



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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March 3, 2004

Gregory M. Rueger, Senior Vice
President, Generation and
Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Power Plant
P.O. Box 3
Avila Beach, CA 93424

**SUBJECT: ANNUAL ASSESSMENT LETTER - DIABLO CANYON POWER PLANT
(REPORT 05000275; 50-323/2004001)**

Dear Mr. Rueger:

On February 3, 2004, the NRC staff completed its end-of-cycle plant performance assessment of Diablo Canyon Power Plant. The end-of-cycle review for Diablo Canyon involved the participation of all technical divisions in evaluating performance indicators (PI's) for the most recent quarter and inspection results from January 1 through December 31, 2003. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility so that you will have an opportunity to prepare for these inspections and to inform us of any planned inspections that may conflict with your plant activities.

Overall, Diablo Canyon operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter, as well as the first three quarters of the assessment cycle, was within the Licensee Response Column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct only baseline inspections and Temporary Instructions (TI) 2515/150, "Reactor Vessel Head and Vessel Head Penetration Nozzles;" TI 2515/152, "Reactor Pressure Vessel Lower Head Penetration Nozzles;" TI 2515/153, "Reactor Containment Sump Blockage;" and TI 2515/154 "Spent Fuel Material Control and Accounting at Nuclear Power," at your facility through September 30, 2005.

Additionally, the staff has identified a substantive crosscutting issue in the area of problem identification and resolution. This substantive crosscutting issue has been identified based on a number of corrective action findings. Specifically, there were degraded conditions identified by your staff during this assessment period where the extent of condition was not always fully addressed. In addition, there were examples of long-standing degraded conditions and conditions identified by industry operating experience that involved inadequate root cause and poor problem analysis. The findings included activities performed by operations, maintenance, and engineering personnel. Three examples of the failure to establish the extent of condition and implement effective corrective actions involved repetitive diesel engine generator voltage

card failures, governor failures, and oil coking. For these examples, symptomatic conditions existed for an extended period of time before the causes were identified and corrected.

The long-standing degraded conditions involved multiple degraded safety-related battery chargers for Units 1 and 2 that experienced high failure rates during a 3.5-year period. Although the individual safety-related battery charger failures were identified, the root cause for the multiple failures was not determined until the NRC staff questioned the adequacy of the problem analysis. The failure to determine the extent of condition also contributed to an inadequate operability evaluation for the battery chargers.

Two examples of ineffective corrective actions for operating experience were identified that were casually linked to the problem identification and resolution substantive crosscutting issue. Specifically, industry experience for Borg-Warner check valves and Edward-Rockwell valves were not adequately analyzed (poor problem analysis) such that corrective actions for previous industry failures were not incorporated at Diablo Canyon to prevent subsequent failures in safety-related systems.

The NRC will monitor your efforts in determining the root cause(s) for the problem identification and resolution substantive crosscutting issue during our implementation of the routine baseline inspection program. In addition, this crosscutting issue will be reviewed as part of the problem identification and resolution inspection scheduled for June 2004.

In our midcycle assessment letter dated August 27, 2003, we advised you of a substantive crosscutting issue in the area of human performance. As previously discussed, the issues contributed to a number of Green findings identified in the initiating events, mitigating systems, barrier integrity, and occupational radiation safety cornerstones. The findings included activities performed by operations and maintenance personnel, and the majority of the errors involved instances of failing to ensure procedure quality or failing to follow procedures. A number of the human performance issues occurred during the previous Unit 2 refueling outage.

The NRC has conducted focused baseline inspections in response to this human performance substantive crosscutting issue. As discussed in our August 27 letter, a significant number of the issues that were assessed in the substantive crosscutting issue occurred during the performance of the previous Unit 2 refueling outage. The NRC staff has reviewed human performance since the last Unit 2 refueling outage and has not identified similar causally-linked human performance issues that occurred since then. However, we will assess the effectiveness of your corrective actions during the scheduled 2004 Unit 1 refueling outage and during the problem identification and resolution inspection scheduled for June 2004. These focused baseline inspection efforts will include your efforts in determining the root cause(s) of the human performance. In addition, the NRC will be requesting a meeting with your staff to review your activities to address the human performance crosscutting issue.

As you are aware, the NRC has issued several Orders and threat advisories to enhance security capabilities and improve guard force readiness since the terrorist attacks on September 11, 2001. We have conducted inspections to review your implementation of these requirements and have monitored your actions in response to changing threat conditions. For calendar year 2004, we plan to continue inspections of Order implementation combined with newly developed portions of the security baseline inspection program. The enclosed inspection

plan details the inspections scheduled through September 30, 2005. The inspection plan is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability to be resolved in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last 12 months of the inspection plan are tentative and may be revised at the midcycle review meeting.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

If circumstances arise which cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at 817/860-8147 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

William B. Jones, Chief
Project Branch E
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Dockets: 50-275
50-323
Licenses: DPR-80
DPR-82

Enclosure:
Diablo Canyon Inspection/Activity Plan

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ADAMS: Yes No Initials: __wbj__

Publicly Available Non-Publicly Available Sensitive Non-Sensitive

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RIV:C:DRP/E	D:DRS	D:DRP	For signature	
WBJones;df	DDChamberlain	ATHowell	WBJones	
/RA/	/RA/	/RA/	/RA/	
2/23/04	2/26/04	2/29/04	3/2/04	

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Diablo Canyon
Inspection / Activity Plan
03/01/2004 - 10/01/2005

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	EB-08P	- INSERVICE INSPECTION	1			
1	IP 7111108P	Inservice Inspection Activities - PWR		03/29/2004	04/16/2004	Baseline Inspections
	TI 150	- TI 150 - RP VESSEL HEAD INSPECT, REV 2	1			
1	IP 2515/150	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzles (NRC Bulletin 2002-0		03/22/2004	05/09/2004	Safety Issues
	TI-152	- TI-152 RPV LOWER HEAD (U1)	1			
1	IP 2515/152	Reactor Pressure Vessel Lower Head Penetration Nozzles (NRC Bulletin 2003-02)		03/22/2004	05/09/2004	Safety Issues
	TI-153	- TI-153, RX SUMP BLOCKAGE (U1)	1			
1	IP 2515/153	Reactor Containment Sump Blockage (NRC Bulletin 2003-01)		03/22/2004	05/09/2004	Safety Issues
	TI-154	- TI-154, MCA AT NUCLEAR PLANTS	1			
1, 2	IP 2515/154	Spent Fuel Material Control and Accounting at Nuclear Power Plants		03/22/2004	05/09/2004	Safety Issues
	PSB-S1	- AA-AC-FFD-PI	2			
1, 2	IP 7113001	Access Authorization		05/17/2004	05/21/2004	Baseline Inspections
1, 2	IP 7113002	Access Control		05/17/2004	05/21/2004	Baseline Inspections
1, 2	IP 7113008	Fitness For Duty Program		05/17/2004	05/21/2004	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		05/17/2004	05/21/2004	Baseline Inspections
	PEB-52	- BIENNIAL PIR	4			
1, 2	IP 71152B	Identification and Resolution of Problems		06/07/2004	06/11/2004	Baseline Inspections
1, 2	IP 71152B	Identification and Resolution of Problems		06/21/2004	06/25/2004	Baseline Inspections
	PEB-07B	- HX & HEAT SINK PERFORMANCE TESTING	1			
1, 2	IP 7111107B	Heat Sink Performance		06/14/2004	06/18/2004	Baseline Inspections
	ALARA1	- ALARA PLANNING AND CONTROLS	1			
1, 2	IP 7112102	ALARA Planning and Controls		06/28/2004	07/02/2004	Baseline Inspections
	PEB-12B	- EVAL. OF MAINTENANCE EFFECTIVENESS	1			
1, 2	IP 7111112B	Maintenance Effectiveness		08/16/2004	08/20/2004	Baseline Inspections
	EB-21/02	- SSD&PCI AND 50.59	7			
1, 2	IP 7111102	Evaluation of Changes, Tests, or Experiments		08/30/2004	09/03/2004	Baseline Inspections
1, 2	IP 7111121	Safety System Design and Performance Capability		08/30/2004	09/03/2004	Baseline Inspections
1, 2	IP 7111121	Safety System Design and Performance Capability		09/13/2004	09/16/2004	Baseline Inspections
	TI-152	- TI-152 RPV LOWER HEAD (U2)	1			
2	IP 2515/152	Reactor Pressure Vessel Lower Head Penetration Nozzles (NRC Bulletin 2003-02)		10/03/2004	11/18/2004	Safety Issues
	TI-153	- TI-153, RX SUMP BOCKAGE (U-2)	1			
2	IP 2515/153	Reactor Containment Sump Blockage (NRC Bulletin 2003-01)		10/03/2004	11/18/2004	Safety Issues
	EB-08P	- ISI UNIT 2	1			
2	IP 7111108P	Inservice Inspection Activities - PWR		11/15/2004	11/19/2004	Baseline Inspections
2	IP 7111108P	Inservice Inspection Activities - PWR		11/29/2004	12/03/2004	Baseline Inspections

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.

Diablo Canyon
Inspection / Activity Plan
03/01/2004 - 10/01/2005

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	ACCESSPI - ACRSA/PIV		1			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		11/15/2004	11/19/2004	Baseline Inspections
	OB-INIT - OB - INITIAL EXAMIANTION		6			
1	X02271	DIABLO CANYON UNIT 1 (12/04) INITIAL		01/10/2005	01/14/2005	Not Applicable
2	X02272	DIABLO CANYON UNIT 2 (12/04) INITIAL		01/10/2005	01/14/2005	Not Applicable
1	X02271	DIABLO CANYON UNIT 1 (12/04) INITIAL		02/07/2005	02/18/2005	Not Applicable
2	X02272	DIABLO CANYON UNIT 2 (12/04) INITIAL		02/07/2005	02/18/2005	Not Applicable
	OB-EP2 - EP EXERCISE		3			
1,2	IP 7111401	Exercise Evaluation		12/06/2004	12/10/2004	Baseline Inspections
1,2	IP 7111404	Emergency Action Level and Emergency Plan Changes		12/06/2004	12/10/2004	Baseline Inspections
1,2	IP 71151	Performance Indicator Verification		12/06/2004	12/10/2004	Baseline Inspections
	RP TEAM - RAD SAFETY TEAM		4			
1,2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		12/13/2004	12/17/2004	Baseline Inspections
1,2	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		12/13/2004	12/17/2004	Baseline Inspections
1,2	IP 7112202	Radioactive Material Processing and Transportation		12/13/2004	12/17/2004	Baseline Inspections
1,2	IP 7112203	Radiological Environmental Monitoring Program		12/13/2004	12/17/2004	Baseline Inspections
	ALARA2 - ALARA PLANNING AND CONTROLS		1			
1,2	IP 7112102	ALARA Planning and Controls		01/10/2005	01/14/2005	Baseline Inspections
	EB17B - PERMANENT PLANT MODS		2			
1,2	IP 7111117B	Permanent Plant Modifications		04/25/2005	04/29/2005	Baseline Inspections
	OB-RQ - REQUAL INSPECTION		2			
1,2	IP 7111111B	Licensed Operator Requalification Program		05/16/2005	05/20/2005	Baseline Inspections