RAS 5715

RELATED CORRESPONDENCE

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

February 11, 2003 (3:08PM)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | Docket No. 72-26-ISFSI |
| PACIFIC GAS AND ELECTRIC CO. | ) | |
| (Diablo Canyon Power Plant Independent | ) | ASLBP No. 02-801-01-ISFSI |
| Spent Fuel Storage Installation) | ) | |
| | ) | |

CALIFORNIA ENERGY COMMISSION'S, AVILA BEACH COMMUNITY SERVICES DISTRICT'S, CALIFORNIA PUBLIC UTILITIES COMMISSION'S, AND SAN LUIS OBISPO COUNTY'S RESPONSE TO NRC STAFF'S INTERROGATORIES AND REQUEST FOR PRODUCTION

INTRODUCTION

By Motion presented January 28, 2003, the California Energy Commission "CEC", the Avila Beach Community Services District ("ABCSD"), the California Public Utilities Commission ("CPUC"), and San Luis Obispo County, ("SLOC") requested to provide joint responses to the NRC's interrogatories. Pursuant to 10 C.F.R. §§ 2.740, 2.740b, 2.741, 2.1111, and 2.1117, and the Atomic Safety and Licensing Board's ("Board") Memorandum and Order, dated December 26, 2002, (LBP-02-25, 56 NRC ___) ("Order"), the CEC, ABCSD, CPUC and SLOC hereby respond to the Nuclear Regulatory Commission ("NRC") staff's interrogatories. These responses have been sent to Stephen H. Lewis, Esq. and Angela B. Coggins, Esq., U.S. Nuclear Regulatory Commission, Office of the General Counsel, Mail Stop: O-15D21, Washington, D.C. 20555 and electronically to the above-named counsel, at the e-mail addresses for each previously identified in this proceeding.

Template = SECY-035

SECY-02

## RESPONSES TO INTERROGATORIES

### GENERAL RESPONSE

In accordance with the Board's Order, CEC, ABCSD and SLOC consider the NRC staff to have used its five interrogatories, including all discrete subparts, with respect to them. Order, Section III.1, at 6.

### INTERROGATORY 1

San Luis Obispo Mothers for Peace, *et al.,* ("SLOMFP") Contention TC-2 asserts that: "PG&E has failed to demonstrate that it meets the financial qualifications requirements of 10 C.F.R. § 72.22(e)." *Footnote omitted.* Section 72.22(e) requires, in part that the application:

> must show that the applicant either possesses the necessary funds, or that the applicant has reasonable assurance of obtaining the necessary funds, or that by a combination of the two, the applicant will have the necessary funds available to cover the following: (1) Estimated construction costs: (2) Estimated operating costs over the planned life of the ISFSI; and (3) Estimated decommissioning costs, and the necessary financial arrangements to provide reasonable assurance before licensing, that decommissioning will be carried out after the removal of spent fuel, high-level radioactive waste, and/or reactor-related GTCC [Greater Than Class C] waste from storage.

Does SLOC intend to participate in the oral argument in this proceeding, pursuant to 10 C.F.R. § 2.1113, by filing:

> A detailed written summary of all the facts, data, and arguments, which are known to the party at such time and on which the party proposes to rely at the oral argument...[and] all supporting facts and data in the form of sworn written testimony or other sworn written submission.

RESPONSE TO INTERROGATORY 1

CEC, ABCSD, CPUC and SLOC intend to participate in the oral argument in this proceeding, pursuant to 10 C.F.R. § 2.1113, by filing a written summary of the facts, data, and arguments and supporting sworn testimony and/or submissions.

INTERROGATORY 2

If the answer to Interrogatory 1 is in the affirmative, please respond to the following three sub-parts of this interrogatory and provide in your response to A., B., and C., below, references to the pages of the ISFSI application, as supplemented by PG&E's letter to the NRC, dated June 7, 2002, identified as PG&E Letter DIL-02-008 and bearing in its title line "Supplemental General and Financial Information - 10 C.F.R. 72.22," that demonstrate this failure.

A. In what specific respects does SLOC contend that PG&E has failed to provide reasonable assurance that it will be able to fund, in the manner specified in 10 C.F.R. § 72.22(e), the estimated construction costs of the proposed ISFSI?

B. In what specific respects does SLOC contend that PG&E has failed to provide reasonable assurance that it will be able to fund, in the manner specified in 10 C.F.R. § 72.22(e), the estimated operating costs over the planned life of the ISFSI?

C. In what specific respects does SLOC contend that PG&E has failed to provide in its ISFSI application: "Estimated decommissioning costs, and the necessary financial arrangements to provide reasonable assurance before licensing, that decommissioning will be carried out after the removal of spent

fuel, high-level radioactive waste, and/or reactor-related GTCC waste from storage?"

RESPONSE TO INTERROGATORY 2

A.
CEC, ABCSD, CPUC and SLOC contend that Pacific Gas & Electric Company ("PG&E") has failed to provide the Board a basis for making the required reasonable assurance finding, during the pendency of the bankruptcy proceeding, that PG&E will be able to fund the estimated construction costs of the proposed Independent Spent Fuel Storage Installation ("ISFSI") in the manner specified in 10 C.F.R. § 72.22(e). Specifically, absent formal approval from the CPUC, PG&E will not be able to fund construction of the ISFSI from rates. PG&E has represented itself in this proceeding as a CPUC-regulated utility, however, its position in the bankruptcy proceeding makes it uncertain whether PG&E will have access to ratepayer funding for the ISFSI.

B.
CEC, ABCSD, CPUC and SLOC contend that Pacific Gas & Electric Company ("PG&E") has failed to provide reasonable assurance that it will be able to fund the estimated operating costs of the proposed Independent Spent Fuel Storage Installation ("ISFSI") in the manner specified in 10 C.F.R. § 72.22(e). Specifically, absent formal approval from the CPUC, PG&E will not be able to fund operation of the ISFSI from rates. PG&E has represented itself in this proceeding as a CPUC-regulated utility, however, given its representations in the bankruptcy proceeding, it is uncertain whether PG&E will have access to ratepayer funding for operation of the ISFSI.

C.

CEC, ABCSD, CPUC and SLOC contend that PG&E has failed to provide reasonable assurance that it will be able to make the necessary financial arrangements to provide reasonable assurance before licensing, that decommissioning of the proposed Independent Spent Fuel Storage Installation ("ISFSI") will be carried out after the removal of spent fuel from storage, because, as long as there is a pending bankruptcy there is uncertainty over the entity that will have final authority over the ISFSI and whether that entity will have access to the decommissioning fund held in trust by the CPUC. See responses to A and B above.

INTERROGATORY 3

Please identify, and provide a statement of professional qualifications for, the SLOC, expert(s) who will provide, in accordance with 10 C.F.R. § 2.1113(a), "all supporting facts and data in the form of sworn written testimony or other sworn written submission," in support of Contention TC-2.

RESPONSE TO INTERROGATORY 3

CEC, ABCSD, CPUC and SLOC intend to rely on the following expert whose statement of professional qualifications is attached:

- Mr. Truman Burns

RESPONSE TO REQUEST FOR PRODUCTION OF DOCUMENTS

CEC, ABCSD, CPUC and SLOC intend, at this time, to rely on the attached documents from PG&E's 2003 General Rate Case, A.02-11-017, currently pending before the CPUC, from PG&E's 2002 Nuclear Decommissioning Triennial Proceeding, as well as on the following publicly available documents:

- PG&E Plan of Reorganization in PG&E Bankruptcy case
- CPUC Plan of Reorganization in PG&E Bankruptcy case

These publicly available documents can be found at the following website:

http://www.pge.com/court_docs/

Should CEC, ABCSD, CPUC and SLOC determine to rely on additional documents, they will provide the NRC staff copies of those documents or direction to locate publicly available documents, as applicable, as soon as that determination of reliance has been made.

Submitted by,

Darcie L. Houck,
Staff Counsel
California Energy Commission

Robert K. Temple, Esq.
Sheldon L. Trubatch,
Counsel for the County of San Luis Obispo

Christopher Helenius, President
Avila Beach Community Services District

Laurence G. Chaset, Esq., Attorney
California Public Utilities Commission

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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|---|---|---|
| In the Matter of | ) | |
| | ) | |
| PACIFIC GAS & ELECTRIC CO. | ) | Docket No. 72-26-ISFSI |
| | ) | |
| (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation) | ) | ASLBP No. 02-801-01-ISFSI |
| | ) | |

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "California Energy Commission's, Avila Beach Community Services District's, California Public Utilities Commission's, and San Luis Obispo County's Response to NRC Staff's Interrogatories and Request for Production" have been served upon the following persons by United States mail, first class; and by electronic mail as indicated by an asterisk (*) on this 31st day of January 2003.

G. Paul Bollwerk, III
Administrative Judge*
Atomic Safety & Licensing Board Panel
U.S. Nuclear Regulatory Commission
Mail Stop: T-3F23
Washington, D.C. 20555
E-mail: gpb@nrc.gov

Peter S. Lam
Administrative Judge*
Atomic Safety & Licensing Board Panel
U.S. Nuclear Regulatory Commission
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Washington, D.C. 20555
E-mail: psl@nrc.gov

Atomic Safety & Licensing Board Panel
U.S. Nuclear Regulatory Commission
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Jerry R. Kline*
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kjerry@erols.com

Office of Commission Appellate Adjudication
U.S. Nuclear Regulatory Commission
Mail Stop: O-16C1
Washington, D.C. 20555

Office of the Secretary*
ATTN: Rulemakings & Adjudications Staff
U.S. Nuclear Regulatory Commission
Mail Stop: O-16C1
Washington, D.C. 20555
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Chairman
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Vice President
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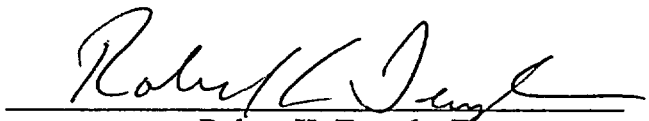
Dated this 31st day of January 2003



Robert K. Temple, Esq.
2524 N. Maplewood Avenue
Chicago, IL 60647
nuclaw@mindspring.com

**Statement of Professional Qualifications for Mr. Truman Burns**
**505 Van Ness Avenue**
**San Francisco, California 94102**
**415-703-1825**

## Education

| | | | |
|---|---|---|---|
| University of California, Davis | B.A. | Political Science and English | 1983 |
| University of California, Davis | M.A. | Political Science | 1985 |
| University of San Francisco | JD | | 1991 |

**Member of the California Bar since 1993**

## Relevant Employment History (1986 to present)

**California Public Utilities Commission**
**505 Van Ness Avenue**
**San Francisco, CA 94102**

| | |
|---|---|
| **Public Utilities Regulatory Analyst - V** | **2002 – Current** |
| **Public Utilities Regulatory Analyst - IV** | **1998 – 2002** |
| **Public Utilities Regulatory Analyst - III** | **1991 – 1998** |
| **Public Utilities Regulatory Analyst - II** | **1988 – 1991** |
| **Public Utilities Regulatory Analyst - I** | **1986 – 1988** |

**Office of Ratepayer Advocates**

Analyzed rate applications and provided testimony before the California Public Utilities Commission relating to Pacific Gas & Electric Company's Diablo Canyon Nuclear Power Plant on subjects including:

- The 1988 Diablo Canyon rate settlement
- target capacity factor
- decommissioning costs
- long term operating costs
- utility retained generation capital, and
- operating costs

Analyzed rate applications and provided testimony before the California Public Utilities Commission relating to Southern California Edison's San Onofre Nuclear Power Plant Units 2 & 3 on subjects including:

- utility retained generation capital, and
- plant operating costs

Analyzed rate applications and provided testimony before the California Public Utilities Commission relating to Southern California Edison's San Onofre Nuclear Power Plant Unit 1 on subjects including:

- environmental costs, and
- rate-base recovery.

In addition, Mr. Burns has analyzed rate applications and provided testimony before the California Public Utilities Commission in numerous other matters relating to water companies, gas companies and telecommunications companies, and has testified in numerous hearings before the California Legislature and the California Energy Commission.

# Excerpts from PG&E's 2002 Nuclear Decommissioning Triennial Proceeding

# PACIFIC GAS AND ELECTRIC COMPANY
# 2003 GENERAL RATE CASE
# ORA DATA RESPONSE TRANSMITTAL

TO: Martin G. Lyons, GRC Project Coordinator
Office of Ratepayer Advocates
California Public Utilities Commission
State Building
505 Van Ness Avenue, Room 4205
San Francisco, CA 94102

FROM: GRC Coordinators
Pacific Gas and Electric Company
Revenue Requirements Department
77 Beale Street, Room 971
San Francisco, CA 94105

*Mailing Address:* Mail Code B9A
P.O. Box 770000
San Francisco, CA 94177

DATE: October 30, 2002

PG&E Data Response No.: ORA 0061-14

CPUC WITNESS: Truman Burns

ITEM NO(S).:

ORA Data Request No.: P-TXB-061

PG&E WITNESS: Lawrence Womack

ITEM NO(S).:

NOTES:

Regarding the response to the above referenced data request.

This confirms that a copy of this material was hand-delivered to the CPUC on 10/30/02.
This transmittal does/does not contain confidential material protected under CPUC Code 583.

Sent by: Travis Graumann

Travis Graumann

cc w/encl.:

# PACIFIC GAS AND ELECTRIC COMPANY
## 2003 General Rate Case
## A.02-_____
## Data Response

| | | | |
|---|---|---|---|
| PG&E Data Request No.: | ORA_0061-14 | | |
| PG&E File Name: | GRC2003-Ph-I_DR_ORA_0061-14 | | |
| Request Date: | October 11, 2002 | Requester Data Request No.: | P-TXB-061 |
| Date Sent: | October 30, 2002 | Requesting Party: | ORA |
| PG&E Witness: | Lawrence Womack | Requester: | Truman L. Burns |

**QUESTION 14**

Referring to page 1-13, lines 25-32, could additional space be freed up by re-racking the spent fuel rods in the spent fuel pools? If not, please explain why not.

**ANSWER 14**

PG&E did consider reracking of the Diablo Canyon spent fuel pools to provide additional space for the spent fuel rods. This option was not pursued because complete reracking would require major upgrades to Diablo Canyon's spent fuel pool cooling system. These upgrades would be very costly and would not provide a benefit to decommissioning the reactor plant at end of license.

# PACIFIC GAS AND ELECTRIC COMPANY
# 2003 GENERAL RATE CASE
# ORA DATA RESPONSE TRANSMITTAL

TO: Martin G. Lyons, GRC Project Coordinator
Office of Ratepayer Advocates
California Public Utilities Commission
State Building
505 Van Ness Avenue, Room 4205
San Francisco, CA 94102

FROM: GRC Coordinators
Pacific Gas and Electric Company
Revenue Requirements Department
77 Beale Street, Room 971
San Francisco, CA 94105

*Mailing Address:* Mail Code B9A
P.O. Box 770000
San Francisco, CA 94177

DATE: November 20, 2002
PG&E Data Response No.: ORA 0099-09
CPUC WITNESS: Truman Burns
ITEM NO(S).:
ORA Data Request No.: P-TXB-099
PG&E WITNESS: Dave Miklush
ITEM NO(S).:

NOTES:
Response regarding the response to the above referenced data request.

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Sent by: Travis Graumann

cc w/encl.: Dave Braumann

# PACIFIC GAS AND ELECTRIC COMPANY
## 2003 General Rate Case
## Application 02-11-017
## Data Response

| | | | |
|---|---|---|---|
| PG&E Data Request No.: | ORA_0099-09 | | |
| PG&E File Name: | GRC2003-Ph-I_DR_ORA_0099-09 | | |
| Request Date: | November 4, 2002 | Requester DR No.: | P-TXB-099 |
| Date Sent: | November 20, 2002 | Requesting Party: | ORA |
| PG&E Witness: | David Miklush | Requester: | Truman Burns |

**QUESTION 9**

Referring to page 4-19, lines 15-31, what does PG&E do to minimize the out-of-core inventory?

**ANSWER 9**

PG&E takes several steps to minimize out-of-core inventory. Fuel components are delivered just in time to meet contract delivery commitments. Loading patterns are designed to optimize the use of fuel assemblies already in the core, and to minimize the amount of fresh fuel needed for each refueling outage. Flexibilities negotiated in the fuel component supply contracts allow a reduction in the quantities to be ordered if final requirements are less than projected. These contract flexibilities also allow PG&E to reduce the quantity of the out-of-core inventory needed to ensure security of supply.

# PACIFIC GAS AND ELECTRIC COMPANY
# 2003 GENERAL RATE CASE
# ORA DATA RESPONSE TRANSMITTAL

TO: Martin G. Lyons, GRC Project Coordinator
Office of Ratepayer Advocates
California Public Utilities Commission
State Building
505 Van Ness Avenue, Room 4205
San Francisco, CA 94102

FROM: GRC Coordinators
Pacific Gas and Electric Company
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77 Beale Street, Room 971
San Francisco, CA 94105

*Mailing Address:* Mail Code B9A
P.O. Box 770000
San Francisco, CA 94177

DATE: November 20, 2002
PG&E Data Response No.: ORA 0099-10
CPUC WITNESS: Truman Burns
ITEM NO(S).:
ORA Data Request No.: P-TXB-099
PG&E WITNESS: Dave Miklush
ITEM NO(S).:

NOTES:
Response regarding the response to the above referenced data request.

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Sent by: Travis Graumann

cc w/encl.: Dave Haumann

# PACIFIC GAS AND ELECTRIC COMPANY
## 2003 General Rate Case
## Application 02-11-017
## Data Response

| | | | |
|---|---|---|---|
| PG&E Data Request No.: | ORA_0099-10 | | |
| PG&E File Name: | GRC2003-Ph-I_DR_ORA_0099-10 | | |
| Request Date: | November 4, 2002 | Requester DR No.: | P-TXB-099 |
| Date Sent: | November 20, 2002 | Requesting Party: | ORA |
| PG&E Witness: | David Miklush | Requester: | Truman Burns |

**QUESTION 10**

Referring to question 9 above, what percentage of the fuel assemblies are typically replaced during a refueling outage?

**ANSWER 10**

There are 193 fuel assemblies in each unit. During each refueling outage either 45.6% or 47.7% of the assemblies are replaced (88 or 92 new assemblies, respectively). The actual number of fresh assemblies needed for each cycle depends on the number of months of operation required for each new operating cycle.

# PACIFIC GAS AND ELECTRIC COMPANY
## 2003 GENERAL RATE CASE
## ORA DATA RESPONSE TRANSMITTAL

TO: Martin G. Lyons, GRC Project Coordinator
Office of Ratepayer Advocates
California Public Utilities Commission
State Building
505 Van Ness Avenue, Room 4205
San Francisco, CA 94102

FROM: GRC Coordinators
Pacific Gas and Electric Company
Revenue Requirements Department
77 Beale Street, Room 971
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*Mailing Address:* Mail Code B9A
P.O. Box 770000
San Francisco, CA 94177

DATE: November 20, 2002
PG&E Data Response No.: ORA_0099-12
CPUC WITNESS: Truman Burns
ITEM NO(S).:
ORA Data Request No.: P-TXB-099
PG&E WITNESS: Dave Miklush
ITEM NO(S).:

NOTES:
Response regarding the response to the above referenced data request.

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This transmittal does/does not contain confidential material protected under CPUC Code 583.

Sent by: Travis Graumann

cc w/encl.: Dave Maurer

# PACIFIC GAS AND ELECTRIC COMPANY
## 2003 General Rate Case
## Application 02-11-017
## Data Response

| | | | |
|---|---|---|---|
| PG&E Data Request No.: | ORA_0099-12 | | |
| PG&E File Name: | GRC2003-Ph-I_DR_ORA_0099-12 | | |
| Request Date: | November 4, 2002 | Requester DR No.: | P-TXB-099 |
| Date Sent: | November 20, 2002 | Requesting Party: | ORA |
| PG&E Witness: | David Miklush | Requester: | Truman Burns |

**QUESTION 12**

Referring to page 4-20, line 25 to page 4-21, lines 3, are spent fuel pool capital and O&M costs recovered through base rates or from the decommissioning trust funds?

**ANSWER 12**

The spent fuel pool Capital and O&M costs are recovered in base rates.

# PACIFIC GAS AND ELECTRIC COMPANY
# 2003 GENERAL RATE CASE
# ORA DATA RESPONSE TRANSMITTAL

TO: Martin G. Lyons, GRC Project Coordinator
Office of Ratepayer Advocates
California Public Utilities Commission
State Building
505 Van Ness Avenue, Room 4205
San Francisco, CA 94102

FROM: GRC Coordinators
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Revenue Requirements Department
77 Beale Street, Room 971
San Francisco, CA 94105

*Mailing Address:* Mail Code B9A
P.O. Box 770000
San Francisco, CA 94177

DATE: November 20, 2002
PG&E Data Response No.: ORA_0099-13
CPUC WITNESS: Truman Burns
ITEM NO(S).:
ORA Data Request No.: P-TXB-099
PG&E WITNESS: Dave Miklush
ITEM NO(S).:

NOTES:
Response regarding the response to the above referenced data request.

This confirms that a copy of this material was hand-delivered to the CPUC on 11/20/02.
This transmittal does/does not contain confidential material protected under CPUC Code 583.

Sent by: Travis Graumann

cc w/encl.:

# PACIFIC GAS AND ELECTRIC COMPANY
## 2003 General Rate Case
## Application 02-11-017
## Data Response

| | | | |
|---|---|---|---|
| PG&E Data Request No.: | ORA_0099-13 | | |
| PG&E File Name: | GRC2003-Ph-I_DR_ORA_0099-13 | | |
| Request Date: | November 4, 2002 | Requester DR No.: | P-TXB-099 |
| Date Sent: | November 20, 2002 | Requesting Party: | ORA |
| PG&E Witness: | David Miklush | Requester: | Truman Burns |

**QUESTION 13**

Referring to question 12 above, will interim spent fuel storage installation O&M costs be recovered through base rates or from the decommissioning trust funds?

**ANSWER 13**

The interim storage spent fuel storage O&M costs will be recovered through base rates.

# PACIFIC GAS AND ELECTRIC COMPANY
# 2003 GENERAL RATE CASE
# ORA DATA RESPONSE TRANSMITTAL

TO: Martin G. Lyons, GRC Project Coordinator
Office of Ratepayer Advocates
California Public Utilities Commission
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505 Van Ness Avenue, Room 4205
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FROM: GRC Coordinators
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*Mailing Address:* Mail Code B9A
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San Francisco, CA 94177

DATE: November 20, 2002
PG&E Data Response No.: ORA 0099-14
CPUC WITNESS: Truman Burns
ITEM NO(S).:
ORA Data Request No.: P-TXB-099
PG&E WITNESS: Dave Miklush
ITEM NO(S).:

NOTES:
Response regarding the response to the above referenced data request.

This confirms that a copy of this material was hand-delivered to the CPUC on 11/20/02.
This transmittal does/does not contain confidential material protected under CPUC Code 583.

Sent by: Travis Graumann
Dave Graumann

cc w/encl.:

# PACIFIC GAS AND ELECTRIC COMPANY
## 2003 General Rate Case
## Application 02-11-017
## Data Response

| | | | |
|---|---|---|---|
| PG&E Data Request No.: | ORA_0099-14 | | |
| PG&E File Name: | GRC2003-Ph-I_DR_ORA_0099-14 | | |
| Request Date: | November 4, 2002 | Requester DR No.: | P-TXB-099 |
| Date Sent: | November 20, 2002 | Requesting Party: | ORA |
| PG&E Witness: | David Miklush | Requester: | Truman Burns |

**QUESTION 14**

Referring to question 12 above, when does PG&E expect the federal spent fuel repository to begin accepting spent fuel?

**ANSWER 14**

PG&E is not certain when the federal spent fuel repository will begin accepting spent fuel. The earliest the Yucca Mountain facility could be licensed and built is 2010. Based on a 2010 opening of Yucca Mountain the soonest PG&E could expect Diablo Canyon fuel to be accepted is 2018.

# PACIFIC GAS AND ELECTRIC COMPANY
# 2003 GENERAL RATE CASE
# ORA DATA RESPONSE TRANSMITTAL

TO: Martin G. Lyons, GRC Project Coordinator
Office of Ratepayer Advocates
California Public Utilities Commission
State Building
505 Van Ness Avenue, Room 4205
San Francisco, CA 94102

FROM: GRC Coordinators
Pacific Gas and Electric Company
Revenue Requirements Department
77 Beale Street, Room 971
San Francisco, CA 94105

*Mailing Address:* Mail Code B9A
P.O. Box 770000
San Francisco, CA 94177

DATE: November 20, 2002

PG&E Data Response No.: ORA_0099-15

CPUC WITNESS: Truman Burns

ITEM NO(S).:

ORA Data Request No.: P-TXB-099

PG&E WITNESS: Dave Miklush

ITEM NO(S).:

NOTES:

Response regarding the response to the above referenced data request.

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This transmittal does/does not contain confidential material protected under CPUC Code 583.

Sent by: Travis Graumann

cc w/encl.: Dave Kaumann

# PACIFIC GAS AND ELECTRIC COMPANY
## 2003 General Rate Case
## Application 02-11-017
## Data Response

| | | | |
|---|---|---|---|
| PG&E Data Request No.: | ORA_0099-15 | | |
| PG&E File Name: | GRC2003-Ph-I_DR_ORA_0099-15 | | |
| Request Date: | November 4, 2002 | Requester DR No.: | P-TXB-099 |
| Date Sent: | November 20, 2002 | Requesting Party: | ORA |
| PG&E Witness: | David Miklush | Requester: | Truman Burns |

**QUESTION 15**

Referring to question 12 above, is PG&E paying a fee to the federal government for the proposed federal spent fuel repository? If so, can PG&E be reimbursed for delays in opening the repository?

**ANSWER 15**

PG&E pays a $0.001/kWhr fee for all electrical generation transmitted from the plant, or approximately $16 million per year. This fee is mandated by the federal government in the 1989 Nuclear Waste Policy Act and applies to all U.S. utilities with nuclear power plants. PG&E is a participant of an industry-wide effort seeking a settlement with the US DOE for the recovery of increased operating costs due to the delay in opening Yucca Mountain. As of November 2002, none of the efforts to negotiate or litigate settlements with the US DOE to recover these costs has been successful.

# PACIFIC GAS AND ELECTRIC COMPANY
# 2003 GENERAL RATE CASE :
# ORA DATA RESPONSE TRANSMITTAL

TO: Martin G. Lyons, GRC Project Coordinator
Office of Ratepayer Advocates
California Public Utilities Commission
State Building
505 Van Ness Avenue, Room 4205
San Francisco, CA 94102

FROM: GRC Coordinators
Pacific Gas and Electric Company
Revenue Requirements Department
77 Beale Street, Room 971
San Francisco, CA 94105

*Mailing Address:* Mail Code B9A
P.O. Box 770000
San Francisco, CA 94177

DATE: November 20, 2002
PG&E Data Response No.: ORA 0099-16

CPUC WITNESS: Truman L. Burns
ITEM NO(S).: 16

ORA Data Request No.: P-TXB-099

PG&E WITNESS: Dave Miklush
ITEM NO(S).: 16

NOTES:

Response regarding the response to the above referenced data request.

NOV 20 2002

This confirms that a copy of this material was hand-delivered to the CPUC on _____
This transmittal does/does not contain confidential material protected under CPUC Code 583.

Sent by: Larry Nixon

cc w/encl.:

# PACIFIC GAS AND ELECTRIC COMPANY
## 2003 General Rate Case
## Application 02-11-017
## Data Response

| | | | |
|---|---|---|---|
| PG&E Data Request No.: | ORA_0099-16 | | |
| PG&E File Name: | GRC2003-Ph-I_DR_ORA_0099-16 | | |
| Request Date: | November 4, 2002 | Requester DR No.: | P-TXB-099 |
| Date Sent: | November 20, 2002 | Requesting Party: | ORA |
| PG&E Witness: | David Miklush | Requester: | Truman Burns |

**QUESTION 16**

Page 4-20, line 33 to page 4-21, line 1 states

> "This facility will be sized to allow Diablo Canyon to run through its current licensed life."

Will the ISFSI be sized to take all spent fuel assemblies through the end of Diablo Canyon's currently licensed life, or just up to the opening of the federal spent fuel repository?

**ANSWER 16**

If PG&E builds the Diablo Canyon ISFSI, to the full extent of the license request, the facility can handle all DCPP fuel through the licensed life of both units.

# PACIFIC GAS AND ELECTRIC COMPANY
# 2003 GENERAL RATE CASE
# ORA DATA RESPONSE TRANSMITTAL

TO: Martin G. Lyons, GRC Project Coordinator
Office of Ratepayer Advocates
California Public Utilities Commission
State Building
505 Van Ness Avenue, Room 4205
San Francisco, CA 94102

FROM: GRC Coordinators
Pacific Gas and Electric Company
Revenue Requirements Department
77 Beale Street, Room 971
San Francisco, CA 94105

*Mailing Address:* Mail Code B9A
P.O. Box 770000
San Francisco, CA 94177

DATE: January 13, 2003
PG&E Data Response No.: ORA_0212-05
CPUC WITNESS: Truman L. Burns
ITEM NO(S).:
ORA Data Request No.: P-TXB-212
PG&E WITNESS: David Miklush
ITEM NO(S).:

NOTES:
Response to the above-referenced data request.

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Sent by: Lynn Chas. Riser
Lynn Chas. Riser

cc w/encl.:

# PACIFIC GAS AND ELECTRIC COMPANY
## 2003 General Rate Case
## Application 02-11-017
## Data Response

| | | | |
|---|---|---|---|
| PG&E Data Request No.: | ORA_0212-05 | | |
| PG&E File Name: | GRC2003-Ph-I_DR_ORA_0212-05 | | |
| Request Date: | December 31, 2002 | Requester DR No.: | P-TXB-212 |
| Date Sent: | January 13, 2003 | Requesting Party: | ORA |
| PG&E Witness: | David Miklush | Requester: | Truman L. Burns |

**QUESTION 5**

Referring to Table 4-13, line item 3 and page 4-23, please provide any additional work papers substantiating the 2005 forecast cost of $12 million for the Interim Fuel Storage Installation.

**ANSWER 5**

Referring to Table 4-13, line item 3 and page 4-23 - The table below reflects the 2005 forecast expenditures of $12 million for the Interim Fuel Storage Installation based upon the current contract and current implementation plan.

| | |
|---|---|
| Pad Construction | $4 million |
| Cask & Overpacks | $3 million |
| Ancillary Equip | $3 million |
| Cask Loading | $2 million |
| | $12 million |

(U 39 M)

Application No.: _____
Exhibit No.: (PG&E-10)
Date: _____
Witness: Various

A.02-11-017
A.02-09-005

# PACIFIC GAS AND ELECTRIC COMPANY

## 2003 TEST YEAR

## RETAINED GENERATION RESULTS OF OPERATIONS

the outside of the tube. Based on the results of PG&E's tube inspection program and predictions of crack growth rates, it will be necessary to chemically remove these deposits, to arrest outside tube diameter cracking. Without this one-time maintenance work, there would be a need to install protective sleeves on the steam generator tubes to extend their lives until the time projected for steam generator replacement. Tube sleeves are very expensive, result in extensive inspection requirements and extended refueling outages.

- Interim Spent Fuel Storage Installation (ISFSI):

Diablo Canyon's spent fuel pools are approaching their storage capacity. The original plan was for spent fuel to be disposed of at a federal repository, or recycled at a fuel reprocessing plant. Neither of these options is available, nor will they be in the foreseeable future. To allow Diablo Canyon to continue to operate past 2006, PG&E is permitting and building an interim spent fuel storage facility scheduled to be completed in 2005. The spent fuel can then be stored dry in an inert environment, within a shielded cask on a newly constructed cask storage pad. This facility will be sized to allow Diablo Canyon to run through its current licensed life. The forecast costs include support for license hearings, support for the NRC process and the early stages of design completion.

- Intake Structure:

Ongoing concrete repairs are required because the intake structure concrete is experiencing an acceleration in corrosion damage, particularly for the existing delaminated concrete areas. From corrosion experience at the intake structure, the increased repair costs are expected to range from 10 to 15 percent per year. Due to the continuing loss of reinforcing steel and reduction of the bond strength between the concrete and the steel there will be further adverse impacts on structural capacities of degraded concrete elements. This may affect the structure's design and licensing bases and could effect operation of the plant.

- Refuel Water Purification Project

# Table 4-13
## Pacific Gas and Electric Company
## Diablo Canyon
## One Time O&M Forecast Adjustments
## 2001 $000

| Line No. | FERC Act. | Process | Project Description | Basis Of Estimate* | Recorded 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 519 | Manage DCPP Plant Assets | Refuel Water Purification Project | 1 | | | 1,000 | | |
| 2 | 524 | Manage Business & Information Management | Software Infrastructure | 1 | | 1,000 | 1,000 | | 1,000 |
| 3 | 524 | Manage Engineering Assets & Maintain License & Used Fuel Storage | Interim Spnt Fuel Storage Installation | 2 | 8,900 | (3,000) | (1,000) | 0 | (2,000) |
| 4 | 524 | Manage DCPP Plant Assets | Outage Bonus(Labor) | 3 | 500 | (500) | (500) | (500) | (500) |
| 5 | 524 | Manage Business & Information Management | INPO Dues (not paid in 2001) = ? delete ? | 4 | | (1,500) | (1,500) | (1,500) | (1,500) |
| 6 | 524 | Loss Prevention | Emergency Planning Fund | 4 | 2,000 | (1,000) | (1,000) | (1,000) | (1,000) |
| 7 | 524 | Loss Prevention | Security Ehancements resulting from 9/11(Labor) | 3 | | 2,000 | 2,000 | 2,000 | 2,000 |
| 8 | | | Subtotal( Act. 524) | | | 0 | 2,000 | 2,000 | 15,000 |
| 9 | 529 | Manage DCPP Plant Assets | Intake Structure | | | | 500 | 500 | |
| 10 | 530 | Manage DCPP Plant Assets | Unit 2 Internal Upflow Modification | 1 | | | 1,000 | 1,000 | 1,000 |
| 11 | 530 | Manage DCPP Plant Assets | Reactor Head Penetration Inspection | 1 | | | | 1,000 | |
| 12 | 530 | Manage DCPP Plant Assets | Reactor Coolant Pump | 3 | | | | 3,000 | |
| 13 | | | Subtotal(Act. 530) | | | 0 | 1,000 | 5,000 | 1,000 |
| 14 | 531 | Manage DCPP Plant Assets | Turbine Rotor Repairs | | 11,500 | 6,700 | (1,500) | (5,500) | (6,500) |
| 15 | 531 | Manage DCPP Plant Assets | Steam Generator Chemical Cleaning | 5 | | | 10,000 | 1,000 | 1,000 |
| 16 | 531 | Manage DCPP Plant Assets | Additional Outage (2 outage/year) Labor | 3 | | | | 10,188 | |
| 17 | 531 | Manage DCPP Plant Assets | Additional Outage (2 outage/year) Non-Labor | 3 | | | | 22,000 | |
| 18 | | | Subtotal(Act 531) | | | 6,700 | 8,500 | 35,688 | (5,500) |
| 19 | | | Total | | | 6,700 | 9,000 | 45,188 | (10,500) |

*Basis Of Estimate:
1 Engineering Estimate
2 Contract
3 Historic cost
4 Actual Invoice
5 Vendor Proposal

Application No.: 02-03-020
(U 39 M)
Exhibit No.:
Date: April 1, 2002

# PACIFIC GAS AND ELECTRIC COMPANY

# 2002 NUCLEAR DECOMMISSIONING COST TRIENNIAL PROCEEDING

# WORKPAPERS SUPPORTING CHAPTER 4

- Design/procurement and testing of tooling and equipment;
- Identification/selection of specialty contractors;
- Procedures for removing and disposing of radioactive materials; and
- Sequential planning of activities to minimize conflicts with simultaneous tasks.

Site Preparations

Following final plant shutdown and in preparation for actual decommissioning activities, the following activities are initiated.

- Prepare site support and storage facilities, as required.
- Perform site characterization study to determine extent of site contamination.
- Isolate spent fuel storage services and fuel handling systems located in the Fuel Handling Buildings from the power block such that decommissioning operations can commence on the balance of the plant. This activity may be carried out by existing plant personnel in accordance with existing operating technical specifications. Decommissioning operations are assumed to be scheduled around the Fuel Handling Buildings to the greatest extent possible such that the overall project schedule is optimized. Current dry storage cask designs are licensed for spent fuel with a core discharge decay time averaging approximately five years or longer. Considering the longer fuel cycles and higher fuel burnup, the fuel at DCPP may require up to twelve years of active cooling before being relocated to dry storage. Therefore, decommissioning operations for the Fuel Handling Buildings cannot be expected to begin prior to twelve years after the cessation of plant operations. As spent fuel decays to the point that it meets the heat load criteria of the dry storage casks, it will be transferred either to the on-site ISFSI or to the DOE high-level waste repository. It is assumed that all fuel is transferred from the Fuel Handling Buildings within approximately 12 years after cessation of operations at each unit.
- Clean all plant areas of loose contamination and process all liquid and solid wastes.

ponding and inhibit the refloating of subsurface materials. Activities include:

- Demolition of the remaining portions of the containment structure and interior portions of the Reactor Building. Internal floors and walls are removed from the lower levels upward, using controlled blasting techniques. Concrete rubble and clean fill produced by demolition activities are used on site to backfill voids. Suitable materials can be used on site for fill; other wise the rubble is trucked off site for disposal as construction debris.

- Removal of remaining buildings using conventional demolition techniques for above ground structures, including the Turbine Building, Auxiliary Building, Fuel Handling Buildings, and other site structures, including the Breakwater.

- Preparation of the final dismantling program report.

2.1.4 Post-Period 3 - ISFSI Operations and Demolition

Following the transfer of the spent fuel inventory from the Fuel Handling Buildings, the ISFSI will continue to operate under a separate and independent license (§72). Transfer of spent fuel to a DOE or interim facility will be exclusively from the ISFSI once the fuel pool structures have been emptied and the released for decommissioning. Assuming initiation of the federal Waste Management System in 2010, transfer of spent fuel is assumed to begin in 2018 and continue for a period of approximately 22 years, with the final spent fuel shipment presumed to occur in the year 2040.

At the conclusion of the spent fuel transfer process, the ISFSI will be decommissioned. Long-term exposure from the spent fuel assemblies will have produced low-level neutron activation of the interior surfaces of the dry storage modules to levels exceeding current release limits. Consequently, portions of the modules will be disposed of as low-level radioactive waste.

The NRC will terminate the §72 license if it determines that site remediation has been performed in accordance with a license termination plan and the terminal radiation survey and associated documentation demonstrate that the facility is suitable for release. Once

the requirements are satisfied, the NRC can terminate the license for the ISFSI.

The reinforced concrete dry storage modules are then demolished and disposed of as clean fill, the concrete loading ramps are removed, and the area graded and landscaped to conform with the surrounding environment.

## 2.2 SAFSTOR

The NRC defines SAFSTOR as "the alternative in which the nuclear facility is placed and maintained in a condition that allows the nuclear facility to be safely stored and subsequently decontaminated (deferred decontamination) to levels that permit release for unrestricted use." The facility is left intact, (during the SAFSTOR period) with structures maintained in a sound condition. Systems not required to operate in support of the spent fuel pool or site surveillance and security are drained, de-energized, and secured. Minimal cleaning/removal of loose contamination and/or fixation and sealing of remaining contamination is performed. Access to contaminated areas is secured to provide controlled access for inspection and maintenance.

The engineering and planning requirements are similar to those for the DECON alternative, although a shorter time period is expected for these activities due to the more limited work scope. Site preparations are also similar to those for the DECON alternative. However, with the exception of the required radiation surveys and site characterizations, the mobilization and preparation of site facilities is less extensive.

### 2.2.1 Period 1 - Operations

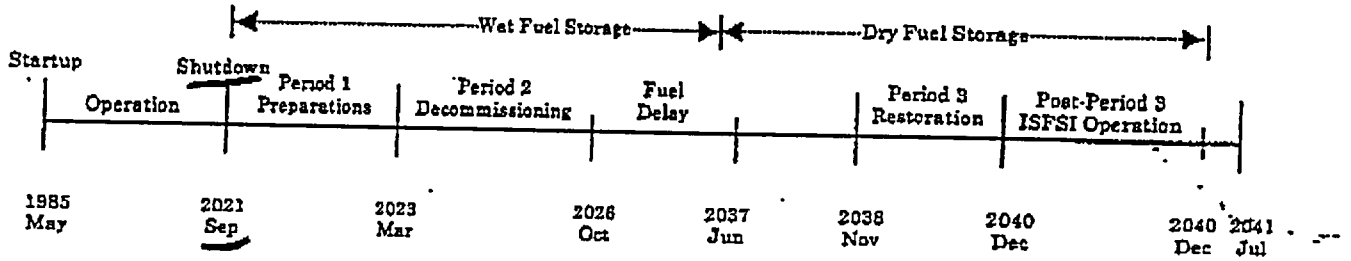
In anticipation of the cessation of plant operations, detailed preparations are undertaken to provide a smooth transition from plant operations to site decommissioning. While implementing the staffing transition plan, the organization required to manage the intended decommissioning program is assembled from available plant staff and outside resources. Preparations include the planning for permanent defueling of the reactor, revision of technical specifications appropriate to the operating conditions and requirements, characterization of the facility and major components, and development of the PSDAR.

The program outlined in the PSDAR will be designed to accomplish the required tasks within the ALARA guidelines for protection of personnel

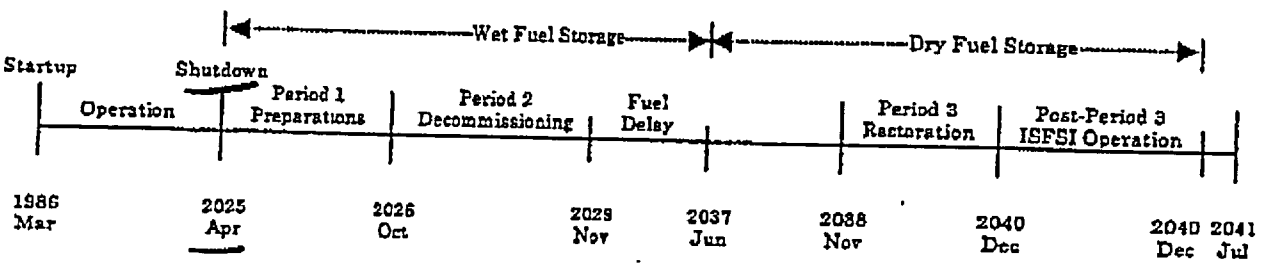
# FIGURE 4.2a

## DECON DECOMMISSIONING TIMELINES

### DCPP UNIT 1




### DCPP UNIT 2




NOT TO SCALE

TABLE 6.1

SUMMARY OF DECON DECOMMISSIONING COST CONTRIBUTORS

| Work Category | Costs 02$ (thousands)[1] | Percent of Total Costs[1] |
|---|---|---|
| **Unit 1** | | |
| Decontamination | 15,820 | 2.7 |
| Removal | 87,382 | 15.2 |
| Packaging | 12,939 | 2.2 |
| Shipping | 4,847 | 0.8 |
| Burial or Recycling (Off Site) | 125,518 | 21.8 |
| Decommissioning Staffs | 216,926 | 37.7 |
| Spent Fuel Management | 56,555 | 9.8 |
| Other[2] | 55,857 | 9.7 |
| **Subtotal** | **575,844** | **100.0** |
| **Unit 2 & Common** | | |
| Decontamination | 17,738 | 2.2 |
| Removal | 118,997 | 14.9 |
| Packaging | 12,890 | 1.6 |
| Shipping | 4,814 | 0.6 |
| Burial or Recycling (Off Site) | 125,670 | 15.7 |
| Decommissioning Staffs | 242,727 | 30.3 |
| Breakwater Removal | 165,533 | 20.7 |
| Spent Fuel Management | 56,555 | 7.1 |
| Other[2] | 56,397 | 7.0 |
| **Subtotal** | **801,321** | **100.0** |
| **Station Total (with contingency)** | **1,377,165** | |

1. Columns may not add due to rounding.
2. Other includes engineering & preparations, undistributed costs, NRC Fees, EP Fees and Maintenance Costs, etc.

## TABLE 6.2

## SUMMARY OF SAFSTOR DECOMMISSIONING COST CONTRIBUTORS

| Work Category | Costs 02$ (thousands)[1] | Percent of Total Costs[1] |
|---|---|---|
| **Unit 1** | | |
| Decontamination | 10,500 | 1.8 |
| Removal | 81,960 | 14.0 |
| Packaging | 11,322 | 1.9 |
| Shipping | 3,112 | 0.5 |
| Burial or Recycling (Off Site) | 111,620 | 19.1 |
| Decommissioning Staffs | 242,806 | 41.6 |
| Spent Fuel Management | 56,555 | 9.7 |
| Other[2] | 65,575 | 11.2 |
| **Subtotal** | **583,451** | **100.0** |
| **Unit 2 & Common** | | |
| Decontamination | 15,026 | 1.9 |
| Removal | 114,523 | 14.7 |
| Packaging | 11,440 | 1.5 |
| Shipping | 3,180 | 0.4 |
| Burial or Recycling (Off Site) | 114,897 | 14.7 |
| Decommissioning Staffs | 231,998 | 29.8 |
| Breakwater Removal | 165,533 | 21.2 |
| Spent Fuel Management | 56,555 | 7.3 |
| Other[2] | 66,392 | 8.5 |
| **Subtotal** | **779,543** | **100.0** |
| **Station Total (with contingency)** | **1,362,994** | |

1. Columns may not add due to rounding.
2. Other includes engineering & preparations, undistributed costs, NRC Fees, EP Fees and Maintenance Costs, etc.