June 14, 2004

Mr. Gregory M. Rueger
Senior Vice President - Generation
and Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Nuclear Power Plant
P. O. Box 3
Avila Beach, CA 94177

SUBJECT: HUMBOLDT BAY NUCLEAR POWER PLANT - REVIEW AND PRELIMINARY APPROVAL OF SPENT FUEL MANAGEMENT PROGRAM (TAC L52613)

Pursuant to the provisions of 10 CFR 50.54(bb), reactor licensees that have permanently shutdown are required to submit for Nuclear Regulatory Commission (NRC) approval a program for the long-term management and funding of spent fuel storage. Pacific Gas and Electric Company (PG&E), the owner and licensee of the permanently shutdown Humboldt Bay nuclear power plant, submitted a letter to the NRC dated September 26, 2000, addressing Humboldt Bay's spent fuel management program. Additional information was provided by PG&E in a letter to the NRC dated January 6, 2004. The NRC also considered information contained in PG&E's annual decommissioning funding report for Humboldt Bay dated March 31, 2004, supplemented by a documented e-mail clarification from your staff dated May 20, 2004.

Based on the attached review, the NRC finds that PG&E, the owner and licensee of Humboldt Bay, has an adequate program for long-term management and funding of its spent fuel storage until such time that title and possession of the fuel is transferred to the Department of Energy for its ultimate disposal in a repository as specified in 10 CFR 50.54(bb). This letter represents a preliminary approval of the spent fuel management program. Final NRC review of the spent fuel management plan will be undertaken as part of Humboldt Bay's application for licensing a dry cask storage independent spent fuel storage installation under 10 CFR Part 72.

Sincerely,

/RA/

William C. Huffman, Project Manager
Decommissioning Directorate
Division of Waste Management
and Environmental Protection
Office of Nuclear Material Safety
and Safeguards

Docket No.: 50-133
Docket No.: 72-27

Enclosure: As stated

cc w/encls: See next page

June 14, 2004

Mr. Gregory M. Rueger
Senior Vice President - Generation
and Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Nuclear Power Plant
P. O. Box 3
Avila Beach, CA 94177

SUBJECT: HUMBOLDT BAY NUCLEAR POWER PLANT - REVIEW AND PRELIMINARY APPROVAL OF SPENT FUEL MANAGEMENT PROGRAM (TAC L52613)

Pursuant to the provisions of 10 CFR 50.54(bb), reactor licensees that have permanently shutdown are required to submit for Nuclear Regulatory Commission (NRC) approval a program for the long-term management and funding of spent fuel storage. Pacific Gas and Electric Company (PG&E), the owner and licensee of the permanently shutdown Humboldt Bay nuclear power plant, submitted a letter to the NRC dated September 26, 2000, addressing Humboldt Bay's spent fuel management program. Additional information was provided by PG&E in a letter to the NRC dated January 6, 2004. The NRC also considered information contained in PG&E's annual decommissioning funding report for Humboldt Bay dated March 31, 2004, supplemented by a documented e-mail clarification from your staff dated May 20, 2004.

Based on the attached review, the NRC finds that PG&E, the owner and licensee of Humboldt Bay, has an adequate program for long-term management and funding of its spent fuel storage until such time that title and possession of the fuel is transferred to the Department of Energy for its ultimate disposal in a repository as specified in 10 CFR 50.54(bb). This letter represents a preliminary approval of the spent fuel management program. Final NRC review of the spent fuel management plan will be undertaken as part of Humboldt Bay's application for licensing a dry cask storage independent spent fuel storage installation under 10 CFR Part 72.

Sincerely,
/RA/
William C. Huffman, Project Manager
Decommissioning Directorate
Division of Waste Management
and Environmental Protection
Office of Nuclear Material Safety
and Safeguards

Docket No.: 50-133
Docket No.: 72-27

Enclosure: As stated

cc w/encls: See next page

DISTRIBUTION

DCD r/f	JGreeves	DGillen	CCraig	CBurhkhalter	
BThomas	CPittiglio	STreby	EGarcia	BSpitzberg	JMonninger

ML041670192 *See Previous Concurrence

OFC	DECD	DECD/LA	NRR/DRIP/RPRP	OGC	DECD/SC
NAME	WHuffman*	CBurkhalter*	CPittiglio*	STreby (NLO)*	CCraig*
DATE	05/26/04	05/26/04	06/01/04	06/09/04	06/14/04

OFFICIAL RECORD

cc:

Mr. Lawrence F. Womack, Vice Presiden,
Power Generation & Nuclear Services
Diablo Canyon Power Plant
P. O. Box 56
Avila Beach, CA 93424

Mr. Roy Willis, Plant Manager
Humboldt Bay Nuclear Power Plant
Pacific Gas & Electric Company
1000 King Salmon Avenue
Eureka, CA 95503

R. Terry Nelson, Director
Fossil Generation
Mail Code N11E
Pacific Gas & Electric Company
P.O. Box 770000
San Francisco, California 94177-0001

Christopher J. Warner, Esq.
Law Department
Pacific Gas & Electric Company
Post Office Box 7442
San Francisco, CA 94120

Chairman, Humboldt County Board
  of Supervisors
County Courthouse
825 Fifth Street
Eureka, CA 95501

Mr. Steve Hsu
Radiologic Health Branch
State Department of Health Services
P.O. Box 997414 (MS 7610)
Sacramento, CA 95899-7414

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064

California Public Utilities Commission
505 Van Ness, Room 4102
San Francisco, CA 94102

Redwood Alliance
P.O. Box 293
Arcana, CA 95521

Dr. Rich Ferguson, Energy Chair
Sierra Club California
1100 11th Street, Suite 311
Sacramento, CA 94814

Mr. Ed Bailey, Radiation Program Director
Radiologic Health Branch
State Department of Health Services
P.O. Box 997414 (MS 7610)
Sacramento, CA 95899-7414

Commissioner
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Deputy Attorney General
State of California
110 West A Street, Suite 700
San Diego, CA 92101

PRELIMINARY APPROVAL BY

THE OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

OF THE SPENT FUEL MANAGEMENT AND FUNDING PROGRAM

FOR HUMBOLDT BAY NUCLEAR POWER PLANT

1.0 INTRODUCTION

Pursuant to 10 CFR 50.54(bb), nuclear power reactors that have permanently ceased operation must submit a spent fuel management and funding program to the Nuclear Regulatory Commission (NRC) for review and preliminary approval. The program must describe how the licensee intends to manage and provide funding for the management of spent fuel until such time that title and possession of the fuel is transferred to the Department of Energy for its ultimate disposal in a repository.

2.0 BACKGROUND

The Humboldt Bay nuclear power plant was permanently shutdown in July 1976, and has been in SAFSTOR ever since. Spent fuel has been and continues to be stored in the facility's spent fuel pool. A decommissioning plan was approved in July 1988. Subsequent to the 1996 decommissioning rule, the licensee converted the decommissioning plan into its Defueled Safety Analysis Report (DSAR) which is now updated every two years. A Post-Shutdown Decommissioning Activities Report (PSDAR) was issued by the licensee in February 1998. At the time the PSDAR was issued, the licensee's primary decommissioning scenario was that spent fuel would remained stored in the spent fuel pool until 2015 at which time it would be transferred to DOE. Active decommissioning of the facility would not commence until after 2015.

Pacific Gas and Electric (PG&E) letter HBL-85-005 dated February 28, 1985, explained that the operating budget for maintaining the SAFSTOR condition for the permanently shutdown Humboldt Bay nuclear power plant is authorized by the California Public Utility Commission (CPUC) to be included in the utility's base rates. The costs of maintaining Humboldt Bay in SAFSTOR, including costs associated with storage of the spent fuel in the spent fuel pool, are therefore funded on an annual basis from the utility's operating budget.

In PG&E letter HBL-00-016 dated September 26, 2000, the licensee reaffirmed that the current costs associated with storage of the spent fuel in the spent fuel pool continue to be funded annually from the utility's operating budget. However, PG&E noted that it was pursuing the licensing and (depending on the licensing outcome) construction of a spent fuel dry cask storage independent spent fuel storage installation (ISFSI) for long-term storage of spent fuel.

In 2003, PG&E was committing significant financial resources towards the licensing of a dry cask storage ISFSI. Because the Humboldt Bay decommissioning trust fund was not previously identified as a source of monies for long-term spent fuel management, it was unclear as to how the monies in the decommissioning trust fund were allocated in support of the ISFSI-related expenditures (i.e., engineering, licensing, construction, and operation). Furthermore, the NRC staff also needed to understand how ISFSI expenditures from the decommissioning trust fund would impact the ability to complete radiological decommissioning of the facility since the trust currently is not fully funded. NRC letter dated October 6, 2003, requested additional information from PG&E concerning funding of the ISFSI licensing effort and how the spent fuel management and funding plan was affected.

PG&E responded to the request for additional information in a letter dated January 6, 2004 (HBL-04-001). The NRC also considered information contained in PG&E's annual decommissioning funding report for Humboldt Bay dated March 31, 2004, supplemented by a documented e-mail clarification dated May 20, 2004 (ADAMS Accession No. ML041470095).

3.0 DISCUSSION

Based on the most recent request for funding to the California Public Utility Commission (CPUC) via the Nuclear Decommissioning Cost Triennial Proceeding, PG&E has revised the primary decommissioning scenario for the Humboldt Bay facility. In December 2003, PG&E formally submitted a license application to the NRC for approval of a dry cask ISFSI at the Humboldt Bay site. If the NRC approves the Humboldt ISFSI license application, PG&E will likely decide to construct the ISFSI and begin active decommissioning of the facility in 2006. For long-term spent fuel storage cost calculations, PG&E still assumes that the fuel will be removed from the Humboldt Bay site by the Department of Energy in 2015.

The licensee estimates that the total costs associated with the long-term management of spent fuel in dry cask storage from the ISFSI licensing to decommissioning will be $68 million (2004 Dollars) of which approximately $5.5 million has been disbursed through the end of 2003. Because these anticipated ISFSI costs are not covered by the annual operating budget, PG&E recently recognized that a 10 CFR 50.54(bb) fund needed to be established to clearly enumerate how monies are collected, reserved and expended for ISFSI related expenses. As a consequence, PG&E has developed an accounting spreadsheet to partition their decommissioning trust fund into three areas—1) radiological decommissioning costs; 2) non-radiological decommissioning costs and; 3) ISFSI and spent fuel management related costs.

At the end of 2003, the Humboldt decommissioning trust fund balance was $213.9 million. The following table summarizes the information provided by PG&E on the allocation of funds within the decommissioning trust for each cost area including the 10 CFR 50.54(bb) spent fuel management funding for dry cask ISFSI storage of spent fuel. The table also includes known future additions to the funds authorized by the CPUC and current unfunded balances.

Humboldt Bay Decommissioning Funding Status
as of December 31, 2003
($ in Millions)

	Radiological Decommissioning	Non-Radiological Decommissioning	ISFSI * Related	Total
Trust Account Balance	$172.9	$1.1	$39.9	$213.9
Additional Funds to be Collected	$41	$0.2	0.3	$41.5
Fund Shortfall (Estimated Remaining Funds Needed to Complete Each Activity)	$53.8	$2.1	$22.3	$78.2
Total Estimated Costs	$267.7	$3.4	$62.5	$333.6

*The ISFSI related costs include engineering, licensing, construction, operation, and decommissioning costs and for the purpose of this review, are lumped together as the 10 CFR 50.54(bb) costs.

PG&E believes that a significant portion of the funding shortfalls will be obtained from investment growth of the decommissioning trust and tax-savings related to the way the trust is set up. PG&E also notes that any future shortfalls caused by poor investment returns or unforseen expenses would necessitate requests for additional rate recovery from the CPUC to fully fund the decommissioning activities in each trust sector. The information in the above table are based on a site-specific decommissioning cost estimate prepared by TLG Services (as adjusted by certain factors dictated during the most recent CPUC Nuclear Decommissioning Cost Triennial Proceeding).

The staff notes that the Humboldt Bay decommissioning trust fund contains monies for spent fuel management in support of 10 CFR 50.54 (bb) and non-radiological decommissioning activities, in addition to the radiological decommissioning funds in support of 10 CFR 50.82 activities. Consistent with regulatory Statements of Consideration concerning the spent fuel management program (e.g., 67 FR 78332, 78340 (December 24, 2002); 61 FR 39278, 39285 (July 29, 1996)), the decommissioning regulations do not prohibit commingling of decommissioning funds with spent fuel management (ISFSI) funds and other non-radiological decommissioning funds, provided the licensee ensures that separate sub-accounts are established so funds for each type of activity are appropriately identified. PG&E states in its January 6, 2004 letter, to the staff that a decommissioning spreadsheet has been established as an accounting mechanism to maintain this segregation of funds. It is the staff's understanding that PG&E will adhere to the intent of this funding segregation and does not intend on moving monies between funds to address funding shortfalls for accounting convenience.

The NRC staff finds the spent fuel management cost estimates to be reasonable based on a cost comparison with a similar decommissioning reactor (Big Rock Point) while acknowledging the large uncertainties and site specific variances. The staff recognizes the current funding shortfalls. However, the licensee’s plan to cover the shortfall is reasonable. In addition, the annual decommissioning funding status report submitted pursuant to 10 CFR 50.75(f)(1) will provide information to assess the licensee’s performance with regard to funding the shortfalls, and can serve as the basis for staff action, if necessary. The staff finds that the licensee’s proposed plan for the transfer of spent fuel to an ISFSI and associated funding mechanism does not result in a loss of reasonable assurance that adequate funds will be available when needed to complete radiological decommissioning of the site.

4.0 CONCLUSION

The NRC staff finds that the revised PG&E plan for the long-term storage of spent fuel is adequate and provides sufficient details on associated funding mechanisms. Therefore, the staff concludes that the PG&E spent fuel management program for Humboldt Bay complies with 10 CFR 50.54(bb) and approves the program on a preliminary basis. Final Commission review of the spent fuel management program will be undertaken as part of the current dry cask storage licensing application review for the Humboldt Bay 10 CFR Part 72.

Principal contributor: William Huffman

Dated: May 25, 2004