

# Lawrence Livermore National Laboratory

1584 AUS 16 PH 12 30

August 9, 1984 WOW: 84-25

REGION VINE

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.

8410020030 840910 PDR ADDCK 05000275 PDR

## 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.

## 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

Mr. Phil Morrill August 9, 1984 Page 3

## Attachment

## Distribution:

LL	NL	NRC			
G.	Cummings, L-91	R. Gilbert			
J.	Johnson, L-91	D. Kirsch			
R.	Langland, L-90	H. Canter			
М.	Eli, L-390	T. Bishop			
C.	Meier, L-90cm	E. Frigillana			
J.	Selan, L-777	T. Young, Jr.			
R.	White, L-777	P. Norbut			

EG&G/SRO
A. Debeling
R. Pong
C. Morton
C. Simkins

#### ATTACHMENT 1

u

N LOG 1 PART START COMPLETE STATUS MAN NUM LOC ITEM NUMBER DATE DATE CRIT CONTACTS AFF DATE INSP HRS STATUS M1218 CONTAINMENT 2 PIPE HANGER 91-42R 7/04/84 ESD 223 BENTACUR BE PHYSICAL 7/06/84 MHE 4.0 KULIKOWSKI BE RECORDS 7/06/84 MUR 4750 7/06/84 M1219 CONTAINMENT 2 PIPE HANGER 70-551 ESD 223 BENTACUR 7/04/84 BE RECORDS 7/06/84 MNE 4.0 KULIKOWSKI BE MUR M-4750 7/06/84 M1220 CONTAINMENT 2 PIPE HANGER 2-38V 7/04/84 ESD 223 BENTACUR BE PHYSI CAL. 7/06/84 MNE 2.0 KULIKOWSKI BE MUR M-7/06/84 M1221 TURBINE BLDG 2 PIPE HANGER 18-1V 7/05/84 ESD 223 KULIKOWSKI BE PHYSICAL 7/06/84 MNE 2.0 MUR M-7/06/84 M1222 AUX BLDG 2 HVAC SUPPORT SKC-HV2-499 7/10/84 QCP 5A DAUGHTERY BE WELD) 7/12/84 CHM 6.0 OCP 9 ALLEN FO RECORDS 7/12/84 WLDR DA M1223 ALX ELDG 2 HUAC SUPPORT SKC-HJ2-422 7/10/84 OCP 5A DAUGHTERY BE CONFIG'N 7/12/84 CHM 4.0 OCP 9 ALLEN FO NCR WLDR DA 8827-105 7/12/84 M1224 TURBINE BLDG 2 HVAC SUPPORT SKC-HV2-396 7/10/84 QCP 5A DAUGHTERY CONFIG'N 7/12/84 CHM BE 4.0 QCP 9 JOSLIN FO NCR WLDR DA BROWN FD 8827-104 7/12/84 M1225 AUX BLDG 2 HWAC SUPPORT SKC-HV2-234 7/10/84 7/12/84 QCP 5A DAUGHTERY BE ACC-W/0-0A 7/12/84 CHM 2.0 QCP 9 JOSLIN FO FO WLDR DA BROWN M1226 AUX BLDG 2 HUAC SUPPORT SKC-HV2-363 7/11/84 7/12/84 QCP 5A DAUGHTERY BE ACC-W/0-QA 7/12/84 CHM 2.0 QCP 9 **JOSLIN** FO OCP 5 BROWN FO WLDR DA M1227 CONTAINMENT 2 HUAC SUPPORT SKC-HV2-203 7/11/84 QCP 5A DAUGHTERY BE PHYSICAL 7/12/64 CHM 3.0 QCP 9 JOSLIN FO WLDR QA BROWN FO M1228 AUX BLDG 2 HUAC SUPPORT SKC-HV2-323 7/12/84 QCP 5A DAUGHTERY BE ACC-W/0-QA 7/12/84 CHM 2.0 QCP 9 JOSLIN FO HLDR DA BROWN FD M1229 AUX BLDG 2 HUAC SUPPORT SKC-HV2-285 7/11/84 7/12/84 QCP 5A DAUGHTERY BE ACC-W/0-0A 7/12/84 CHM 2.6 HLDR OA JOSLIN FO BROWN FO M1230 AUX 9LDG 2 HUAC SUPPORT SKC-HV2-252 7/11/84 QCP SA DAUGHTERY BE WELD 7/12/84 CHM 5.0 QCP 5 JOSL IN FO HLDR DA BROWN FO M1231 CONTAINMENT 2 PIPE HANGER 72-23SL 7/16/84 7/17/84 ESD 223 BERNASCONI BE ACCEPTED 7/17/84 CBS 1.0 KULIKOWSKI BE M1232 CONTAINMENT 2 PIPE HANGER 71-54SL 7/16/84 7/17/84 ESD 223 BERNASCONI BE ACCEPTED 7/17/84 CBS 1.0 KULIKOWSKI BE M1233 ANNULUS 2 PIPE HANGER 413-407R 7/17/84 ESD 223 BERNASCONI BE ACCEPTED 7/16/84 7/17/84 CBS 1.0 KULIKOWSKI BE M1234 ANNULUS 2 PIPE HANGER 413-336R 7/16/84 7/17/84 ESD 223 BERNASCONI BE ACCEPTED 7/17/84 CBS 1.0 KULIKOWSKI BE M1235 ANNULUS 2 PIPE HANGER 413-569R 7/16/84 7/17/84 ESD 223 BERNASCONI BE ACCEPTED 7/17/84 CBS 1.0 KULIKOWSKI BE M1236 ANNULUS 2 PIPE HANGER 50-99R 7/16/84 7/17/84 ESD 223 BERNASCONI BE ACCEPTED 7/17/84 CBS 1.0 KULIKOWSKI BE

1	M1237	FUEL HANDLING	2 PIPE	HANGER	414-81SL	7/16/84	7/17/84	ESD 223	BERNASCONI KULIKOWSKI	-	ACCEPTED	7/17/84 CBS	1.0
1	M1238	ANNULUS	2 PIPE	HANGER	48-25R	7/16/84	7/17/84	ESD 223	BERNASCONI KULIKOWSKI	BE	ACCEPTED	7/17/84 CBS	1.0
1	M1239	ANNULUS	2 PIPE	HANGER	47-41R	7/16/84	7/17/84	ESD 223	BERNASCONI KULIKOWSKI	BE	ACCEPTED	7/17/84 C8S	1.0
1	M1240	ANNULUS	2 PIPE	HANGER	47-73R	7/16/84	7/17/84	ESD 223	BERNASCONI KULIKOWSKI	BE	ACCEPTED	7/17/84 CBS	1.0
1	M1241	ANNULUS	2 PIPE	HANGER	47-66R	7/16/84	7/17/84	ESD 223	BERNASCONI KULIKONSKI	BE	ACCEPTED	7/17/84 CBS	1.0
1	M1242	ANNULUS	2 PIFE	HANGER	413-192SL	7/17/84	7/18/84	ESD 223	BERNASCONI KULIKOWSKI	BE	ACCEPTED	7/18/84 CBS	1.0
1	M1243	CONTAINMENT	2 PIPE	HANGER	6-49R	7/17/84	7/18/84	ESD 223	KULIKOWSKI ROBANSKE		ACCEPTED	7/18/84 CBS	1.0
1	M1244	ANNULUS	2 PIPE	HANGER	50-51R	7/17/84	7/18/84	ESD 223	KULIKOHSKI ROBANSKE		ACCEPTED	7/18/84 CBS	1.0
1	M1245	AUX BLDG	2 PIPE	HANGER	414-23R	7/18/84	7/18/84	ESD 223	KULIKOWSKI	-	ACCEPTED	7/18/84 CBS	1.0
1	M1246	CONTAINMENT	2 PIPE	HANGER	2025-15R	7/18/84	7/18/84	ESD 223	KULIKOWSKI ROBANSKE	BE BE	ACCEPTED	7/18/84 CBS	1.0
1	M1247	CONTAINMENT	2 PIPE	HANGER	2037-7V	7/18/84	7/19/84	ESD 223	KULIKOWSKI ROBANSKE	BE	ACCEPTED	7/19/84 CBS	1.0
1	M1248	ANNULUS	2 PIPE	HANGER	413-501R	7/18/84	7/19/84	ESD 223	KULIKOWSKI ROBANSKE	BE BE	ACCEPTED	7/19/84 CBS	1.0
1	M1249	AUX BLDG	2 HVAC	SUPPORT	SKC-HV2-694	7/24/84	7/24/84	QCP 9	DAUGHTERY MASSEY JOSLIN	BE BE FO	ACC-W/0-QA	7/24/84 CHM	2.0
1	M1250	CONTAINMENT	2 HVAC	SUPPORT	SKC-HV2-196	7/24/84		QCP 5A QCP 9	STAVA BILLINGS	FO	PHYSICAL MVR	7/26/84 CHM	3.0
1	M1251	AUX BLDG	2 HVAC	SUPPORT	SKC-HV2-471	7/24/84	7/24/84	QCP 5A QCP 9 WLDR QA	STAVA BILLINGS	FO FO	M-4768 ACC-N/0-QA	7/26/84 7/24/84 CHM	2.0
,	M1252	AUX BLDG	2 PIPE	HANGER	SKCHV2-417	7/24/84	7/26/84	QCP 5A	STAVA BILLINGS	FO FO	ACC-W/0-QA	7/26/84 CHM	2.0
1	M1253	AUX BLDG	2 HVAC	SUPPORT	SKCHV2-558	7/24/84	7/24/84	QCP 5A	STAVA BILLINGS		ACC-W/0-QA	7/24/84 CHM	2.0
1	M1254	AUX BLDG	2 HVAC	SUPPORT	SKCHV2-306	7/25/84		QCP 5A	STAVA BILLINGS	FO		7/26/84 CHM	3.0
1	M1255	AUX BLDG	2 HVAC	SUPPORT	SKCHV2-384	7/25/84	7/26/84	QCP 5A	STAVA BILLINGS	FO	ACC-W/0-QA		3.0
1	M1256	CONTAINMENT	2 HVAC	SUPPORT	SKC HV2-229	7/25/84		QCP 5A	STAVA BILLINGS			7/26/84 CHM 7/26/84	3.0
1	M1257	CONTAINMENT	2 HVAC	SUPPORT	SKC HV2-230	7/25/84	7/26/84	QCP 9	STAVA BILLINGS			7/26/84 CHM	3.0
1	M1258	AUX BLDG	2 HVAC	SUPPORT	SKC HV2-617	7/25/84	7/25/84		STAVA BILLINGS		ACC-W/0-0A	7/25/84 CHM	2.0
	M1259	AUX BLDG	2 HVAC	SUPPORT	SKC HV2-517	7/25/84	7/26/84	QCP 5A			ACC-W/0-QA	7/26/84 CHM	2.0

1											
M1260	VENTILATION	2 HVAC SUPPORT	SKC HV2-649	7/25/84	7/25/84	-	STAVA BILLINGS		ACC-WO-QA	7/25/84 CHM	2.0
M1251	CONTAINMENT	2 PIPE HANGER	2170-10	7/23/84	7/26/84		3 KULIKOWSKI BERNASCONI		RECORDS ACC-W/0-QA	7/26/84 CBS 7/26/84	2.0
M1262	CONTAINMENT	2 PIPE HANGER	414-334R	7/23/84	7/26/84	ESD 22	3 KULIKOWSKI BERNASCONI	8E		7/26/84 CBS	2.0
M1263	CONTAINMENT	2 PIPE HANGER	564-16	7/23/84	7/26/84	ESD 22	3 KULIKOWSKI BERNASCONI		RECORDS ACC-W/0-QA	7/26/84 CBS 7/26/84	2.0
M1264	CONTAINMENT	2 PIPE HANGER	919-35	7/24/84	7/26/84	ESD 22	3 KULIKOWSKI BERNASCONI		RECORDS ACC-W/0-QA	7/26/84 CBS 7/26/84	2.0
M1265	CONTAINMENT	2 PIPE HANGER	72-2SL	7/24/84	7/26/84	ESD 22	3 KULIKONSKI BERNASCONI		ACCEPTED	7/26/84 CBS	2.0
	CONTAINMENT	2 PIPE HANGER	412-109R	7/24/84			3 KULIKOWSKI BERNASCONI	BE	ACCEPTED	7/26/84 CBS	2.0
	CONTAINMENT	2 PIPE HANGER	414-310R	7/24/84			3 KULIKOWSKI BERNASCONI	BE	ACCEPTED	7/26/84 CBS	2.0
	CONTAINMENT	2 PIPE HANGER	564-19	7/25/84			3 KULIKOWSKI BERNASCONI	BE	RECORDS ACC-W/O-QA	7/26/84 CBS 7/26/84	2.0
	CONTAINMENT	2 PIPE HANGER	2215-24	7/25/84			BERNASCONI	BE	RECORDS ACC-W/0-QA	7/26/84 CBS 7/26/84	2.0
	CONTAINMENT	2 PIPE HANGER	414-359R	7/25/84			BERNASCONI	BE	ACCEPTED	7/26/84 CBS	2.0
	CONTAINMENT	2 PIPE HANGER 2 PIPE HANGER	2216-169		//26/84		BERNASCONI	BE		7/26/84 CBS	2.0
	TURBINE BLOG	2 TURBINE BLDG	78-418SL 10239-T2-13-1642	7/25/84		QCP 3	3 KULIKOWSKI BERNASCONI MUNRO		CONFIG'N MVR WELD	7/26/84 CBS 7/26/84 7/06/84 MME	8.0
31000	TORDINE DEDG	2 TONDSING DEDG	10235-12-13-1642	7703704		QCP 54	OIEN		NCR 5422-691	7/06/84 PMC	0.0
\$1087	TURBINE BLDG	2 TURBINE BLDG	10239-T2-13-1641	7/05/84		QCP 34 QCP 54 QCP C7	MUNRO OTEN		WELD NCR 5422-692	7/06/84 MHE 7/06/84	8.0
\$1088	TURBINE BLDG	2 TURBINE BLDG	10218-T2-13-1537	7/05/84		QCP 34 QCP 54 QCP C7	MUNRO OIEN	BE FO	RECORDS	7/06/84 MHE	3.0
\$1089	TURBINE BLDG	2 TURBINE BLDG	10218-T2-13-1544	7/06/84		QCP 34 QCP 54 QCP C7	MUNRO OTEN	BE FO	RECORDS	7/06/84 MHE	3.0
\$1090	CONTAINMENT	2 ANNULUS	10034-C213-274	7/24/84	7/24/84		GANDARA JACQUES	BE FO	ACCEPTED	7/26/84 CBS	2.0
\$1091	CONTAINMENT	2 ANNULUS	10020-C2-13-87	7/24/84	7/24/84	QCP 54 QCP CT		BE FO	ACCEPTED	7/26/84 CBS	2.0
\$1092	CONTAINMENT	2 ANNULUS	10036-C2-13-358	7/24/84	7/24/84	QCP 3 QCP 54 QCP C7	The state of the s	BE FO	ACCEPTED	7/26/84 CBS	2.0
	CONTAINMENT	2 ANNULUS	10036-C2-13-360	7/24/84	7/24/84	QCP 34 QCP CT	The state of the s	BE FO	ACCEPTED	7/26/84 CBS	2.0
\$1094	CONTAINMENT	2 ANNULUS	10028-C2-13-122	7/24/84	7/24/84		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)

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

## B. ANALYSIS

	Period	Cumulative
Direct Laboratory Staff Effort (FTE)	0	0.6 yr-avg.
Direct Salaries	\$ 0	\$ 36.0
Material and Services (Excluding ADP)	\$ 0	\$ 0
ADP Support	\$ 0	\$ 0
Subcontracts (EG&G, Inc.)	\$ 0	\$ 95.5
Travel Expenses	\$ 0	\$ 17.5
Indirect Labor Costs	\$ 0	\$ 34.6
Other (TID)	\$ 0	\$ 0.2
General and Administrative	\$ 0.1	\$ 28.8
TOTAL	\$_0.1	\$212.6
Liens		\$_3.6_
Total Including Liens		\$216.2
(Percent of Available Funding)		\$ 63%

## ATTACHMENT 3

## UNIT #2 PROJECT FINANCIAL STATUS (THROUGH 31 JULY 1984)\*

## A. STATUS (Dollars in thousands)

Total Projected Project Cost	Funds Obligated To Date	Balance of Funds Due FY 1983			
\$190.0K	\$190.0K	-0-			

## B. ANALYSIS

	Period	Cumulative
Direct Laboratory Staff Effort (FTE)	0.2	0.7 yr-avg.
Direct Salaries	\$ 0.7	\$ 28.8
Material and Services (Excluding ADP)	\$ 0	\$ 0
ADP Support	\$ 0	\$ 0
Subcontracts (EG&G, Inc.)	\$ 2.2	\$ 51.8
Travel Expenses	\$ 2.1	\$ 12.0
Indirect Labor Costs	\$ 0.6	\$ 32.5
Other (TID)	\$ 0	\$ 0
General and Administrative	\$ 3.9	\$ 15.7
TOTAL	\$ 9.5	\$_140.8
Liens		\$_0_
Total Including Liens		\$ 140.8
(Percent of Available Funding)		\$ 74%

<sup>\*</sup>NOTE: Figures may differ slightly from final billing.