



# Lawrence Livermore National Laboratory

March 14, 1984

WOW: 84-12

Mr. Phillip J. Morrill, Project Manager,  
U. S. Nuclear Regulatory Agency, Region V  
1450 Maria Lane, Suite 210  
Walnut Creek, California 94596

PROGRESS REPORT, FEBRUARY 1984  
TECHNICAL ASSISTANCE FOR INSPECTION OF DIABLO CANYON DESIGN VERIFICATION  
PROGRAM, FIN B8552 (UNIT 1) AND FIN A0753 (UNIT 2).

## 1. Project Description

As a consequence of an Independent Design Verification Program, many modifications and additions to the piping and electrical raceway support systems and building structural steel are being implemented at the Diablo Canyon Nuclear Power Plant. The LLNL is assisting the NRC Region V office in assessing the adequacy of this work.

## 2. Progress - February 1984

Inspection work for this report period was focused on the spray hangers in Unit 2 containment while the scaffolding in this area remains in place. Some structural connections in the containment annulus area were also inspected and citations have been issued by the regional inspectors for two discrepancies found there. One NCR described excessive undercut over an 8" length of a 25"x5/16" fillet weld. The other NCR was for missing washers and torque seal for a high strength bolted connection. All items inspected and the results for both units are listed in Attachment 1.

## 3. Funding

A detailed report of expenditures for this period is provided in Attachments 2 & 3. A new proposal for Unit 2 work is in preparation.

## 4. Personnel, Subcontracts, and Consultants

This work is being conducted with assistance from the Energy Measurements Group of EG&G, San Ramon Operations.

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5. Meetings/Travel

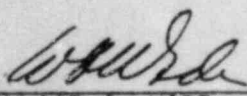
None

6. Concerns

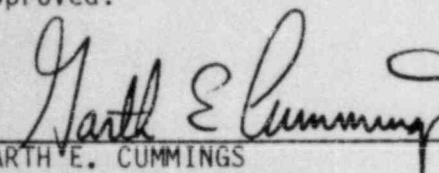
None

7. Plans

Inspection work is to continue in Unit 2 containment.

  
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WALLACE O. WADE  
PROJECT MANAGER  
EG&G MECHANICAL ENGINEERING DEPARTMENT

Approved:

  
\_\_\_\_\_  
GARTH E. CUMMINGS  
DEPUTY PROGRAM LEADER  
NUCLEAR SYSTEM SAFETY PROGRAM

WOW:cog

Attachment

Distribution:

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## ATTACHMENT 1

LOG NUM	LOC	UNIT	ITEM	PART NUMBER	START DATE	COMPLETE DATE	CRIT	CONTACTS	AFF	STATUS	STATUS DATE	INSP	MAN HRS
E1083	TURBINE BLDG	1	RACEWAY SUPPORT	44/D-140-6-77	1/19/84	2/28/84	QCP 3 QCP 5A QCP 9 QCP E9	MORRISON BRUNKE	PG FO	PHYSICAL MVR 2777 ACC-W/O-QA	1/19/84 1/19/84 2/28/84	RMB	1.0 1.0
M0056	CONTAINMENT	2	SPRAY HANGER	20-93R	7/12/83	2/09/84	ESD 223	THOMAS MOYER JRNIS	PG BE BE	PHYSICAL DR-5105 ACCEPTED	9/02/83 9/02/83 2/09/84	MWE	3.0 5.0
M0081	CONTAINMENT	2	SPRAY HANGER	20-94R	7/19/83	2/09/84	ESD 223	THOMAS MOYER HERNANDEZ	PG BE NR	CITATION DR-5090 ACCEPTED	8/20/83 8/20/83 2/09/84	MWE	5.0 4.0
M0091	CONTAINMENT	2	SPRAY HANGER	20-95R	7/22/83	2/09/84	ESD 223	THOMAS MOYER	PG BE	ACCEPTED	2/09/84 2/09/84	MWE	7.0
M1015	AUX BLDG	1	PIPE HANGER	73-63R	12/15/83	2/28/84	ESD 223	NASADOWSKI	PG	RECORDS PHYSICAL ACC-W/O-QA	12/15/83 12/15/83	RMB	2.0 1.0
M1016	AUX BLDG	1	PIPE HANGER	230-1R	1/05/84	2/29/84	ESD 223	NASADOWSKI	PG	RECORDS PHYSICAL ACC-W/O-QA	1/05/84 1/05/84	RMB	2.0 1.0
M1017	AUX BLDG	1	PIPE HANGER	322-4R	1/05/84	2/29/84	ESD 223	NASADOWSKI	PG	RECORDS PHYSICAL ACC-W/O-QA	1/05/84 1/05/84	RMB	2.0 1.0
M1019	CONTAINMENT	2	SPRAY HANGER	20-41R	1/31/84	2/02/84	ESD 223	MICHAELS	PG	ACCEPTED	2/02/84	MWE	7.0
M1020	CONTAINMENT	2	SPRAY HANGER	414-32R	1/31/84	2/07/84	ESD 223	MICHAELS	PG	PHYSICAL ACCEPTED	2/03/84 2/08/84	MWE	8.0 3.0
M1021	CONTAINMENT	2	SPRAY HANGER	20-35R	2/06/84	2/08/84	ESD 223	MICHAELS	PG	ACCEPTED	1/26/84	RP	3.0
M1022	CONTAINMENT	2	SPRAY HANGER	20-42R	2/06/84	2/08/84	ESD 223	MICHAELS	PG	ACCEPTED	1/26/84	RP	2.0
M1023	CONTAINMENT	2	SPRAY HANGER	414-133R	2/06/84	2/08/84	ESD 223	MICHAELS	PG	ACCEPTED	1/26/84	RP	2.0
M1024	CONTAINMENT	2	SPRAY HANGER	20-2R	2/06/84	2/08/84	ESD 223	MICHAELS	PG	ACCEPTED	2/08/84	MWE	3.0
M1025	CONTAINMENT	2	SPRAY HANGER	20-3R	2/06/84	2/08/84	ESD 223	MICHAELS	PG	ACCEPTED	2/08/84	MWE	3.0
M1026	CONTAINMENT	2	SPRAY HANGER	20-4R	2/06/84	2/08/84	ESD 223	MICHAELS	PG	ACCEPTED	2/08/84	MWE	3.0
M1027	CONTAINMENT	2	SPRAY HANGER	20-43R	2/06/84	2/08/84	ESD 223	MICHAELS	PG	ACCEPTED	2/08/84	MWE	3.0
M1028	CONTAINMENT	2	SPRAY HANGER	20-44R	2/06/84	2/08/84	ESD 223	MICHAELS	PG	ACCEPTED	2/08/84	MWE	3.0
M1029	CONTAINMENT	2	SPRAY HANGER	414-83R	2/09/84		ESD 223	MICHAELS	PG	ORIENT'N	2/09/84	MWE	3.0
M1033	CONTAINMENT	2	SPRAY HANGER	20-50R	2/15/84	2/16/84	ESD 223	BERNASCONI	PG	ACCEPTED	2/16/84	RP	2.0
M1034	CONTAINMENT	2	SPRAY HANGER	20-52R	2/15/84	2/16/84	ESD 223	BERNASCONI	PG	ACCEPTED	2/16/84	RP	2.0
M1035	CONTAINMENT	2	SPRAY HANGER	414-83R	2/15/84	2/16/84	ESD 223	BERNASCONI MICHAELS	PG PG	RECORDS ACC-W/O-QA	2/16/84 2/29/84	RMB	8.0 1.0
M1036	CONTAINMENT	2	SPRAY HANGER	20-91R	2/15/84	2/29/84	ESD 223	BERNASCONI MICHAELS	PG PG	RECORDS PHYSICAL DR 8115 DP-2-786-M ACCEPTED	2/16/84 2/16/84 2/29/84 2/29/84	RMB	8.0 1.0
M1037	CONTAINMENT	2	SPRAY HANGER	20-58R	2/15/84	2/29/84	ESD 223	BERNASCONI	PG	RECORDS ACC-W/O-QA	2/16/84 2/29/84	RMB	8.0 1.0
M1038	CONTAINMENT	2	SPRAY HANGER	20-96R	2/22/84		ESD 223	BERNASCONI MICHAELS	PG PG	WELD	2/22/84	MWE	15.0
M1039	CONTAINMENT	2	SPRAY HANGER	414-46R	2/22/84	2/24/84	ESD 223	BERNASCONI MICHAELS	PG PG	ACCEPTED	2/24/84	MWE	3.0
M1040	CONTAINMENT	2	SPRAY HANGER	20-33R	2/23/84		ESD 223	MICHAELS	PG	DR	2/23/84	MWE	3.0
M1041	CONTAINMENT	2	SPRAY HANGER	20-75R	2/29/84	3/02/84	ESD 223	BERNASCONI	PG	ACCEPTED	3/02/84	RMB	5.0
S1020	CONTAINMENT	2	ANNULUS	10003-C2-13-069	2/01/84	2/09/84	QCP 3 QCP 5A QCP C7	KOHLER MUNRO BECKORT	BE BE FO	RECORDS	2/03/84	MWE	5.0
S1021	CONTAINMENT	2	ANNULUS	10033-C2-13-242	2/01/84	2/09/84	QCP 3 QCP 5A QCP C7	KOHLER MUNRO BECKORT	BE BE FO	RECORDS ACC-W/O-QA	2/03/84 2/09/84	MWE	5.0 3.0
S1022	CONTAINMENT	2	ANNULUS	10003-C2-13-071	2/01/84	2/09/84	QCP 3 QCP 5A QCP C7	KOHLER MUNRO BECKORT	BE BE FO	RECORDS ACC-W/O-QA	2/03/84 2/09/84	MWE	5.0 3.0
S1023	CONTAINMENT	2	ANNULUS	10003-C2-13-080	2/01/84	2/09/84	QCP 3 QCP 5A QCP C7	KOHLER MUNRO BECKORT	BE BE FO	RECORDS ACC-W/O-QA	2/03/84 2/09/84	MWE	5.0 3.0
S1024	CONTAINMENT	2	ANNULUS	10033-C2-13-249	2/01/84		QCP 3 QCP 5A QCP C7 QCP 5	KOHLER MUNRO BECKORT AMARILLAS	BE BE FO FO	WELD WLDG QF NCR	2/01/84 2/02/84 2/02/84	MWE	14.0
S1025	CONTAINMENT	2	ANNULUS	10043-C2-13-420	2/07/84		QCP 3 QCP 5A QCP C7	KOHLER MUNRO BECKORT	BE BE FO	PHYSICAL NCR 5422-455	2/10/84 2/07/84 2/08/84	MWE	3.0
S1026	CONTAINMENT	2	ANNULUS	10074-C2-13-652	2/08/84		QCP 3	KOHLER	BE	PHYSICAL	2/08/84	MWE	

## ATTACHMENT 1

S1027 CONTAINMENT	2 ANNULUS	10042-C2-13-450	2/07/84	QCP C7 BECKORT FO 5422-462 2/09/84	
				QCP 3 MUNRO P6 RECORDS 2/10/84 RMB 3.0	
				QCP 5A MCCLASKEY FO PHYSICAL 2/10/84 RMB	
				QCP C7 BURDOIN NR NCR 2/10/84 MWE 4.0	
					5422-467 CITATION 2/10/84
S1028 CONTAINMENT	2 ANNULUS	10054-C2-13-497	2/07/84	QCP 3 MUNRO P6 RECORDS 2/10/84 RMB 2.0	
				QCP 5A MCCLASKEY FO	
S1029 CONTAINMENT	2 ANNULUS	10043-C2-13-428	2/07/84	QCP C7	
				QCP 3 MUNRO P6 RECORDS 2/08/84 RMB 2.0	
				QCP 5A MCCLASKEY FO	
S1030 CONTAINMENT	2 ANNULUS	10054-C2-13-496	2/07/84	QCP C7	
				QCP 3 MUNRO P6 RECORDS 2/07/84 RMB 2.0	
				QCP 5A MCCLASKEY FO	
S1031 CONTAINMENT	2 ANNULUS	10049-C2-13-502	2/07/84	QCP C7	
				QCP 3 MUNRO P6 RECORDS 2/10/84 RMB 4.0	
				QCP 5A MCCLASKEY FO PHYSICAL 2/10/84 RMB	
				QCP C7 NCR 2/10/84 RMB	
S1032 CONTAINMENT	2 ANNULUS	10059-C2-13-611	2/08/84	QCP 3 MUNRO P6 RECORDS 2/08/84 RMB 2.0	
				QCP 5A MCCLASKEY FO	
				QCP C7	
S1033 CONTAINMENT	2 ANNULUS	10043-C2-13-424	2/08/84	QCP 3 MUNRO P6 RECORDS 2/16/84 RMB 3.0	
				QCP 5A MCCLASKEY FO PHYSICAL 2/16/84 RMB	
				QCP C7 NCR 2/16/84 RMB	
S1034 CONTAINMENT	2 ANNULUS	10070-C2-13-681	2/08/84	QCP 3 MUNRO P6 RECORDS 2/08/84 RMB 2.0	
				QCP 5A MCCLASKEY FO PHYSICAL 2/08/84 RMB	
				QCP C7 NCR 2/08/84 RMB	
S1035 CONTAINMENT	2 ANNULUS	10034-C2-13-704	2/08/84	QCP 3 MUNRO P6 RECORDS 2/08/84 RMB 2.0	
				QCP 5A MCCLASKEY FO PHYSICAL 2/08/84 RMB	
				QCP C7 NCR 2/08/84 RMB	
S1036 CONTAINMENT	2 PLATFORMS	10034-C2-13-287	2/08/84	QCP 3 MUNRO P6 RECORDS 2/08/84 RMB 2.0	
				QCP 5A MCCLASKEY FO	
				QCP C7	
S1037 CONTAINMENT	2 PLATFORMS	10034-C2-13-289	2/08/84	QCP 3 MUNRO P6 RECORDS 2/08/84 RMB 2.0	
				QCP 5A MCCLASKEY FO	
				QCP C7	
S1038 CONTAINMENT	2 PLATFORMS	10034-C2-13-301	2/08/84	QCP 3 MUNRO P6 RECORDS 2/08/84 RMB 2.0	
				QCP 5A MCCLASKEY FO	
				QCP C7	
S1039 CONTAINMENT	2 PLATFORMS	10034-C2-13-309	2/08/84	QCP 3 MUNRO P6 RECORDS 2/08/84 RMB 2.0	
				QCP 5A MCCLASKEY FO	
				QCP C7	



ATTACHMENT 2

UNIT #1 PROJECT FINANCIAL STATUS (THROUGH 29 FEBRUARY 1984)\*

A. STATUS (Dollars in thousands)

<u>Total Projected Project Cost</u>	<u>Funds Obligated To Date</u>	<u>Balance of Funds Due FY 1983</u>
<u>\$345.0K</u>	<u>\$345.0K</u>	<u>-0-</u>

B. ANALYSIS

	<u>Period</u>	<u>Cumulative</u>
Direct Laboratory Staff Effort (FTE)	<u>0.4</u>	<u>1.2</u>
Direct Salaries	<u>\$ 0.3</u>	<u>\$ 36.0</u>
Material and Services (Excluding ADP)	<u>\$ -</u>	<u>\$ -</u>
ADP Support	<u>\$ -</u>	<u>\$ -</u>
Subcontracts (EG&G, Inc.)	<u>\$ 1.6</u>	<u>\$ 82.7</u>
Travel Expenses	<u>\$ 1.0</u>	<u>\$ 16.7</u>
Indirect Labor Costs	<u>\$ 0.4</u>	<u>\$ 34.8</u>
Other (TID)	<u>\$ 0</u>	<u>\$ 0.2</u>
General and Administrative	<u>\$ 2.9</u>	<u>\$ 26.8</u>
 TOTAL	 <u>\$ 3.0</u>	 <u>\$197.2</u>
 Liens		 <u>\$ 11.4</u>
 Total Including Liens		 <u>\$208.6</u>
 (Percent of Available Funding)		 <u>60%</u>

\*NOTE: Figures may differ slightly from final billing.

ATTACHMENT 3

UNIT #2 PROJECT FINANCIAL STATUS (THROUGH 29 FEBRUARY 1984)\*

A. STATUS (Dollars in thousands)

<u>Total Projected Project Cost</u>	<u>Funds Obligated To Date</u>	<u>Balance of Funds Due FY 1983</u>
<u>\$125.0K</u>	<u>\$125.0K</u>	<u>-0-</u>

B. ANALYSIS

	<u>Period</u>	<u>Cumulative</u>
Direct Laboratory Staff Effort (FTE)	<u>1.0</u>	<u>1.6</u>
Direct Salaries	<u>\$ 6.9</u>	<u>\$ 6.9</u>
Material and Services (Excluding ADP)	<u>\$ -</u>	<u>\$ -</u>
ADP Support	<u>\$ -</u>	<u>\$ -</u>
Subcontracts (EG&G, Inc.)	<u>\$ 0</u>	<u>\$ 0</u>
Travel Expenses	<u>\$ 1.6</u>	<u>\$ 1.6</u>
Indirect Labor Costs	<u>\$ 6.5</u>	<u>\$ 6.5</u>
Other (TID)	<u>\$ 0</u>	<u>\$ 0</u>
General and Administrative	<u>\$ 0</u>	<u>\$ 0</u>
 TOTAL	 <u>\$15.0</u>	 <u>\$ 15.0</u>
 Liens		 <u>\$ 20.0</u>
 Total Including Liens		 <u>\$ 35.0</u>
 (Percent of Available Funding)		 <u>28%</u>

\*NOTE: Figures may differ slightly from final billing.