



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 21, 2012

LICENSEE: Pacific Gas and Electric Company

FACILITY: Diablo Canyon Power Plant, Unit Nos. 1 and 2

SUBJECT: SUMMARY OF JANUARY 18, 2012, MEETING WITH PACIFIC GAS AND ELECTRIC COMPANY ON DIGITAL REPLACEMENT OF THE PROCESS PROTECTION SYSTEM PORTION OF THE REACTOR TRIP SYSTEM AND ENGINEERED SAFETY FEATURES ACTUATION SYSTEM AT DIABLO CANYON POWER PLANT (TAC NOS. ME7522 AND ME7523)

On January 18, 2012, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Pacific Gas and Electric Company (PG&E, the licensee) at the Embassy Suites Hotel, 333 Madonna Road, San Luis Obispo, California 93405. The purpose of the meeting was to discuss the license amendment request (LAR) submitted by PG&E on October 26, 2011, for the Digital Replacement of the Process Protection System (PPS) Portion of the Reactor Trip System and Engineered Safety Features Actuation System at Diablo Canyon Power Plant, Unit Nos. 1 and 2 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML113070457). A list of attendees is provided in Enclosure 1.

The NRC staff discussed the results of its acceptance review of PG&E's LAR contained in a letter dated January 13, 2012 (ADAMS Accession No. ML120120005). This discussion consisted of an explanation of the acceptance review process and the regulatory requirements of Title 10 of the *Code of Federal Regulations* for LARs. Additionally, the staff addressed several items that may present challenges to the performance of a detailed technical evaluation of the proposed PPS replacement system. These open items are discussed in detail in the acceptance review letter mentioned above. The licensee was given an opportunity to address each of the open items following the NRC presentation. The NRC staff requested that PG&E submit written responses to these open review items within 60 days of the date of the acceptance review letter to facilitate a timely review of the amendment request.

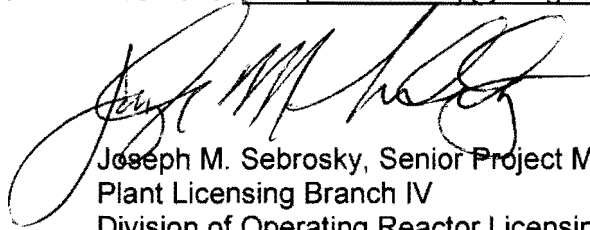
The NRC staff further discussed its review plan for the amendment request and associated milestones to illustrate anticipated interactions between the NRC staff and the licensee and its contractors. The NRC review plan is provided in Enclosure 2. The technical review of the LAR is expected to take approximately 18 months and be completed in late 2013. The NRC staff plans to conduct two audits with a third audit likely during the review process. The staff also anticipates presenting the safety bases for approving the LAR to the Advisory Committee on Reactor Safeguards and may request licensee support.

Finally, the NRC staff addressed the status and review plan for the issuance of safety evaluations for the Invensys Operations Management Tricon Programmable Logic Controller (PLC), Version 10 (Tricon V10), and the CS Innovations, LLC Advanced Logic System (ALS).

The licensee presented information (ADAMS Accession No. ML120250057) on the status of the ALS and Tricon V10 platform development and factory acceptance testing as well as observations and comments on the effectiveness of Digital Instrumentation and Controls Interim Staff Guidance DI&C-ISG-06¹.

Members of the public were in attendance. A Public Meeting Feedback form was received and expressed appreciation for the time taken by the NRC to explain the discussion topics in such a way as to allow understanding of the material by the general public. This comment has been forwarded to the NRR Senior Communications Analyst who will forward them to the Office of the Executive Director for Operations.

Please direct any inquiries to me at 301-415-1132 or at Joseph.Sebrosky@nrc.gov.



Joseph M. Sebrosky, Senior Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-275 and 50-323

Enclosures:

1. List of Attendees
2. Review Plan

cc w/encls: Distribution via Listserv

¹ U.S. Nuclear Regulatory Commission, Digital Instrumentation and Controls, DI&C-ISG-06, "Task Working Group #6: Licensing Process, Interim Staff Guidance, Revision 1," dated January 19, 2011 (ADAMS Accession No. ML110140103).

LIST OF ATTENDEES

JANUARY 18, 2012, MEETING WITH PACIFIC GAS AND ELECTRIC COMPANY

REGARDING

DIABLO CANYON POWER PLANT DIGITAL UPGRADE

<u>NAME</u>	<u>ORGANIZATION</u>
Sherry Lewis	Mothers for Peace
Jane Swanson	Mothers for Peace
Liz Apfelberg	Mothers for Peace
Ken Schrader	Pacific Gas and Electric
Jeff Bonner	Pacific Gas and Electric
Dave Van Mouwerik	Pacific Gas and Electric
Bob Lint	Altran
John Hefler	Altran
Bill Petrick	Altran
Edward Quinn	Altran
Steve Seaman	Westinghouse
Warren Odess-Gillett	Westinghouse
Roman Shaffer	Invensys
Ken Thompson	Avila Valley Advisory Council
Gene Nelson, Ph.D	Biometrics
Steve Lynch	U.S. Nuclear Regulatory Commission
Bill Kemper	U.S. Nuclear Regulatory Commission
Rich Stattel	U.S. Nuclear Regulatory Commission

**Project Plan for Diablo Canyon Replacement of Digital RPS and
ESFAS (PPS) - LAR Review
(DRAFT)**

Step	Planned Date	Task	Actual Date
1	Oct. 26, 2011	PG&E LAR Submittal for NRC approval. Submittal includes all Phase 1 documents needed to be docketed prior to acceptance for review per ISG-06, "Digital Licensing."	Oct. 26, 2011
2	Jan. 12, 2012	Acceptance Review complete. LAR accepted for detailed technical review. Several issues identified that could present challenges for the staff to complete its review. Scheduled public meeting with PG&E to discuss the results of the acceptance review.	Jan. 12, 2012
3	TBD	Acceptance letter sent to licensee.	
4	Jan. 18, 2012	Conduct Public Meeting to discuss staff's findings during the LAR acceptance review. Staff proceeds with LAR technical review.	Jan. 18, 2012
5	March 18, 2012	PG&E provides information requested in acceptance letter. Initiate bi-weekly telecoms with PG&E and its contractors to discuss potential RAI issues. Open Items spreadsheet will be maintained by NRC to document staff issues and planned licensee responses.	
6	May 30, 2012	PG&E provides partial set of Phase 2 documentation per commitments made in LAR.	
7	July 2012	First RAI sent to PG&E on Phase 1 documentation (e.g., specifications, plans, and equipment qualification). Continue review of the application.	
8	TBD	SERs for Tricon V10 and Westinghouse ALS Platforms issued final. Both platforms become Tier 1 reviews of the LAR.	
9	September 2012	Audit trip to Invensys facility for thread audit; audit the life cycle planning documents and outputs, with particular emphases on verification and validation, configuration management, quality assurance, software safety, the Invensys application software development procedures, and application software program design.	
10	September 2012	Receive answers to first RAI.	
11	October 2012	Audit report provided to PG&E and its contractor.	

Step	Planned Date	Task	Actual Date
12	November 2012	Second RAI to PG&E on Phase 2 documentation (e.g., FEMA, safety analysis, RTM, EQ Tests results, setpoint calcs, SW Tool analysis reports, and any incomplete or un-satisfactory response to first RAI. Continue review - hardware and program design and V&V activities	
13	December 2012	PG&E provides remaining set of Phase 2 documentation per commitments made in LAR.	
14	January 2013	Receive answers to second RAI. Continue review - V&V program, security requirements (RG 1.152, Rev. 2).	
15	January 2013	Audit trip to Invensys facility for additional thread audit items; audit hardware and software installation plans, configuration management reports, detailed system and hardware design, completed test procedures, V&V activities, summary test results (including FAT) and incident reports, and application code listings.	
16	February 2013	Audit report provided to PG&E and its contractor.	
17	June 2013	Presentation to ACRS Subcommittee/Full ACRS Committee on DCPD PPS LAR Safety Evaluation.	
18	June 2013	Complete draft technical SER for management review and approval.	
19	July 2, 2013	Issue completed draft technical SER to DORL.	
20	July 2013	Draft SER sent it to PG&E, Invensys, and W/CSI to perform technical review and ensure no proprietary information was included.	
21	August 2013	Receive comments from PG&E and its contractors on draft SER proprietary review.	
22	~Oct. 2013	Approved License Amendment issued to PG&E.	
23	~Dec. 2013	Inspection trip to DCPD for PPS SAT and installation test, training and other preparation for new system. To be coordinated with regional visit. Date based on February 2014 Unit 1 Refueling Outage (1R18) of February 2014.	

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Please direct any inquiries to me at 301-415-1132 or at Joseph.Sebrosky@nrc.gov.

/RA/

Joseph M. Sebrosky, Senior Project Manager
Plant Licensing Branch IV
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LChang, EDO RIV

ADAMS Accession Nos. Meeting Notice ML120130135; Meeting Summary ML120400651; Licensee Handout ML120250057 *via email

OFFICE	DORL/LPL4/PMIT	DORL/LPL4/PM	DORL/LPL4/LA	DE/EICB/BC	DORL/LPL4/BC	DORL/LPL4/PM
NAME	SLynch	JSebrosky	JBurkhardt	WKemper*	MMarkley	JSebrosky
DATE	2/12/12	2/21/12	2/16/12	2/21/12	2/21/12	2/21/12

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