



**Pacific Gas and
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December 21, 2004

PG&E Letter DCL-04-162

U.S. Nuclear Regulatory Commission
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Washington, D.C. 20555-0001

Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2
Response to Request for Additional Information Regarding License Amendment
Request 04-04, "Revision to Technical Specification 3.8.3, 'Diesel Fuel Oil, Lube Oil,
Starting Air, and Turbocharger Air Assist'"

Dear Commissioners and Staff:

Pacific Gas and Electric (PG&E) Letter DCL-04-118, dated September 23, 2004, submitted License Amendment Request (LAR) 04-04, "Revision to Technical Specification 3.8.3, 'Diesel Fuel Oil, Lube Oil, Starting Air, and Turbocharger Air Assist,'" to increase the required amount of stored diesel fuel to support use of low-sulfur fuel oil required by the California Air Resources Board.

On November 10, 2004, the NRC staff requested additional information to complete its review of LAR 04-04. PG&E's response to the staff's question is provided in Enclosure 1.

The response provided in this submittal does not affect the results of the technical evaluation or the no significant hazards consideration determination previously transmitted in PG&E Letter DCL-04-118.

If you have any questions or require additional information, please contact Stan Ketelsen at 805-545-4720.

Sincerely,

Lawrence F. Womack

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Document Control Desk
December 21, 2004
Page 2

PG&E Letter DCL-04-162

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Enclosure

cc: Edgar Bailey, DHS
Bruce S. Mallett
David L. Proulx
Diablo Distribution
cc/enc: Girija S. Shukla

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)	Docket No. 50-275
PACIFIC GAS AND ELECTRIC COMPANY)	Facility Operating License
)	No. DPR-80
Diablo Canyon Power Plant)	Docket No. 50-323
Units 1 and 2)	Facility Operating License
)	No. DPR-82

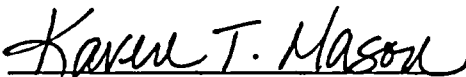
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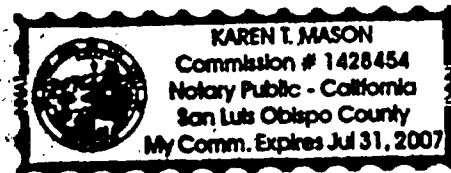
Lawrence F. Womack, of lawful age, first being duly sworn upon oath states that he is Vice President Nuclear Services of Pacific Gas and Electric Company; that he has executed this response to the NRC request for additional information regarding License Amendment Request 04-04 on behalf of said company with full power and authority to do so; that he is familiar with the content thereof; and that the facts stated therein are true and correct to the best of his knowledge, information, and belief.



Lawrence F. Womack
Vice President Nuclear Services

Subscribed and sworn to before me this 21st day of December, 2004.


Notary Public
County of San Luis Obispo
State of California



Response to Request for Additional Information Regarding License Amendment
Request 04-04, "Revision to Technical Specification 3.8.3, 'Diesel Fuel Oil, Lube Oil,
Starting Air, and Turbocharger Air Assist'"

NRC Request for Additional Information

By letter dated September 23, 2004, the licensee (Pacific Gas and Electric Company [PG&E]) of Diablo Canyon Power Plant (DCPP) requested amendments to Facility Operating Licenses DPR-80 and DPR-82 for DCPP Units 1 and 2, respectively [PG&E Letter DCL-04-118]. The amendment requests, which proposed changes to Section 3.8.3 of the Technical Specifications (TS) and its associated TS Bases Section B 3.8.3, would increase the current minimum emergency diesel generator (EDG) fuel oil inventory stored in the storage tanks to support use of low-sulfur fuel oil required by California Air Resources Board (CARB).

CARB regulations requiring the use of fuel oil with a limit of 500 parts per million (ppm) sulfur and ultra-low sulfur (ULS) fuel oil with a limit of 15 ppm sulfur go into effect on January 1, 2006 and June 1, 2006, respectively. These changes in California air pollution regulations will require DCPP to replace the Environmental Protection Agency (EPA) red-dyed diesel fuel oil currently used for EDG operations with ULS fuel oil. The heat content of ULS fuel oil, which is lower than EPA fuel oil, will result in a slightly higher (approximately 5 percent) EDG fuel oil consumption at DCPP. Consequently, the licensee proposed to increase the minimum fuel oil inventory, based on the 5 percent consumption increase of ULS fuel oil, to be maintained in the fuel oil storage tanks.

The staff has reviewed the licensee's submittal and prepared the following Request for Additional Information.

1.0 The NOTE in the Limiting Condition for Operation (LCO) Section 3.8.3 of the current Technical Specifications states:

"The performance of diesel fuel oil tank cleaning requires one fuel oil storage tank to be removed from service to be drained and cleaned. During this time, the fuel oil storage requirement for one unit operation in MODES 1, 2, 3, and 4 and one unit operation in MODE 6 with at least 23 feet of water above the reactor vessel flange or with the reactor vessel defueled is > 35,000 gallons. The tank being cleaned may be inoperable for up to 10 days. For the duration of the tank cleaning, temporary onsite fuel oil storage of > 24,000 gallons will be maintained. Prior to removal of a tank from service, the offsite circuits required by LCO 3.8.1 or 3.8.2 will be verified to be OPERABLE."

This LCO 3.8.3 NOTE ensures that during fuel oil storage tank cleaning in one unit (10 year interval) the combined permanent and temporary fuel oil inventory on site will be sufficient for a 4-day EDG operation.

DCCP proposed to change the current fuel oil storage requirement for 1 unit in operation in Modes 1, 2, 3, and 4 and 1 unit in Mode 6 to be increased from > 35,000 gallons to > 36,000 gallons and the temporary onsite fuel oil storage to be increased from > 24,000 gallons to > 25,000 gallons. These proposed changes result in less than three percent increase of fuel oil in the permanent storage tank and slightly over four percent increase of the temporary onsite fuel oil storage. Please provide detailed discussion to demonstrate that the proposed combined permanent and temporary fuel oil inventory on site will be sufficient for a 4-day EDG operation during the duration of fuel oil storage tank cleaning.

PG&E Response

The Bases for LCO 3.8.3 states in part (emphasis added)

“The Note [for LCO 3.8.3] permits diesel fuel oil storage tank cleaning to be performed. Each tank is required to be cleaned on a 10-year frequency. Conducting the cleaning requires the tank to be taken out of service. For this infrequent event, the inventory in the remaining tank is sufficient to support operation of the diesel generators (DG) to power the minimum required loads to maintain safe conditions for a period of 4 days, considering one unit in MODE 1, 2, 3, 4, 5, or 6, and one unit in MODE 6 with 23 feet of water above the reactor vessel flange or with the reactor vessel defueled. The requirements for diesel fuel oil tank cleaning were approved by License Amendment 74 for Unit 1 and 73 for Unit 2.”

PG&E Letter DCL-04-118, Enclosure 1, Table 1, “Diesel Fuel Storage Requirements,” provides the results of PG&E calculations based on using ULS fuel oil with its lower heat content than the EPA fuel currently in use. Table 1 indicates that $\geq 33,009$ gallons of ULS fuel is required to meet the LCO 3.8.3 Note requirement for a 4-day supply for EDG operation. When the unusable tank volume and vortexing are considered, Table 1 indicates $\geq 34,189$ gallons of ULS fuel is required. This is slightly below the current LCO minimum volume of 35,000 gallons. To provide additional margin, PG&E raised the required volume from 35,000 gallons to 36,000 gallons. This provides a margin above the calculated minimum of 34,189 gallons of ULS fuel oil of slightly greater than 5 percent $((36,000 - 34,189) / 34,189) \times 100 = 5.3$ percent). Therefore, a minimum of 36,000 gallons of ULS fuel oil is more than sufficient for a 4-day supply for EDG operation.

The temporary onsite fuel storage requirement of 24,000 gallons specified in the Note to LCO 3.8.3 derives from PG&E’s response to an NRC staff request for additional

information regarding PG&E Letter DCL-92-036, "License Amendment Request 92-03, Revision of Technical Specifications 3/4.8.1 and 3/4.8.2 - Increase Emergency Diesel Generator Fuel Oil Storage Requirements," dated February 14, 1992. PG&E Letter DCL-92-131, "Response to NRC Questions on License Amendment Request 92-03, Revision of Technical Specifications 3/4.8.1 and 3/4.8.2 - Increase Emergency Diesel Generator Fuel Oil Storage Requirements," dated June 5, 1992, provided the following response to an NRC staff question on what specific fuel oil onsite storage provisions will be made during tank cleaning:

"...Various options are being considered for temporary onsite storage. These include parking filled fuel tankers in a secure area outside the access controlled area, installation of a temporary storage facility, and use of existing auxiliary boiler fuel storage tanks. The requirements for temporary storage will include security, control of quality, convenient access and means for transfer to replenish the EDG fuel storage tank, and potential effect to plant safety due to fire or other considerations.

The quantity of temporary fuel oil storage proposed to be maintained onsite during the surveillance of the EDG fuel oil tank is 24,000 gallons, as shown in the revised proposed TS footnote...

... The TS footnotes on LAR pages 3/4 8-1 and 3/4 8-11 have been revised to require 24,000 gallons of temporary onsite fuel oil storage to be maintained."

LAR 92-03 was approved by License Amendments No. 74 (Unit 1) and No. 73 (Unit 2) (LA 74/73) dated August 12, 1992, and included the requirement to provide 24,000 gallons of temporary onsite fuel oil storage during tank cleaning.

The 24,000 gallons is characterized as providing for 3 days of EDG operation, in addition to the 4-day supply in the tank not undergoing cleaning, in the safety evaluation for LA 74/73. While this is not incorrect, the 24,000 value was proposed by PG&E as a prudent measure, and not calculated on the basis of any specific EDG loading or accident sequence. For operation with the new ULS fuel, PG&E believes it is prudent to increase the value from 24,000 gallons to 25,000 gallons, based on engineering judgment.

Therefore, the combination of a minimum of 36,000 gallons of ULS fuel in the tank not undergoing cleaning, and a minimum temporary onsite supply of 25,000 gallons of ULS fuel, will provide sufficient volume for 4 days of EDG operation, plus a prudent amount of reserve.