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OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

February 29, 2008

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
PACIFIC GAS AND ELECTRIC COMPANY)	Docket No. 72-26-ISFSI
)	
(Diablo Canyon Power Plant Independent Spent Fuel Storage Installation))	ASLBP No. 08-860-01-ISFSI-BD01

NRC STAFF'S SUPPLEMENTAL RESPONSE TO SAN LUIS
OBISPO MOTHERS FOR PEACE'S FIRST SET OF DISCOVERY REQUESTS

Pursuant to *Scheduling and Management Order for Discovery* dated January 24, 2008, and 10 C.F.R. § 2.740(e)(1), the Staff hereby provides the following supplement to its initial response¹ to San Luis Obispo Mothers For Peace's discovery request.² In response to General Interrogatories 6, 7 and 8, the Staff provides the following additional information.

In addition to the Staff witnesses identified in the Staff's initial discovery response, the Staff has identified David D. Brown as potential expert witness. Mr. Brown would testify on the subject of the admitted contention regarding land contamination. His professional qualifications are contained in the attached resume. The Staff has also identified the following references that may be relied on by the identified witnesses:

Manual of Protective Action Guides and Protective Actions for Nuclear Incidents. Document No. EPA 400-R-92-001, U.S. Environmental Protection Agency, 1992

¹ "NRC Staff's Response and Objections to San Luis Obispo Mothers for Peace's First Set of Discovery Requests to NRC Staff," February 22, 2008 ("Staff's initial discovery response")

² "San Luis Obispo Mothers for Peace's First Set of Discovery Requests to NRC Staff," February 6, 2008.

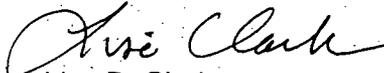
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"Protective Action Guides for Radiological Dispersal Device (RDD) and Improvised Nuclear Device (IND) Incidents," U.S. Department of Homeland Security, 71 FR 174-01 (January 3, 2006)

Diablo Canyon, Units 1 & 2 – Final Safety Analysis Report Update, Revision 17, November 16, 2006 (ADAMS Accession Nos. ML063260260 and ML063260263)

Respectfully submitted,



Lisa B. Clark
Molly Barkman
Counsel for NRC Staff

Dated at Rockville, MD
This 29th day of February, 2008

David D. Brown, CHP
Mail Stop 0-8F5 U.S. Nuclear Regulatory Commission 20555
(301) 415-6116

RELEVANT PROFESSIONAL EXPERIENCE

U.S. NUCLEAR REGULATORY COMMISSION (NRC) ROCKVILLE, MD

Senior Project Manager September 2007 to present
Office of Federal and State Materials
and Environmental Management Programs

- Manage projects relating to low-level waste disposal and environmental reviews, including NRC consultation to the U.S. Department of Energy on its activities relating to incidental waste

Senior Assistant for Materials October 2005 to September 2007
Office of Commissioner McGaffigan

- Analyze technical and policy issues arising from the NRC nuclear material and waste programs and provide advice and recommendations to Commissioner McGaffigan

Senior Health Physicist April 2005 through October 2005
Office of Nuclear Material Safety & Safeguards

- Prepared technical analyses in support of license termination at complex decommissioning sites, and developed technical guidance for improving the NRC decommissioning program

Senior Project Manager September 2004 to April 2005
Office of Nuclear Material Safety & Safeguards

- Responsible for management of a project to authorize construction of a Mixed Oxide Fuel Fabrication Facility (MFFF) near Aiken, South Carolina
- Responsibilities included coordinating the safety, safeguards, and environmental reviews for the MFFF between multiple NRC technical staff and contractors, and staff from supporting NRC program offices, such as Nuclear Reactor Regulation, Nuclear Security and Incident Response, and Nuclear Regulatory Research

Health Physicist June 2000 to September 2004
Office of Nuclear Material Safety & Safeguards

- Served as deputy to the senior project manager for the MFFF licensing project, with primary role as liaison between safety and environmental reviews performed by separate Divisions
- Lead reviewer in the areas of both radiation safety and environmental protection on applications for a uranium-plutonium mixed oxide (MOX) fuel fabrication facility and two gas centrifuge uranium enrichment facilities

URS CORPORATION / DAMES & MOORE GROUP

Senior Health Physicist

October 1994 to May 2000

- Project Manager for writing Final Status Survey Plans and Reports and Project Completion Reports in accordance with the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM).
- Technical Lead for the West Valley Demonstration Project (WVDP) Remote Handled Waste Project Preliminary Safety Analysis Report.
- WVDP nuclear safety analyst. As one of five available nuclear safety analysts, I wrote and reviewed Unreviewed Safety Question Determinations and USQ safety evaluations, and safety analysis reports (SARs) as part of maintaining the WVDP Authorization Basis.
- Performed and reviewed radiation shielding design, including designs for the Remote Handled Waste Facility at the WVDP and WVDP main plant cell demolition.
- Provided general technical support for WVDP compliance with 40 CFR 61, Subpart H (radionuclide NESHAP), the standard applicable to the WVDP for radioactivity emissions to the atmosphere.
- Provided technical expertise in preparing data quality objectives (DQOs) for environmental and waste management sampling activities.
- Wrote and peer reviewed environmental data evaluation reports, including the WVDP Monthly Trend Analysis Report, the annual Site Environmental Report, Effluent Information System/On-Site Discharge Information System report and the air emissions annual report to the EPA (i.e., NESHAP report).
- Investigated trends of radioactivity concentrations in WVDP air and liquid effluents and environmental surveillance samples. Prepared reports and presentations on these investigations for WVDP management, DOE and regulatory agencies.
- Provided troubleshooting and method development expertise for radiochemistry procedures used by both the on-site WVDP Environmental Laboratory and subcontracted off-site laboratories.
- Provided technical support to WVDP Waste Management, including low-level radioactive waste assay system calibration, maintenance and operations procedure writing and waste stream characterization support.

David D. Brown, 12316 Needle Drive, Clarksburg, MD 20871-9341

CLEMSON UNIVERSITY

Chemist II and Radiation Safety Officer

February 1994 to October 1994

- Developed and tested radiochemical procedures towards the understanding of radionuclide migration through basalt and sedimentary interbed material in the Snake River Plain (Idaho National Engineering Laboratory).
- Planned, organized, and administered departmental radiation safety program in accordance with South Carolina regulations.

Graduate Teaching/ Research Assistant

August 1990 to February 1994

- Graduate Research/Teaching Assistant. Conducted feasibility study on the measurement of elevated radiocarbon levels in vegetation in the vicinity of nuclear power plants. Performed radiation safety tasks including source leak tests, contamination monitoring, licensing and inventories, and personnel dosimetry.
- Teaching assistant for graduate courses in environmental risk assessment and environmental radiation detection.

EDUCATION

CLEMSON UNIVERSITY

CLEMSON, SC

Master of Science in Environmental Health Physics August 1993

MUHLENBERG COLLEGE

ALLENTOWN, PA

Bachelor of Science in Physics

May 1990

PUBLICATIONS AND PRESENTATIONS

- Persinko, A. and Brown, D.D. June 23-27, 2002. Mixed Oxide Fuel Fabrication Facility: U.S. NRC Regulations and Construction Safety Assessment. 43rd Annual Meeting of the Institute for Nuclear Materials Management, Orlando, Florida.
- Fjeld, R.A., DeVol, T.A., Goff, R.W., Blevins, M.D., Brown, D.D., Ince, S.M., Elzerman, A.W., and Newman, M.E., "Characterization of the Mobilities of Selected Actinides and Fission/Activation Products in Laboratory Columns Containing Subsurface Material from the Snake River Plain," *Nuclear Technology*, vol. 135, August 2001.
- DeVol, T.A., Brown, D.D., Leyba, J.D., and Fjeld, R.A. 1994. A Comparison of Four Aqueous-Miscible Liquid Scintillation Cocktails with a Alpha/Beta Discriminating Wallac 1415 Liquid Scintillation Counter. *Health Physics* vol. 70, no. 1, January 1996.

David D. Brown, 12316 Needle Drive, Clarksburg, MD 20871-9341

- Leyba, J.D., Volmar, H.S., Fjeld, R.A., DeVol, T.A., Brown, D.D., Cadieux, J.R. 1994. Evaluation of a Direct Extraction/Liquid Scintillation Counting Technique for the Measurement of Uranium in Water. *Journal of Radioanalytical and Nuclear Chemistry* vol. 194, no. 2, 1995.
- Brown, D.D., Fjeld, R.A., and Cadieux, J.R. October 11-15, 1993. Evaluation of the Minimum Detectable Concentrations of U-234/-238 and Am-241 in Aqueous Solutions by Liquid-Liquid Extraction and Alpha Liquid Scintillation Spectrometry. 39th Annual Conference on Bioassay, Analytical and Environmental Radiochemistry, Colorado Springs, Colorado.
- Brown, D.D., Fjeld, R.A., and Cadieux, J.R. January 24-28, 1993. Minimum Detectable Concentrations of Actinides Using Liquid-Liquid Extraction and Liquid Scintillation Counting with Pulse Shape Discrimination. 26th Mid-year Topical Meeting of the Health Physics Society on Environmental Health Physics. Coeur d'Alene, Idaho.
- Brown, D.D., Sowder, A.G., Fjeld, R.A., and Cadieux, J.R. June 21-25, 1992. Evaluation of Combined Liquid-Liquid Extraction and Alpha Liquid Scintillation for the Measurement of Alpha-Emitting Radionuclides. 37th Annual Meeting of the Health Physics Society, Columbus, Ohio.

PROFESSIONAL AFFILIATIONS

- Health Physics Society, since 1992
Baltimore-Washington Chapter of the HPS, 2000-present

CERTIFICATIONS AND AWARDS

- U.S. NRC Certificate of Appreciation; July 2005
- U.S. NRC Special Act Award; July 2005
- U.S. NRC / NMSS Employee of the Month, March 2005
- U.S. NRC Group Award; December 2004
- U.S. NRC Performance Awards; December 2001, December 2003
- U.S. NRC Instant Cash Award, August 2003
- Certified Project Manager; NRC's Acquisition Training and Certification Program, May 2003
- United States Patent 6,303,936, October 16, 2001
- Certified Health Physicist, November 1999; re-certified through 2011
- Two West Valley Nuclear Services Level II Top Performer Awards: May 1998 and November 1998

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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PACIFIC GAS & ELECTRIC CO.)	Docket No. 72-26-ISFSI
)	
(Diablo Canyon Power Plant Independent)	ASLBP No. 08-860-01-ISFSI-BD01
Spent Fuel Storage Installation))	

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S SUPPLEMENTAL RESPONSE TO SAN LUIS OBISPO MOTHERS FOR PEACE'S FIRST SET OF DISCOVERY REQUESTS" in the above-captioned proceedings have been served on the following by deposit in the United States mail; through deposit in the Nuclear Regulatory Commission's internal system as indicated by an asterisk (*), and by electronic mail as indicated by a double asterisk (**) on this 29th day of February, 2008.

E. Roy Hawken * **
Chief Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Mail Stop: T 3-F23 *
Washington, D.C. 20555

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