



**Pacific Gas and  
Electric Company®**

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January 22, 2010

PG& E Letter DCL-10-005

Mr. Elmo E. Collins, Regional Administrator  
U.S. Nuclear Regulatory Commission, Region IV  
Texas Health Resources Tower  
612 E. Lamar Blvd., Suite 400  
Arlington, TX 76011-4125

ATTN: Gabe Apper, Chief Examiner

Docket No. 50-275, OL-DPR-80  
Docket No. 50-323, OL-DPR-82  
Diablo Canyon Power Plant, Unit Nos. 1 and 2 – Initial Operating License  
Examination Post Examination Submittal (05000275/2010301; 05000323/2010301)

Dear Mr. Collins:

In accordance with NUREG 1021, "Operator Licensing Examination Standards for Power Reactors," Section ES-501, Initial Post Examination Activities, the following items are included as Enclosures 1 through 3, as described below:

1. The graded written examinations and an original answer key
2. Completed Form ES-403-1, "Written Examination Grading Quality Checklist"
3. Written examination performance analysis results

Additionally, all examination items missed by 50 percent or more of the candidates have been reviewed for training program deficiencies, and/or remedial training.

The enclosures with this letter contain personal information. Therefore, Pacific Gas and Electric Company (PG&E) requests that the enclosures be removed pursuant to 10 CFR 2.390 (a)(6) prior to this letter being placed in the Public Document Room.

PG&E makes no regulatory commitments in this letter.

Information was  
redacted prior  
to placement in ADAMS.

  
G. Apper,  
Chief Examiner



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If you have questions, please contact John M. Becerra, Examination Supervisor, at (805) 545-4006.

Sincerely,

A handwritten signature in black ink, appearing to read 'James R. Becker', written over a horizontal line.

James R. Becker  
*Site Vice President*

swh/3449

Enclosures

cc: Michael S. Peck, NRC Senior Resident

DCPP NRC Exam – January 2010  
Question analysis

This table is designed to meet the intent of item 6 from ES-403 "Written Examination Grading Quality Checklist". All questions missed by more than half the students will be evaluated for validity of the question.

Question # RO/SRO	Percentage missed	Question valid?	Remediation Required	Improvement in Training Materials Required?
13	40%	YES	YES	No

Analysis:

Question 13 was missed by 9 of 15 candidates. All 9 candidates selected C (question is attached). All the candidates realize that either valve open will provide enough flow to the pumps, however, they based their answer on the swapover to the RWST setpoint, 33%.

The question is valid, and appears to be a knowledge to be reinforced with the class. The following information is found in System Training Guide, I2, Containment Spray;

“When the RWST Low level alarms at 33% the following will happen:

- The RHR system will be aligned for cold leg recirculation, and
- Containment Spray pumps will continue to run until the RWST Low-Low alarm comes in, this assures sufficient NaOH has been added to the Containment and transfers as much water as possible to the Containment sump.”

Additionally, the need to continue to run Containment Spray pumps to 4% is addressed in Ops Phase Lesson, LPE1C, Recirculation Modes and LOCA Outside Containment. Page 14 of 59 addresses the basis:

- “Continued spray operation is required to remove airborne iodine and provide mixing of the NaOH for adjustment of sump pH following the LOCA.
- The changeover is performed after the Lo-Lo alarm is reached in order to transfer as much RWST water as possible to the Containment Sump via the spray pumps.”

DCPP NRC Exam – January 2010  
Question analysis

Examination Outline Cross-Reference	Level	RO
Knowledge of CSS design features and/or interlocks which provide for the following: Iodine scavenging via the CSS	Tier #	2
	Group #	1
	K/A #	026 K4.06
	Rating	2.8

**Question 13**

Which of the following describes how the sufficient amount of Sodium Hydroxide (NaOH) is assumed to be delivered to the Containment Sump?

NOTE: CS-8994A and CS-8994B are Spray Additive Tank Outlet to Eductor valves

- A. Either CS-8994A OR CS-8994B must open to provide sufficient flow of NAOH to the suction of the Containment Spray pumps. Proper NaOH volume is assured by running the Containment Spray pumps until Low-Low RWST level (4%).
- B. Both CS-8994A AND CS-8994B must open to provide sufficient flow of NAOH to the suction of the Containment Spray pumps. Proper NaOH volume is assured by running the Containment Spray pumps until Low-Low RWST level (4%).
- C. Either CS-8994A OR CS-8994B must open to provide sufficient flow of NAOH to the suction of the Containment Spray pumps. Proper NaOH volume is assured by running the Containment Spray pumps until Low RWST level (33%).
- D. Both CS-8994A AND CS-8994B must open to provide sufficient flow of NAOH to the suction of the Containment Spray pumps. Proper NaOH volume is assured by running the Containment Spray pumps until Low RWST level (33%).

Proposed Answer: A

Explanation:

- A Correct: Either train is 100% capacity. Pumps run until the Low-Low Level (4%) is reached.
- B Incorrect: Either train is 100% capacity.
- C Incorrect: Pumps continue to at RWST low level (33%) until the Low-Low Level (4%) is reached.
- D Incorrect: Pumps are secured at RWST Low-Low (4%), either train is 100% capacity.

**Technical References** STG I-2 page 1-4 and 3-10.

**References to be provided to applicants during exam:** None

**Learning Objective:** 40802 - Explain significant CSS design features and the

DCPP NRC Exam – January 2010  
Question analysis

importance to nuclear safety

<b>Question Source:</b> (note changes; attach parent)	Bank # Modified Bank #  New	   X
<b>Question History:</b>	Last NRC Exam	No
<b>Question Cognitive Level:</b>	Memory/Fundamental	X
<b>10CFR Part 55 Content:</b>	Comprehensive/Analysis 55.41 (7)	