



May 14, 1984  
WOW: 84-20

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

PROGRESS REPORT, APRIL 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 - April 1984

Inspection work continued in Unit 2 at the planned level-of-effort (see Attachment 1) with one exception. The week of April 2, 1984 was devoted to the inspection of rectangular tube steel with a perimeter  $< 14$  inches that has been used for Safety Class I systems. The primary objective was to examine 100-200 pieces to verify the outside radius of curvature to be  $< 2$  times the wall thickness. The data was transmitted verbally on April 6, 1984 and a written report was issued on April 19, 1984.

Attempts to examine Unit 2 rupture restraints were unsuccessful. Most or all of these are apparently missing the bumpers and crushable pads. Inspection of these items will therefore be delayed until much later in the year when Q.C. has been completed and all components have been installed.

3. Funding

The detailed report of expenditures for this period is provided in Attachments 2 & 3.

4. Personnel, Subcontracts, and Consultants

Mark Eli will be providing temporary assistance to the LLNL inspection program at SONGS during the next report period which may reduce the level-of-effort to this program.

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Mr. Phil Morrill  
May 14, 1984  
Page 2

5. Meetings/Travel

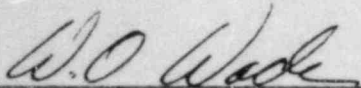
Mark Eli met with Dennis Kirsh in San Luis Obispo on April 6, 1984 to transmit tube steel inspection results. Wally Wade met with Phil Morrill at the site on April 19, 1984 to resolve administrative topics.

6. Concerns

None

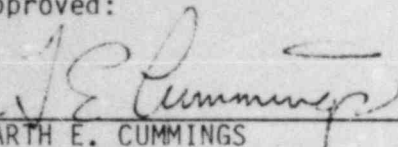
7. Plans

Inspections are to continue in Unit 2.



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:

LLNL

G. Cummings  
J. Johnson  
R. Langland  
M. Eli  
R. Logdanowicz  
C. Meier  
J. Selan  
R. White

NRC

R. Gilbert  
~~B. Kirsh~~  
H. Canter  
T. Bishop  
E. Frigillana

EG&G/SRO

A. Debeling  
R. Pong  
C. Morton

## ATTACHMENT 1

LDG NUM	LOC	U N I T	ITEM	PART NUMBER	START DATE	COMPLETE DATE	CRIT	CONTACTS	AFF	STATUS	STATUS DATE	INSP	MAN HRS
MO080	AUX BLDG	1	PIPE HANGER	585-138R	7/18/83	4/25/84	ESD 223	TINKLE HOWELL GAUDIUSO	PG BE PG	PHYSICAL NPPR-DC1 84-QC-288 SWF-MM 1-83-516	1/12/84 3/30/84 3/30/84	MWE MWE MWE	16.0 5.0 5.0
M1003	TURBINE BLDG	1	RUPTURE RESTRNT 141RR		11/16/83	4/25/84	ESD 243	MORGAN PARKER	PG PG	PHYSICAL RECORDS ACCEPTED	11/16/83 12/13/83 4/25/84	MWE MWE MWE	3.0 9.0 4.0
M1004	CONTAINMENT	1	RUPTURE RESTRNT 7-4RR		11/16/83	4/25/84	ESD 243	MORGAN PARKER	PG PG	RECORDS ACCEPTED	12/13/83 4/25/84	MWE MWE	13.0 2.0
M1005	CONTAINMENT	1	RUPTURE RESTRNT 1-7RR		11/17/83	4/25/84	ESD 243	MORGAN PARKER	PG PG	RECORDS ACCEPTED	12/13/83 4/25/84	MWE MWE	11.0 2.0
M1038	CONTAINMENT	2	SPRAY HANGER	20-96R	2/22/84	4/25/84	ESD 223	BERNASCONI MICHAELS	PG PG	WELD AS-BUILT MVR M-4684	2/22/84 2/22/84 3/30/84	MWE MWE MWE	10.0 2.0 2.0
M1040	CONTAINMENT	2	SPRAY HANGER	20-33R	2/23/84	4/25/84	ESD 223	MICHAELS	PG	ACCEPTED DR 8174 ACCEPTED	4/25/84 2/23/84 4/25/84	MWE MWE	9.0 2.0
M1049	CONTAINMENT	2	SPRAY HANGER	20-12R	3/07/84	4/25/84	ESD 223	MICHAELS	PG	RECORDS ACCEPTED	3/08/84 4/25/84	MWE MWE	5.0 2.0
M1051	CONTAINMENT	2	SPRAY HANGER	20-47R	3/07/84	4/25/84	ESD 223	BERNASCONI	PG	RECORDS ACCEPTED	3/08/84 4/25/84	MWE MWE	5.0 2.0
M1055	CONTAINMENT	2	PIPE HANGER	412-114SL	4/10/84	4/10/84	ESD 223	KULIKOWSKI THOMAS BENTACUR	BE BE BE	ACCEPTED	4/10/84	JCS CHM	1.5 1.5
M1056	CONTAINMENT	2	PIPE HANGER	70-95L	4/10/84	4/10/84	ESD 223	KULIKOWSKI THOMAS BENTACUR	BE BE BE	ACCEPTED	4/10/84	JCS CHM	1.5 1.5
M1057	CONTAINMENT	2	PIPE HANGER	96-35L	4/10/84	4/10/84	ESD 223	KULIKOWSKI THOMAS BENTACUR	BE BE BE	ACCEPTED	4/10/84	JCS CHM	1.5 1.5
M1058	CONTAINMENT	2	PIPE HANGER	78-260SL	4/10/84	4/10/84	ESD 223	KULIKOWSKI THOMAS BENTACUR	BE BE BE	ACCEPTED	4/10/84	JCS CHM	1.5 1.5
M1059	CONTAINMENT	2	PIPE HANGER	78-308SL	4/10/84	4/10/84	ESD 223	KULIKOWSKI THOMAS BENTACUR	BE BE BE	ACCEPTED	4/10/84	JCS CHM	1.5 1.5
M1060	CONTAINMENT	2	PIPE HANGER	412-43SL	4/10/84	4/10/84	ESD 223	KULIKOWSKI THOMAS BENTACUR	BE BE BE	ACCEPTED	4/10/84	JCS CHM	1.5 1.5
M1061	CONTAINMENT	2	PIPE HANGER	97-12R	4/10/84	4/10/84	ESD 223	KULIKOWSKI THOMAS BENTACUR	BE BE BE	ACCEPTED	4/10/84	JCS	1.5
M1062	CONTAINMENT	2	PIPE HANGER	5-5R	4/10/84		ESD 223	KULIKOWSKI THOMAS BENTACUR	BE BE BE	WELD	4/12/84	JCS CHM	1.5 1.5
M1063	CONTAINMENT	2	PIPE HANGER	70-66SL	4/11/84	4/11/84	ESD 223	KULIKOWSKI THOMAS BENTACUR	BE BE BE	ACCEPTED	4/11/84	JCS	1.0
M1064	CONTAINMENT	2	PIPE HANGER	412-63SL	4/11/84		ESD 223	KULIKOWSKI THOMAS BENTACUR	BE BE BE	PHYSICAL	4/12/84	JCS	6.0
M1065	CONTAINMENT	2	PIPE HANGER	71-50SL	4/11/84	4/11/84	ESD 223	KULIKOWSKI THOMAS BENTACUR	BE BE BE	ACC-W/O-GA	4/11/84	JCS	1.0
M1066	PENETRAT BLDG	2	PIPE HANGER	413-310R	4/11/84	4/11/84	ESD 223	KULIKOWSKI THOMAS BENTACUR	BE BE BE	ACCEPTED	4/11/84	JCS	1.0
M1067	CONTAINMENT	2	PIPE HANGER	71-68SL	4/12/84		ESD 223 ESD 216	KULIKOWSKI THOMAS BENTACUR	BE BE BE	WLDR DF	4/12/84	JCS CHM	1.5 1.5
M1083	CONTAINMENT	2	PIPE HANGER	7-56R	4/24/84		ESD 223 ESD 216	KULIKOWSKI BERNASCONI	BE BE	MVR M-4705	4/26/84	CHM	3.0
M1084	CONTAINMENT	2	PIPE HANGER	7-82R	4/24/84	4/24/84	ESD 223	KULIKOWSKI BERNASCONI	BE BE	ACCEPTED	4/24/84	CHM	2.0
M1085	VENTILATION	2	PIPE HANGER	333-42R	4/24/84		ESD 223	KULIKOWSKI BERNASCONI	BE BE	MVR M-4706	4/26/84	CHM	3.0
M1086	PENETRAT BLDG	2	PIPE HANGER	2045-1V	4/24/84		ESD 223	KULIKOWSKI BERNASCONI	BE BE	RECORDS	4/26/84	CHM	2.0
M1097	CONTAINMENT	2	PIPE HANGER	78-259SL	4/24/84	4/24/84	ESD 223	KULIKOWSKI BERNASCONI	BE BE	ACCEPTED	4/24/84	CHM	2.0
M1088	CONTAINMENT	2	PIPE HANGER	1-14R	4/25/84	4/25/84	ESD 223	KULIKOWSKI BERNASCONI	BE BE	ACCEPTED	4/25/84	CHM	2.0

## ATTACHMENT 1

M1089	CONTAINMENT	2 PIPE HANGER	2-23V	4/25/84		ESD 223	KULIKOWSKI	BE	WLDR QF	4/26/84	CHM	3.0
						ESD 216	BERNASCONI	BE				
M1090	CONTAINMENT	2 PIPE HANGER	6-121R	4/25/84	4/25/84	ESD 223	KULIKOWSKI	BE	ACCEPTED	4/25/84	CHM	3.0
							BERNASCONI	BE				
M1091	CONTAINMENT	2 PIPE HANGER	6-132V	4/25/84	4/26/84	ESD 223	KULIKOWSKI	BE	ACCEPTED	4/26/84	CHM	2.0
							BERNASCONI	BE				
M1092	CONTAINMENT	2 PIPE HANGER	412-111R	4/25/84	4/25/84	ESD 223	KULIKOWSKI	BE	ACCEPTED	4/25/84	CHM	2.0
							BERNASCONI	BE				
M1093	CONTAINMENT	2 PIPE HANGER	412-149SL	4/25/84	4/25/84	ESD 223	KULIKOWSKI	BE	ACCEPTED	4/25/84	CHM	2.0
							BERNASCONI	BE				
M1094	AUX BLDG	2 PIPE HANGER	948-4R	4/25/84	4/26/84	ESD 223	KULIKOWSKI	BE	ACCEPTED	4/26/84	CHM	2.0
							BERNASCONI	BE				
S1024	CONTAINMENT	2 ANNULUS	10033-C2-13-249	2/01/84	4/25/84	QCP 3	KOHLER	BE	WELD	2/01/84	MWE	
						QCP 5A	MUNRO	BE	WLDR QF	2/02/84	MWE	14.0
						QCP C7	BECKORT	FO	NCR	2/02/84	MWE	
						QCP 5	AMARILLAS	FO	5422-455			
							BURDOIN	NR	CITATION	2/10/84		
									ACC-W/O-QA	4/25/84	MWE	3.0
S1025	CONTAINMENT	2 ANNULUS	10043-C2-13-420	2/07/84	4/25/84	QCP 3	KOHLER	BE	PHYSICAL	2/07/84	MWE	
						QCP 5A	MUNRO	BE	NCR	2/08/84	MWE	3.0
						QCP C7	BECKORT	FO	5422-466	3/30/84		
									ACC-W/O-QA	4/25/84	MWE	3.0
S1026	CONTAINMENT	2 ANNULUS	10074-C2-13-652	2/08/84	4/25/84	QCP 3	KOHLER	BE	PHYSICAL	2/08/84	MWE	
						QCP 5A	MUNRO	BE	NCR	2/09/84	MWE	3.0
						QCP C7	BECKORT	FO	5422-462	3/30/84		
									ACC-W/O-QA	4/25/84	MWE	3.0
S1075	CONTAINMENT	2 ANNULUS	10042-C2-13-690	4/11/84	4/11/84	QCP 5A	MUNRO	BE	ACC-W/O-QA	4/11/84	JCS	1.0
						QCP C7	BERG	FO				
S1076	CONTAINMENT	2 ANNULUS	10028-C2-13-113	4/11/84	4/11/84	QCP 5A	MUNRO	BE	ACC-W/O-QA	4/11/84	JCS	1.0
						QCP C7	BERG	FO				
S1077	CONTAINMENT	2 ANNULUS	10003-C2-13-015	4/11/84	4/11/84	QCP 5A	MUNRO	BE	ACC-W/O-QA	4/11/84	JCS	1.0
						QCP C7	BERG	FO			CHM	1.0
S1078	CONTAINMENT	2 ANNULUS	10003-C2-13-003	4/11/84	4/12/84	QCP 5A	MUNRO	BE	ACC-W/O-QA	4/12/84	JCS	1.5
						QCP C7	BERG	FO			CHM	1.5
						QCP 5						
S1079	TURBINE BLDG	2 TURBINE BLDG	10181-t2-13-823	4/25/84		QCP 3	HARRISON	BE	RECORDS	4/25/84	MWE	4.0
						QCP 5A	BERG	FO				
						QCP C7						

ATTACHMENT 2

UNIT #1 PROJECT FINANCIAL STATUS (THROUGH 30 APRIL 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</u>	<u>1.2</u>
Direct Salaries	<u>\$ 0</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>\$ 7.5</u>	<u>\$ 94.6</u>
Travel Expenses	<u>\$ .2</u>	<u>\$ 17.5</u>
Indirect Labor Costs	<u>\$ 0</u>	<u>\$ 34.8</u>
Other (TID)	<u>\$ 0</u>	<u>\$ 0.2</u>
General and Administrative	<u>\$ 0.7</u>	<u>\$ 27.5</u>
 TOTAL	 <u>\$ 8.4</u>	 <u>\$210.6</u>
 Liens		 <u>\$ (0.5)</u>
 Total Including Liens		 <u>\$210.1</u>
 (Percent of Available Funding)		 <u>61%</u>

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

ATTACHMENT 3

UNIT #2 PROJECT FINANCIAL STATUS (THROUGH 30 APRIL 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>1.7</u>	<u>4.9</u>
Direct Salaries	<u>\$ 7.3</u>	<u>\$ 20.3</u>
Material and Services (Excluding ADP)	<u>\$ -</u>	<u>\$ -</u>
ADP Support	<u>\$ -</u>	<u>\$ -</u>
Subcontracts (EG&G, Inc.)	<u>\$ 9.3</u>	<u>\$ 21.4</u>
Travel Expenses	<u>\$ 2.2</u>	<u>\$ 6.0</u>
Indirect Labor Costs	<u>\$ 9.4</u>	<u>\$ 21.7</u>
Other (TID)	<u>\$ 0</u>	<u>\$ 0</u>
General and Administrative	<u>\$ 3.9</u>	<u>\$ 3.9</u>
TOTAL	<u>\$32.1</u>	<u>\$ 73.3</u>
Liens		<u>\$ (1.4)</u>
Total Including Liens		<u>\$ 71.9</u>
(Percent of Available Funding)		<u>58%</u>

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