributed to overall improvement in station programs.

Furthermore, after reviewing your performance in addressing the White finding, the NRC concluded your actions met the objectives of Inspection Procedure 95001, "Supplemental Inspection Response to Action Matrix Column 2 Inputs." Therefore, in accordance with the guidance in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," the White finding was closed, effective December 31, 2017. As a result, the NRC determined the performance at Diablo Canyon Power Plant, Unit 2, to be in the Licensee Response Column of the ROP Action Matrix as of January 1, 2018.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Troy W. Pruett, Director
Division of Reactor Projects

Docket Nos. 50-275 and 50-323
License Nos. DPR-80 and DPR-82

Enclosure:
Inspection Report 05000275/2017040 and
05000323/2017040
w/ Attachment: Supplemental Information

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket: 05000275; 05000323
License: DPR-80; DPR-82
Report: 05000275/2017040; 05000323/2017040
Licensee: Pacific Gas and Electric Company
Facility: Diablo Canyon Power Plant, Units 1 and 2
Location: 7 ½ miles NW of Avila Beach
Avila Beach, CA
Dates: November 28 through December 12, 2017
Inspectors: J. Reynoso, Resident Inspector
Approved By: Mark S. Haire
Chief, Division of Reactor Projects Branch A

Enclosure

SUMMARY

IR 05000275/2017040, 05000323/2017040; 11/28/2017 – 12/12/2017; Diablo Canyon Power Plant; Follow-up Supplemental Inspection – Inspection Procedure 95001

This follow-up supplemental inspection was conducted by the Diablo Canyon resident inspector. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process."

No findings were identified.

Cornerstone: Mitigating Systems

The NRC inspectors performed a follow-up supplemental inspection in accordance with Inspection Procedure 95001, "Supplemental Inspection Response to Action Matrix Column 2 Inputs," to assess the licensee's actions in response to the unmet supplemental inspection objectives from the previous 95001 inspection efforts. The inspector assessed various aspects of the licensee's revisions to the causal evaluations associated with a White Finding conveyed in the third quarter of 2016. Details of the White Finding are documented in NRC Inspection Report 05000275; 05000323/2016010, dated October 3, 2016, (ADAMS Accession No. ML16277A340), and updated in a letter to E. Halpin from K. Kennedy, dated December 28, 2016, (ADAMS Accession No. ML16363A429).

The inspector concluded that changes to the licensee's root and contributing cause evaluations were thorough and self-critical. Additionally, the licensee's evaluation of the extent of condition and extent of cause were comprehensive. The licensee's additional analysis identified a number of station-wide weaknesses in the areas of oversight, procedure adherence, and work control requiring broad corrective actions to improve overall station performance in these areas. The inspector concluded the licensee's corrective actions have appropriately addressed the identified root and contributory causes, and that they have been properly prioritized, scheduled, and implemented commensurate with their safety significance.

REPORT DETAILS

4. OTHER ACTIVITIES

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Security

40A4 Supplemental Inspection (95001)

.01 Inspection Scope

This follow-up supplemental inspection was conducted in accordance with Inspection Procedure 95001, "Supplemental Inspection Response to Action Matrix Column 2 Inputs." The inspection assessed the licensee's actions to address significant weaknesses in their root cause evaluations identified by the NRC staff during the earlier 95001 supplemental inspection documented in Inspection Reports 05000275/2017008 AND 05000323/2017008, dated September 27, 2017 (ADAMS Accession No. ML17271A431). The inspector reviewed changes in the licensee's causal evaluations and corrective actions to ensure the causes of the performance issue were correctly identified and appropriate corrective actions are in place to preclude repetition of the significant performance issues associated with the White finding.

The unsatisfied requirements of the earlier 95001 inspection were the primary scope of this follow-up inspection. The inspection objectives were to:

- provide assurance that changes made to the cause evaluations were appropriate and to a level of detail commensurate with the White finding;
- provide assurance that the licensee identified the extent of condition and extent of cause of the failure to provide supervisory oversight and failure to provide adequate guidance for developing maintenance procedures; and
- provide assurance the licensee has taken or planned corrective actions sufficient to address changes to the root and contributing causes and to prevent recurrence of the associated performance issues.

The licensee entered the Regulatory Response Column of the NRC's ROP Action Matrix in the third quarter of 2016 and remained in the Regulatory Response Column (Column 2) of the NRC's Action Matrix through the fourth quarter of 2017, as a result of one inspection finding of low to moderate safety significance (White). The finding was associated with the failure to establish adequate work instructions for installation of NAMCO Snap Lock limit switches. The NRC staff documented this finding in NRC Inspection Report 05000275; 05000323/2016010, dated October 3, 2016, (ADAMS Accession No. ML16277A340), and finalized its White significance in a letter to E. Halpin from K. Kennedy, dated December 28, 2016, (ADAMS Accession No. ML16363A429).

On November 16, 2017 the licensee informed the NRC that they were ready for the follow-up supplemental inspection. In preparation for the inspection, the licensee performed additional investigation into causal factors of the two previous root cause evaluations (RCE) 50886801 and 50870357. The additional evaluation resulted in

revised causal factors and additional corrective actions. The revised root cause evaluations focused on two principle root causes; the first root cause of the event was that temporary outage workers were not adhering to procedure use expectations because of the lack of station leadership to recognize the need to enforce station expectations. A contributory cause was that the organization permitted temporary outage workers to be augmented to supervisor without reinforcing station expectations on procedure adherence.

The second root cause of the event was associated with a failure to recognize that additional testing associated with operation of the MOV external limit switch was required and the procedural guidance for post maintenance work instructions was not being provided by governing station procedures. A contributing cause was identified involving the licensee's failure to identify a failure mechanism associated with a non-standard design feature of their emergency core cooling system (ECCS) interlocks.

The inspector reviewed the licensee's two revised RCE reports and supporting evaluations. The inspectors also assessed corrective actions that were taken or planned to address the identified causes. The inspector independently determined that the extent of condition and extent of cause were appropriate to the significance and consequences of the White finding.

.02 Evaluation of the Inspection Requirements

02.01 Problem Identification

- a. Determine that the evaluation documented who identified the issue and under what conditions the issue was identified.

As documented in the previous inspection, the RHR-2-8700B valve failure event of May 16, 2016, was self-revealing. The initial licensee corrective actions in response to the event failed to identify the performance deficiencies associated with the inadequate level of guidance provided by the maintenance work instructions that constituted the White finding. The NRC inspection effort identified the performance deficiency independently of the efforts of the licensee's corrective action program.

This 95001 inspection requirement was closed by previous inspection.

- b. Determine the evaluation documented how long the issue existed and prior opportunities for identification.

As documented in the previous inspection, the limit switch failed sometime after the last successful stroke test of interlocked valves 2-RHR-8982A and 2-RHR-8982B during the Unit 2, fall 2014 refueling outage. The condition can be reasonably determined to have been introduced at the last maintenance interval during the Unit 2, spring refueling outage of 2013. The misalignment which caused the limit switch to over-travel was not detected during the post-maintenance testing of 2-RHR-8700B. The misaligned switch repeatedly over-traveled during quarterly stroke testing.

This 95001 inspection requirement was closed by previous inspection.

- c. Determine that the evaluation documented significant plant-specific consequence, as applicable, and compliance concerns associated with the issue.

As documented in the previous inspection, the licensee causal evaluations included two root cause evaluations that documented the plant-specific consequences and the associated compliance concerns.

This 95001 inspection requirement was closed by previous inspection.

02.02 Root Cause, Extent of Condition, and Extent of Cause Evaluation

- a. Determine that the problem was evaluated using a systematic methodology to identify the root and contributing causes.

As documented in the previous inspection, the White finding RCE 50886801 used Comparative Timeline[®], Event and Causal Factors Analysis, and a Barrier Analysis. The undetected failure RCE 50870357 used Factor Tree Analysis and ABS Consulting Root Cause Map[™]. These cause evaluation tools provided a systematic methodology that can be used to identify the root and contributing causes of the event.

In response to NRC previous IP 95001 inspection, the additional scope of investigation resulted in a revised Factor Tree and Support / Refute Matrix based on interviews of supervisors, reviews of past cause evaluations, reviews of Quality Verification (QV) audit related findings, numerous self-assessments and outage lessons learned. No deficiencies were noted with the licensee's selection of root cause methods.

This 95001 inspection requirement is closed.

- b. Determine that the root cause evaluation was conducted to a level of detail commensurate with the significance of the problem.

The inspector determined the level of detail of the revised root cause evaluations was commensurate with the significance of the White finding. As mentioned earlier the NRC had previously determined that the licensee's initial cause evaluations were not performed to an appropriate depth and breadth. Specifically, the licensee did not reasonably question why leadership at Diablo Canyon did not provide oversight of temporary outage workers, nor satisfactorily questioned why the procedures were inadequate. Subsequently, the licensee conducted additional evaluations that identified additional human performance and organizational factors related to station and temporary outage personnel work activities as well as procedural development, adherence, and use activities. As a result, the licensee revised their root cause evaluations RCEs 50886801 and 50870357.

The first root cause determined human error of temporary outage workers not adhering to the maintenance procedures in work instructions for reassembly of the MOV RHR-2-8700B valve was a principle causal factor. The licensee's additional efforts revealed a lack of adherence to standards, symptomatic of a larger issue with supervisory oversight and communication of standards, as a root cause. The licensee relied on informal processes that were not adequate to ensure workers and supervisors understood the importance of adherence to standards for work in the field. Additionally, the licensee found inadequacies in oversight of temporary outage workers across several organizations. The licensee determined that they had failed to ensure temporary

outage supervisors were given proper indoctrination into station standards. Leaders throughout the licensee's organization were not routinely in the field reinforcing station expectations concerning procedure and work plan use and adherence. The licensee concluded that the reason for this lack of field presence by supervisors was the high level of confidence they had developed in the temporary outage crews based on the absence of problems in the past as well as the high administrative burden placed on the temporary supervisors. As a result, outage supervisors were not properly prioritizing the need for field engagement and coaching.

Furthermore, the licensee's revised evaluations also resulted in modification and expansion of the second root cause which was associated with the licensee's failure to recognize additional testing associated with operation of the external limit switch was required. The licensee noted that the maintenance procedure, the post-maintenance test (PMT) procedure, and the subsequent engineering review failed to ensure the NAMCO external limit switch was functional because maintenance practices did not recognize the importance of the function of this external limit switch with respect to ECCS interlocks. Through the licensee's review of industry and internal operating experience, the licensee identified a number of missed opportunities to identify and correct these procedures over several decades.

No deficiencies were identified associated with the licensee's level of detail of the root cause evaluations.

This 95001 inspection requirement is closed.

- c. Determine that the root cause evaluation included a consideration of prior occurrences of the problem and knowledge of prior operating experience.

In addition to the operating experience reviews documented in the previous inspection, the licensee identified approximately 300 applicable prior events, most of which were labeled as having low significance by the industry database, and a number of missed opportunities to improve the MOV testing procedures.

The inspector determined the licensee's revised RCE evaluations identified organizational and programmatic opportunities to improve how the licensee dispositions low significance operating experience from other sites that may have more significance at Diablo Canyon. Prudent corrective measures were identified to enable workers to better identify and utilize low significance OE.

No deficiencies were noted with the reassessment and licensee's consideration of prior occurrences of the problem and knowledge of prior operating experience.

This 95001 inspection requirement is closed.

- d. Determine that the root cause evaluation addressed the extent of condition and the extent of cause of the problem.

The inspector determined the licensee's revised RCEs adequately addressed the extent of condition and the extent of cause of the White finding. The revised RCEs included extensive interviews, nuclear industry reviews, and a more extensive review of operational experience. The licensee identified that no formal process was in place to ensure temporary outage workers and temporary supervisors understood the

expectations for field engagement and coaching. The re-evaluation found this lack of formal process to impact the entire station (operations, maintenance, engineering, radiation protection, and chemistry).

In addition, the licensee's re-evaluation included extensive document reviews starting from 1986, a 10-year operating experience review, benchmarking, and comprehensive plant worker interviews. Numerous missed opportunities to enhance PMT and work instructions were identified. For example, the licensee's investigation identified that existing vendor guidance concerning NAMCO limit switch over-travel was not incorporated into site-specific procedures in the early 1990s because the licensee did not recognize that the relevant guidance was located in the environmental qualifications section of the vendor manual instead of the section associated with MOV maintenance and engineering.

No deficiencies were identified associated with the licensee's revised actions to address the extent of condition and the extent of cause of the problem.

This 95001 inspection requirement is closed.

- e. Determine that the root cause, extent of condition, and extent of cause evaluation appropriately considered the safety culture traits in NUREG-2165, "Safety Culture Common Language," referenced in IMC 0310, "Aspects within Cross-Cutting Areas."

The revised RCEs included additional safety culture analysis. The additional analysis identified five new safety culture attributes that required the inspector's review.

The licensee's revised evaluation found gaps in the process for preparing temporary supervisors and that expectations for field engagement and coaching were not reinforced prior to the start of an outage. As a result, the licensee found that some supervisors did not appropriately prioritize being in the field to monitor temporary outage workers to ensure they were adhering to procedures and work plans. Additional issues were identified regarding procedure adherence, following a consistent process, and understanding standards.

The inspector concluded that safety culture aspects were appropriately considered for the root causes and contributing causes, the extent of condition, and the extent of cause evaluations. Corrective actions planned and implemented are appropriate to address the identified safety culture attributes and no deficiencies were identified in this area.

This 95001 inspection requirement is closed.

- f. Examine the common cause analyses for potential programmatic weaknesses in performance when a licensee has a second white input in the same cornerstone.

Not applicable; there was not a second White input in the affected cornerstone.

02.03 Corrective Actions Taken

- a. Determine that appropriate corrective actions are specified for each root and contributing cause or that the licensee has an adequate evaluation for why no corrective actions are necessary.

The inspector reviewed the revised RCEs including the additional corrective actions associated with each root and contributing cause identified. The licensee's revised RCEs identified a number of station-wide weaknesses in the areas of management oversight, procedural use and adherence, work planning, and procedural quality requiring wide-ranging corrective actions to improve overall station performance in these areas.

Management Oversight

The inspector reviewed corrective actions taken or planned in this area and concluded the actions were appropriate. The licensee's corrective actions to prevent reoccurrence include revising its leadership development training program to establish a means to ensure temporary supervisors receive a documented review of duties and expectations prior to assuming supervisor duties. This training includes emphasis on field engagement and coaching expectations. These actions apply to all temporary supervisors in all departments.

Procedural Use and Adherence

The inspector reviewed corrective actions taken or planned in this area and concluded the actions were appropriate. The licensee determined station leadership was not adequately enforcing existing standards for the use of human performance tools. After implementing the corrective actions for management oversight, the licensee noted improvement in the station-wide culture with respect to using and reinforcing human performance tools such as procedures and work instructions.

Work Planning and Procedural Quality

The inspector reviewed corrective actions taken or planned in this area and concluded the actions were appropriate. As documented in the previous inspection, the corrective actions already taken have restored compliance.

The inspector did not identify any deficiencies with the licensee's corrective actions.

This 95001 inspection requirement is closed.

- b. Determine that the corrective actions have been prioritized with consideration of significance and regulatory compliance.

The inspector concluded that the licensee's corrective actions for the revised RCEs have been appropriately prioritized with consideration of significance and regulatory compliance. Additional corrective actions for the revised White finding RCE 50886801 to prevent recurrence are either completed or planned and appropriately prioritized.

As noted in the previous inspection, there is one remaining corrective action planned for the revised undetected failure RCE 50870357. This action is to implement a design change to remove the external limit switches associated with the ECCS MOV interlocks.

No deficiencies were identified with respect to the licensee's prioritization of corrective actions with consideration of significance and regulatory compliance.

This 95001 inspection requirement is closed.

- c. Determine that corrective actions taken to address and preclude repetition of significant performance issues are prompt and effective.

In addition to those reviewed in the previous inspection, the revised RCEs developed two new significant corrective actions:

- (1) The licensee revised the station leadership development training program to establish a means to ensure temporary supervisors at Diablo Canyon receive a documented review of duties and expectations prior to assuming supervisor duties for those individuals that have not received such training in approximately the last 90 days. This training includes emphasis on field engagement and coaching expectations. This will include a short training video that will address clear expectations for procedure use, process adherence, and observing work performance in the field.
- (2) The licensee developed a formalized process to reinforce human performance tools during in-processing of temporary outage employees. This process includes reinforcing procedure and work plan use and adherence expectations.

No deficiencies were identified with respect to the licensee's corrective actions taken to address and preclude repetition of the significant performance issues.

This 95001 inspection requirement is closed.

- d. Determine that each Notice of Violation (NOV) related to the supplemental inspection is adequately addressed, either in corrective actions taken or planned.

As documented in the previous inspection, corrective actions taken thus far have restored compliance with Technical Specification 5.4.1.a., "Procedures." In addition, the licensee has taken steps to ensure that there are no additional failures in the extent of condition valve population.

This 95001 inspection requirement was closed by earlier inspection.

02.04 Corrective Action Plans

- a. Determine that appropriate corrective action plans are specified for each root and contributing cause or that the licensee has an adequate evaluation for why no corrective actions are necessary. Determine that the corrective action plans have been prioritized with consideration of significance and regulatory compliance.

As documented in the previous inspection, there is one remaining corrective action not yet completed for the undetected failure RCE 50870357. This action is to implement a

design change to remove the external limit switches associated with the ECCS MOV interlocks. This design change is expected to be implemented during the spring 2018 Unit 2 outage and the spring 2019 Unit 1 outage.

After the licensee revised its RCEs, there were additional corrective actions planned for the inadequate procedure RCE 50886801, including changes to the leadership development training program and formalizing the in-processing of temporary outage workers on procedure use and adherence expectations.

The inspector determined corrective actions taken and planned have been appropriately prioritized with consideration of safety significance and regulatory compliance. No deficiencies were identified in this area.

This 95001 inspection requirement is closed.

b. Determine that corrective plans direct prompt actions to effectively address and preclude repetition of significant performance issue.

The remaining corrective actions to prevent recurrence under RCE 50886801 are planned or completed. As noted in the previous inspection, the remaining actions planned for the undetected failure RCE 50870357 to modify the system by removing the external limit switches have corresponding interim actions in place to verify the ECCS interlocks associated with the NAMCO external limit switches are functioning properly.

The inspector determined prompt actions taken have been effective to address and prevent repetition of the significant performance issue associated with the White finding. No deficiencies were identified in this area.

This 95001 inspection requirement is closed.

c. Determine that appropriate quantitative or qualitative measures of success have been developed for determining the effectiveness of planned and completed corrective actions.

As documented in the previous inspection, appropriate quantitative and qualitative measures of success have been developed for determining effectiveness of planned and completed corrective actions.

The revised RCEs developed additional measures of success for determining effectiveness of the additional corrective actions discussed in Section 02.03.a above:

Management Oversight/Procedure Use and Adherence

- Maintenance, Radiation Protection, and Engineering managers are to perform paired observations with temporary supervisors during the outages to ensure proper and effective field engagement and coaching.
- Station Management will review all section, department, and station level events to determine if a lack of engagement by the temporary supervisor contributed to any of these events.

Work Planning and Procedural Quality

- Station Management will review correction action program notifications concerning post maintenance testing weaknesses.

The inspector determined that the appropriate quantitative or qualitative measures of success have been developed for determining the effectiveness of planned and completed corrective actions. No deficiencies were identified in this area.

This 95001 inspection requirement is closed.

- d. Determine that each Notice of Violation (NOV) related to the supplemental inspection is adequately addressed in corrective actions taken or planned.

As discussed in Section 02.03.d (above), the corrective actions have restored compliance with Technical Specification 5.4.1.a., "Procedures," for which the NOV was issued associated with the White finding.

This 95001 inspection requirement was closed by earlier inspection.

02.05 Evaluation of IMC 0305 Criteria for Treatment of Old Design Issues.

Not applicable; the performance deficiency associated with the White finding does not warrant treatment as an old design issue.

This 95001 inspection requirement was closed by earlier inspection.

40A6 Meetings, Including Exit

Exit Meeting Summary

On December 12, 2017, the inspectors presented the inspection results to Mr. J. Welsch, Site Vice President, and other members of the licensee staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspectors had been returned or destroyed.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

T. Baldwin, Director, Nuclear Site Services
J. Cheek, MOV Program Engineer
M. Fraunheim, Manager Nuclear Performance Improvement
P. Gerfen, Senior Director Plant Manager
M. Ginn, Manager, Emergency Planning
E. Halpin, Sr. Vice President, Chief Nuclear Officer Generation
H. Hamzehee, Manager, Regulatory Services
J. Hinds, Director, Quality Verification
T. Irving, Manager, Radiation Protection
K. Johnston, Director of Operations
M. McCoy, NRC Interface, Regulatory Services
J. Morris, Senior Advising Engineer
C. Murry, Director Nuclear Work Management
J. Nimick, Senior Director Nuclear Services
A. Peck, Director, Nuclear Engineering
R. Walthos, Nuclear Engineering Specialist, Principal
J. Welsch, Site Vice President

NRC Personnel

C. Newport, Senior Resident Inspector
R. Alexander, Senior Project Engineer

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

05000323/2016010-01 VIO Failure to Establish Adequate Work Instructions for Installation of NAMCO Snap Lock Limit Switches (Section 4OA4)

LIST OF DOCUMENTS REVIEWED

Section 4OA4: Supplemental Inspection (95001)

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
AD1.ID1	Nuclear Generation Procedure Writer's Manual	30
AD1.DC12	Writer's Manual for EOP/AOP	11
AD2.ID1	Procedure and Work Plan Adherence	26
AD1.C18	Writer's Guide- Post Maintenance Testing	4

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
TQ2.DC19	Leadership Development Training	5
OM7.ID3	Root Cause Evaluation	45
OM7.ID4	Cause Determinations	36
MP E-53.10R	Augmented Stem Lubrication for Limitorque Operated Valves	12
MP E-53.10S	Limitorque Swap-Out and Switch Settings	15
MP E-53.10V1	MOV Diagnostic Testing	20

Notifications

50412203	50488904	50544198	50558305	50558305
50560927	50915783	50949542	50893249	50950028
50947114	50947115	50947116	50950027	50915783
50929951				

LIST OF ACRONYMS

ADAMS	Agencywide Document Access and Management System
CAPR	corrective action to prevent recurrence
CFR	Code of Federal Regulations
ECCS	emergency core cooling system
ESFAS	engineered safety features actuation system
MOV	motor-operated valve
PRA	probabilistic risk assessment
RCE	Root Cause Evaluation
RCS	reactor coolant system
RHR	residual heat removal

DIABLO CANYON POWER PLANT – NRC SUPPLEMENTAL INSPECTION REPORT
 05000275/2017040 AND 05000323/20170040 DATED JANUARY 23, 2018

DISTRIBUTION

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ADAMS ACCESSION NUMBER: ML18023A118

SUNSI Review: ADAMS: Non-Publicly Available Non-Sensitive Keyword:
 By: MSH2/RDR Yes No Publicly Available Sensitive NRC-002

OFFICE	RIV/DRP/A	BC:DRP/A	RIV/DRP			
NAME	Jreynoso	MHaire	TPruett			
SIGNATURE	/RA/	/RA/	/RA/			
DATE	01/19/2018	01/19/2018	01/23/2018			

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