



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION IV  
1600 E. LAMAR BLVD  
ARLINGTON, TX 76011-4511

December 1, 2016

Mr. Edward D. Halpin, Senior Vice President,  
Generation 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 PLANTS, UNITS 1, AND 2 - NRC EXAMINATION  
REPORT 05000275/2016302; 05000323/2016302

Dear Mr. Halpin:

On October 20, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an initial operator license examination at Diablo Canyon Power Plant, Units 1, and 2. The enclosed report documents the examination results and licensing decisions. The preliminary examination results were discussed on October 20, 2016, with Ms. P. Gerfen, Station Director, and other members of your staff. A telephonic meeting was conducted on October 27, 2016, with Mr. E. Werner, Manager, Operations Training, who was provided with the NRC licensing decisions. A telephonic exit meeting was conducted on November 17, 2016, with Mr. E. Werner, Manager, Operations Training.

The examination included the evaluation of one applicant for an instant senior reactor operator license and eight applicants for upgrade senior reactor operator licenses. The license examiners determined that all the applicants satisfied the requirements of 10 CFR Part 55 and the appropriate licenses have been issued. There were no post examination comments submitted by your staff. The Enclosure contains details of this report.

A licensee-identified violation was identified during this examination. It is described in more detail in the examination report.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice and Procedure," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's

E. Halpin

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Sincerely,

***/RA Clyde Osterholtz Acting for/***

Vincent G. Gaddy, Chief  
Operations Branch  
Division of Reactor Safety

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

Enclosure:  
Examination Report 05000275/2016302  
and 05000323/2016302, w/Attachment:  
Supplemental Information

cc w/encl: Electronic Distribution

E. Halpin

- 2 -

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Letter to Edward D. Halpin from Vincent G. Gaddy, dated December 1, 2016

SUBJECT: DIABLO CANYON POWER PLANTS, UNITS 1, AND 2 - NRC EXAMINATION  
REPORT 05000275/2016302; 05000323/2016302

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**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION IV**

Docket: 05000275, 05000323

License: DPR-80, DPR-82

Report: 05000275/2016302; 05000323/2016302

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: September 19 through November 17, 2016

Inspectors: M. Bloodgood, Chief Examiner, Operations Engineer  
C. Osterholtz, Senior Operations Engineer  
M. Kennard, Operations Engineer

Approved By: Vincent G. Gaddy  
Chief, Operations Branch  
Division of Reactor Safety

Enclosure

## SUMMARY

ER 05000275/2016302; 05000323/2016302; 09/19/2016 – 11/17/2016; Diablo Canyon Power Plant, Units 1 and 2; Initial Operator Licensing Examination Report.

NRC examiners evaluated the competency of one applicant for instant senior reactor operator license and eight applicants for upgrade senior reactor operator licenses at Diablo Canyon Power Plant, Units 1 and 2.

The licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 10. The written examination was administered by the licensee on October 14, 2016. NRC examiners administered the operating tests on October 17 – October 20, 2016.

The examiners determined that all the applicants satisfied the requirements of 10 CFR Part 55 and the appropriate licenses have been issued.

A. NRC-Identified and Self-Revealing Findings

None.

B. Licensee-Identified Violations

A severity level IV violation that was identified by the licensee has been reviewed by the examiners. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. The violation and corrective action tracking number are listed in Section 4OA7 of this report.

## REPORT DETAILS

### 4. OTHER ACTIVITIES (OA)

#### 4OA5 Other Activities (Initial Operator License Examination)

##### .1 License Applications

###### a. Scope

NRC examiners reviewed all license applications submitted to ensure each applicant satisfied relevant license eligibility requirements. Examiners also audited two of the license applications in detail to confirm that they accurately reflected the subject applicant's qualifications. This audit focused on the applicant's experience and on-the-job training, including control manipulations that provided significant reactivity changes.

###### b. Findings

No findings were identified.

##### .2 Examination Development

###### a. Scope

NRC examiners reviewed integrated examination outlines and draft examinations submitted by the licensee against the requirements of NUREG-1021. The NRC examination team conducted an onsite validation of the operating tests.

###### b. Findings

No findings were identified.

NRC examiners provided outline, draft examination and post-validation comments to the licensee. The licensee satisfactorily completed comment resolution prior to examination administration.

NRC examiners determined the written examinations and operating tests initially submitted by the licensee were within the range of acceptability expected for a proposed examination.

##### .3 Operator Knowledge and Performance

###### a. Scope

On October 14, 2016, the licensee proctored the administration of the written examinations to all nine applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on October 27, 2016.

The NRC examination team administered the various portions of the operating tests to all applicants on October 17 – October 20, 2016.

b. Findings

No findings were identified.

All applicants passed the written examination and all parts of the operating tests. The final written examinations and post examination analysis may be accessed in the ADAMS system under the accession numbers noted in the attachment. There were no post examination comments as indicated in the licensee submittal.

.4 Simulation Facility Performance

a. Scope

The NRC examiners observed simulator performance with regard to plant fidelity during examination validation and administration.

The examination team noted the following observations associated with simulator performance:

- An event was inadvertently skipped due to a simulator control booth operator error during the administration of a simulator scenario to one group of applicants. The booth operator was given the cue to initiate the next non-major event, but initiated the subsequent major event during the scenario. The loss of the event did not require the administration of the spare scenario to the group. This event was captured in the licensee's corrective action program as Notification 50875469.
- During the administration of a simulator scenario, the first event was initiated with the annunciator bell disabled. This resulted in the loss of audible indication for the first event. This did not have an adverse effect on the administration of the event during the scenario. This event was captured in the licensee's corrective action program as Notification 50875782.
- During the performance of a simulator scenario, the simulator exhibited an inconsistent behavior. During the operation of a breaker control switch, a breaker did not operate as expected and was required to be manually operated from the simulator control booth. This behavior was only observed during one of the four times that the scenario was administered. This event was captured in the licensee's corrective action program as Simulator Change Request 2016-108.
- During the administration of a simulator job performance measure, an automatic sequence was used to initiate an uncontrolled slow rod withdrawal followed by an uncontrolled fast rod withdrawal. During one of the nine performances of the



job performance measure, the sequence went directly to the uncontrolled fast rod withdrawal. This error did not impact the overall administration of the job performance measure. This event was captured in the licensee's corrective action program as Simulator Change Request 2016-110.

b. Findings

No findings were identified.

.5 Examination Security

a. Scope

The NRC examiners reviewed examination security for examination development during both the onsite preparation week and examination administration week for compliance with 10 CFR 55.49 and NUREG-1021. Plans for simulator security and applicant control were reviewed and discussed with licensee personnel.

b. Findings

No findings were identified.

**40A6 Meetings, Including Exit**

Exit Meeting

The Chief Examiner presented the preliminary examination results to Ms. P. Gerfen, Station Director, and other members of the staff on October 20, 2016. A telephonic exit was conducted on November 17, 2016, between Mr. M. Bloodgood, Chief Examiner, and Mr. E. Werner, Manager, Operations Training.

The licensee did not identify any information or materials used during the examination as proprietary.

**40A7 Licensee-identified Violations**

The following Severity Level IV violation was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section 2.3.2 of the NRC Enforcement Policy, for being dispositioned as a non-cited violation.

Title 10 CFR 50.9(a) requires, in part, that information provided to the Commission by a licensee shall be complete and accurate in all material aspects. On October 4, 2016, the NRC gave approval to the licensee to administer a written examination to initial operating license applicants on October 14, 2016. The approval was made based on content of the written examination provided to the NRC on October 4, 2016. In this version of the written examination, Question 55 had been revised based on NRC comments so that it had only one correct answer. The previous draft revision of the question had two plausible correct answers. The written examination was administered on October 14, 2016. During licensee review of the exam, the

licensee identified that the version of Question 55 on the administered written examination was not the version that was approved on October 4, 2016. The licensee notified the NRC of the issue on November 7, 2016, and completed an extent of condition review that showed that this was the only written examination question inconsistent with the questions approved on October 4, 2016. The violation was of very low safety significance because the performance deficiency did not contribute to the NRC making any incorrect regulatory decisions regarding issuance of operating licenses. The licensee entered this issue into their corrective action program as Notification 50878592.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee Personnel**

P. Gerfen, Station Director  
K. Johnston, Director, Operations  
D. Petersen, Director, Training  
S. Guess, Manager, Operations  
E. Werner, Manager, Operations Training  
J. Becerra, Supervisor, Simulator and Examination Support  
A. Kadir, Supervisor, Initial Licensing Training  
R. Fortier, Lead, NRC Examination Development  
L. Toribio, Developer, NRC Examination  
C. Mehigan, Representative, NRC Examination Operations

#### **NRC Personnel**

C. Newport, Senior Resident Inspector  
J. Reynoso, Resident Inspector

### **ADAMS DOCUMENTS REFERENCED**

Accession No. ML16321A243 - FINAL WRITTEN EXAM  
Accession No. ML16321A260 - FINAL OPERATING TEST  
Accession No. ML16321A321 - POST EXAM ANALYSIS