



Lawrence Livermore National Laboratory

NRC

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August 9, 1984
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REGION V I&E

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

PROGRESS REPORT, JULY 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 - July 1984

Inspections continued in Unit 2 at a reduced level-of-effort brought about by a request for LLNL participation on the NRR Technical Review Team at Commanche Peak and continued inspection work at SONGS. However, 64 items were inspected including; 35 pipe hangers, 9 structural connections and 20 HVAC supports. Seventeen of these items will require follow-up.

A proposal (Form 189), reflecting the revised statement of work (Form 173) received on June 11, 1984 was prepared and is now receiving final review at LLNL. The revised project is to include inspection work to be performed at Palo Verde Nuclear Power Plant near Phoenix, Arizona. Progress on this new work will be included in subsequent monthly reports.

3. Funding

The detailed report of expenditures for this period is provided in Attachments 2 & 3. Please note the amount shown for "Funds Obligated to Date" on Attachment 3, Part A has been revised. This has been done to remain consistent with the present funding status for FIN A0753 which has been revised to include work at Palo Verde. The expenditures shown in Part B are for Diablo Canyon Unit #2 only. The expenditures for Palo Verde and Diablo Canyon will be given on revised attachments in future reports.

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4. Personnel, Subcontracts, and Consultants

This work is being conducted with assistance from EG&G Energy Measurements, Inc. in San Ramon, California. Other contractors may also be used as necessary with NRC approval.

In response to an urgent request from NRR, LLNL has been supporting a Technical Review Team (TRT) established at Commanche Peak on July 9, 1984. The TRT effort is planned for three 2-week periods over eight weeks. The LLNL/EG&G personnel selected to participate in the program include four people normally assigned part-time to the Diablo Canyon project. As a consequence, it has not been possible to sustain a two-man level-of-effort at Diablo Canyon.

5. Meetings/Travel

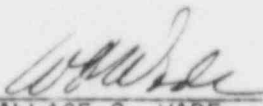
Meetings were held with P. Morrill, E. Frigillana, T. Young, Jr. and P. Norbut in Walnut Creek on June 27 and July 31, 1984 regarding a new statement of work.

6. Concerns

None

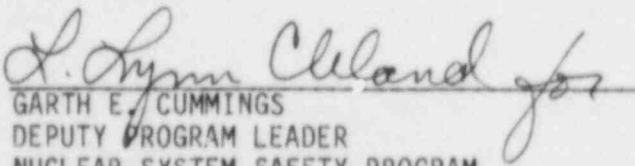
7. Plans

Inspections are to continue in Unit 2 at Diablo Canyon and begin at Palo Verde.



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

Approved:



GARTH E. CUMMINGS
DEPUTY PROGRAM LEADER
NUCLEAR SYSTEM SAFETY PROGRAM

Attachment

Distribution:

LLNL

G. Cummings, L-91
J. Johnson, L-91
R. Langland, L-90
M. Eli, L-390
C. Meier, L-90C₂
J. Selan, L-777
R. White, L-777

NRC

R. Gilbert
D. Kirsch
H. Canter
T. Bishop
E. Frigillana
T. Young, Jr.
P. Norbut

EG&G/SRO

A. Debeling
R. Pong
C. Morton
C. Simkins

ATTACHMENT 1

LOG NUM	LOC	U N I T	ITEM	PART NUMBER	START DATE	COMPLETE DATE	CRIT	CONTACTS	AFF	STATUS	STATUS DATE	MAN INSP HRS
M1218	CONTAINMENT	2	PIPE HANGER	91-42R	7/04/84		ESD 223	BENTACUR KULIKOWSKI	BE BE	PHYSICAL RECORDS	7/06/84 7/06/84	MWE 4.0
M1219	CONTAINMENT	2	PIPE HANGER	70-55L	7/04/84		ESD 223	BENTACUR KULIKOWSKI	BE BE	MVR 4750 RECORDS	7/06/84 7/06/84	MWE 4.0
M1220	CONTAINMENT	2	PIPE HANGER	2-38V	7/04/84		ESD 223	BENTACUR KULIKOWSKI	BE BE	M-4750 PHYSICAL	7/06/84 7/06/84	MWE 2.0
M1221	TURBINE BLDG	2	PIPE HANGER	18-1V	7/05/84		ESD 223	KULIKOWSKI	BE	M- PHYSICAL	7/06/84 7/06/84	MWE 2.0
M1222	AUX BLDG	2	HVAC SUPPORT	SKC-HV2-499	7/10/84		QCP 5A QCP 9 WLDG QA	DAUGHTERY ALLEN	BE FO	WELD RECORDS	7/12/84 7/12/84	CHM 6.0
M1223	AUX BLDG	2	HVAC SUPPORT	SKC-HV2-422	7/10/84		QCP 5A QCP 9 WLDG QA	DAUGHTERY ALLEN	BE FO	CONFIG'N NCR	7/12/84 7/12/84	CHM 4.0
M1224	TURBINE BLDG	2	HVAC SUPPORT	SKC-HV2-396	7/10/84		QCP 5A QCP 9 WLDG QA	DAUGHTERY JOSLIN	BE FO	CONFIG'N NCR	7/12/84 7/12/84	CHM 4.0
M1225	AUX BLDG	2	HVAC SUPPORT	SKC-HV2-234	7/10/84	7/12/84	QCP 5A QCP 9 WLDG QA	DAUGHTERY JOSLIN BROWN	BE FO FO	ACC-W/O-QA	7/12/84	CHM 2.0
M1226	AUX BLDG	2	HVAC SUPPORT	SKC-HV2-363	7/11/84	7/12/84	QCP 5A QCP 9 QCP 5 WLDG QA	DAUGHTERY JOSLIN BROWN	BE FO FO FO	ACC-W/O-QA	7/12/84	CHM 2.0
M1227	CONTAINMENT	2	HVAC SUPPORT	SKC-HV2-203	7/11/84		QCP 5A QCP 9 WLDG QA	DAUGHTERY JOSLIN BROWN	BE FO FO	PHYSICAL	7/12/84	CHM 3.0
M1228	AUX BLDG	2	HVAC SUPPORT	SKC-HV2-323	7/11/84	7/12/84	QCP 5A QCP 9 WLDG QA	DAUGHTERY JOSLIN BROWN	BE FO FO	ACC-W/O-QA	7/12/84	CHM 2.0
M1229	AUX BLDG	2	HVAC SUPPORT	SKC-HV2-285	7/11/84	7/12/84	QCP 5A WLDG QA	DAUGHTERY JOSLIN BROWN	BE FO FO	ACC-W/O-QA	7/12/84	CHM 2.0
M1230	AUX BLDG	2	HVAC SUPPORT	SKC-HV2-252	7/11/84		QCP 5A QCP 5 WLDG QA	DAUGHTERY JOSLIN BROWN	BE FO FO	WELD	7/12/84	CHM 5.0
M1231	CONTAINMENT	2	PIPE HANGER	72-23SL	7/16/84	7/17/84	ESD 223	BERNASCONI KULIKOWSKI	BE BE	ACCEPTED	7/17/84	CBS 1.0
M1232	CONTAINMENT	2	PIPE HANGER	71-54SL	7/16/84	7/17/84	ESD 223	BERNASCONI KULIKOWSKI	BE BE	ACCEPTED	7/17/84	CBS 1.0
M1233	ANNULUS	2	PIPE HANGER	413-407R	7/16/84	7/17/84	ESD 223	BERNASCONI KULIKOWSKI	BE BE	ACCEPTED	7/17/84	CBS 1.0
M1234	ANNULUS	2	PIPE HANGER	413-336R	7/16/84	7/17/84	ESD 223	BERNASCONI KULIKOWSKI	BE BE	ACCEPTED	7/17/84	CBS 1.0
M1235	ANNULUS	2	PIPE HANGER	413-569R	7/16/84	7/17/84	ESD 223	BERNASCONI KULIKOWSKI	BE BE	ACCEPTED	7/17/84	CBS 1.0
M1236	ANNULUS	2	PIPE HANGER	50-99R	7/16/84	7/17/84	ESD 223	BERNASCONI KULIKOWSKI	BE BE	ACCEPTED	7/17/84	CBS 1.0

M1237 FUEL HANDLING	2 PIPE HANGER	414-81SL	7/16/84	7/17/84	ESD 223	BERNASCONI BE KULIKOWSKI BE	ACCEPTED	7/17/84	CBS	1.0
M1238 ANNULUS	2 PIPE HANGER	48-25R	7/16/84	7/17/84	ESD 223	BERNASCONI BE KULIKOWSKI BE	ACCEPTED	7/17/84	CBS	1.0
M1239 ANNULUS	2 PIPE HANGER	47-41R	7/16/84	7/17/84	ESD 223	BERNASCONI BE KULIKOWSKI BE	ACCEPTED	7/17/84	CBS	1.0
M1240 ANNULUS	2 PIPE HANGER	47-73R	7/16/84	7/17/84	ESD 223	BERNASCONI BE KULIKOWSKI BE	ACCEPTED	7/17/84	CBS	1.0
M1241 ANNULUS	2 PIPE HANGER	47-66R	7/16/84	7/17/84	ESD 223	BERNASCONI BE KULIKOWSKI BE	ACCEPTED	7/17/84	CBS	1.0
M1242 ANNULUS	2 PIPE HANGER	413-192SL	7/17/84	7/18/84	ESD 223	BERNASCONI BE KULIKOWSKI BE	ACCEPTED	7/18/84	CBS	1.0
M1243 CONTAINMENT	2 PIPE HANGER	6-49R	7/17/84	7/18/84	ESD 223	KULIKOWSKI BE ROBANSKE BE	ACCEPTED	7/18/84	CBS	1.0
M1244 ANNULUS	2 PIPE HANGER	50-51R	7/17/84	7/18/84	ESD 223	KULIKOWSKI BE ROBANSKE BE	ACCEPTED	7/18/84	CBS	1.0
M1245 AUX BLDG	2 PIPE HANGER	414-23R	7/18/84	7/18/84	ESD 223	KULIKOWSKI BE ROBANSKE BE	ACCEPTED	7/18/84	CBS	1.0
M1246 CONTAINMENT	2 PIPE HANGER	2025-15R	7/18/84	7/18/84	ESD 223	KULIKOWSKI BE ROBANSKE BE	ACCEPTED	7/18/84	CBS	1.0
M1247 CONTAINMENT	2 PIPE HANGER	2037-7V	7/18/84	7/19/84	ESD 223	KULIKOWSKI BE ROBANSKE BE	ACCEPTED	7/19/84	CBS	1.0
M1248 ANNULUS	2 PIPE HANGER	413-501R	7/18/84	7/19/84	ESD 223	KULIKOWSKI BE ROBANSKE BE	ACCEPTED	7/19/84	CBS	1.0
M1249 AUX BLDG	2 HVAC SUPPORT	SKC-HV2-694	7/24/84	7/24/84	QCP 5A QCP 9 WILDR QA	DAUGHTERY BE MASSEY BE JOSLIN FO	ACC-W/O-QA	7/24/84	CHM	2.0
M1250 CONTAINMENT	2 HVAC SUPPORT	SKC-HV2-196	7/24/84		QCP 5A QCP 9 WILDR QA	STAWA FO BILLINGS FO M-4768	PHYSICAL MVR	7/26/84	CHM	3.0
M1251 AUX BLDG	2 HVAC SUPPORT	SKC-HV2-471	7/24/84	7/24/84	QCP 5A QCP 9 WILDR QA	STAWA FO BILLINGS FO	ACC-W/O-QA	7/24/84	CHM	2.0
M1252 AUX BLDG	2 PIPE HANGER	SKCHV2-417	7/24/84	7/26/84	QCP 5A QCP 9 WILDR QA	STAWA FO BILLINGS FO	ACC-W/O-QA	7/26/84	CHM	2.0
M1253 AUX BLDG	2 HVAC SUPPORT	SKCHV2-558	7/24/84	7/24/84	QCP 5A QCP 9 WILDR QA	STAWA FO BILLINGS FO	ACC-W/O-QA	7/24/84	CHM	2.0
M1254 AUX BLDG	2 HVAC SUPPORT	SKCHV2-306	7/25/84		QCP 5A QCP 9 WILDR QA	STAWA FO BILLINGS FO M-4771	WELD MVR	7/26/84	CHM	3.0
M1255 AUX BLDG	2 HVAC SUPPORT	SKCHV2-384	7/25/84	7/26/84	QCP 5A QCP 9 WILDR QA	STAWA FO BILLINGS FO	ACC-W/O-QA	7/26/84	CHM	3.0
M1256 CONTAINMENT	2 HVAC SUPPORT	SKC HV2-229	7/25/84		QCP 5A QCP 9 QCP 5 WILDR QA	STAWA FO BILLINGS FO M-4770	PHYSICAL MVR	7/26/84	CHM	3.0
M1257 CONTAINMENT	2 HVAC SUPPORT	SKC HV2-230	7/25/84	7/26/84	QCP 5A QCP 9 WILDR QA	STAWA FO BILLINGS FO	ACC-W/O-QA	7/26/84	CHM	3.0
M1258 AUX BLDG	2 HVAC SUPPORT	SKC HV2-617	7/25/84	7/25/84	QCP 5A QCP 9 WILDR QA	STAWA FO BILLINGS FO	ACC-W/O-QA	7/25/84	CHM	2.0
M1259 AUX BLDG	2 HVAC SUPPORT	SKC HV2-517	7/25/84	7/26/84	QCP 5A WILDR QA	STAWA FO BILLINGS FO	ACC-W/O-QA	7/26/84	CHM	2.0

M1260 VENTILATION	2 HVAC SUPPORT	SKC HV2-649	7/25/84	7/25/84	QCP 5A QCP 9 WILDR QA	STAWA BILLINGS	FO FO	ACC-W/O-QA	7/25/84 CHM	2.0
M1251 CONTAINMENT	2 PIPE HANGER	2170-10	7/23/84	7/26/84	ESD 223	KULIKOWSKI	BE	RECORDS	7/26/84 CBS	2.0
M1262 CONTAINMENT	2 PIPE HANGER	414-334R	7/23/84	7/26/84	ESD 223	KULIKOWSKI	BE	ACC-W/O-QA	7/26/84	2.0
M1263 CONTAINMENT	2 PIPE HANGER	564-16	7/23/84	7/26/84	ESD 223	KULIKOWSKI	BE	RECORDS	7/26/84 CBS	2.0
M1264 CONTAINMENT	2 PIPE HANGER	919-35	7/24/84	7/26/84	ESD 223	KULIKOWSKI	BE	ACC-W/O-QA	7/26/84	2.0
M1265 CONTAINMENT	2 PIPE HANGER	72-2SL	7/24/84	7/26/84	ESD 223	KULIKOWSKI	BE	RECORDS	7/26/84 CBS	2.0
M1266 CONTAINMENT	2 PIPE HANGER	412-109R	7/24/84	7/26/84	ESD 223	KULIKOWSKI	BE	ACC-W/O-QA	7/26/84	2.0
M1267 CONTAINMENT	2 PIPE HANGER	414-310R	7/24/84	7/26/84	ESD 223	KULIKOWSKI	BE	RECORDS	7/26/84 CBS	2.0
M1268 CONTAINMENT	2 PIPE HANGER	564-19	7/25/84	7/26/84	ESD 223	KULIKOWSKI	BE	ACC-W/O-QA	7/26/84	2.0
M1269 CONTAINMENT	2 PIPE HANGER	2215-24	7/25/84	7/26/84	ESD 223	KULIKOWSKI	BE	RECORDS	7/26/84 CBS	2.0
M1270 CONTAINMENT	2 PIPE HANGER	414-359R	7/25/84	7/26/84	ESD 223	KULIKOWSKI	BE	ACC-W/O-QA	7/26/84	2.0
M1271 CONTAINMENT	2 PIPE HANGER	2216-169	7/25/84	7/26/84	ESD 223	KULIKOWSKI	BE	RECORDS	7/26/84 CBS	2.0
M1272 CONTAINMENT	2 PIPE HANGER	78-418SL	7/25/84		ESD 223	KULIKOWSKI	BE	ACC-W/O-QA	7/26/84	2.0
S1086 TURBINE BLDG	2 TURBINE BLDG	10239-T2-13-1642	7/03/84		QCP 3 QCP 5A QCP C7	MUNRO OJEN	BE FO	WELD NCR	7/06/84 MME	8.0
S1087 TURBINE BLDG	2 TURBINE BLDG	10239-T2-13-1641	7/05/84		QCP 3 QCP 5A QCP C7	MUNRO OJEN	BE FO	WELD NCR	7/06/84 MME	8.0
S1088 TURBINE BLDG	2 TURBINE BLDG	10218-T2-13-1537	7/05/84		QCP 3 QCP 5A QCP C7	MUNRO OJEN	BE FO	RECORDS	7/06/84 MME	3.0
S1089 TURBINE BLDG	2 TURBINE BLDG	10218-T2-13-1544	7/06/84		QCP 3 QCP 5A QCP C7	MUNRO OJEN	BE FO	RECORDS	7/06/84 MME	3.0
S1090 CONTAINMENT	2 ANNULUS	10034-C213-274	7/24/84	7/24/84	QCP 3 QCP 5A QCP C7	GANDARA JACQUES	BE FO	ACCEPTED	7/26/84 CBS	2.0
S1091 CONTAINMENT	2 ANNULUS	10020-C2-13-87	7/24/84	7/24/84	QCP 3 QCP 5A QCP C7	GANDARA JACQUES	BE FO	ACCEPTED	7/26/84 CBS	2.0
S1092 CONTAINMENT	2 ANNULUS	10036-C2-13-358	7/24/84	7/24/84	QCP 3 QCP 5A QCP C7	GANDARA JACQUES	BE FO	ACCEPTED	7/26/84 CBS	2.0
S1093 CONTAINMENT	2 ANNULUS	10036-C2-13-360	7/24/84	7/24/84	QCP 3 QCP 5A QCP C7	GANDARA JACQUES	BE FO	ACCEPTED	7/26/84 CBS	2.0
S1094 CONTAINMENT	2 ANNULUS	10028-C2-13-122	7/24/84	7/24/84	QCP 3 QCP 5A QCP C7	GANDARA JACQUES	BE FO	ACCEPTED	7/26/84 CBS	2.0

ATTACHMENT 2

UNIT #1 PROJECT FINANCIAL STATUS (THROUGH 31 JULY 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>0.6 yr-avg.</u>
Direct Salaries	<u>\$ 0</u>	<u>\$ 36.0</u>
Material and Services (Excluding ADP)	<u>\$ 0</u>	<u>\$ 0</u>
ADP Support	<u>\$ 0</u>	<u>\$ 0</u>
Subcontracts (EG&G, Inc.)	<u>\$ 0</u>	<u>\$ 95.5</u>
Travel Expenses	<u>\$ 0</u>	<u>\$ 17.5</u>
Indirect Labor Costs	<u>\$ 0</u>	<u>\$ 34.6</u>
Other (TID)	<u>\$ 0</u>	<u>\$ 0.2</u>
General and Administrative	<u>\$ 0.1</u>	<u>\$ 28.8</u>
 TOTAL	 <u>\$ 0.1</u>	 <u>\$212.6</u>
 Liens		 <u>\$ 3.6</u>
 Total Including Liens		 <u>\$216.2</u>
 (Percent of Available Funding)		 <u>\$ 63%</u>

*NOTE: Figures may differ slightly from final billing.

ATTACHMENT 3

UNIT #2 PROJECT FINANCIAL STATUS (THROUGH 31 JULY 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>\$190.0K</u>	<u>\$190.0K</u>	<u>-0-</u>

B. ANALYSIS

	<u>Period</u>	<u>Cumulative</u>
Direct Laboratory Staff Effort (FTE)	<u>0.2</u>	<u>0.7</u> yr-avg.
Direct Salaries	<u>\$ 0.7</u>	<u>\$ 28.8</u>
Material and Services (Excluding ADP)	<u>\$ 0</u>	<u>\$ 0</u>
ADP Support	<u>\$ 0</u>	<u>\$ 0</u>
Subcontracts (EG&G, Inc.)	<u>\$ 2.2</u>	<u>\$ 51.8</u>
Travel Expenses	<u>\$ 2.1</u>	<u>\$ 12.0</u>
Indirect Labor Costs	<u>\$ 0.6</u>	<u>\$ 32.5</u>
Other (TID)	<u>\$ 0</u>	<u>\$ 0</u>
General and Administrative	<u>\$ 3.9</u>	<u>\$ 15.7</u>
 TOTAL	 <u>\$ 9.5</u>	 <u>\$ 140.8</u>
 Liens		 <u>\$ 0</u>
 Total Including Liens		 <u>\$ 140.8</u>
 (Percent of Available Funding)		 <u>\$ 74%</u>

*NOTE: Figures may differ slightly from final billing.