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INTERNAL TECHNICAL REPORT

Title: LOFT MONTHLY PROGRESS REPORT
FOR JULY 1980

Organization: LOFT PROGRAM

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NRC Research and Technical Assistance Report

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NRC Research and Technical
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DIRECTOR'S MONTHLY SUMMARY

During July, the LOFT test sequence underwent careful review which determined that changes would be appropriate. Evaluation of Tests L3-4 and L6-1 indicated they would not add significantly to the information base available from other experiments; therefore, these tests were cancelled. As shown in the Management Summary Schedule included in this report, the next test to be run is L3-5, scheduled for mid-September. Test L3-5 will be a small-break test in the cold leg side of the operating loop of the plant.

Work efforts during July concentrated on plant preparation for the mid-September test. Installation of a new small-break path from the cold leg to the blowdown suppression tank, together with the associated new instrumentation installations, were well underway and on schedule at month's end.

The Actual spending rate to date is in agreement with current budgets and authorized funding levels.

ACCOMPLISHMENTS

LOFT TECHNICAL SUPPORT DIVISION

1. A common mode failure analysis was performed to identify an acceptable rerouting of power cabling for the primary coolant pump.
2. A proposal was prepared to revise the Loss-of-Fluid-Test (LOFT) Technical Specifications to limit the items covered to those having immediate importance for safe operation of the facility. This proposal is consistent with the plan formulated by the Nuclear Regulatory Commission (NRC) to minimize the information presented in the Technical Specifications.
3. The changes to the LOFT Technical Specifications for conduct of the L6-1 test were transmitted to the Department of Energy - Idaho Operations Office (DOE-ID) for approval.
4. A LOFT Technical Support Division (LTSD) tracking system was established to follow LOFT's responses to the NRC Action Plan (NUREG 0660). This system will be under the cognizance of LOFT Configuration Document Control and Services (CDCS) and will include those items currently tracked by the Three Mile Island (TMI) Status Report.
5. A tracking plan for the NRC IE Bulletins, Circulars, and Information Notices has been established within LOFT CDCS.
6. A file was established for generic safety issues and the NRC list of unreviewed safety issues. These issues are being reviewed by LTSD for applicability to LOFT.
7. The safety analysis was completed for the Experiment Safety Analysis (ESA), and documentation is in progress.

8. A feasibility assessment was made of the concept of using a source-detector in one of the tubes of the traversing in-core probe (TIP) to measure the reactor coolant level. Results of the assessment are now being evaluated.
9. A PDQ computer model study was completed to determine where recriticality will occur in a primary coolant system cooldown test with three control rods in the core. A study was begun to determine where recriticality will occur with two control rods in the core.
10. A simple "pocket calculator" technique for determining the estimated critical boron (ECB) was developed as a backup check for the data acquisition and visual display system (DAVDS) ECB program.
11. The transformer consultants have completed electrical and oil testing of the Test Area North (TAN) transformers. Preliminary results verified that the area transformers are in satisfactory condition. The consultants' final report is due in August.

At the same time, high- and low-voltage cables were tested to see if any damage had been caused by the overvoltage conditions that occurred in August 1979. All system cables tested satisfactorily.

12. The upgrade of the DAVDS power system has been completed. Three additional voltage-regulator monitors were installed.
13. The new stack monitor (Eberline Model SPING-2A) has arrived at LOFT. The SPING-2A is now being installed and will be used as a training tool to familiarize operators with its operation. Following operator training, the system will replace the present Victoreen unit.

14. Engineering design efforts were completed on the following experimental measurements cabling tasks to:
 - a. Provide cabling for new instrumented spool pieces,
 - b. Install outside the containment vessel the electrical cabling for the DE-CIS small-break gamma densitometer circuits, and
 - c. Install and check out mobile test assembly (MTA) circuits from JB-6 to low-level penetrations 3K, 3M, and 30. The circuits are required for future installation of the A3 and F1 center fuel assemblies.
15. The MTA portion of the new three-channel pressurizer temperature measurement system has been installed.
16. Process instruments and cables for the blowdown suppression tank (BST) have been relocated in lower-temperature areas outside the BST containment.
17. The prototype pressurizer-level instrument has been installed. This channel will be identified as channel C when all channels have been installed.
18. The first draft of System Design Description (SDD) 1.4.10, "Facility Temperature Monitor" (FTM), was completed and was sent to the Specifications and Standards Section for editing and processing prior to approval and release.
19. The engineering design has been completed on a task to provide a four-thermocouple temperature monitoring system to monitor the temperature of the LOFT containment vessel.
20. The instrumentation-lead splicing was completed, and final lead termination was started on the A3 fuel module.

21. Fabrication and installation of the air-sweep-system header were completed.
22. The design of the irradiated-fuel storage equipment was completed.
23. Preparations continued toward the accelerated date of August 22 to fill the plant prior to the L3-5 test. Both the gamma densitometer and drag screen-turbine meter instrumented spool pieces were completed and submitted to the LOFT Test Support Facility (LTSF) for calibration.
24. The revised piping modifications were completed for the power-operated relief valve and for reconfiguring the discharge line for normal operations.
25. Several incidental tasks pertinent to the secondary coolant system (SCS) and emergency core cooling system (ECCS) were completed. These tasks improved performance and corrected deficiencies in the two systems.
26. Results of radiological and chemical analyses have indicated that no degradation of the plant resulted from the L3-7 small-break test.
27. Results of laboratory efficiency tests of the filter trains of HV systems 8 and 9 showed the efficiency was within specifications.
28. Resin transfer modifications are continuing. The flush-water bypass is completed, and the concrete shielding casks have been received.
29. DOE-ID has approved eleven LOFT design descriptions (DDs); five DDs are currently being reviewed by DOE-ID.
30. The Operation and Maintenance Manual (OMM) was completed for the LOFT L3-4 low-energy nuclear-hardened densitometer.

LOFT FACILITY DIVISION

1. All L3-5 work items continued, including small-break piping, gamma densitometer, waste gas processing system (WGPS), and repacking and reworking of valves.
2. Inservice inspection (ISI) and surveillance testing required during this shutdown were begun.
3. Automated ultrasonic test (AUT) inspection of LOFT piping was started.
4. Quality Division (QD) has been visually inspecting all piping hangers.

LOFT MEASUREMENTS DIVISION

1. The zircaloy thermocouple cable and documentation were completed at Central Facilities Area (CFA) and were shipped to the Fuel Engineering and Operations Branch for qualification of the Zr-Ti braze button.
2. The test program of the zircaloy-tubing-defects analysis is 95-percent complete. The program will determine the maximum depth, expressed as a percentage of wall thickness, that a defect may penetrate the thermocouple wall without disqualifying the thermocouple for use in the LOFT environment. Eddy-current testing has been performed, and thermocouple cable has been fabricated. The specimens have been mandrel-wrapped, laser-welded, and blowdown-autoclaved. No visible defects occurred. Metallography to identify any defect propagation has been performed. A LOFT Technical Report (LTR) presenting the findings of the testing is scheduled for completion by the second week of August.
3. Eighty-four good titanium-shielded thermocouples (for the F1 fuel bundle) received from Control Products and Semco were reworked and shipped to Exxon Nuclear Company. Forty-eight thermocouples are needed, leaving a surplus. Thirty-four dummy thermocouples were shipped to Exxon Nuclear Company; an additional ten are in fabrication and are scheduled to be shipped by the first week in August.
4. A feasibility study of the measurement of the steam generator's feedwater flow rate was completed. Use of the Controlotron 480 series clamp-on ultrasonic flow meter was recommended.
5. A cost estimate and preliminary schedule of the temperature measurement at the steam generator wall and steam dome were completed.
6. A three-inch drag screen for tests L3-5 and L3-6 was fabricated, tested, and calibrated, and the full-flow turbine for tests L3-5 and L3-6 was received from Flow Technology. The turbine and drag screen in the downstream spool piece have been installed for the L3-5 test.

7. The OMM for the LOFT liquid-level transducers was published and distributed by LOFT Controlled Document and Configuration Service (CDCS).
8. Quality Division (QD) at CFA has released the L3-5 modular drag-disc turbine transducers (MDTTs) which use an improved bearing design. The three MDTTs to be assembled into the rake for the L3-5 test were delivered to Test Area North (TAN) on July 25, 1980. The fourth MDTT is scheduled for qualification testing and is receiving final check-out. The test loop at Auxiliary Reactor Area (ARA) is being checked out with testing scheduled to begin at the end of July. Some preliminary low-temperature testing is scheduled to occur during the week of July 21.
9. The L6-5 Experiment Data Report (EDR) was completed ahead of schedule and was delivered to DOE, NRC, and the nuclear community.
10. The Data Integrity Review Committee (DIRC) completed its review of the data obtained from the L3-7 experiment.
11. The L3-7 EDR was delivered to the Information Division for publication.
12. The L3-1 and L3-2 critical-mass flow multiplier study derived from Wyle calibration data was completed, and the draft has been distributed for review.
13. The pump-coastdown code on the MOD COMP data acquisition system was completed and released. The purpose of this code is to verify the calibration of the drag discs and the turbine meters.
14. Preliminary RELAP5 calculations modeling the LTSF quench tests were obtained. Results are being analyzed to evaluate rod-quench characterization.

15. Evaluation of electric-heater-rod simulation of nuclear-rod response during loss-of-coolant-accident (LOCA) conditions continued, including a comparison of REBEKA and FLECHT tests which showed heater-rod design to be important.

Also as part of the evaluation, a summary and abstract were written of a paper entitled, "Status of Work to Evaluate the Ability of Electric Rods to Simulate Nuclear Rod Behavior During a Loss-of-Coolant Accident." The paper was prepared for NRC and will be presented at the Electric Rod Simulation Symposium to be held at Gatlinburg.

16. A letter report was issued which summarizes the objectives of large core-melt tests and which identifies major additional work required to define specific experiments.
17. The proposed instrumentation changes to the F1 fuel bundle were approved by NRC and EG&G management in order to incorporate the thermocouple-embedded fuel rod. The EG&G Fuel Project Section is proceeding with Exxon Nuclear Company in all instrument design changes to the F1 fuel bundle.
18. In recent meetings between NRC and EG&G management, an agreement was reached to pressurize the F1 fuel bundle to 350 psi rather than 700 psi; however, the A4 fuel bundle will be pressurized to 700 psi.

LOFT PROGRAM DIVISION

1. A draft of the Experiment Operating Specification (EOS) for tests L6-1, L6-2, and L6-3 was prepared and submitted for review. The tests are scheduled for late September and early October 1980.
2. The planning analysis for Test L3-4 was completed; the analysis recommended that the test be cancelled because no significant events were expected to occur. NRC approved the cancellation.
3. The Experimental Test Definition for Tests L3-5 and L3-5A was issued and provided a preliminary discussion of initial conditions and operating conditions for the tests.
4. A list of critical measurements for Test L3-5 was developed.
5. "Planning Task Force Report" (BURT-7-80) was completed July 31, 1980. The most important features of the report were the recommendations for LOFT Program objectives and directions.
6. The report of the RETRAN analysis was completed and published. The analysis was performed by Energy Incorporated for LOFT Tests L6-1, L6-2, and L6-5.
7. A RELAP4 MOD7 sensitivity study was completed to investigate effects of steam bypass in LOFT.
8. A RELAP5 model for Test L3-5 was completed and initialized.
9. The report which documents the reference RELAP5 model of LOFT was completed and distributed.

FOREIGN-FUNDED TASK SUMMARIES

Foreign-funded and in-kind LOFT support projects are summarized in this section.

SUMMARY OF JAPANESE-FUNDED (JAERI) TASKS

1. Task 5F8C1 -- JAERI Management

Program management continued to monitor all JAERI-funded projects. Restructuring of the Work Breakdown Structure (WBS) for JAERI tasks continued.

2. Task 5F8C4 -- Advanced DTT

The budget and work associated with transient testing of the LOFT pressure-balanced drag turbine transducer (DTT) were redistributed to allow testing into fiscal year 1981. Priority conflicts necessitated the redistribution.

3. Task 5F8C5 -- PBF/LOFT Lead Rod Test

This task was completed, and the final topical report was printed and released in July.

4. Task 5F8C6 -- Reevaluation of LOFT Experiments

The final report for the task has been completed, and the transmittal letter was drafted but has not been signed.

5. Task 5F8C7 -- Miscellaneous Code Studies

This task was inactive during July.

6. Task 5F8C8 -- LTSF Suppression Tank

The new suppression tank was successfully used to support LTSF tests to evaluate instrumentation for the L3-4 and L3-5 tests. The suppression tank system functioned well and provided good accuracy on mass-flow measurements.

7. Task 5F8CA -- PC-3 and Small-Break Densitometers

- A. A successful fit-up of the PC-3 densitometer mock-up was made at LOFT. A prototype photomultiplier-tube preamplifier was designed for PC-3 application.
- B. The following work was performed for the small-break densitometer and instruments:
 - (1) Fabricated, tested, and calibrated the three-inch drag screen for the L3-5 and L3-6 tests,
 - (2) Received the full-flow turbine for the L3-5 and L3-6 tests from Flow Technology,
 - (3) Installed the turbine and drag screen in the downstream spool piece,
 - (4) Fabricated 80 percent of the gamma densitometer lead shielding,
 - (5) Received the controller and display for the densitometer's cooling system,
 - (6) Completed the mechanism for the source shutter,
 - (7) Completed the connector panel for the densitometer system, and

- (8) Began to rework the flanges on gamma densitometer spool piece for installation prior to the L3-5 and L3-6 tests.

8. Task 5F8CB -- Post-CHF Heat Transfer

A contract with Lehigh University is being written, and task support work has begun at Lehigh for the post-critical-heat-flux (CHF) heat transfer task. The LTSF test requirements and EOS are partially complete. The design of the test section is in the initial phase.

SUMMARY OF GERMAN-FUNDED (FRG) TASKS

1. Task 5F7C1 -- FRG Management

Program monitoring of FRG-funded tasks continued. Preparations began for the arrival of a new FRG technical delegate.

2. Task 5F7C4 -- Miscellaneous Tasks

A meeting with Dr. S. Bannerjee was held at the Idaho National Engineering Laboratory (INEL) to discuss the completion of tasks associated with the development of the rake for the LOFT emergency core cooling system (ECCS) and the results of tests performed.

3. Task 5F7C5 -- Steam Probe

A self-aspirating Westinghouse steam probe of the type used in the FLECHT-SEASET tests has been acquired. An attempt will be made to install this probe in the Post-CHF test for comparison with the Lehigh double aspirated probe.

4. Task 5F7CB -- LOFT State Vector Cost Estimate

Literature review continued during part of this month.

SUMMARY OF JAERI/FRG-SHARED TASKS

1. Task 5F9C2 -- Two-Phase, Steady-State Tests

All work on this task has been completed. Cost corrections are being made, and the task is expected to be completed within the budget.

2. Task 5F9C3 -- TRAC Code Studies

The final report has been typed, graphics work is nearly complete, and editing is in progress.

3. Task 5F9C4 -- Two-Phase Loop Boiler Building

Work bids were received, and a contractor was selected. Actual construction work will start about August 1.

SUMMARY OF NETHERLANDS-FUNDED (ECN) TASKS

1. Task 5FNC1 -- ECN Management

Program monitoring of ECN-funded tasks continued. A revised Work Breakdown Structure (WBS) used to follow and report ECN tasks was developed and submitted for Control Change Board (CCB) approval.

2. Task 5FNC3 -- RPI Subcontract

Assessment of the two-phase orifice model and code was continued at Rensselaer Polytechnic Institute (RPI).

3. Task 5FNC5 -- INEL Support to RPI Subcontract

Data from four WYLE transient tests were transmitted to RPI for use in assessment of the two-phase orifice model and computer code developed under Dr. R. Gay.

4. Task 5FNC6 -- Analysis of PNA Techniques

Work continued in the Monte Carlo evaluation of the tagging (activation) process of single-phase and two-phase flows using pulse neutron activation (PNA). Various analyses were performed using one, two, and four detectors located around a pipe filled half-and-half by volume with saturated liquid water and saturated steam. Most significantly, it was found that when one detector was located at the top of the pipe, the detector sensed that a neutron-activated steam velocity existed independently of the liquid velocity.

A milestone schedule has also been established with the final report scheduled for December 1980.

5. Task 5FNC7 -- Critical-Flow Scaling Studies

This task has been rescheduled to begin in August. No work has been performed on this task.

6. Task 5FNC8 -- Two-Phase Loop Platform Addition and Stairs

Work is ahead of schedule. Site preparation was completed, and the fabrication of platform and stairs was started.

7. Task 5FNCA -- WYLE Data Analysis

The mass-flow calculations are progressing. The completion of calculations and some interpretation are expected in August.

SUMMARY OF AUSTRIAN-FUNDED (SGAE) TASKS

1. Task 5FAC1 -- SGAE Management

Followup on negotiated in-kind support tasks was provided. All optic window materials and LOFT chemistry conditions were hand-delivered to the Vienna staff, completing input from EG&G Idaho for one of the in-kind tasks.

2. SGAE In-Kind Support to LOFT

No report related to the completed task of evaluating optical probe material has yet been received by LOFT; however, the report has been written and is being reviewed by SGAE management. New in-kind support tasks have been approved, and necessary preparations to begin the tasks, are in progress, both at INEL and SGAE.

SUMMARY OF SWITZERLAND IN-KIND (EIR) SUPPORT

1. NEPTUN Reflood Test Program

EIR has successfully power-tested the newly designed heater rods using a smooth skewed cosine shape power profile. Fabrication of the required number of heater rods is in progress. Instrumentation of the test housing is in progress. November 1980 appears to be the earliest that initial system-checkout tests can begin. LOFT is expected to deliver the thermocouples to EIR in September 1980.

FOREIGN COOPERATIVE SUPPORT TO LOFT

Various participating foreign organizations provide cooperative support to the LOFT Program. This section summarizes those efforts.

SUMMARY OF KERNFORSCHUNGSZENTRUM KARLSRUHE (KfK)

1. LTSF 9-Rod Bundle TC Quench Test

The nine-rod bundle apparatus is ready for testing; however, testing has been postponed in order to incorporate some new internal cladding thermocouples in the REBEKA rod similar to those being installed in future LOFT fuel rods. The scope of work to install these thermocouples is presently being discussed with Exxon and Power Burst Facility (PBF) Test Train personnel. REBEKA and FEBA heater rods are being used in this test.

2. REBEKA Thermocouple Tests

Results of the first three tests have suggested that a modified test matrix be developed. The first set of new tests will probably use only heater rods having no ballooning and no external thermocouples. Test plans are being developed, but continued testing may start in October 1980.

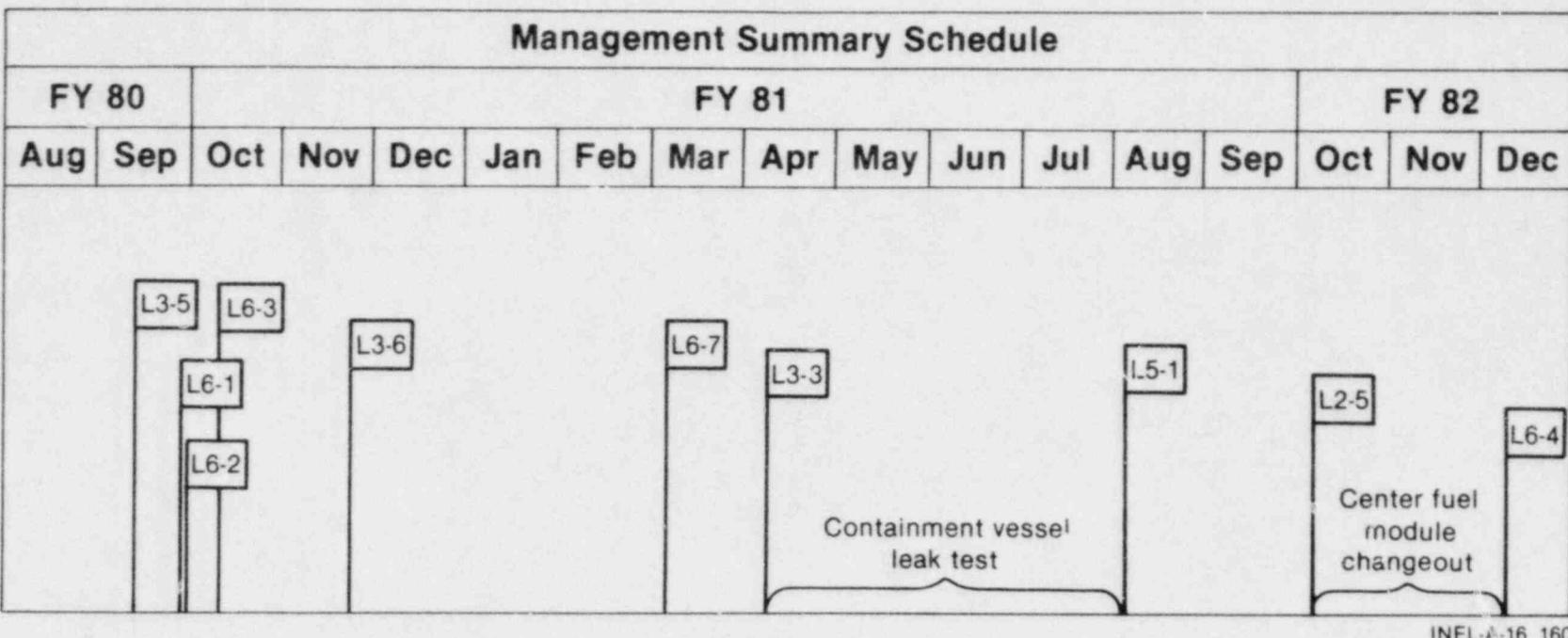
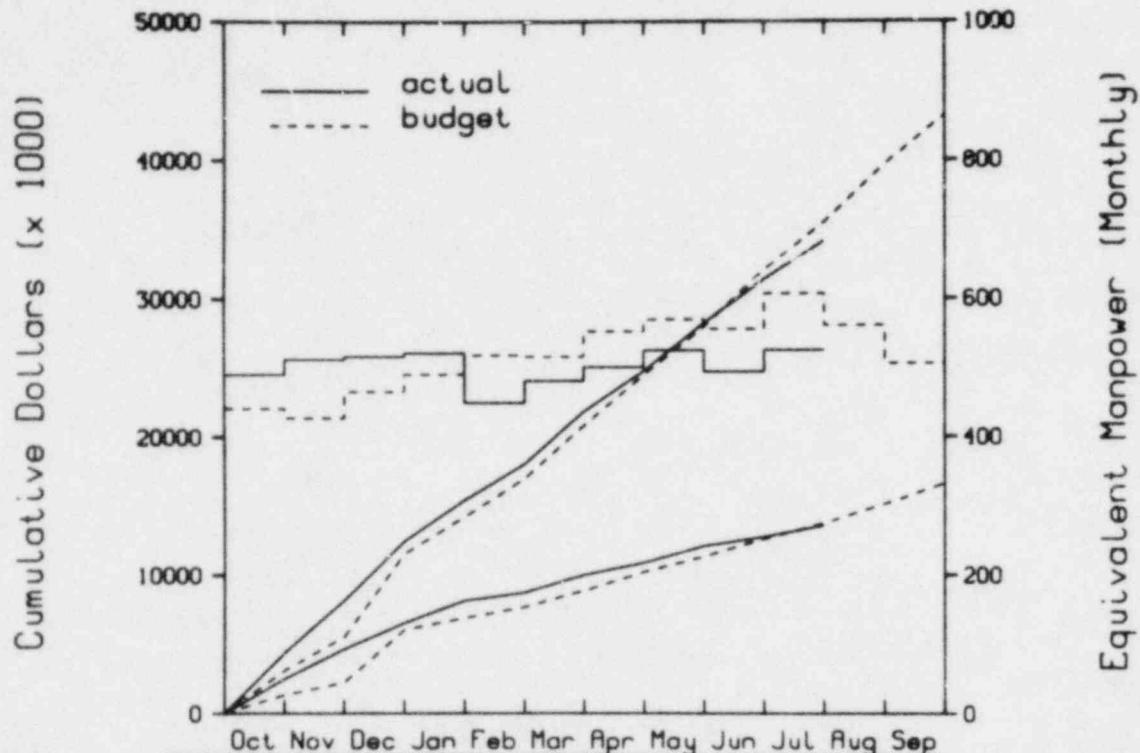


Figure 1. LOFT management summary schedule.

LOFT Overall Funding

5xxxxx

LOFT Program Cost/Budget Summary
LOFT OVERALL FUNDING



Total

Bud	3093	5504	11487	14176	16949	20799	24463	27972	32070	35499	39874	43250
Act	4365	8156	12405	15382	18017	21820	24756	28232	31410	34165		

Material

Bud	1326	2214	6031	6867	7672	8858	10213	11351	12613	13752	15119	16610
Act	2486	4643	6512	8132	8719	9982	10884	12106	12753	13601		

Manpower

Bud	441	427	465	480	518	516	553	570	556	607	561	506
Act	480	512	518	521	448	481	501	525	494	525		

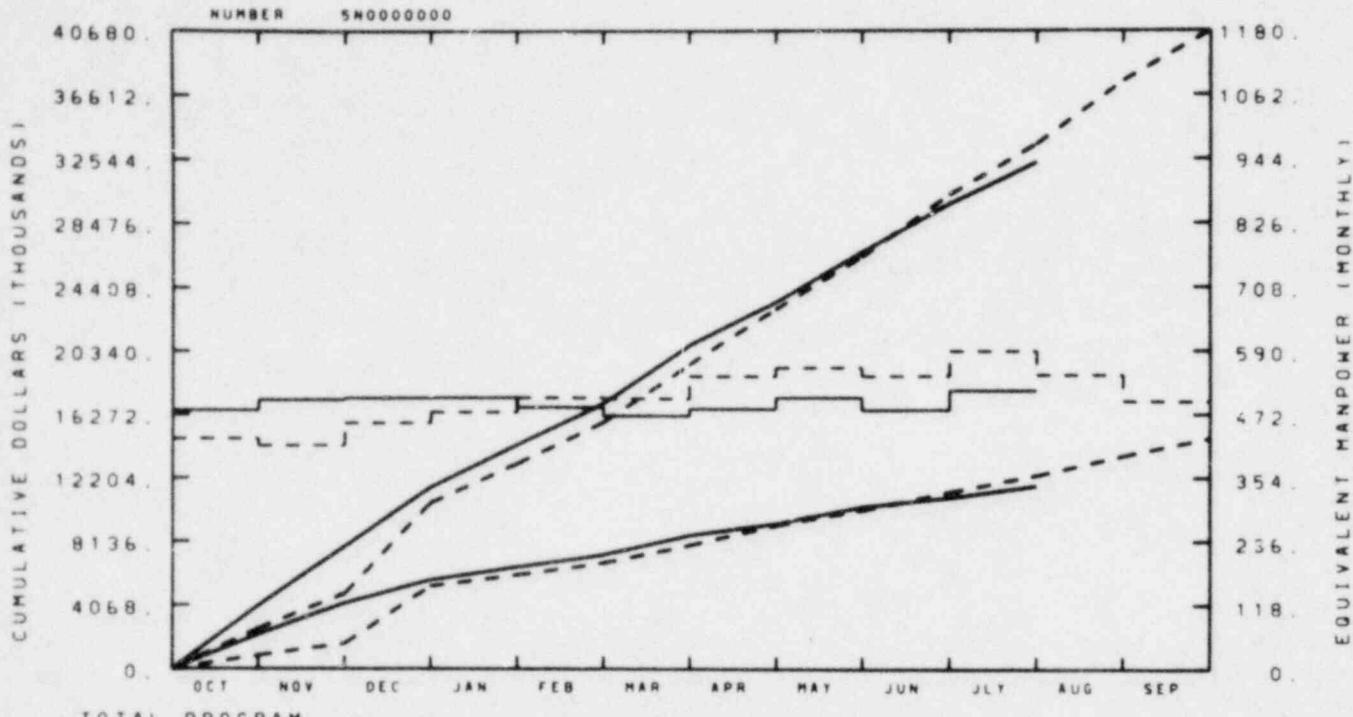
The Nuclear Regulatory Commission (NRC) and foreign-funded budgets reflect the LOFT Q80-4-5 baseline approved in July 1980. Refer to the Director's Monthly Summary for comments.

5N--NRC Operating Funding

5F--Foreign Funding

EG&G IDAHO INC.

LOFT - NRC OPERATING FUNDING



MATERIAL

BUDGET	853	1602	5279	5985	6750	7882	9161	10149	11307	12366	13597	14736
ACTUAL	2189	4183	5673	6479	7263	8518	9277	10353	10949	11696		

BUDGET

ACTUAL

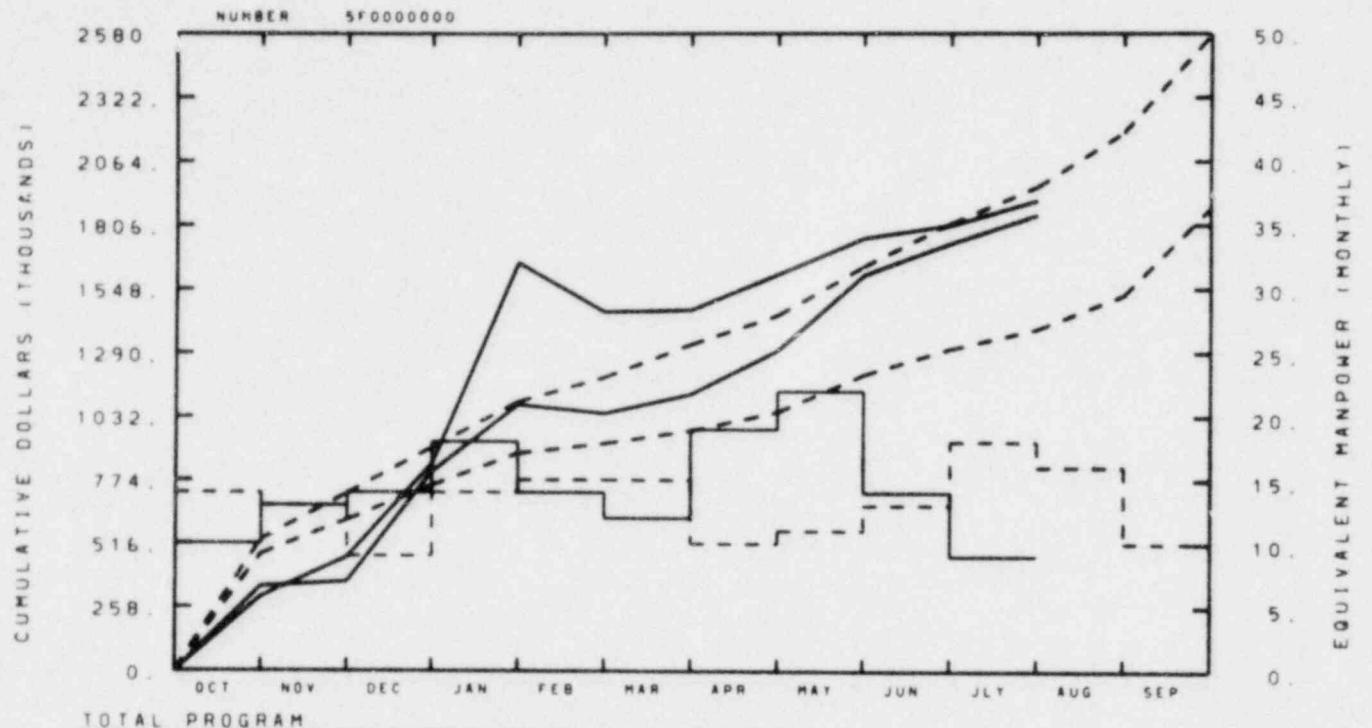
MANPOWER

BUDGET	427	414	456	476	503	501	543	559	543	589	545	496
ACTUAL	480	499	502	503	485	469	482	503	480	516		

Refer to the summary cost accounts for comments.

EG&G IDAHO INC.

LOFT - FOREIGN FUNDING



TOTAL PROGRAM

BUDGET	531	719	905	1092	1191	1325	1442	1639	1813	1960	2181	2577
ACTUAL	342	360	807	1080	1045	1123	1300	1603	1721	1845		

MATERIAL

BUDGET	473	612	752	882	922	976	1052	1202	1306	1386	1522	1874
ACTUAL	299	460	839	1653	1456	1464	1607	1753	1804	1905		

MANPOWER

BUDGET	14	13	5	14	15	15	10	11	13	18	16	10
ACTUAL	10	13	14	18	14	12	19	22	14	9		

BUDGET

ACTUAL

Refer to the summary cost accounts for comments.

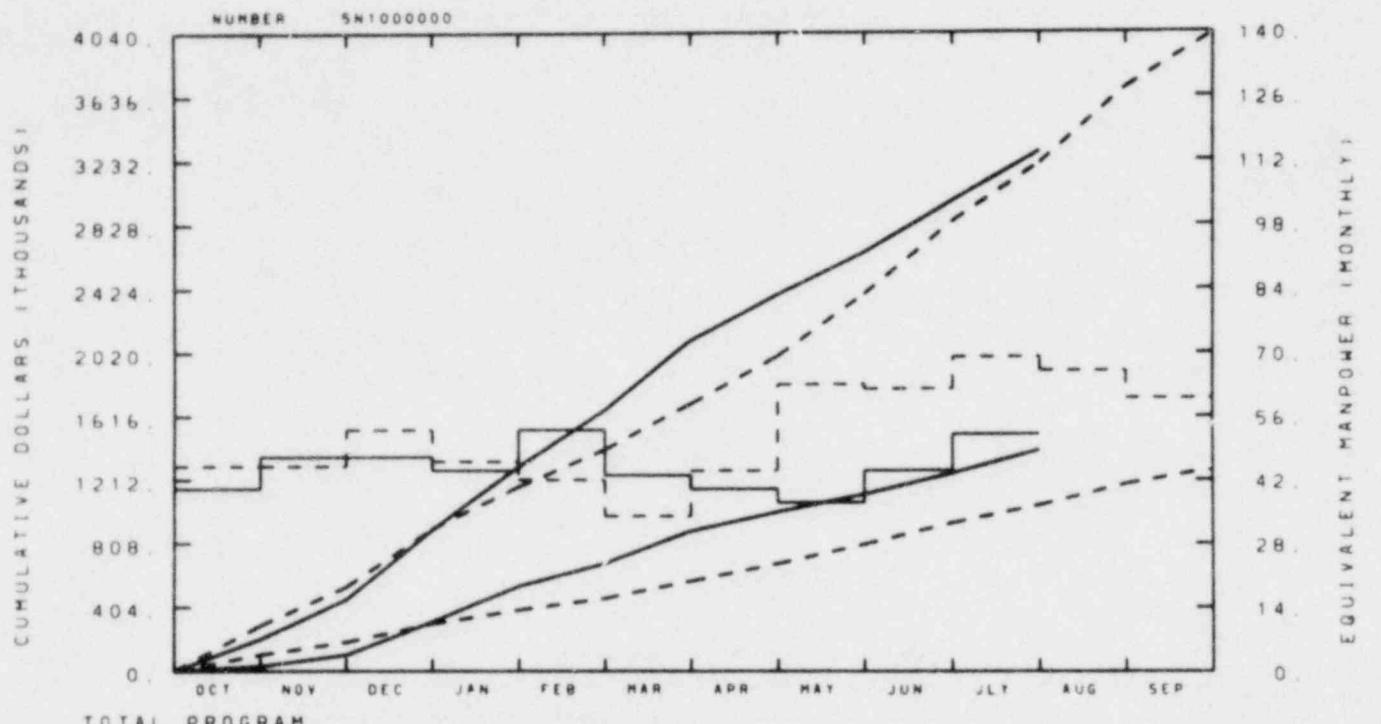
LOFT 189a Summary

5NX--NRC 189a

5FXX--Foreign 189a

EG&G IDAHO INC.

NT: 189A A6048 - EXPER PROGRAM



TOTAL PROGRAM

BUDGET	287	532	900	1167	1403	1697	2000	2390	2848	3213	3691	4030
ACTUAL	202	453	894	1294	1656	2100	2389	2653	2977	3288		

MATERIAL

BUDGET	103	183	299	386	461	570	680	803	938	1050	1184	1281
ACTUAL	30	103	312	537	682	887	1008	1120	1252	1400		

MANPOWER

BUDGET	45	45	53	46	42	34	44	63	62	69	66	60
ACTUAL	40	47	47	44	53	43	40	37	44	52		

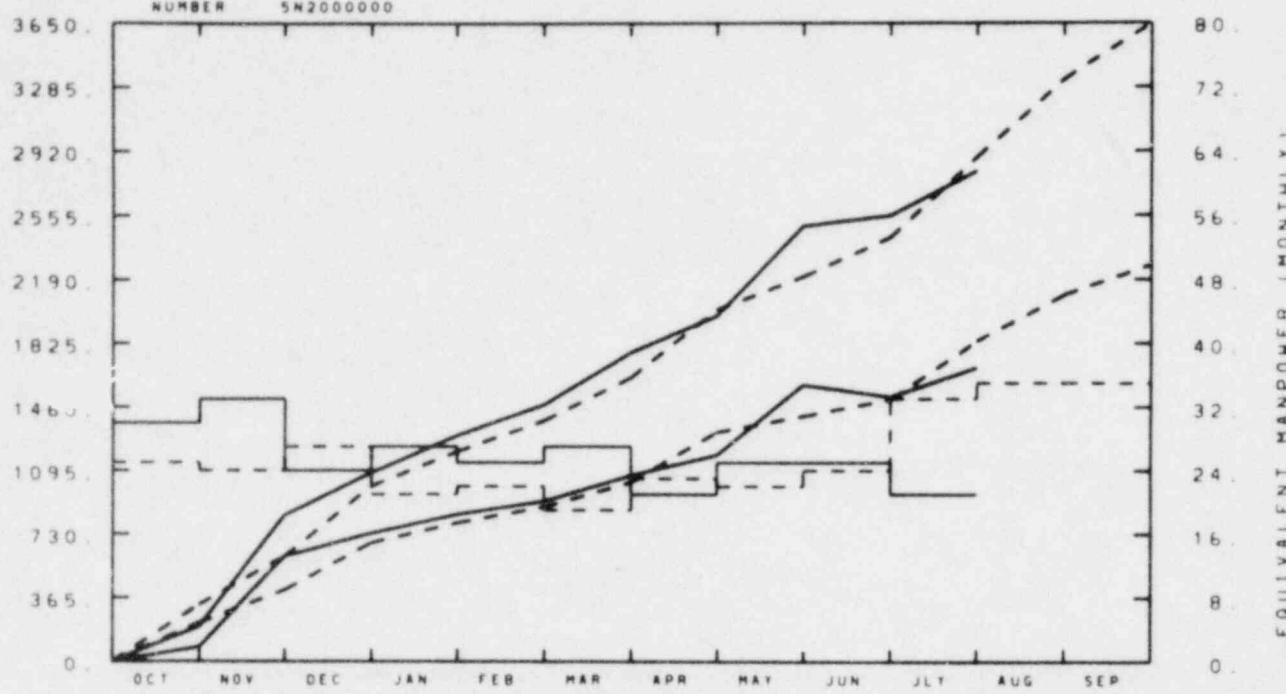
No significant variance.

EG&G IDAHO INC.

NRC 189A A6053 - FUEL

CUMULATIVE DOLLARS (THOUSANDS)

NUMBER SN2000000



TOTAL PROGRAM

BUDGET	325	603	1005	1202	1381	1630	2019	2209	2430	2887	3330	3648
ACTUAL	200	638	1082	1295	1473	1774	1984	2495	2555	2808		

MATERIAL

BUDGET	221	410	681	795	885	1028	1316	1408	1503	1837	2102	2272
ACTUAL	82	603	735	843	919	1067	1184	1587	1517	1686		

HANPOWER

BUDGET	15	24	27	21	22	19	23	22	24	33	35	35
ACTUAL	30	33	24	27	25	27	21	25	25	21		

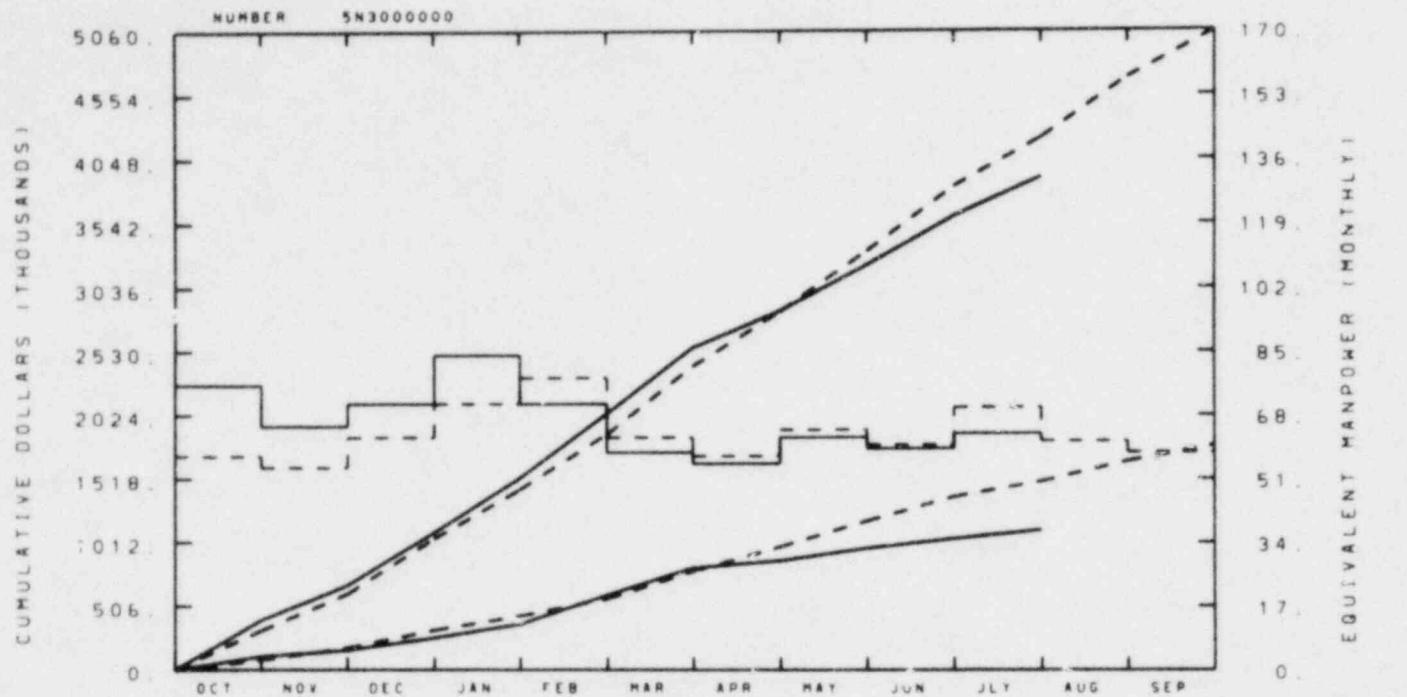
BUDGET

ACTUAL

No significant variance.

EG&G IDAHO INC.

NRC 189A A6043 - EXPER INSTR



MATERIAL

BUDGET	77	174	315	427	564	785	978	1182	1374	1495	1656	1782
ACTUAL	106	156	253	363	594	811	867	965	1041	1111		

MANPOWER

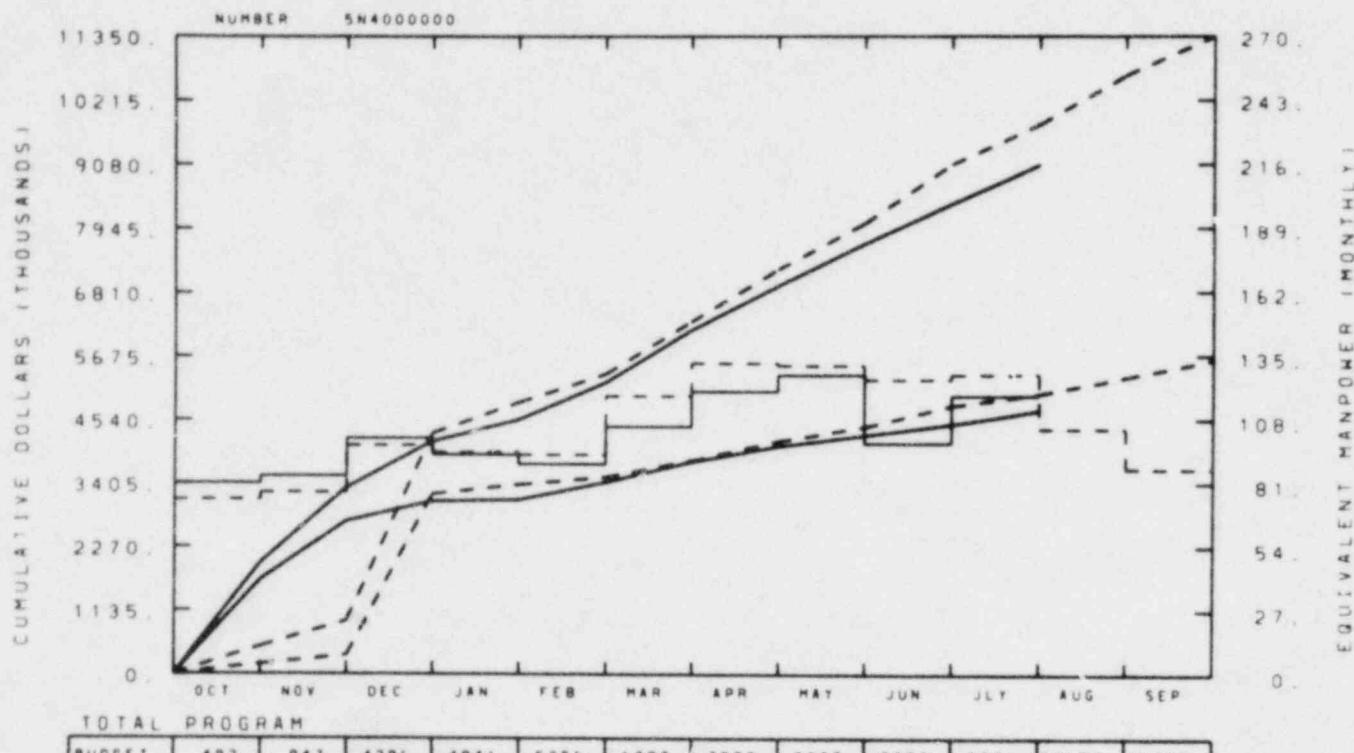
BUDGET	57	54	62	71	78	62	57	64	60	70	61	58
ACTUAL	76	65	71	84	71	58	55	62	59	63		

Refer to summary cost accounts for comments. New summary cost account 5N3R (Data Analysis Branch) was established in July. Cost graph will be generated for August 1980.

YTD Budget--\$878,700
YTD Actuals--\$892,300

EG&G IDAHO INC.

NRC 189A A6107 - PLANT SUPPORT



MATERIAL

BUDGET	175	336	3208	3375	3511	3807	4158	4414	4788	4997	5291	5600
ACTUAL	1681	2725	3078	3105	3420	3789	4067	4264	4457	4700		

BUDGET

ACTUAL

MANPOWER

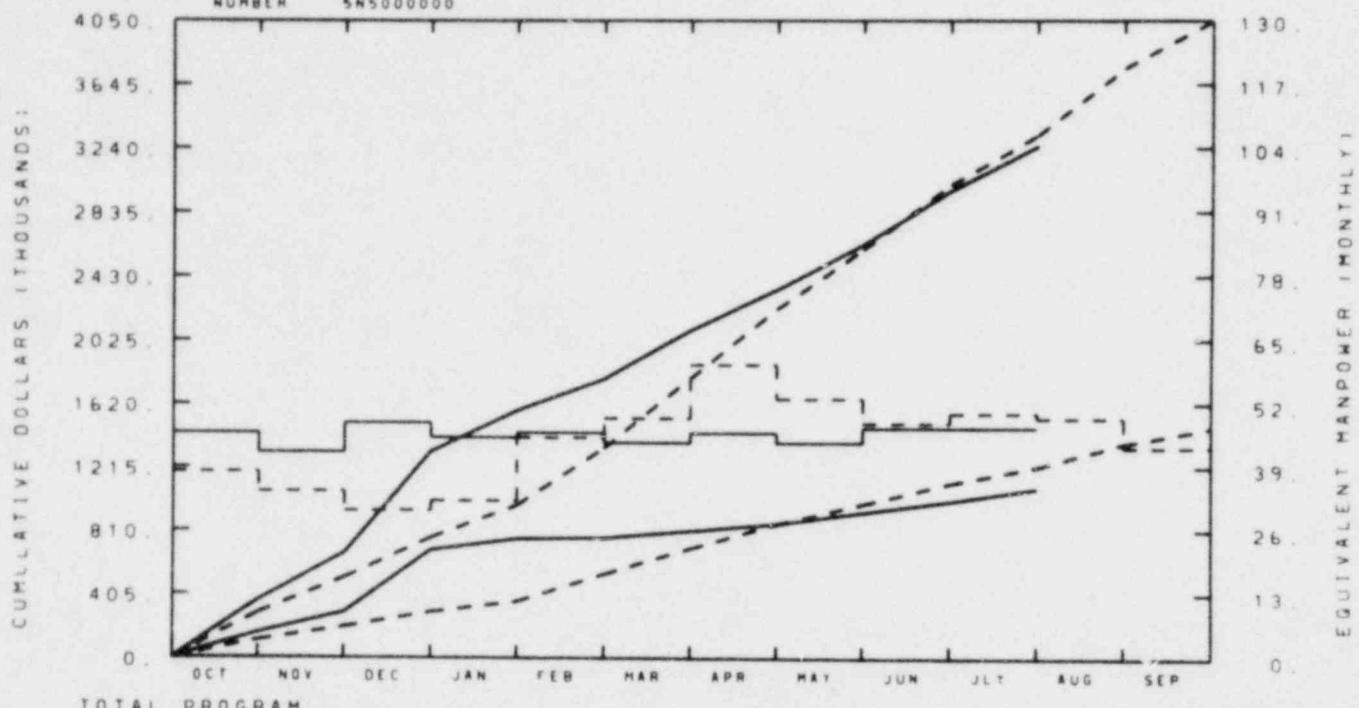
BUDGET	74	77	97	94	93	118	132	131	125	127	104	87
ACTUAL	81	84	100	93	89	105	120	127	98	118		

No significant variance. Indicated difference is largely in unaccrued costs. Cost reduction efforts to augment management reserve are being attempted.

EG&G IDAHO INC.

NRC 189A A6122 - CORE & SAFE SPT

NUMBER 5H5000000



TOTAL PROGRAM

BUDGET	285	508	762	968	1337	1783	2224	2602	3009	3323	3748	4046
ACTUAL	366	664	1311	1575	1778	2088	2348	2612	2972	3254		

MATERIAL

BUDGET	112	196	290	357	532	697	852	981	1113	1218	1366	1466
ACTUAL	160	289	684	755	762	808	855	928	998	1080		

BUDGET

ACTUAL

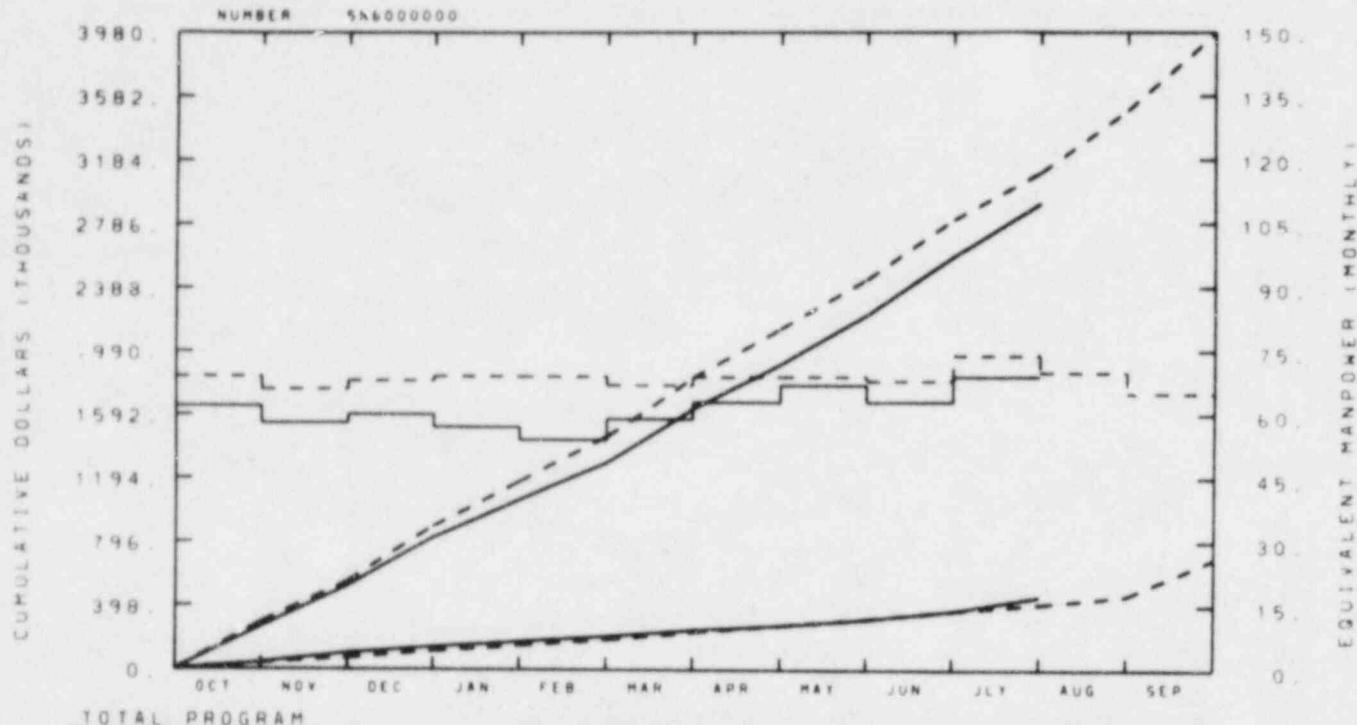
MANPOWER

BUDGET	38	34	30	32	45	49	60	53	48	50	49	43
ACTUAL	46	42	48	45	46	44	46	44	47	47		

No significant variance.

CG&G IDAHO INC.

NRC 189A A6110 - COMMON SUPPORT



BUDGET	296	549	890	1172	1454	1824	2133	2442	2813	3106	3493	3976
ACTUAL	267	521	820	1057	1290	1629	1910	2220	2582	2914		

MATERIAL

BUDGET	38	71	114	151	187	234	276	318	368	408	461	691
ACTUAL	42	103	142	174	207	248	275	315	368	455		

MANPOWER

BUDGET	69	66	68	69	69	67	69	69	68	74	70	65
ACTUAL	62	58	60	57	54	59	63	67	63	69		

BUDGET

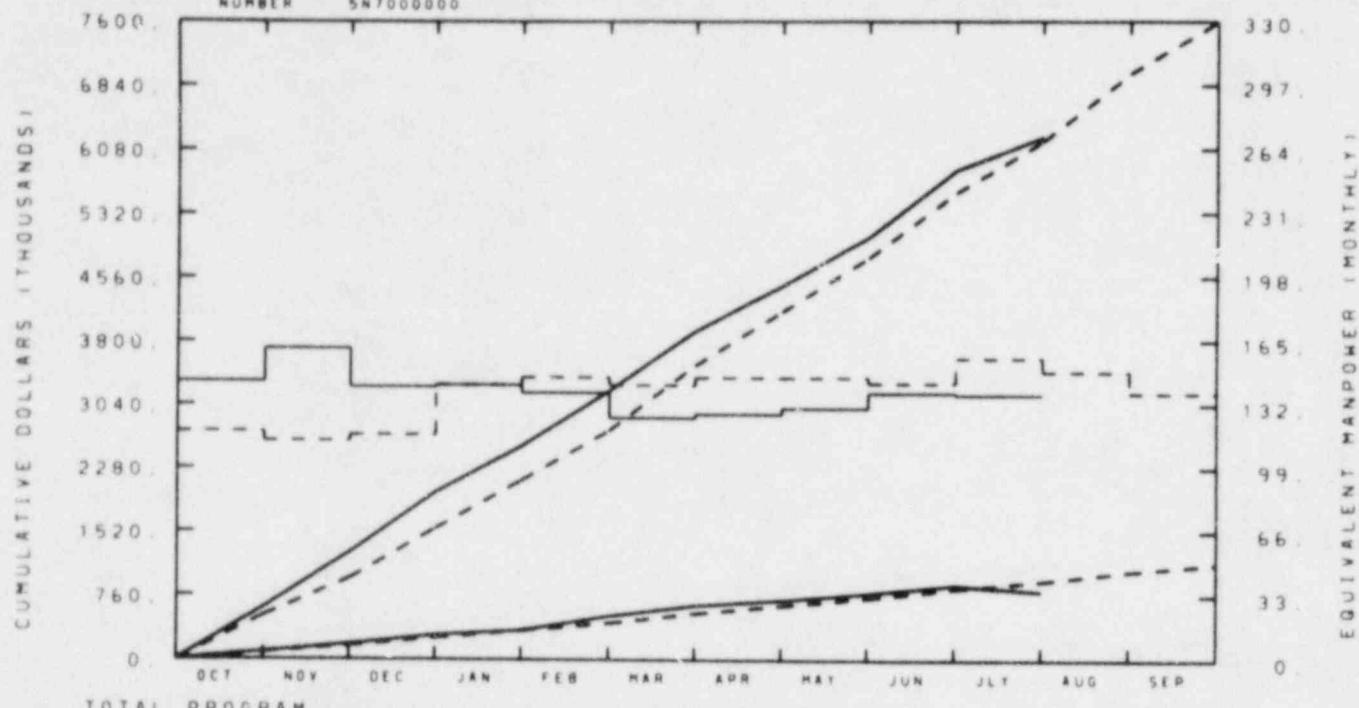
ACTUAL

CCBs are in process to return \$176,000 to management reserve which will be incorporated in the new Q80-5-0 baseline for LOFT.

EG&G IDAHO INC.

NRC 189A A6054 - FACILITY OPER

NUMBER 5N7000000



TOTAL PROGRAM

BUDGET	517	957	1551	2130	2725	3508	4151	4795	5567	6179	6983	7595
ACTUAL	612	1264	1985	2537	3203	3918	4460	5040	5834	6229		

MATERIAL

BUDGET	85	157	255	343	431	548	641	735	847	935	1052	1141
ACTUAL	87	179	288	345	514	641	706	790	890	816		

MANPOWER

BUDGET	118	113	116	142	146	142	146	146	143	156	149	138
ACTUAL	144	161	141	142	138	125	127	130	138	137		

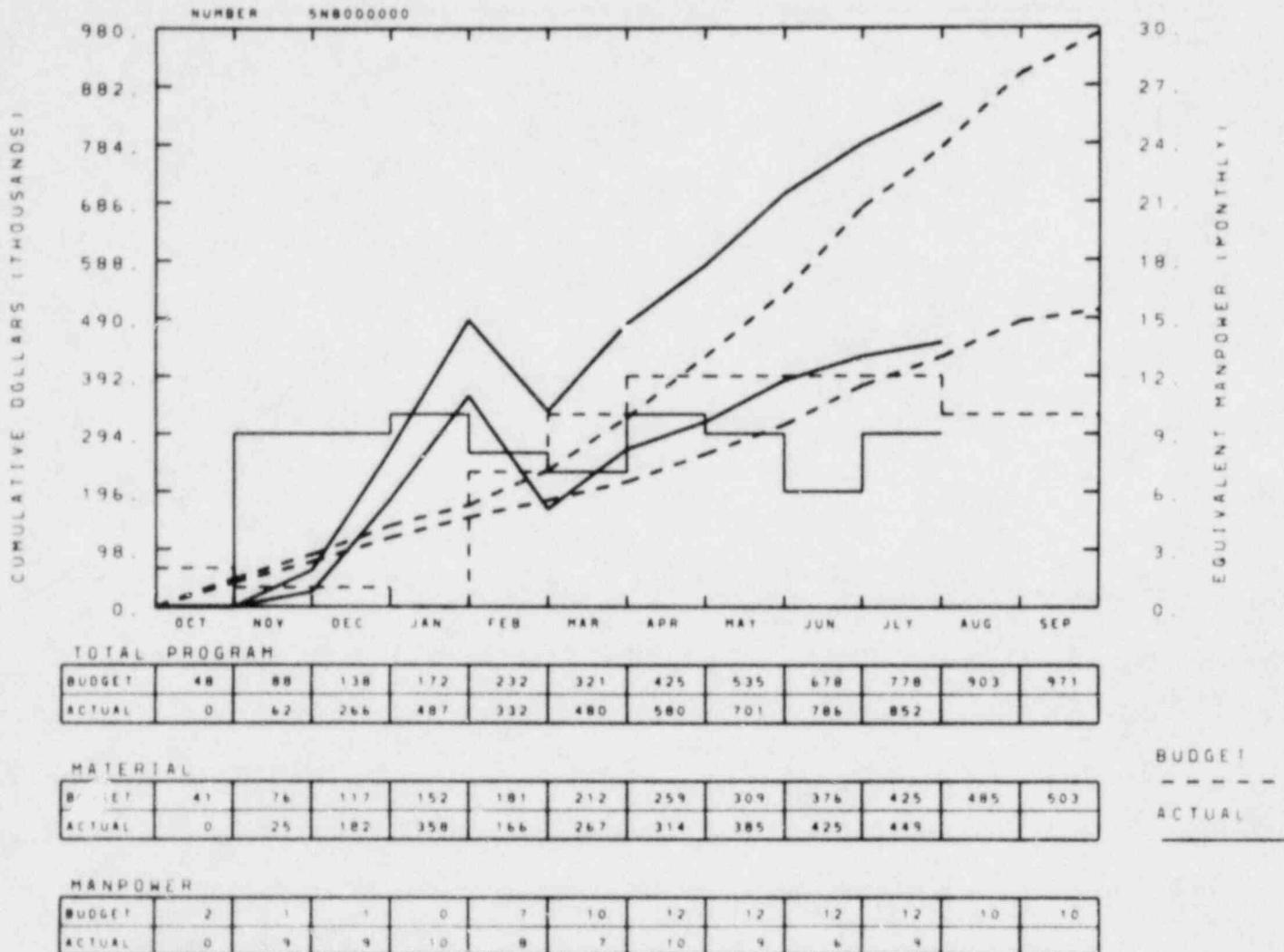
BUDGET

ACTUAL

No significant variance.

EG&G IDAHO INC.

A6108 - AUGEM OPER CAPABILITY



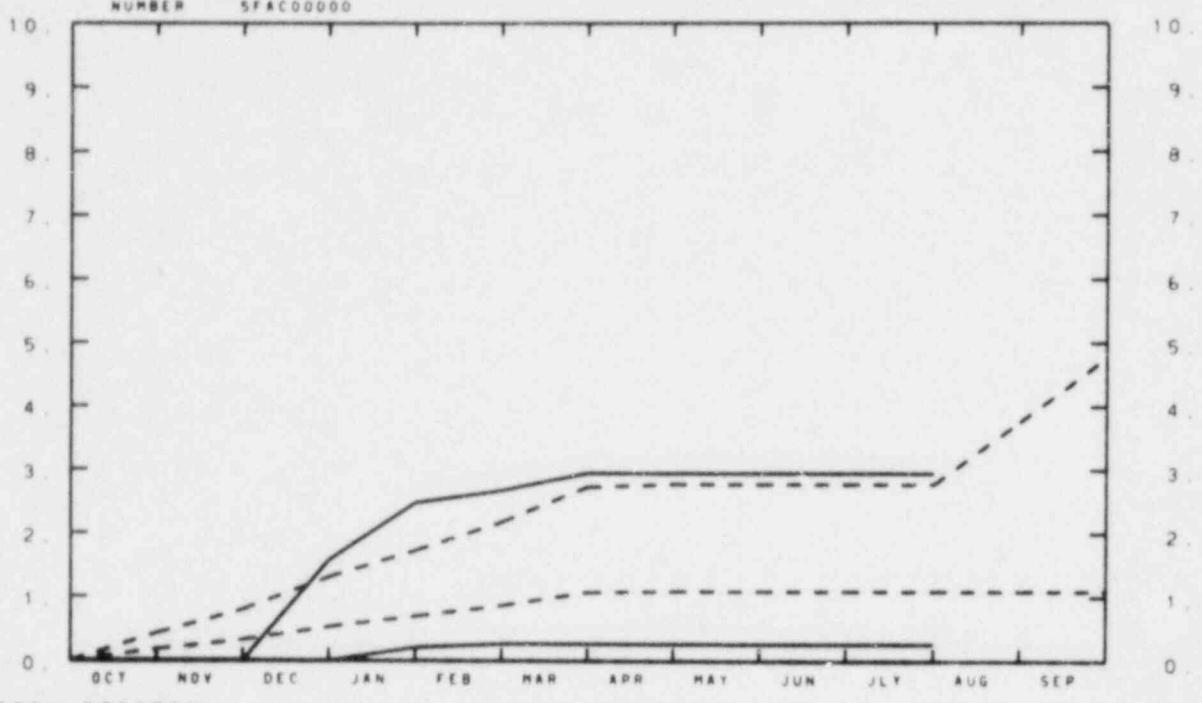
Refer to the summary costs account for comments.

EG&G IDAHO INC.

A6273-AUSTRIAN FUNDS

NUMBER SFAC00000

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

BUDGET	0	1	1	2	2	3	3	3	3	3	4	5
ACTUAL	0	0	2	2	3	3	3	3	3	3		

MATERIAL

BUDGET	0	0	1	1	1	1	1	1	1	1	1	1
ACTUAL	0	0	0	0	0	0	0	0	0	0		

MANPOWER

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0		

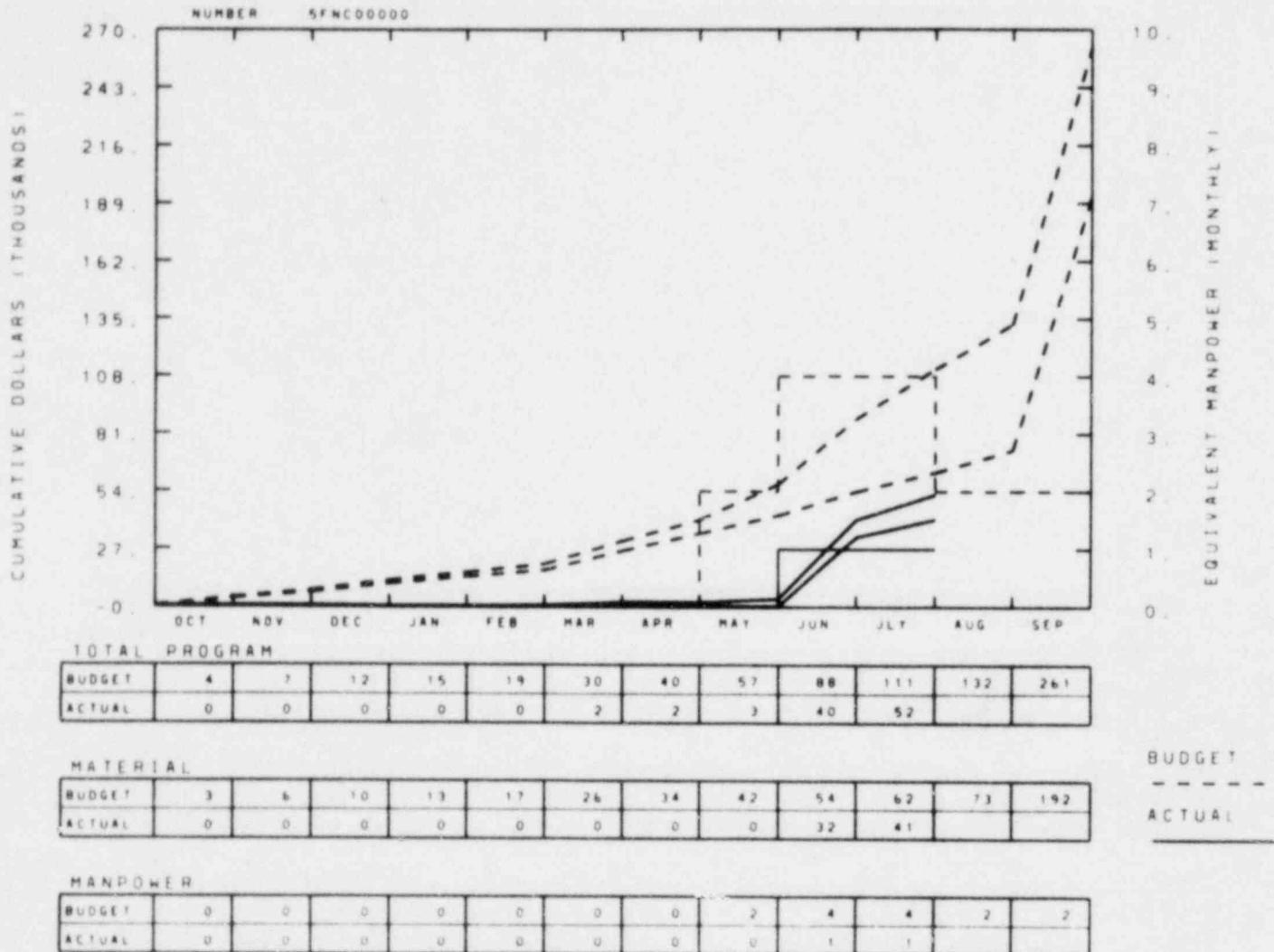
BUDGET

ACTUAL

No significant variance.

EG&G IDAHO INC.

A6271 - NETHERLANDS FUNDS

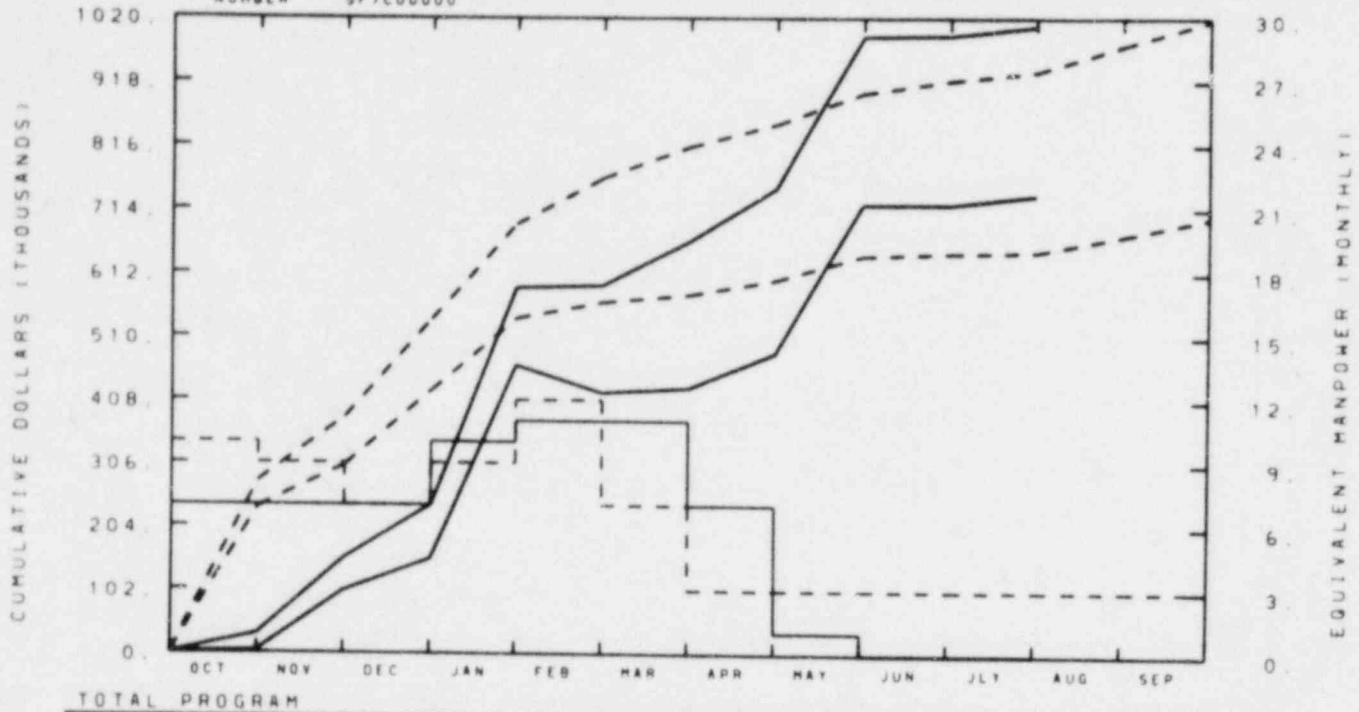


The budgets are being revised to reflect current performance.

EG&G IDAHO INC.

A6104 - GERMAN FUNDS

NUMBER SF7C00000



MATERIAL

BUDGET	235	302	423	540	566	579	602	640	645	647	672	700
ACTUAL	4	100	151	464	420	428	485	722	722	737		

MANPOWER

BUDGET	10	9	7	9	12	7	3	3	3	3	3	3
ACTUAL	7	7	7	10	11	11	7	1	0	0		

BUDGET

ACUAL

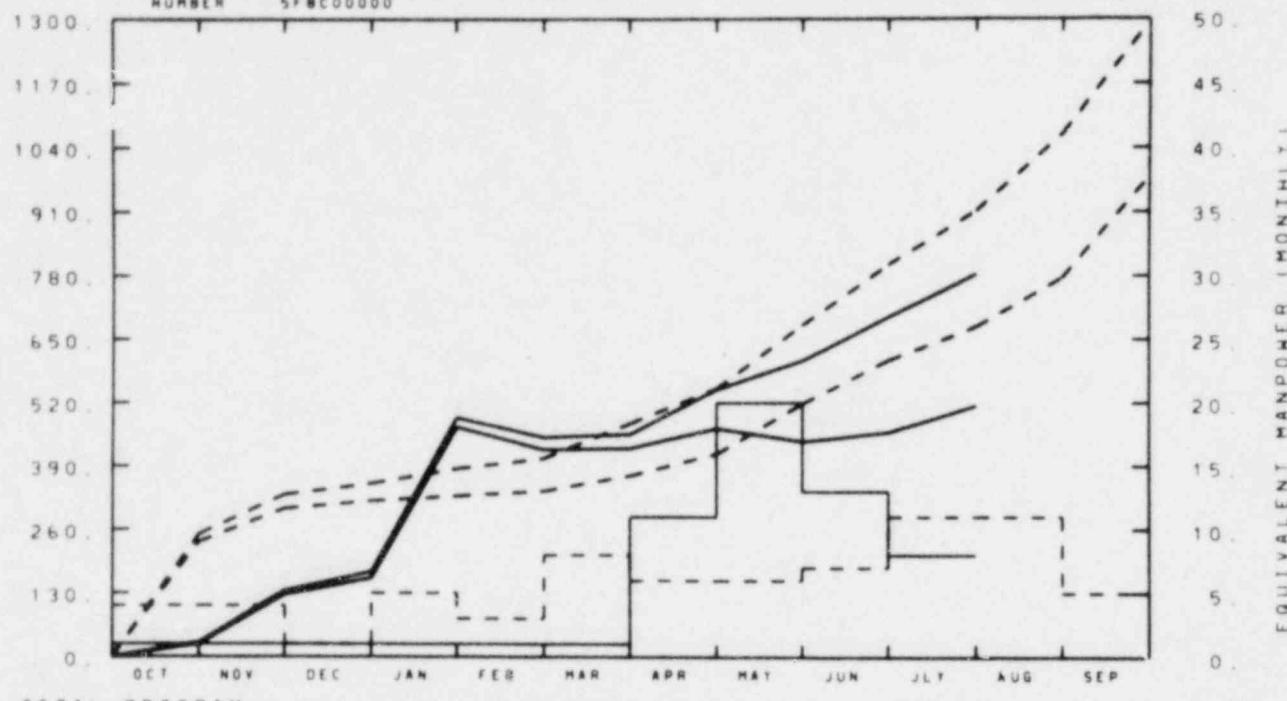
Some work is ahead of schedule. A cost transfer is in process to remove \$57,000 from this account. Corrective action is in progress to realign actual expenditures to authorized funding levels.

EG&G IDAHO INC.

A6111 - JAPANESE FUNDS

CUMULATIVE DOLLARS (THOUSANDS)

NUMBER SF8C00000



TOTAL PROGRAM

BUDGET	250	332	354	384	406	477	549	679	802	912	1069	1294
ACTUAL	29	135	174	488	449	455	547	606	696	783		

MATERIAL

BUDGET	235	303	318	328	339	370	415	518	607	675	776	981
ACTUAL	25	126	161	470	423	426	467	440	459	514		

BUDGET

ACTUAL

MANPOWER

BUDGET	4	4	1	5	3	8	6	6	3	11	11	5
ACTUAL	1	1	1	1	1	1	11	20	13	8		

Budget realignment is in process to reduce the variance. Several tasks have been delayed due to personnel requirements.

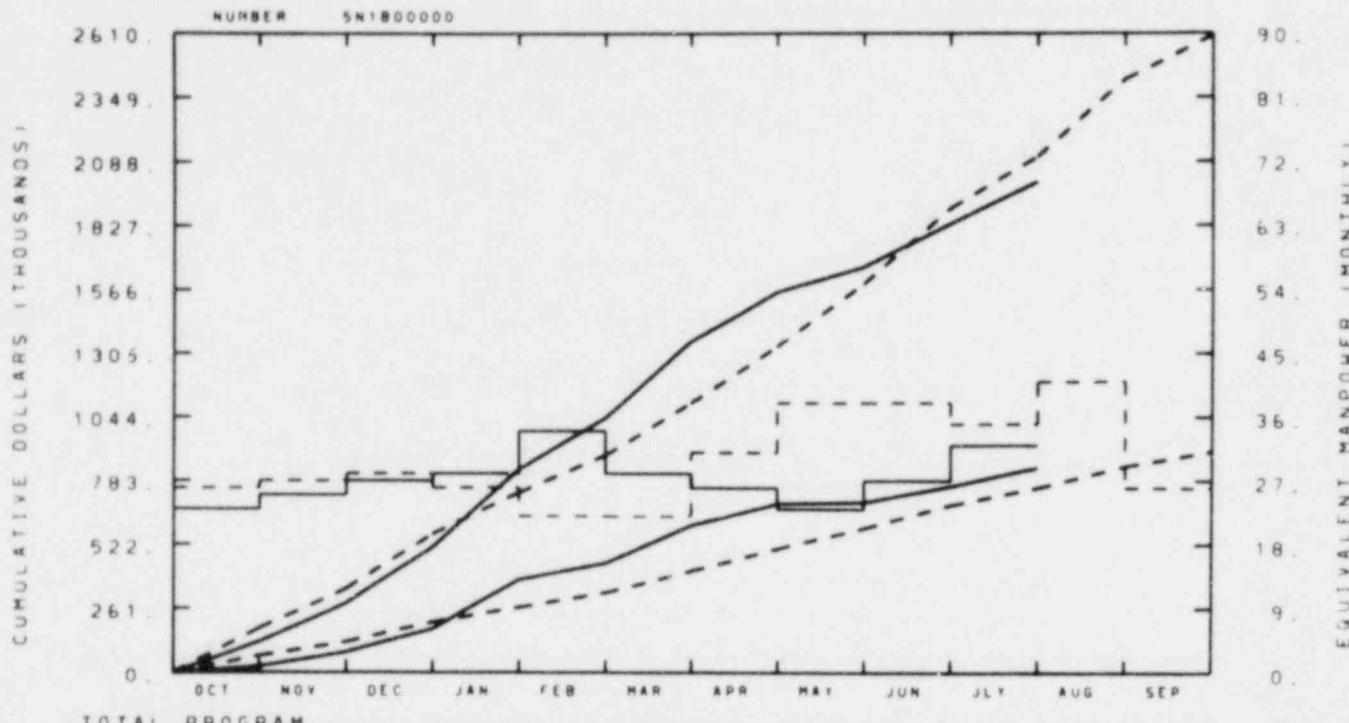
Summary Cost Accounts

5Nxx--NRC Summary Cost Accounts

5Fxxx--Foreign Summary Cost Accounts

EG&G IDAHO INC.

EXPR PROG - PROGRAM PLAN & EVAL



BUDGET	180	342	564	735	887	1102	1334	1591	1898	2109	2422	2601
ACTUAL	125	282	511	825	1040	1355	1557	1659	1835	2006		

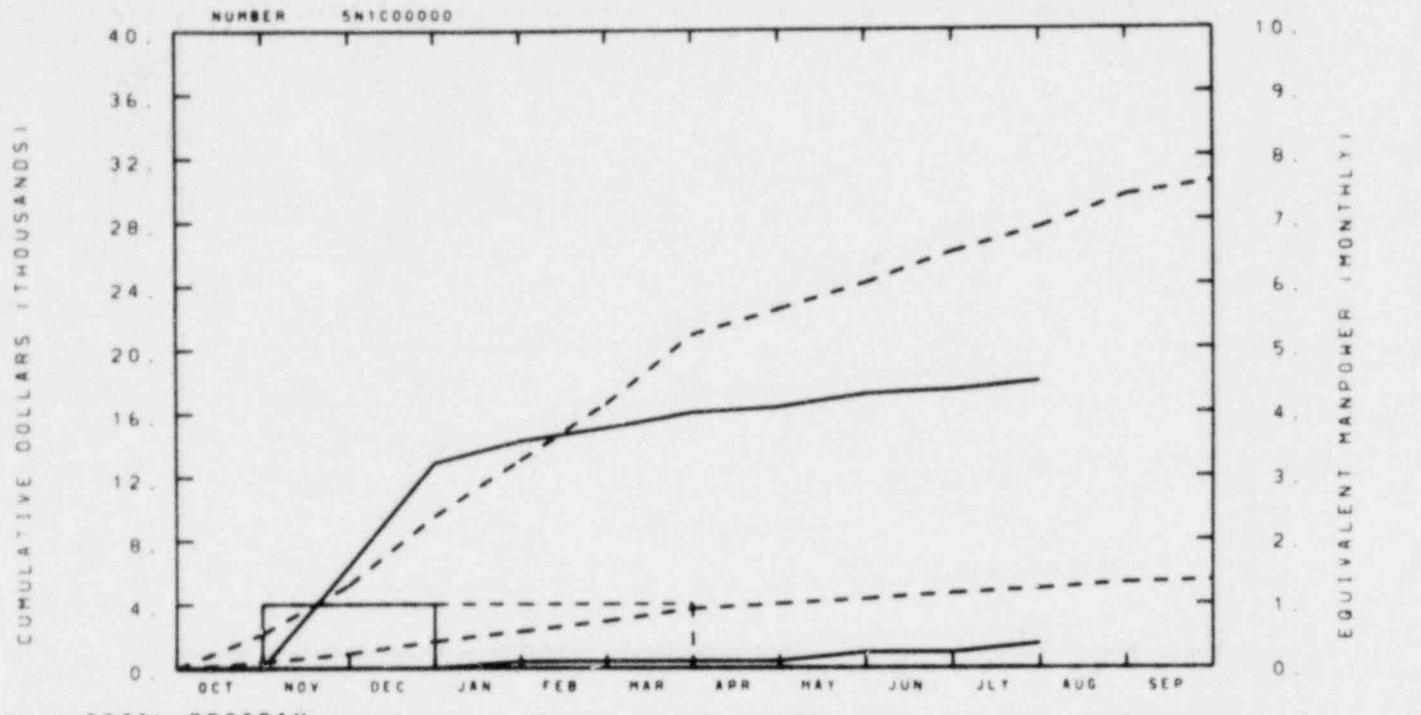
BUDGET	67	124	205	266	325	413	506	589	684	754	842	904
ACTUAL	24	84	178	379	446	600	689	695	761	837		

BUDGET	26	27	28	26	22	22	31	38	38	35	41	26
ACTUAL	23	25	27	28	34	28	26	23	27	32		

No significant variance.

EG&G IDAHO INC.

SWISS REFLOOD



TOTAL PROGRAM

BUDGET	2	5	10	13	17	2	23	24	26	28	30	30
ACTUAL	0	6	13	14	15	16	16	17	17	18		

MATERIAL

BUDGET	0	1	2	2	3	4	4	4	5	5	5	5
ACTUAL	0	0	0	0	0	0	0	1	1	1		

MANPOWER

BUDGET	0	1	1	1	1	1	0	0	0	0	0	0
ACTUAL	0	1	1	0	0	0	0	0	0	0		

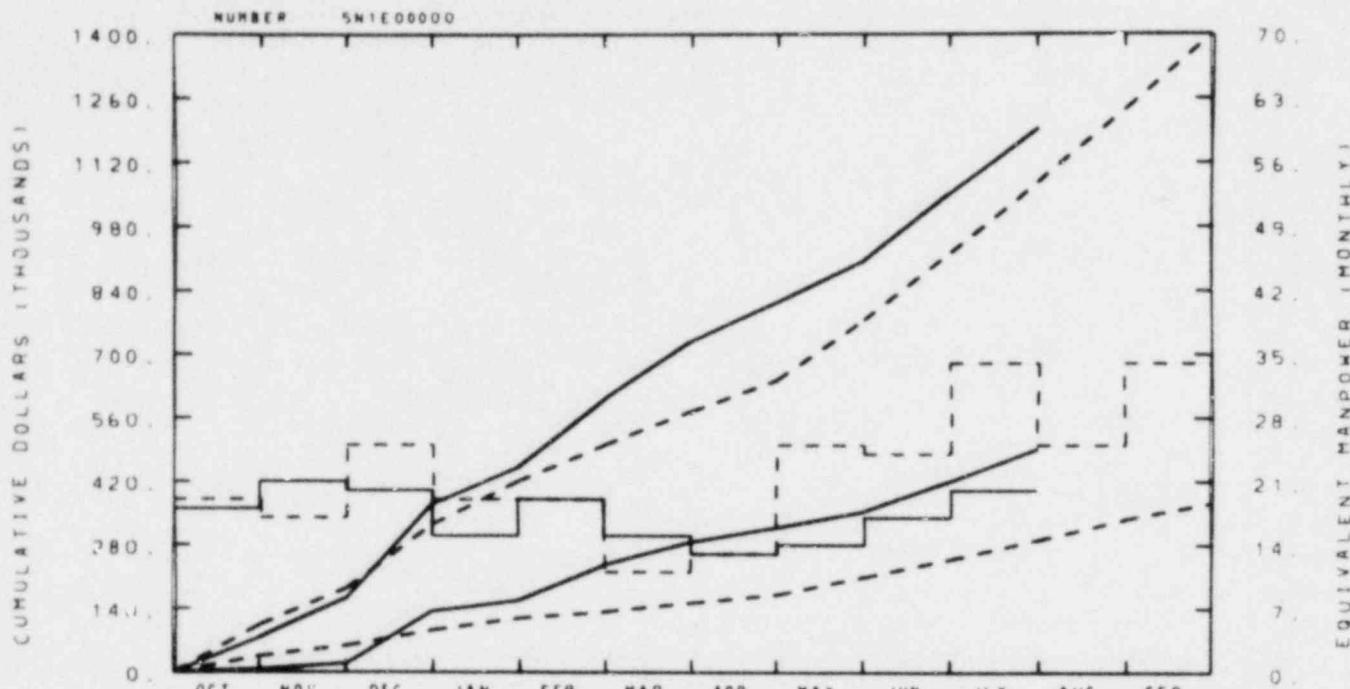
BUDGET

ACTUAL

This project consists of two tasks, CERO1 and CERO2. The analysis task (CERO1) is right on projections (within \$1,000), and the other task (CERO2) is for procurement of TC for which we will be spending very heavy during the next month.

EG&G IDAHO INC.

EXPR PROG - LOFT DATA SYSTEMS



TOTAL PROGRAM

BUDGET	104	185	326	419	500	574	643	776	923	1076	1239	1399
ACTUAL	77	164	370	451	601	729	815	906	1054	1194		

MATERIAL

BUDGET	35	58	92	118	133	153	171	210	249	291	337	372
ACTUAL	6	19	134	158	236	287	319	354	420	491		

BUDGET

ACTUAL

MANPOWER

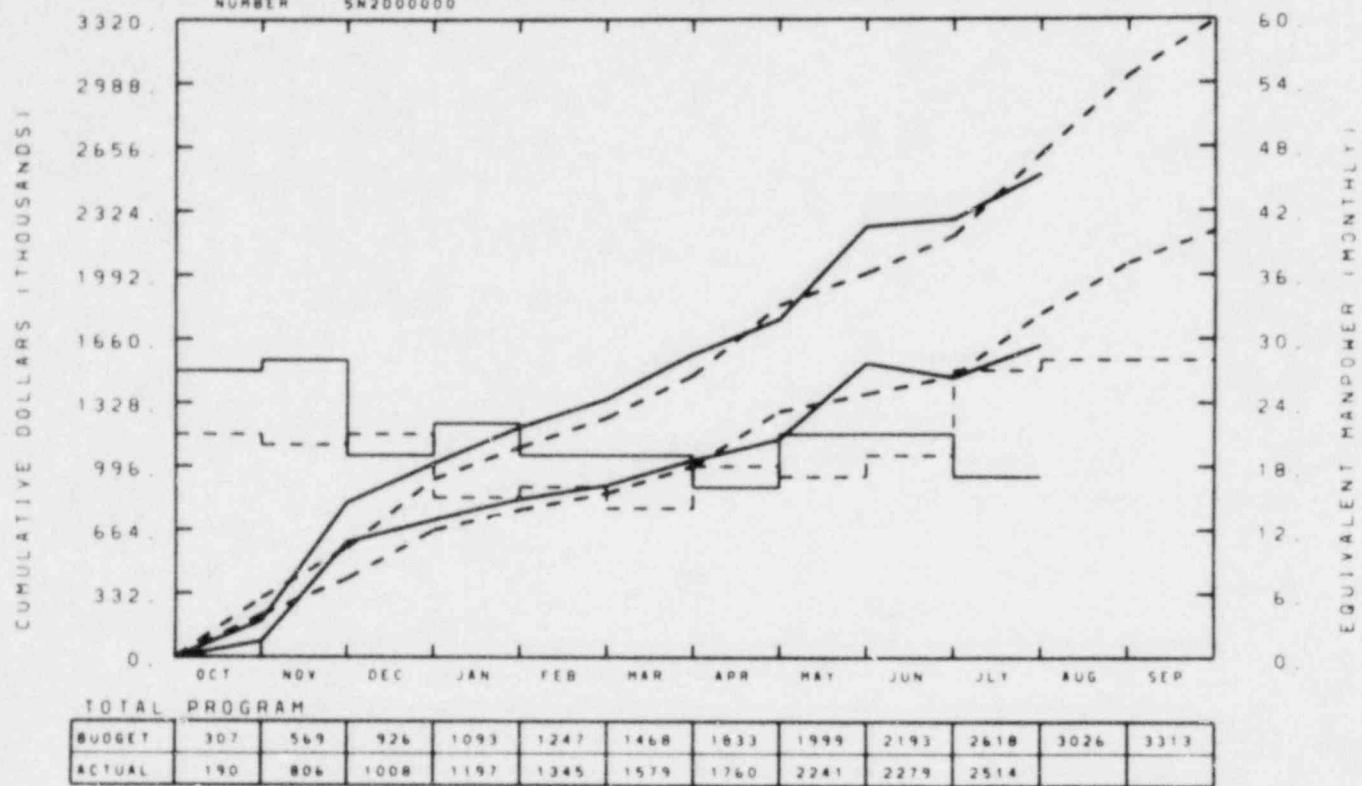
BUDGET	19	17	25	19	19	11	13	25	26	34	25	34
ACTUAL	18	21	20	15	15	15	13	14	17	20		

Actual spending rate (especially material dollars) will be within budget by the end of September 1980.

EG&G IDAHO INC.

FUEL - REFUEL DESIGN & ANALYSIS

NUMBER 5N2000000



MATERIAL

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEP
BUDGET	220	407	660	765	853	995	1281	1371	1465	1788	2051	2220
ACTUAL	82	598	714	821	895	1027	1136	1530	1457	1625		

BUDGET

ACTUAL

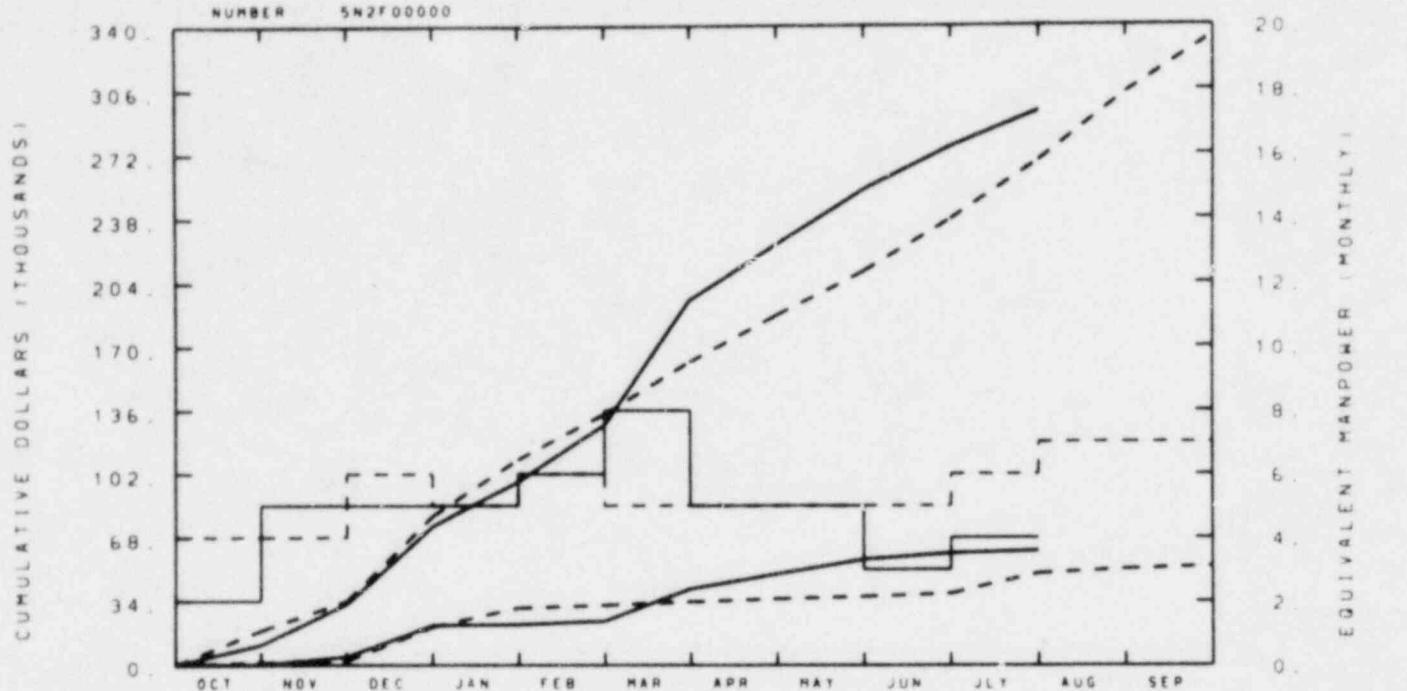
MANPOWER

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEP
BUDGET	21	20	21	15	16	14	18	17	19	27	28	28
ACTUAL	27	28	19	22	19	19	16	21	21	17		

No significant variance.

EG&G IDAHO INC.

POST TEST EXAM



MATERIAL

BUDGET	1	2	20	30	32	34	35	37	38	49	51	53
ACTUAL	0	4	21	22	23	41	*9	56	60	61		

BUDGET

ACTUAL

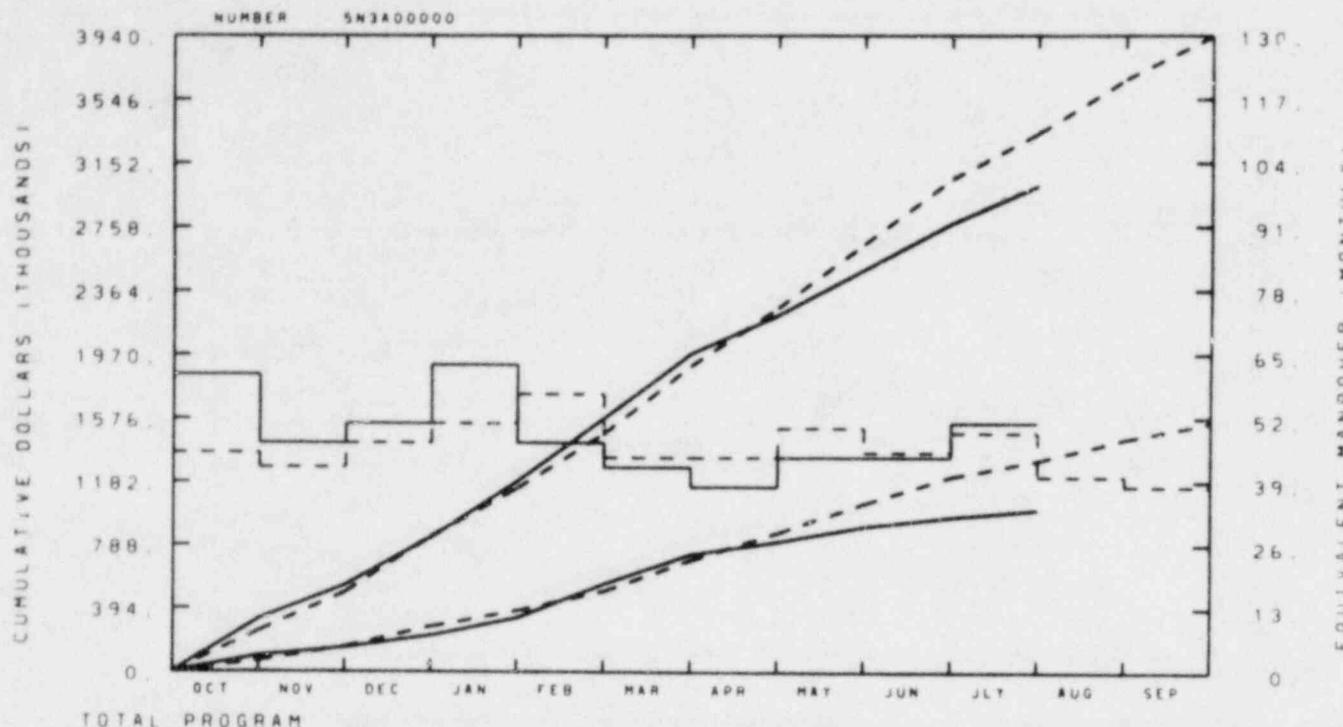
HANPOWER

BUDGET	4	4	6	5	6	5	5	5	5	6	7	7
ACTUAL	2	5	5	5	6	8	5	5	3	4		

No significant variance.

ES&G IDAHO INC.

EXPR INST - EXPR MEAS BR 6110



MATERIAL

BUDGET	ACTUAL																				
69	100	155	150	280	225	379	334	502	545	694	731	865	810	1048	905	1214	963	1314	1007	1445	1549

BUDGET

ACTUAL

MANPOWER

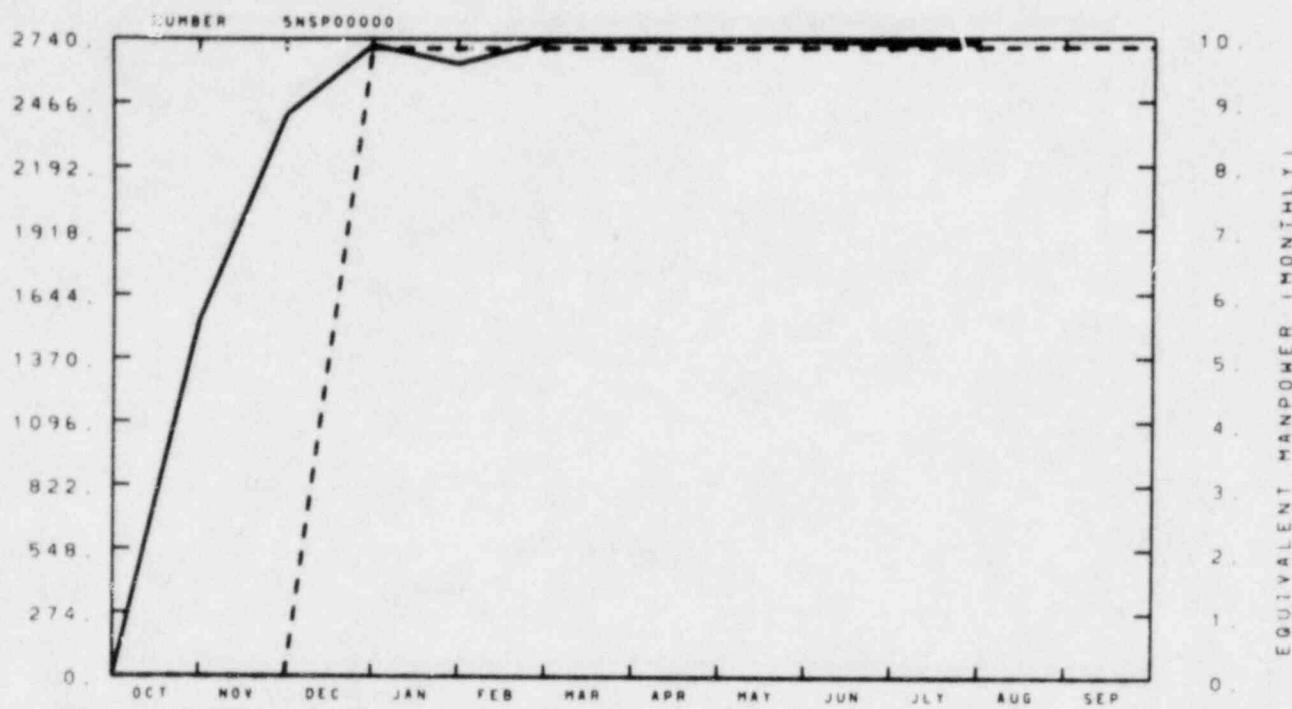
BUDGET	ACTUAL																					
45	61	42	47	47	51	51	63	57	44	44	44	42	44	38	50	44	44	45	51	49	40	38

1. The program owes Sandia \$40,000 for PNA generators that have not been costed. A CCB is in process to reflect the change in the expected date the generators will be costed.
2. Due to changed fuel instrumentation requirements, material dollars originally scheduled this month were delayed. These will be costed this year. A CCB is in process to reflect the changed configuration and new plan.
3. Delays in zircaloy thermocouple qualification and production effort occurred this month. A CCB is in process to reflect the updated plan. This work will be costed this year.
4. Changed requirements for secondary side instrumentation resulted in delay in originally planned work. A CCB is in process to update the work plan.
5. A CCB returning \$40,000 from Branch Support to Management Reserve is in progress. (This will be part of an overall CCB for the LOFT Measurement Applications Branch.)
6. Computer usage will increase drastically in the following weeks thus increasing actuals significantly.

EG&G IDAHO INC.

SPECIAL PROCESS SPARES

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

BUDGET	0	0	2700	2700	2700	2700	2700	2700	2700	2700	2700	2700	2700
ACTUAL	1535	2418	2713	2634	2730	2731	2731	2731	2717	2717			

MATERIAL

BUDGET	0	0	2700	2700	2700	2700	2703	2700	2700	2700	2700	2700	2700
ACTUAL	1535	2418	2713	2634	2730	2731	2731	2731	2717	2717			

BUDGET

ACTUAL

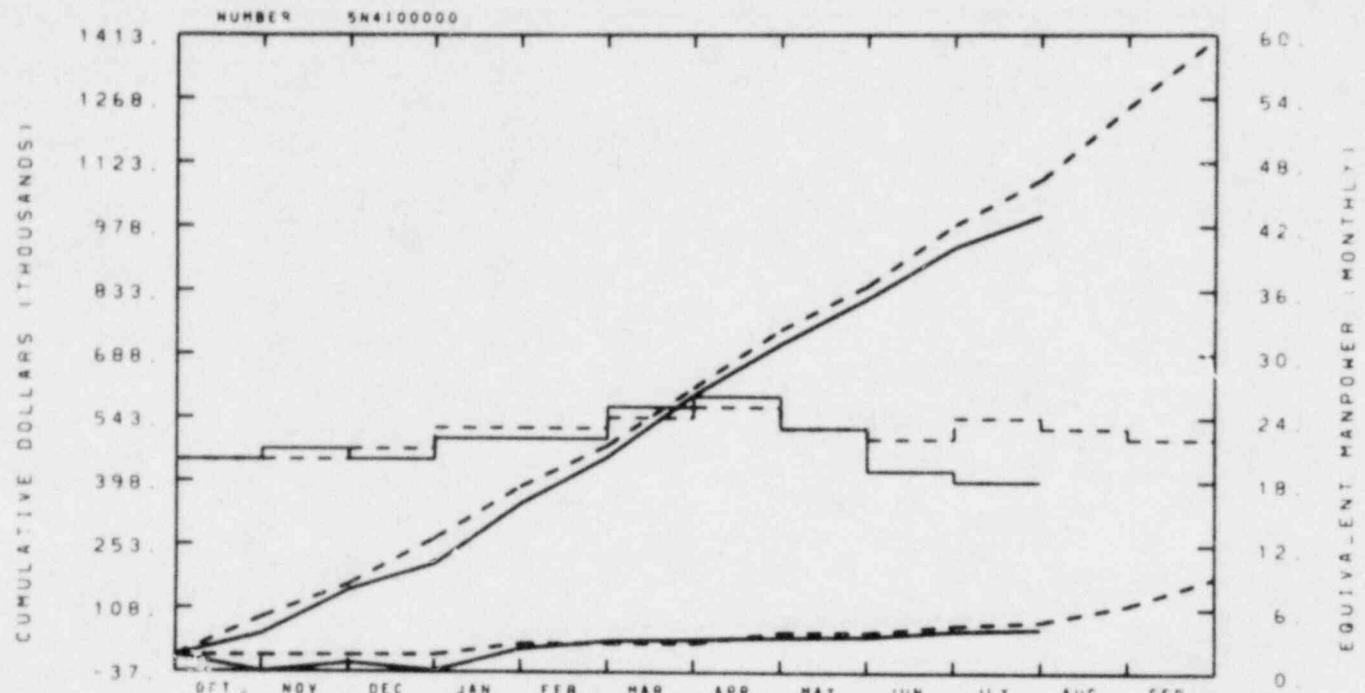
MANPOWER

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0	0

No significant variance.

EG&G IDAHO INC.

PLANT SUPPORT - PLANT SYS NO 1



TOTAL PROGRAM

BUDGET	87	162	266	385	479	611	744	844	981	1085	1248	1406
ACTUAL	49	149	208	346	453	594	712	815	931	1003		

MATERIAL

BUDGET	0	1	2	28	29	30	55	55	71	80	117	180
ACTUAL	-36	-16	-33	16	34	38	43	45	59	63		

MANPOWER

BUDGET	20	20	21	23	23	24	25	23	22	24	23	22
ACTUAL	20	21	20	22	22	25	26	23	19	18		

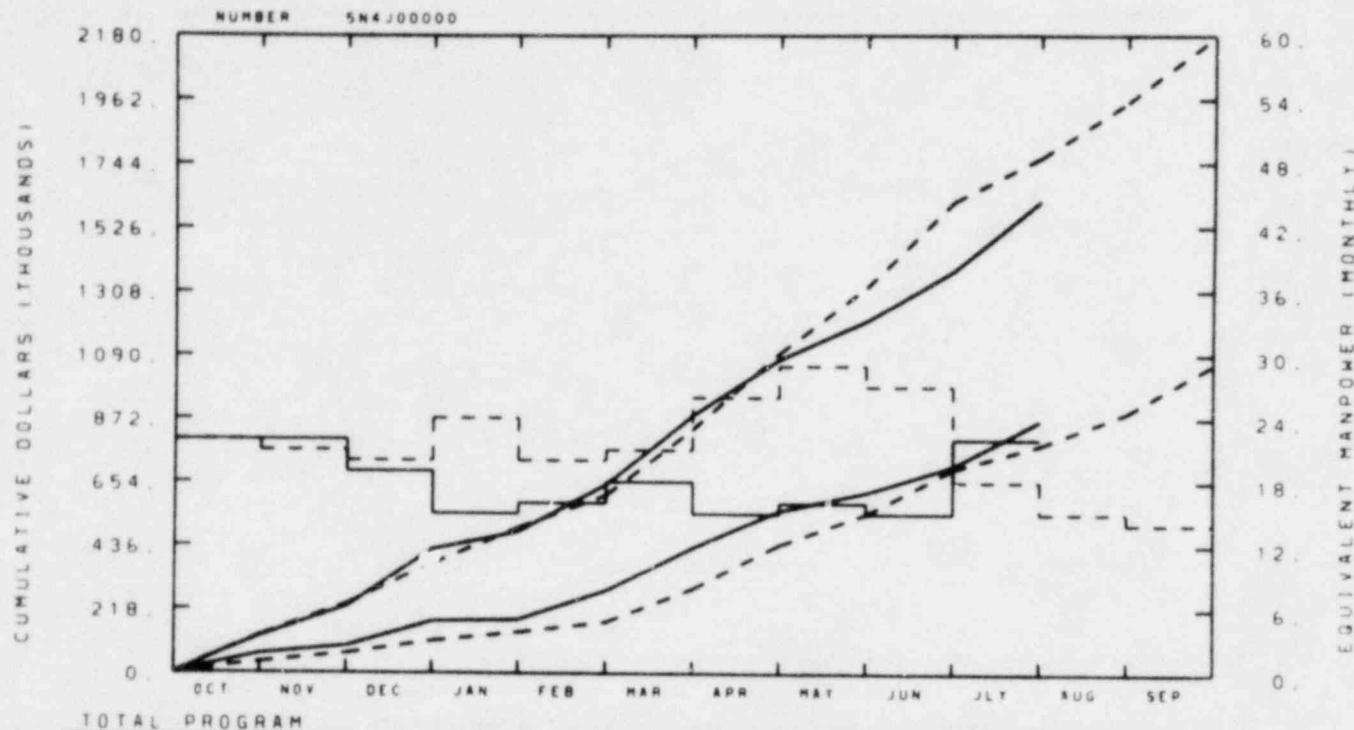
No significant variance.

BUDGET

ACTUAL

EG&G IDAHO INC.

PLANT SUPPORT - PLANT SYS NO 2



BUDGET	128	235	374	496	609	835	1098	1323	1615	1764	1953	2177
ACTUAL	126	226	422	483	644	882	1076	1208	1378	1616		

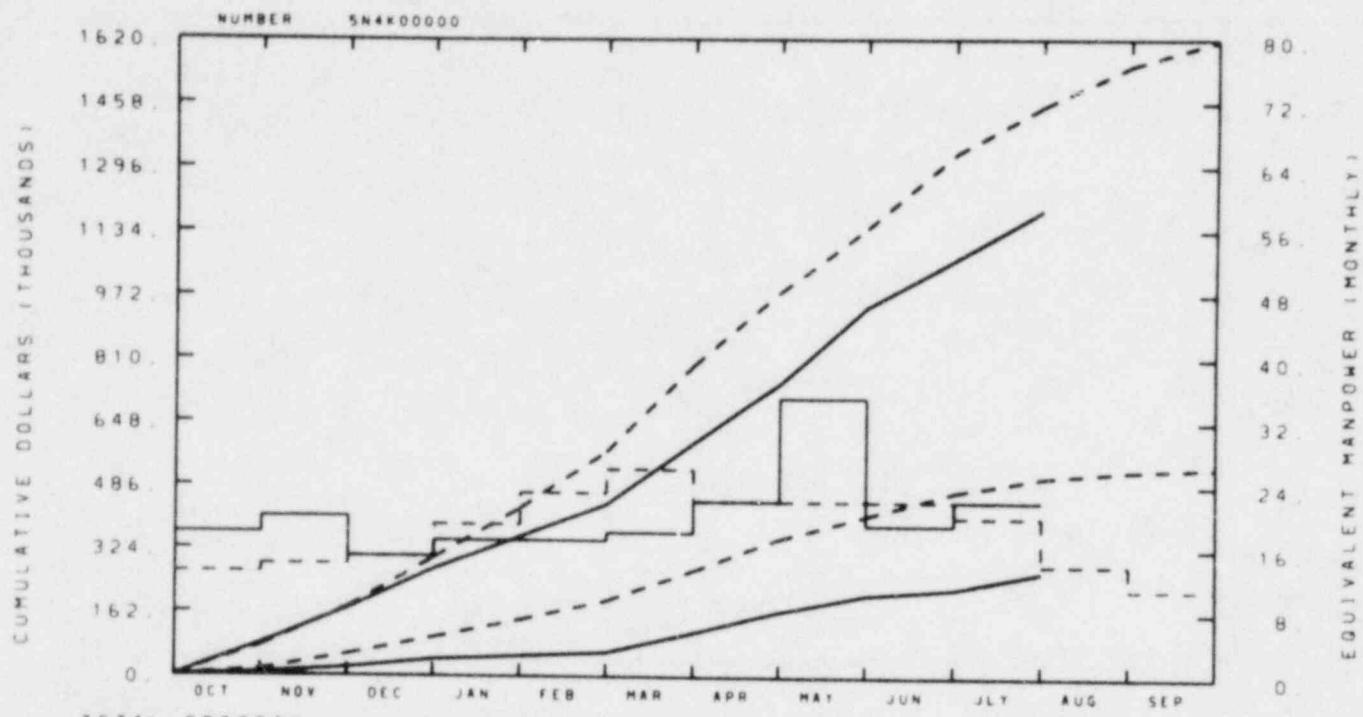
BUDGET	37	67	109	139	174	288	439	545	699	781	892	1059
ACTUAL	65	92	177	182	282	428	556	619	709	865		

BUDGET	22	21	20	24	20	21	26	25	27	16	15	14
ACTUAL	22	22	19	15	16	18	15	16	15	22		

No significant variance.

EG&G IDAHO INC.

PLANT SUPPORT - P&C REACTOR CONT



BUDGET	75	174	299	427	572	794	980	1142	1331	1451	1553	1617
ACTUAL	81	171	271	354	437	594	747	942	1063	1187		

MATERIAL

BUDGET	14	54	98	143	191	269	351	409	470	507	526	534
ACTUAL	7	21	42	51	61	112	166	208	224	267		

MANPOWER

BUDGET	13	14	15	19	23	26	22	22	22	20	14	11
ACTUAL	18	20	15	17	17	18	22	35	19	22		

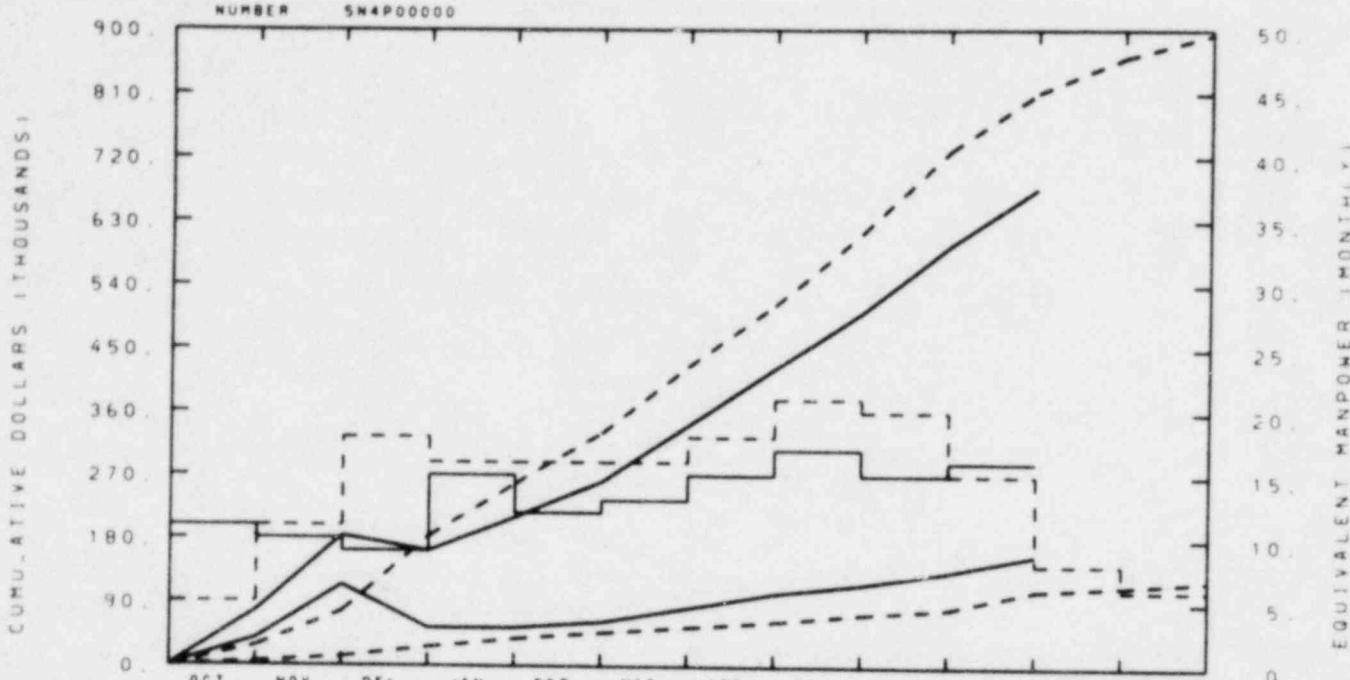
A CCB is in progress to correct the underrun.

BUDGET

ACTUAL

EG&G IDAHO INC

PLANT SUPPORT - P&C I&E SUPPORT



TOTAL PROGRAM

BUDGET	27	76	183	257	330	425	513	614	730	812	861	894
ACTUAL	77	183	162	210	261	341	423	502	595	677		

MATERIAL

BUDGET	5	12	26	38	47	55	63	74	82	108	115	122
ACTUAL	38	114	53	54	62	82	103	116	134	158		

BUDGET

ACTUAL

MANPOWER

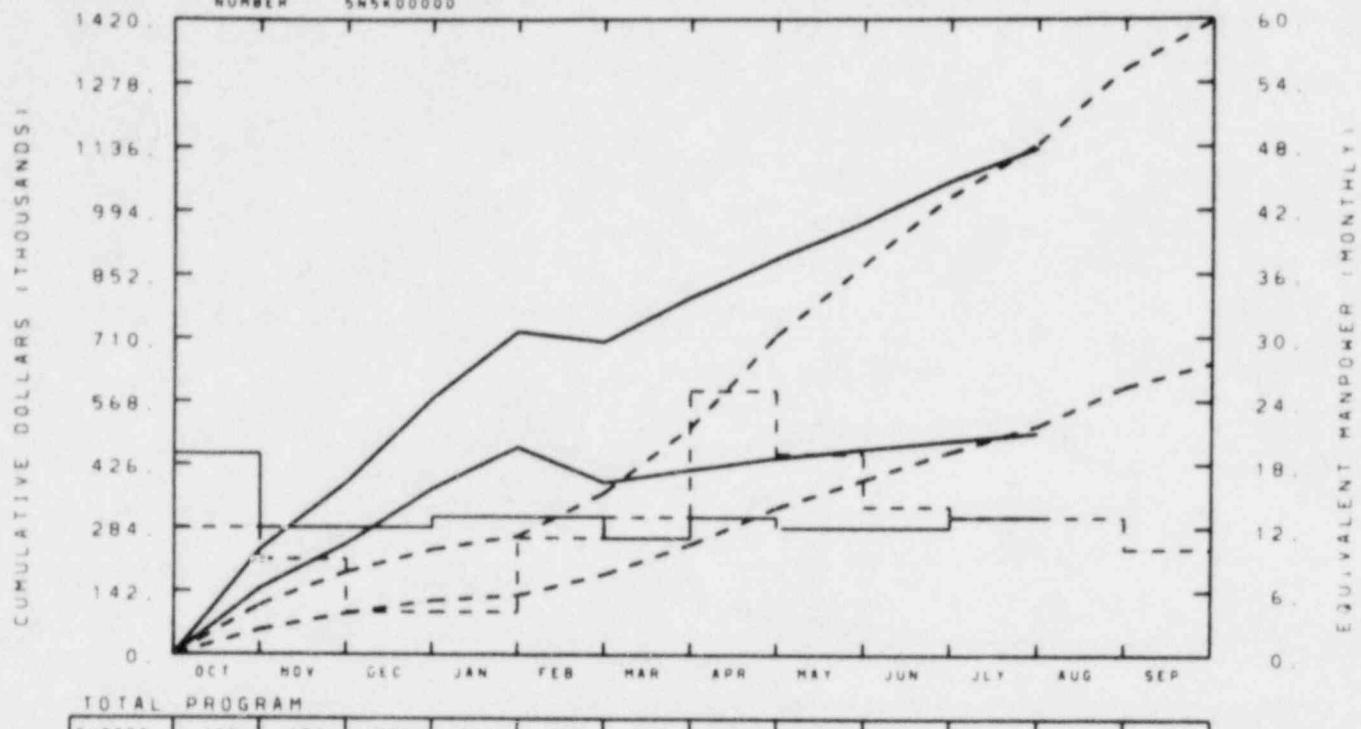
BUDGET	5	11	18	16	16	16	18	21	20	15	8	6
ACTUAL	11	10	9	15	12	13	15	17	15	16		

A CCB is in progress to correct the underrun.

EG&G IDAHO INC.

CORE & SAFETY SUPT - PROT & CONT

NUMBER 5N5K00000



TOTAL PROGRAM

BUDGET	110	184	234	264	362	508	715	873	1024	1142	1309	1415
ACTUAL	234	385	574	724	701	801	888	968	1060	1133		

MATERIAL

BUDGET	55	91	120	132	179	246	329	392	454	512	599	653
ACTUAL	147	247	370	464	385	414	441	460	478	496		

BUDGET

ACTUAL

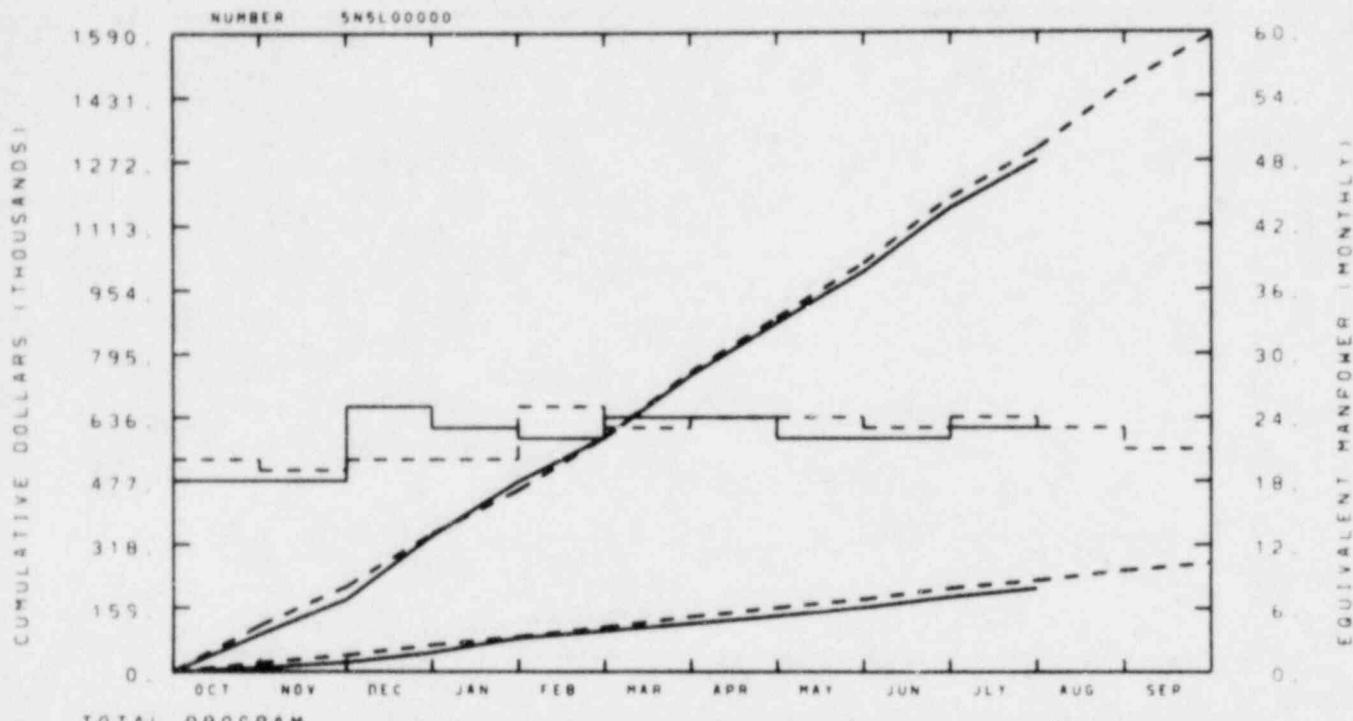
HANPOWER

BUDGET	12	9	4	4	11	13	25	19	14	13	13	10
ACTUAL	19	12	12	13	13	11	13	12	12	13		

No significant variance. Analysis efforts will increase during the remainder of FY-80. Thus, the spending rate will increase to budgeted values.

EG&G IDAHO INC.

CORE & SAFETY SUPT - REACTOR SYS



BUDGET	115	212	344	453	585	750	885	1019	1181	1302	1461	1583
ACTUAL	93	180	339	475	585	741	872	959	1156	1274		

MATERIAL

BUDGET	22	41	66	87	111	138	160	182	209	228	253	273
ACTUAL	9	22	47	84	102	120	140	160	187	209		

BUDGET

ACTUAL

HANPOWER

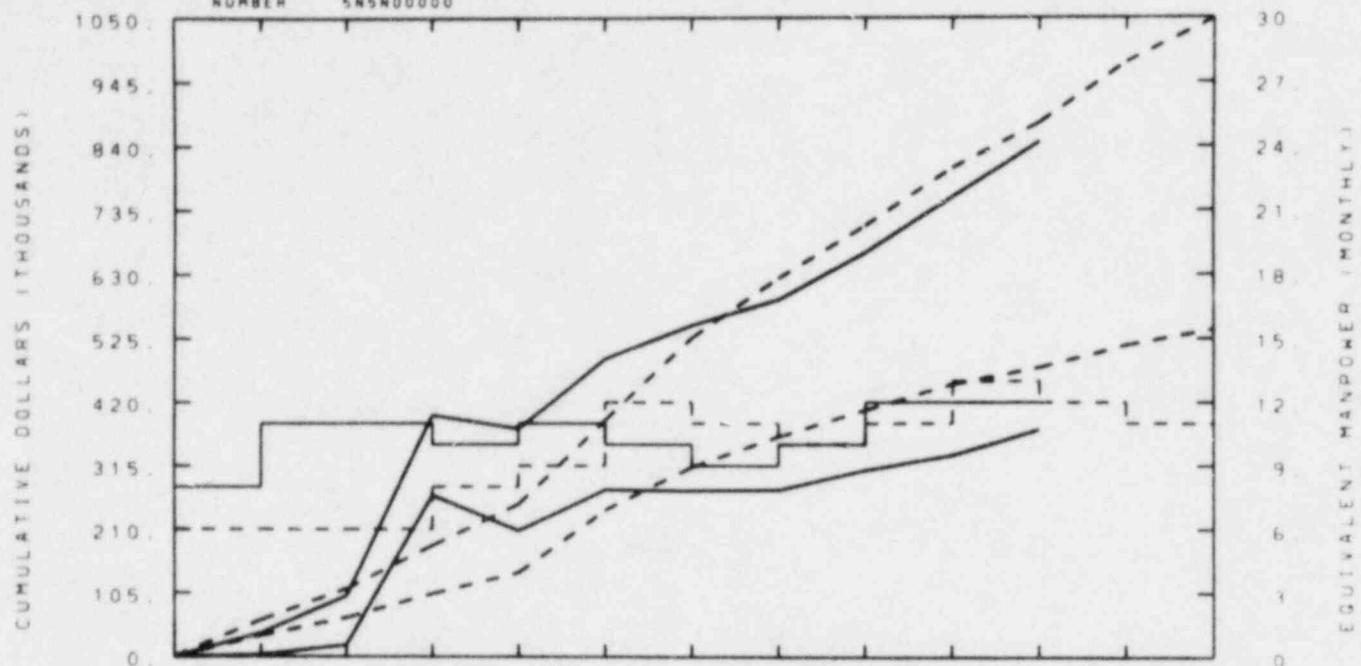
BUDGET	20	19	20	20	25	23	24	24	23	24	23	21
ACTUAL	18	18	25	23	22	24	24	22	22	23		

No significant variance.

EG&G IDAHO INC.

CORE & SAFE SUPT - FUEL ENG & OP

NUMBER 5NSN00000



TOTAL PROGRAM

BUDGET	60	112	183	251	390	526	624	709	804	879	977	1048
ACTUAL	39	100	398	376	491	546	588	665	756	847		

MATERIAL

BUDGET	35	64	104	138	242	313	363	407	450	478	513	540
ACTUAL	3	19	266	208	275	274	275	308	333	375		

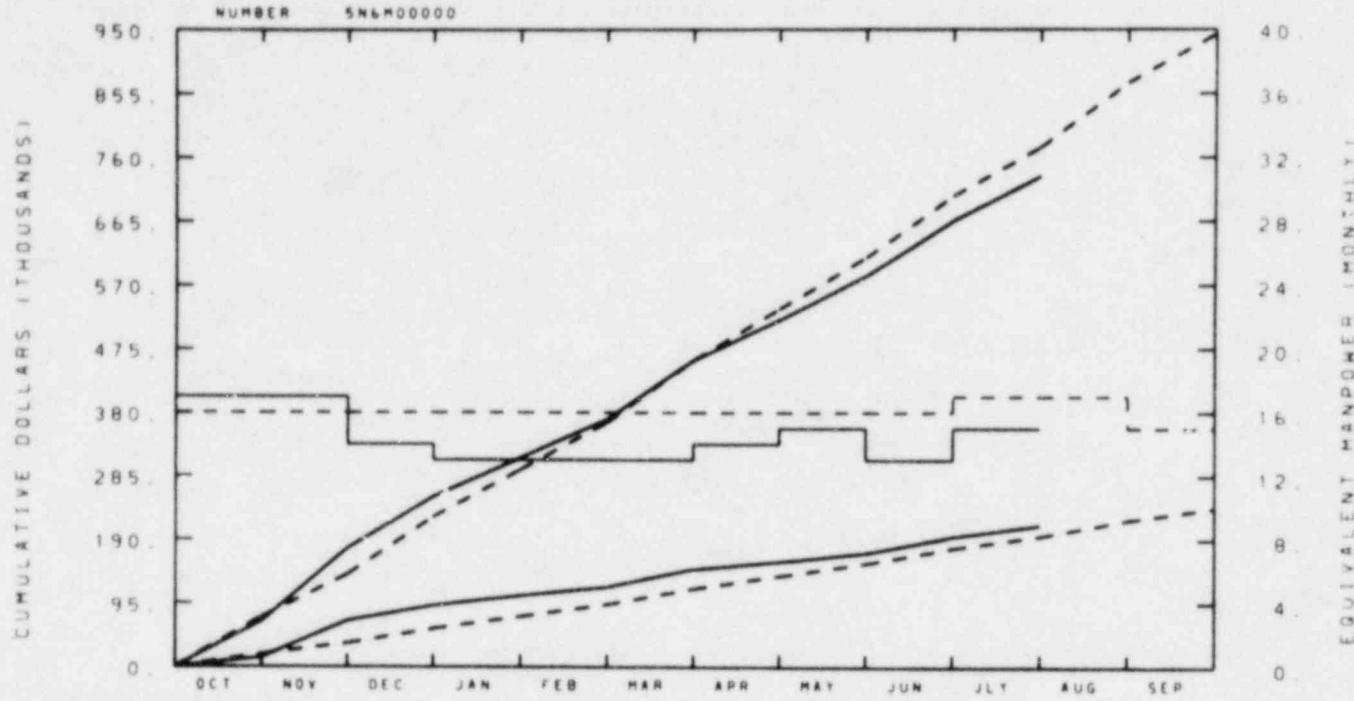
MANPOWER

BUDGET	6	6	6	8	9	12	11	10	11	12	12	11
ACTUAL	8	11	11	10	11	10	9	10	12	12		

Budget and performance continue on schedule. No under- or overrun is projected at this time. Approximately \$40,000 is committed on outstanding requirements to date.

EG&G IDAHO INC.

COMMON SUPT - CDCS/TECH SUPPORT



TOTAL PROGRAM

BUDGET	74	138	224	294	365	458	535	611	703	775	871	943
ACTUAL	68	177	254	312	370	458	518	584	666	732		

MATERIAL

BUDGET	19	35	57	75	93	117	136	156	178	196	219	238
ACTUAL	14	69	92	106	119	146	157	170	195	212		

MANPOWER

BUDGET	16	16	16	16	16	16	16	16	16	17	17	15
ACTUAL	17	17	14	13	13	13	14	15	13	15		

CCF 2892 transferring \$30,000 to management reserve has been submitted.

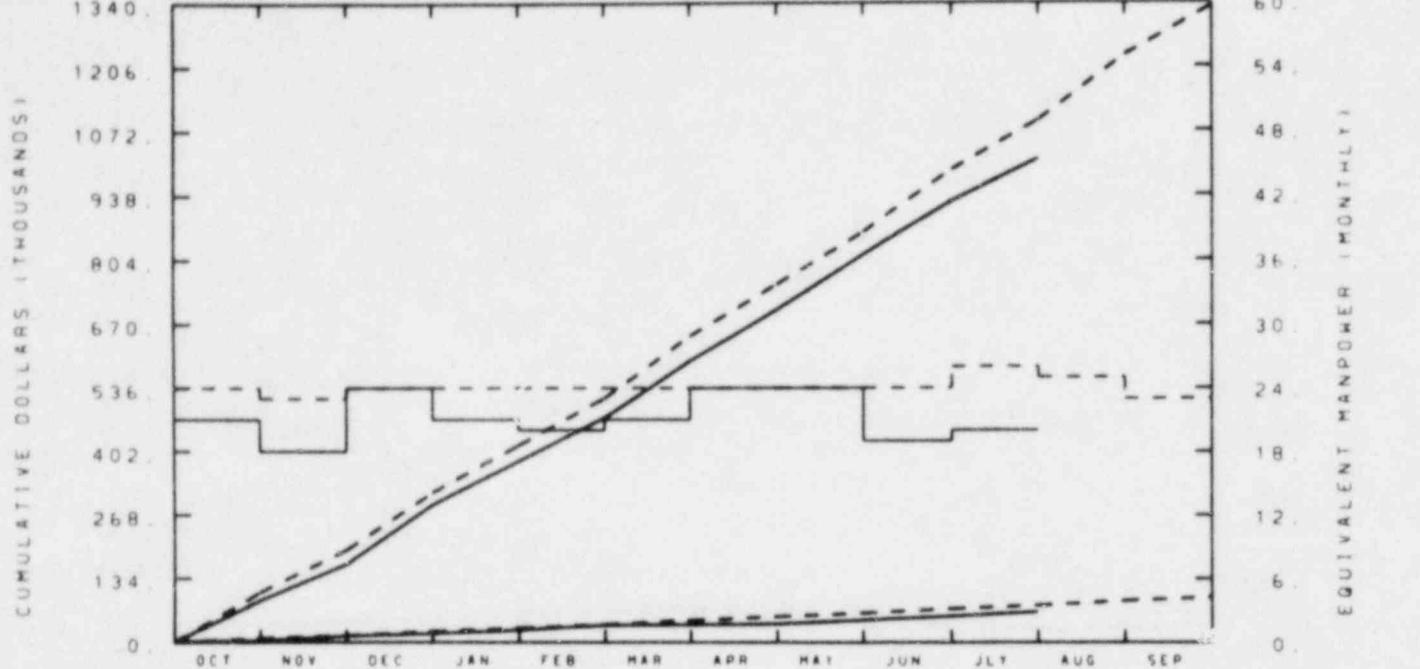
BUDGET

ACTUAL _____

EG&G IDAHO INC.

COMMON SUPT - QUALITY

NUMBER 5N6X00000



MATERIAL

BUDGET	8	14	23	30	37	47	54	62	71	78	88	95
ACTUAL	3	13	18	26	36	37	39	47	55	64		

MANPOWER

BUDGET	24	23	24	24	24	24	24	24	24	26	25	23
ACTUAL	21	18	24	21	20	21	24	24	19	20		

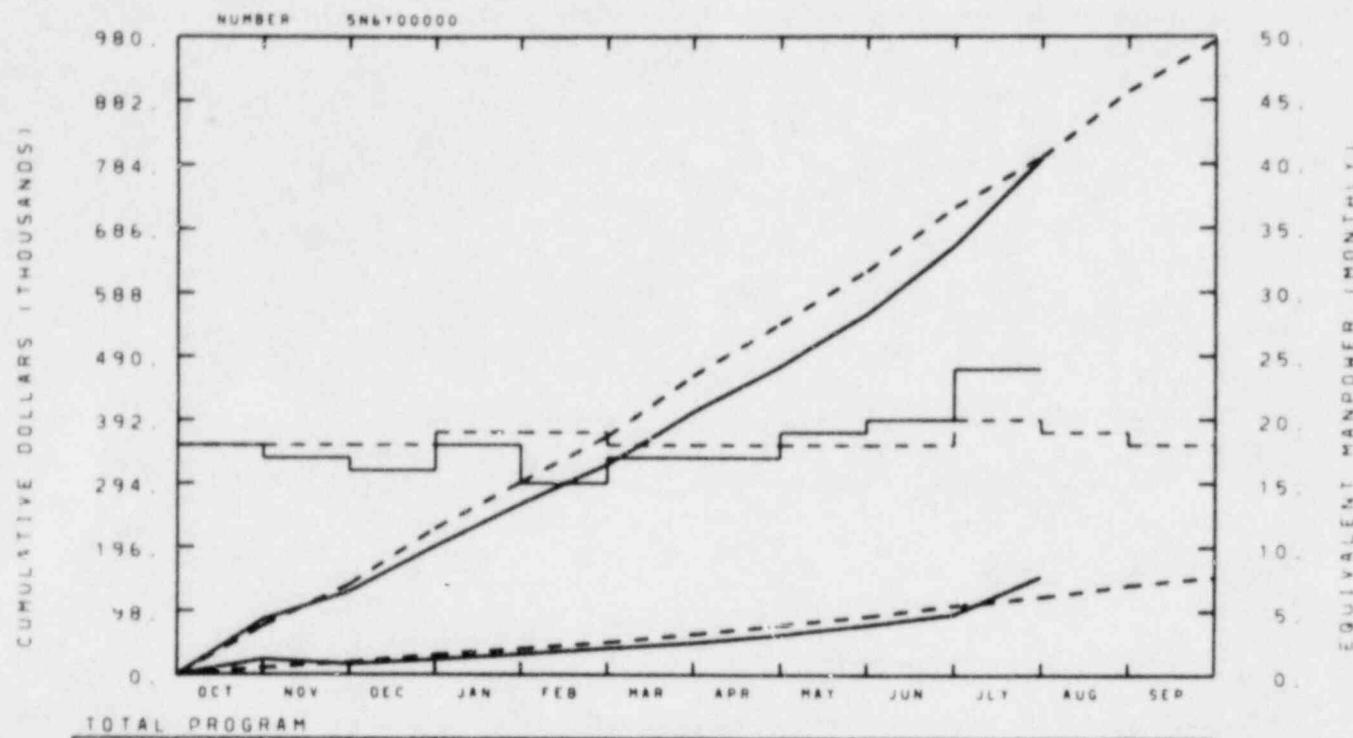
BUDGET

ACTUAL

A CCF is in process returning approximately \$66,000 to management reserve.

EG&G IDAHO INC.

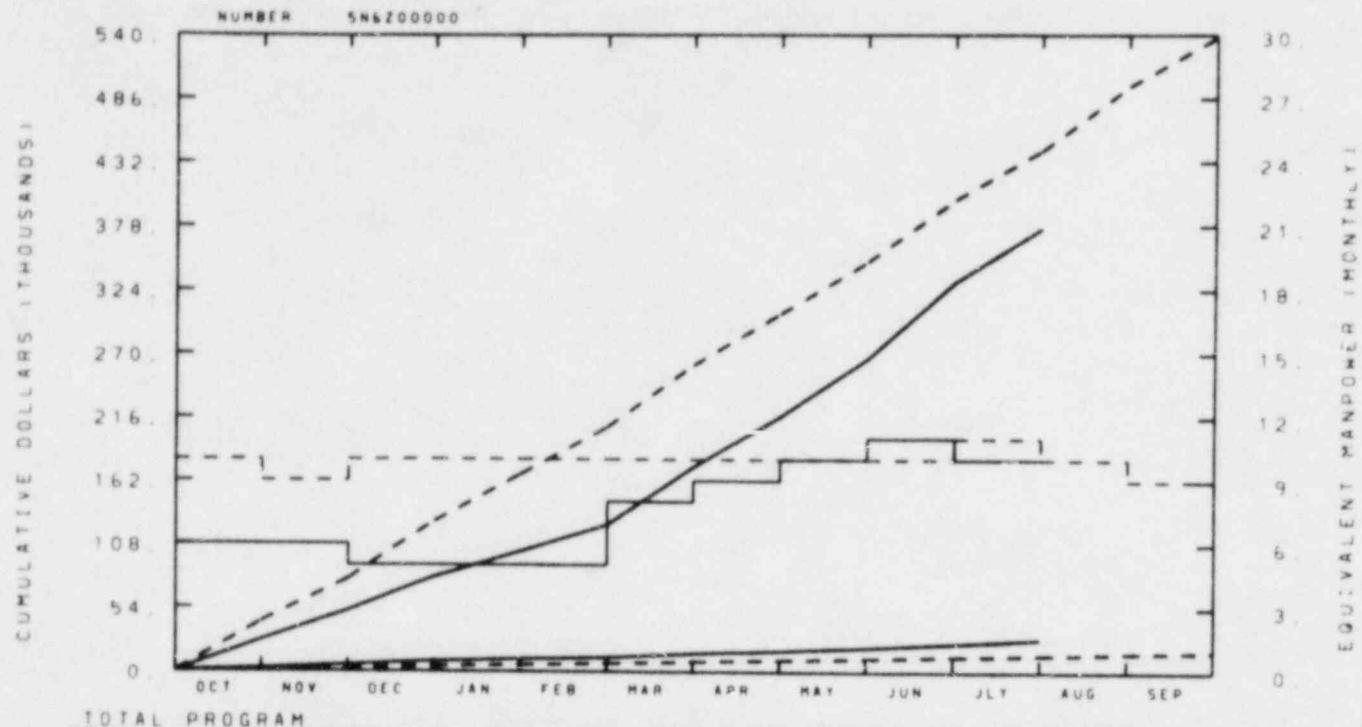
COMMON SUPT - PLANS & BUDGETS



No significant variance.

EG&G IDAHO INC.

COMMON SUPT - SAFETY



BUDGET	42	78	127	167	208	261	304	348	400	442	497	538
ACTUAL	26	51	80	102	124	174	217	266	331	376		

MATERIAL

BUDGET	1	2	4	6	7	9	10	11	13	14	16	18
ACTUAL	2	5	9	11	12	16	18	21	24	28		

BUDGET

ACTUAL

MANPOWER

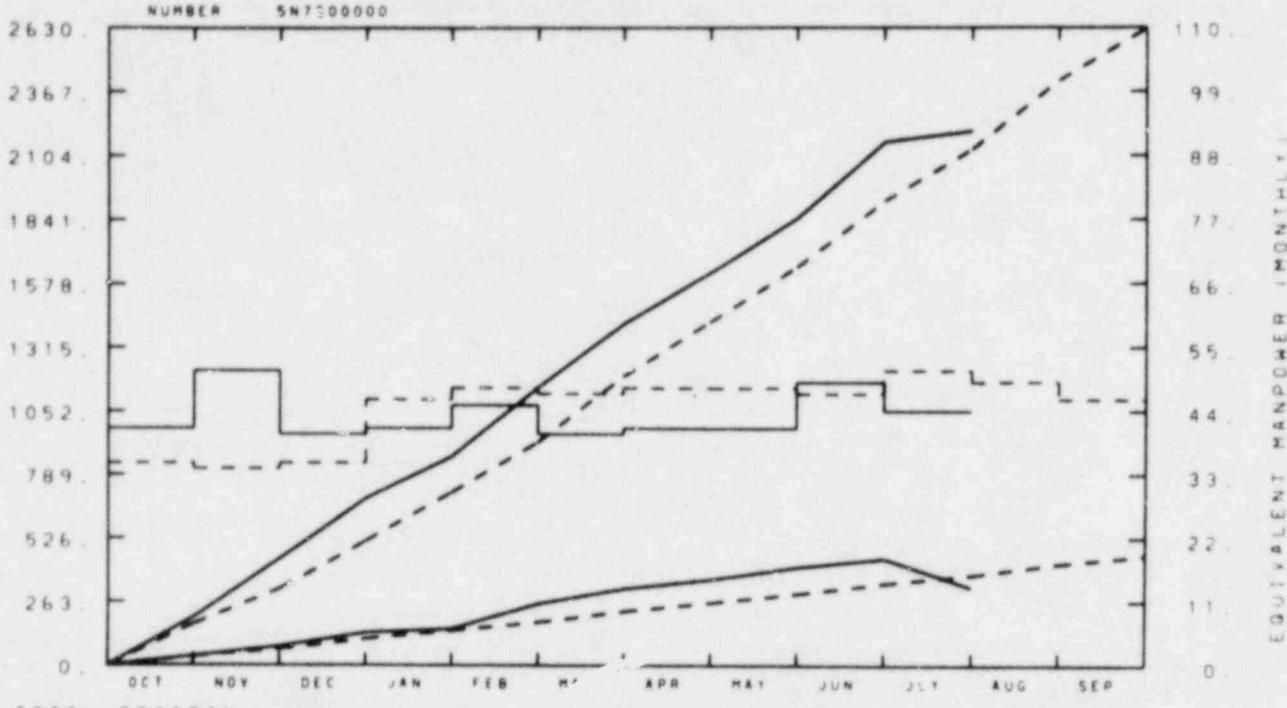
BUDGET	10	9	10	10	10	10	10	10	10	11	10	9
ACTUAL	6	6	5	5	5	8	9	10	11	10		

Funding has been reviewed and adjustments made to ensure year-end totals will be within funding limitations. Approximately \$80,000 returned to management reserve.

EG&G IDAHO INC.

LOFT OPERATIONS BRANCH

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

BUDGET	171	317	513	714	923	1196	1422	1647	1917	2131	2412	2626
ACTUAL	199	441	689	862	1149	1413	1624	1847	2159	2205		

MATERIAL

BUDGET	36	67	109	143	178	223	260	296	340	374	420	454
ACTUAL	38	78	134	150	254	317	356	406	443	323		

BUDGET

ACTUAL

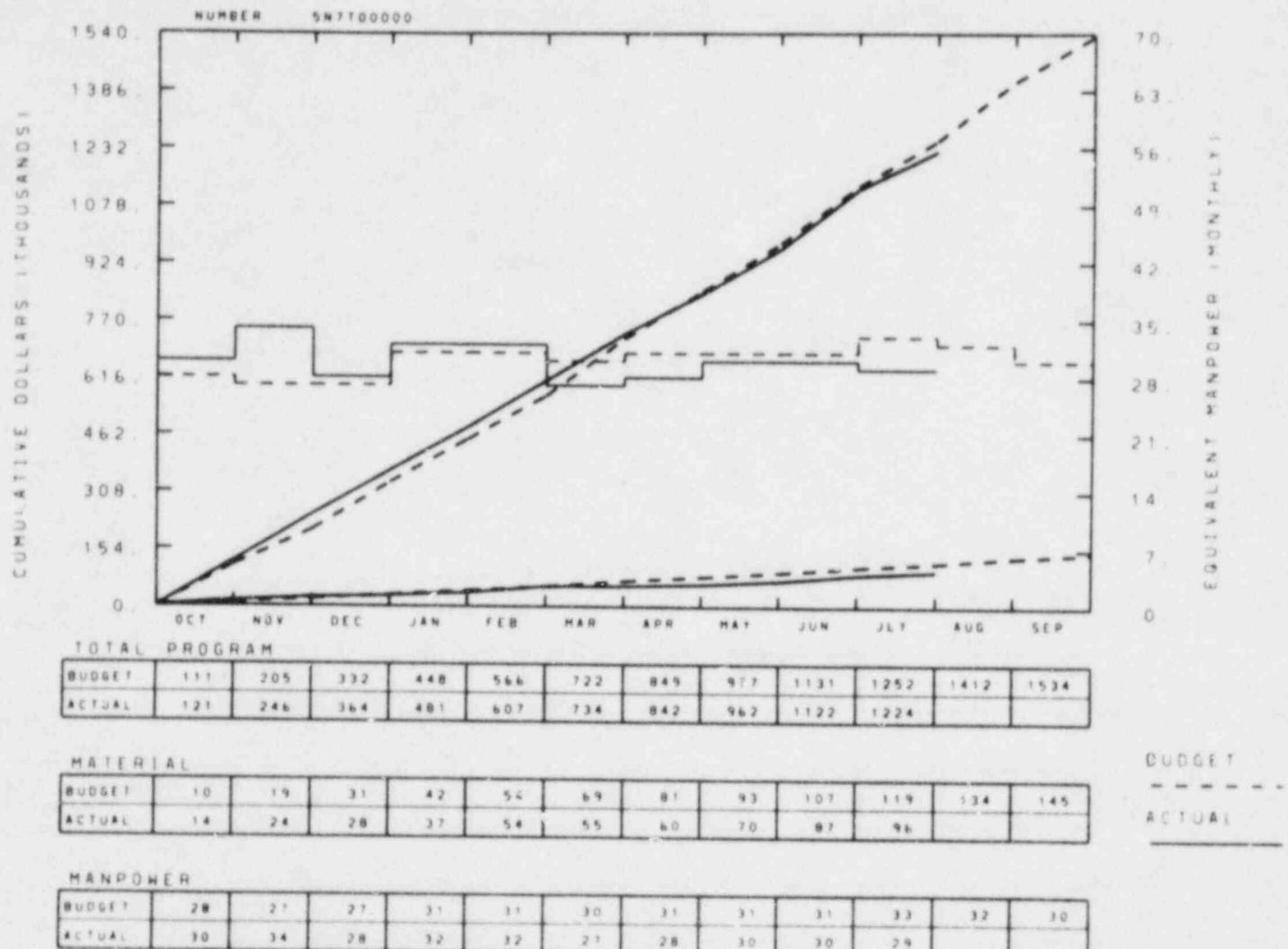
MANPOWER

BUDGET	35	34	35	46	48	47	48	48	47	51	49	46
ACTUAL	41	51	40	41	45	40	41	41	44	44		

No significant variance. Excessive power bill allocation for TAN has been corrected in July 1980.

EG&G IDAHO INC.

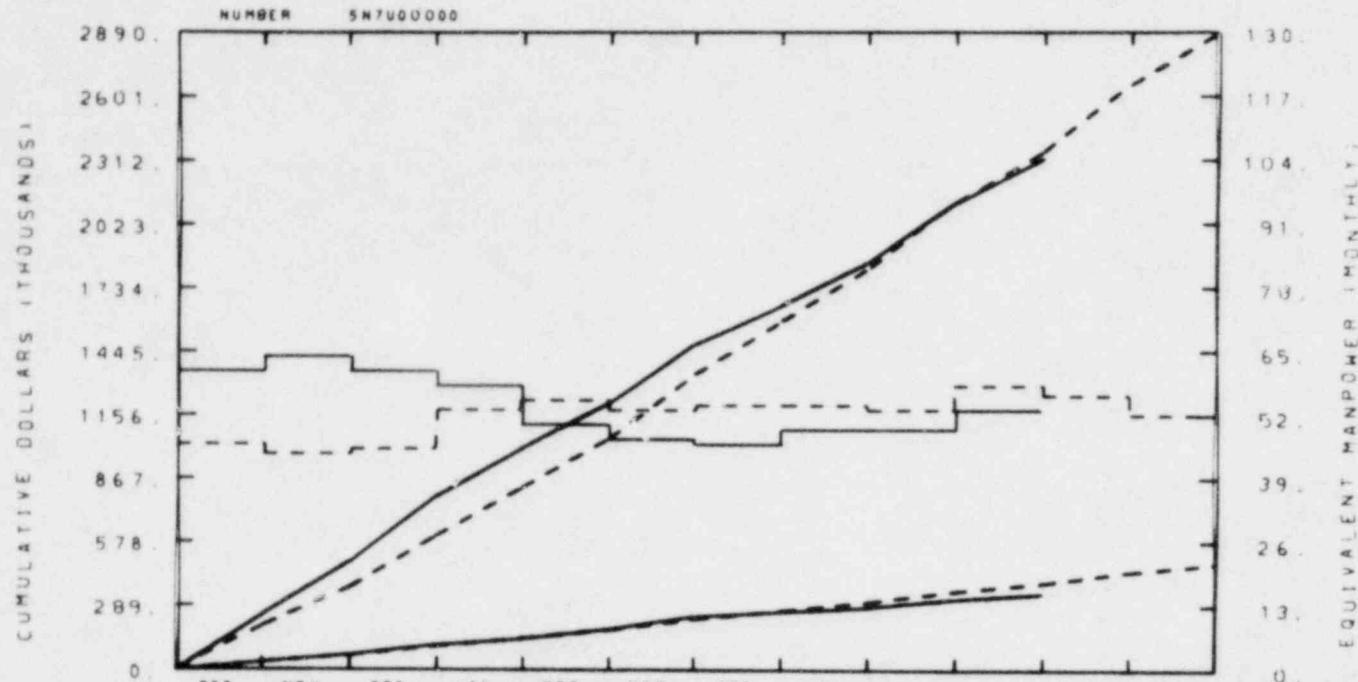
LOFT TEST & DATA



No significant variance.

EG&G IDAHO INC.

LOFT FACILITY SUPPORT



TOTAL PROGRAM

BUDGET	201	372	604	823	1048	1343	1586	1820	2120	2350	2654	2884
ACTUAL	251	489	783	1002	1211	1479	1658	1854	2120	2319		

MATERIAL

BUDGET	35	65	105	142	180	229	269	309	356	394	444	481
ACTUAL	33	67	111	138	104	242	263	284	321	345		

MANPOWER

BUDGET	46	44	45	53	55	53	54	54	53	50	56	52
ACTUAL	51	54	61	50	50	47	46	49	49	53		

No significant variance.

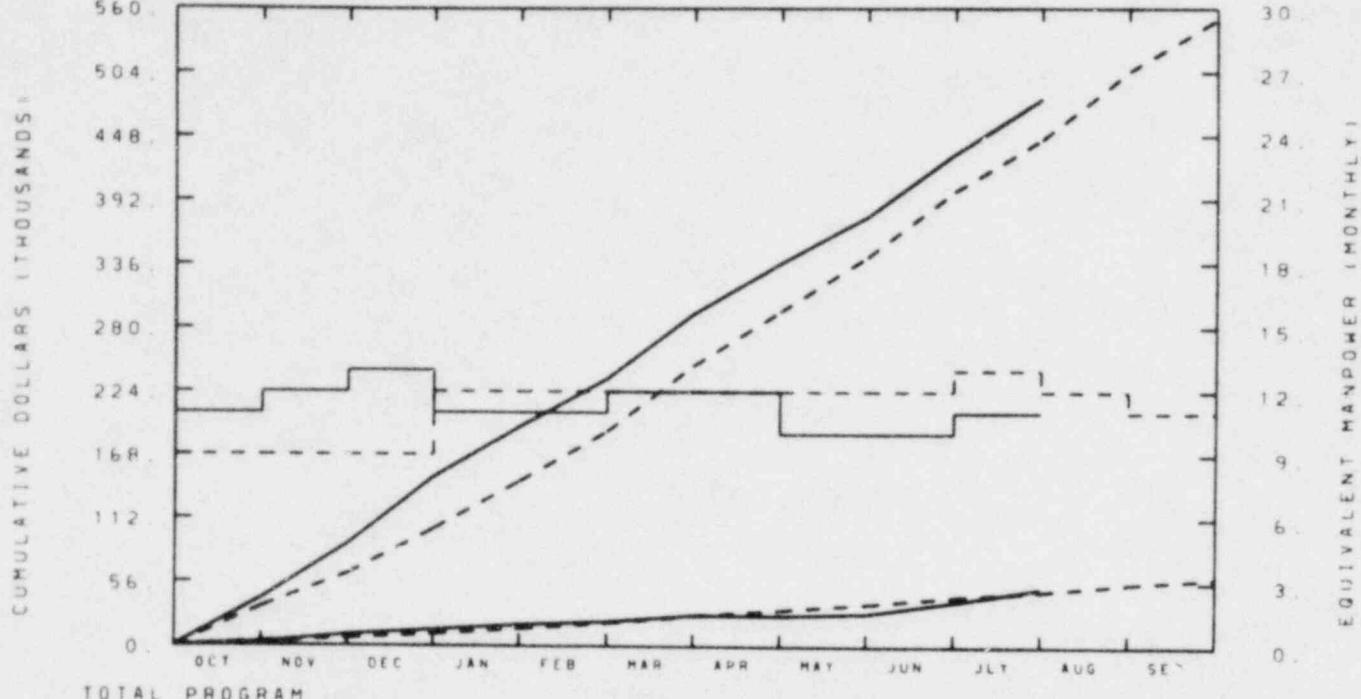
BUDGET

ACTUAL

EG&G IDAHO INC.

OUTSIDE SERVICE SUPPORT

NUMBER 5N7200000



TOTAL PROGRAM

BUDGET	34	63	102	145	189	247	295	342	400	445	505	551
ACTUAL	42	89	148	193	235	293	337	378	433	481		

MATERIAL

BUDGET	3	6	10	15	20	27	32	37	44	49	55	60
ACTUAL	3	10	14	19	22	27	27	29	39	51		

MANPOWER

BUDGET	9	9	9	12	12	12	12	12	12	13	12	11
ACTUAL	11	12	13	11	11	12	12	10	10	11		

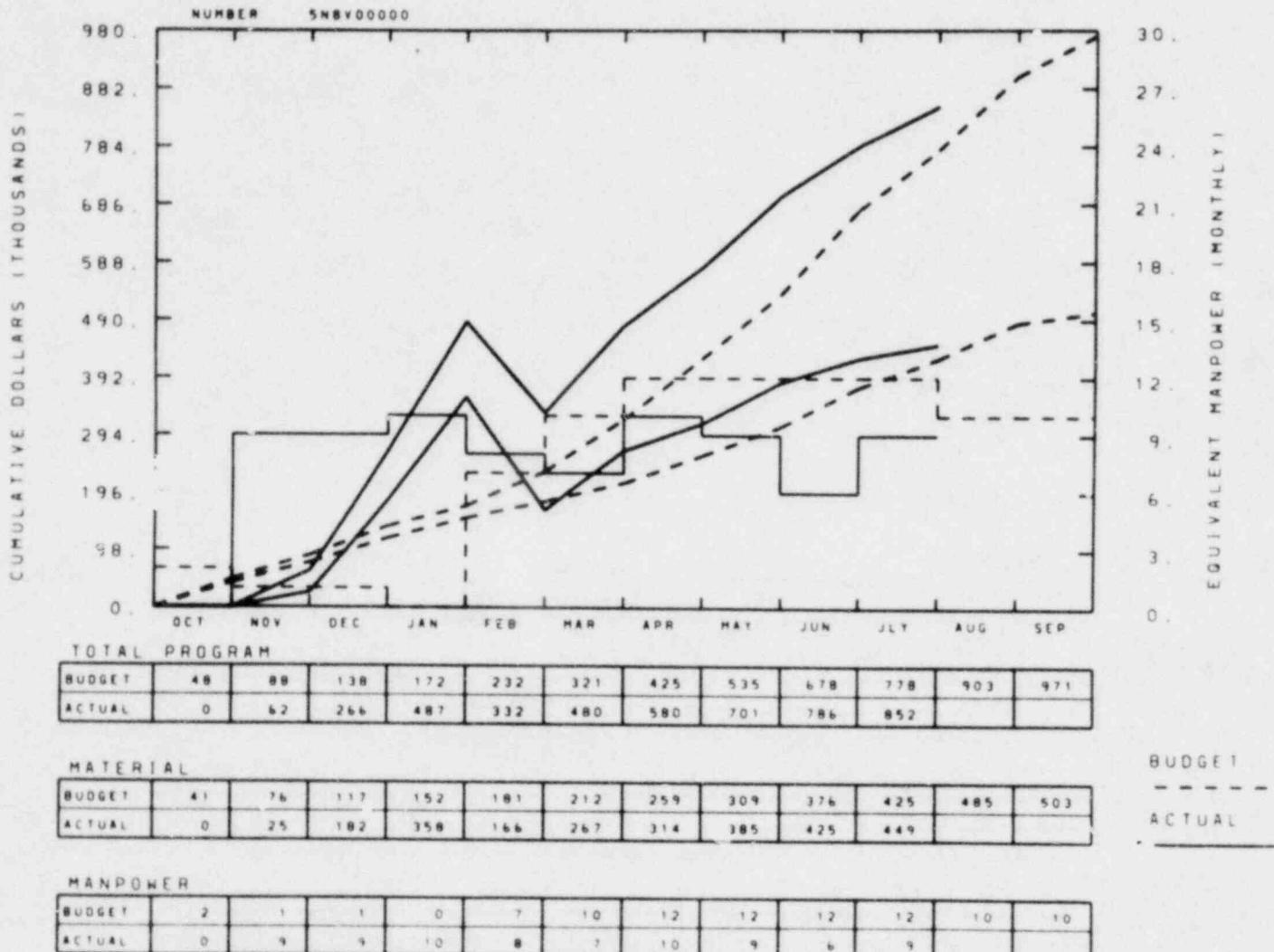
No significant variance.

BUDGET

ACTUAL

EG&G IDAHO INC.

AUGMENTED OPER CAPABILITY



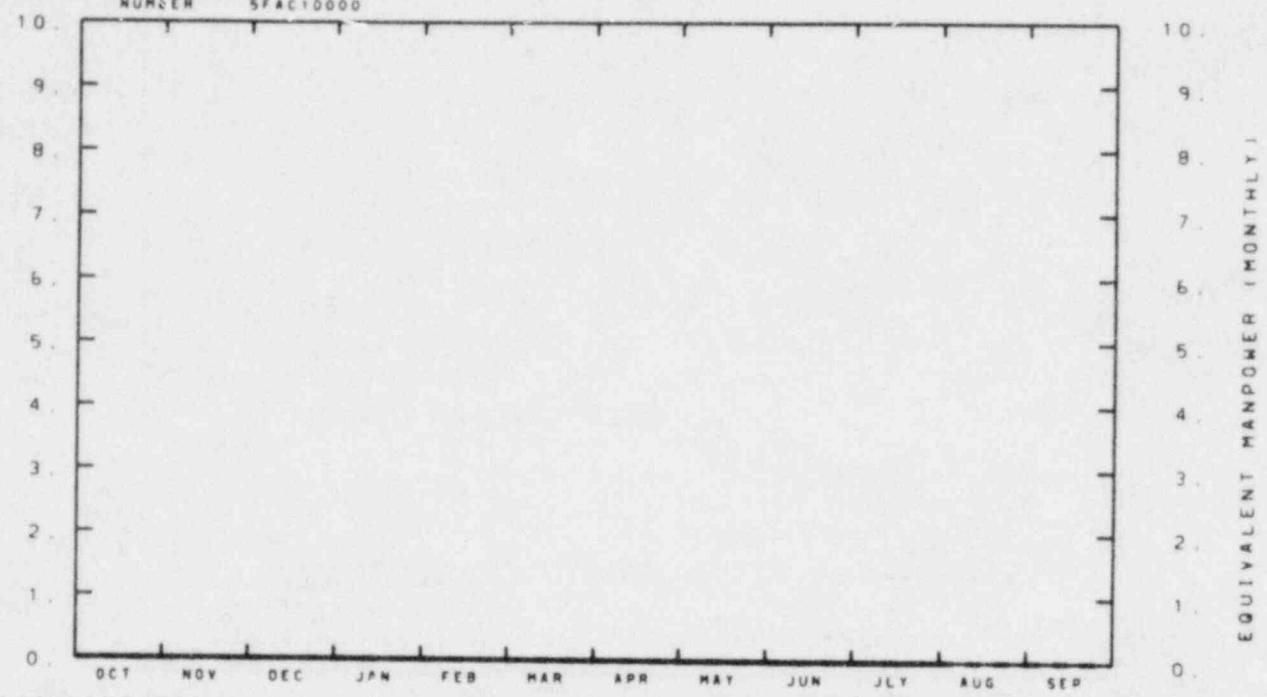
Corrective action initiated in June should result in fiscal year-end totals matching budget.

EG&G IDAHO INC.

SGAE MANAGEMENT

NUMBER SFAC10000

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0

MATERIAL

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0

BUDGET

ACTUAL

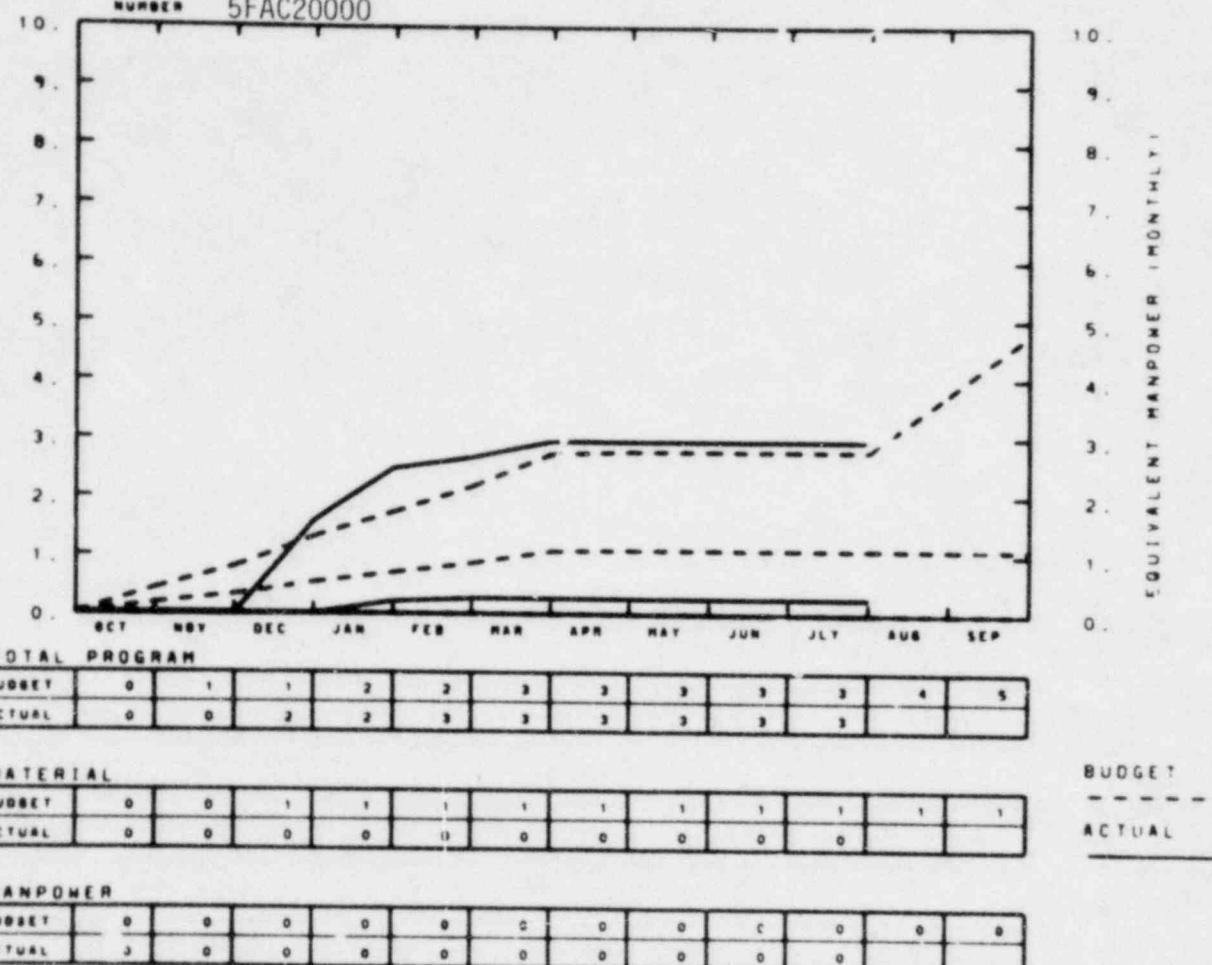
MANPOWER

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0

No significant variance. Above account now rolls to 5FAC2 (per CCB #80-199).

EG&G IDAHO INC.
PROGRAM DEV. AND ANAL.
NUMBER 5FAC20000

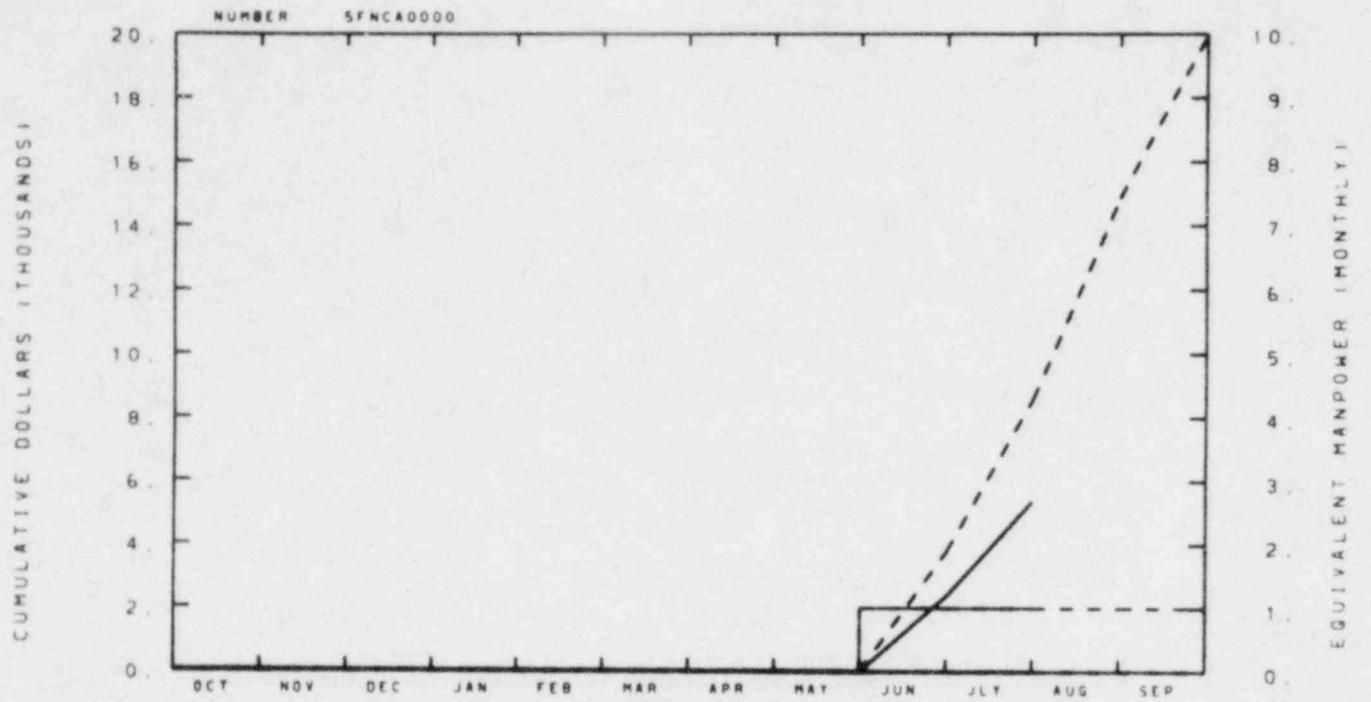
CUMULATIVE DOLLARS (IN THOUSANDS)



No significant variance.

EG&G IDAHO INC.

HYLE DATA ANALYSIS



TOTAL PROGRAM

BUDGET	0	0	0	0	0	0	0	0	4	9	15	20
ACTUAL	0	0	0	0	0	0	0	0	2	5		

MATERIAL

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0		

MANPOWER

BUDGET	0	0	0	0	0	0	0	0	1	1	1	1
ACTUAL	0	0	0	0	0	0	0	0	1	1		

BUDGET

ACTUAL

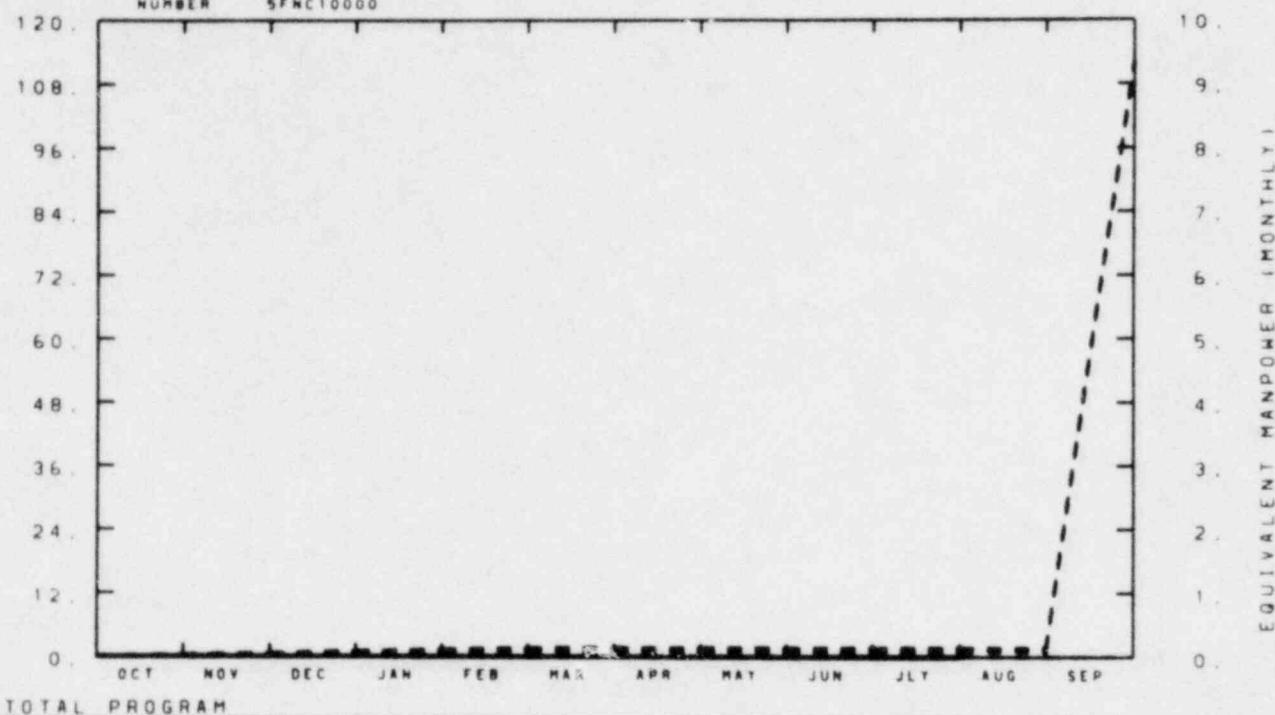
Because of higher priority work assignments, effort has been applied to this project. It is expected that the variance will be removed by year-end.

EG&G IDAHO INC.

ECN MANAGEMENT

NUMBER SFNC10000

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

BUDGET	0	1	1	1	2	2	2	2	2	2	2	112
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	

MATERIAL

BUDGET	0	0	1	1	1	1	1	1	1	1	1	112
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	

BUDGET

ACTUAL

MANPOWER

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	

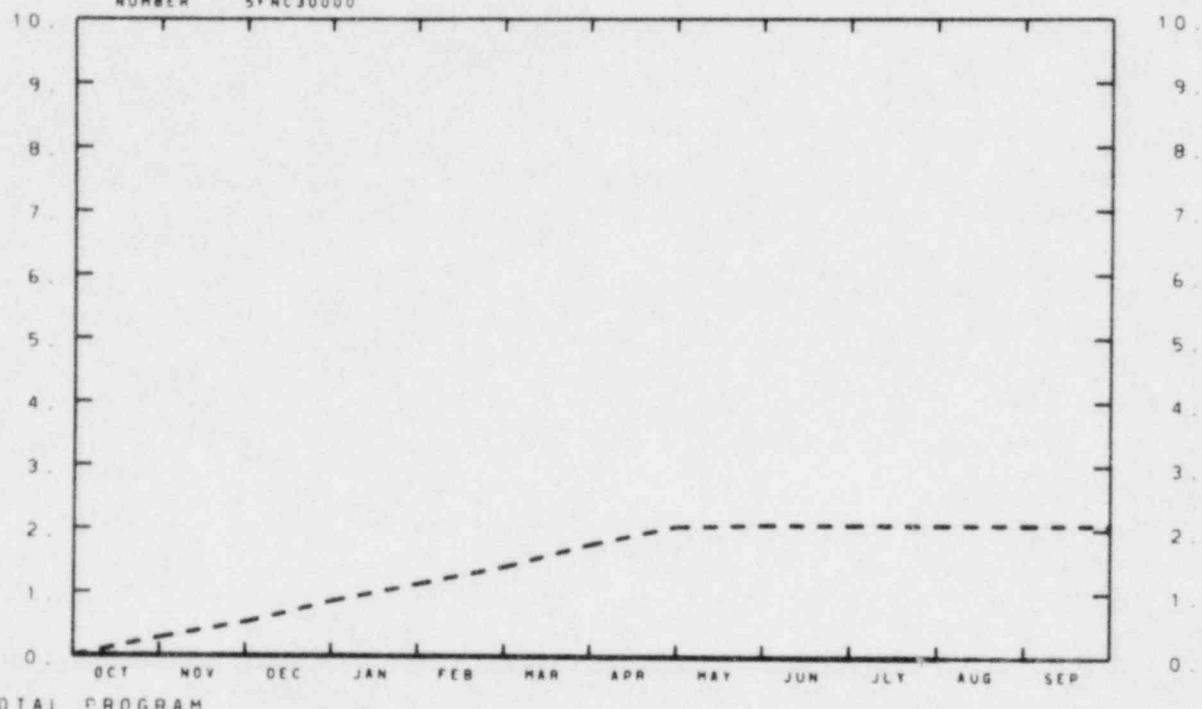
No significant variance.

EG&G IDAHO INC.

RPI SUBCONTRACT

NUMBER SFNC30000

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

	BUDGET	0	1	1	1	1	2	2	2	2	2	2
	ACTUAL	0	0	0	0	0	0	0	0	0	0	0

MATERIAL

	BUDGET	0	1	1	1	1	2	2	2	2	2	2
	ACTUAL	0	0	0	0	0	0	0	0	0	0	0

MANPOWER

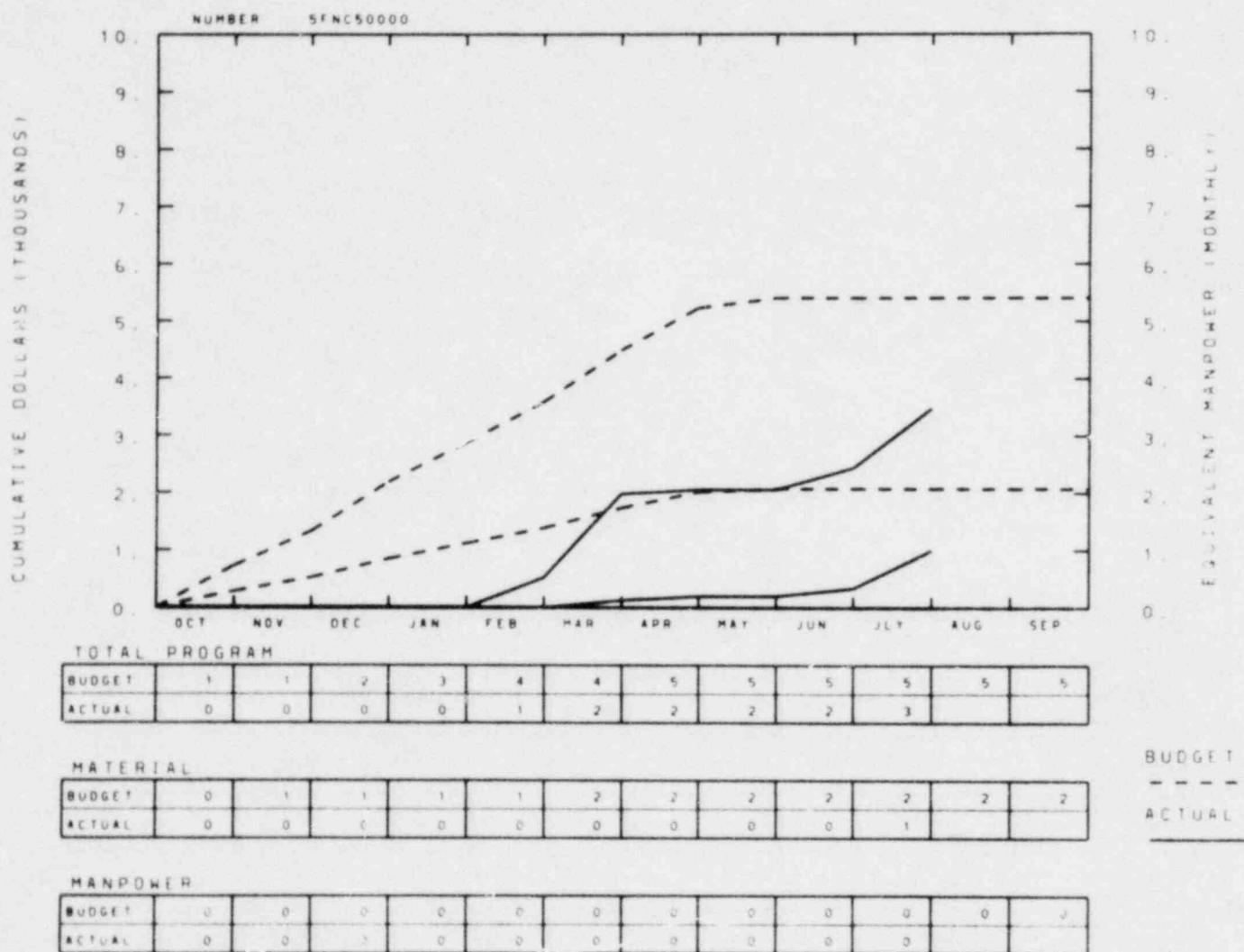
	BUDGET	0	0	0	0	0	0	0	0	0	0	0
	ACTUAL	0	0	0	0	0	0	0	0	0	0	0

BUDGET

ACTUAL

The data are at RPI for analysis. No costs have been accrued.

EG&G IDAHO INC.
INEL SUPPORT



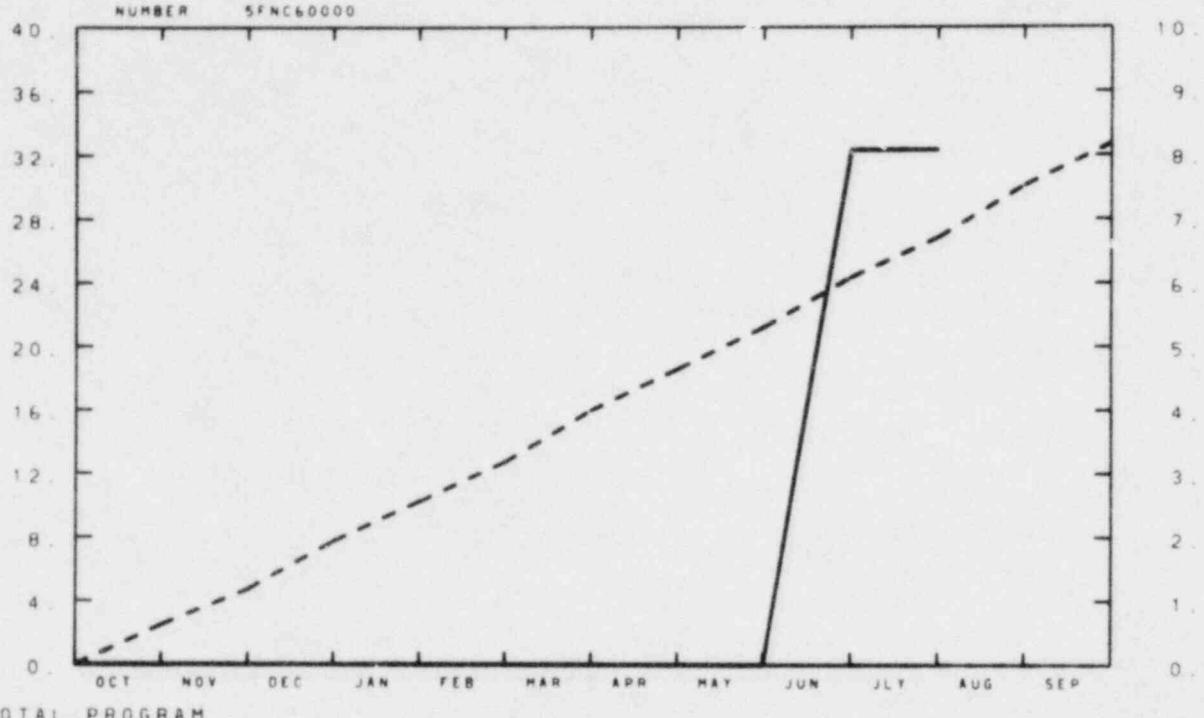
The data portion of this project is completed. When the report has been returned, the review process should remove the variance.

EG&G IDAHO INC.

SNA TECHNIQUES

NUMBER SFNC60000

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

	BUDGET	5	8	10	13	16	19	21	24	27	30	33
	ACTUAL	0	0	0	0	0	0	0	32	32		

MATERIAL

	BUDGET	2	5	8	10	13	16	19	21	24	27	30	33
	ACTUAL	0	0	0	0	0	0	0	0	32	32		

MANPOWER

	BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
	ACTUAL	0	0	0	0	0	0	0	0	0	0		

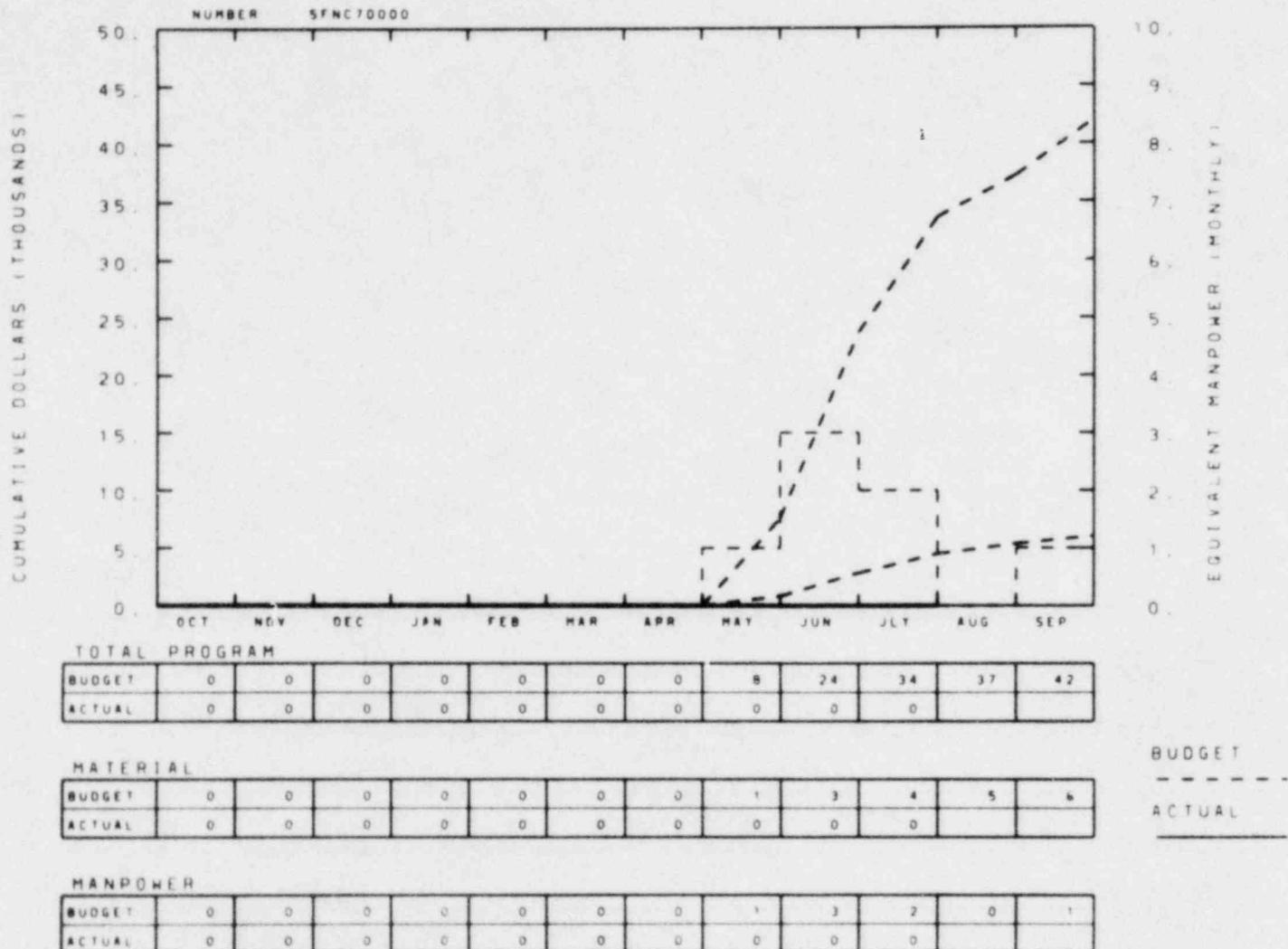
The complete contract has been accrued by accounting in one lump sum. RPI will complete their studies in September 1980.

BUDGET

ACTUAL

EG&G IDAHO INC.

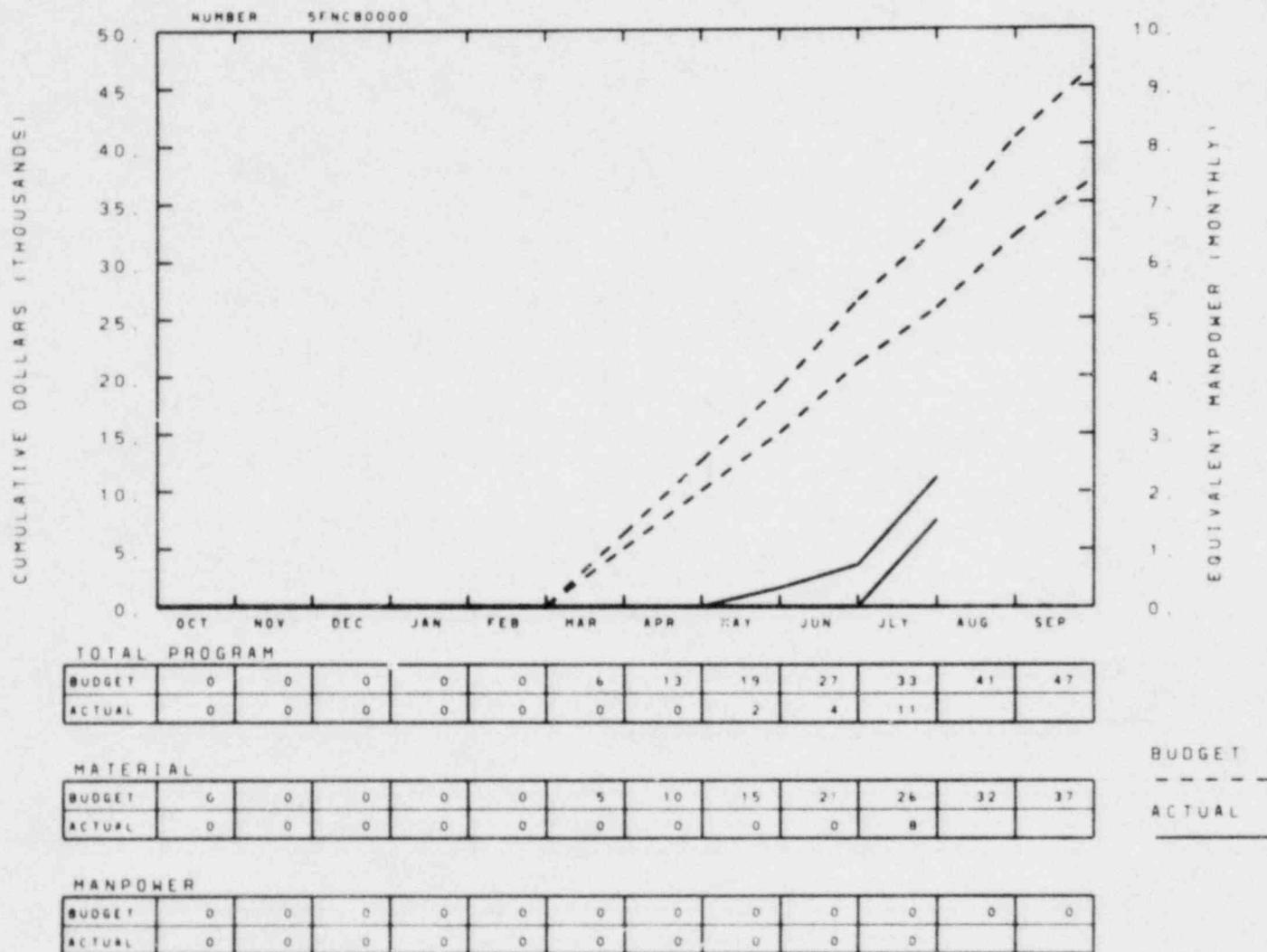
CRITICAL FLOW SCALING STUDIES



The project has been rescheduled to start August 1. A CCF has been turned in to respread the budget.

EG&G IDAHO INC.

TWO-PHASE LOOP PLATFORM



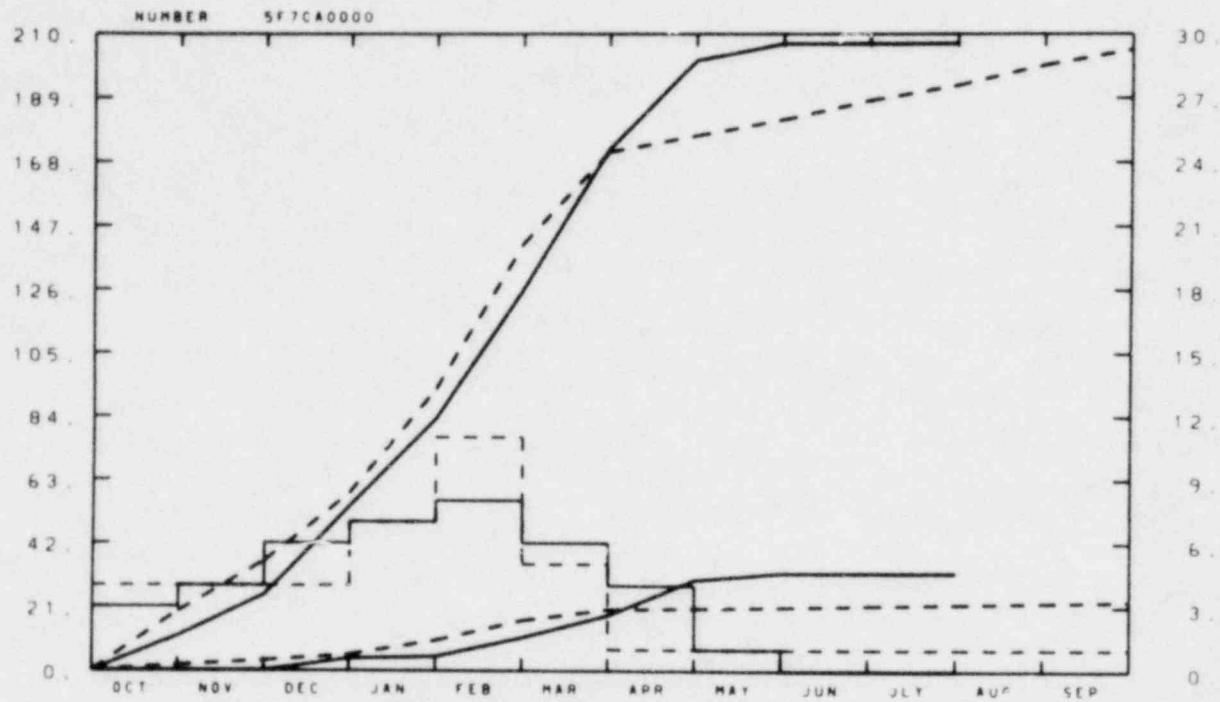
The work originally planned was delayed. The variance is expected to decrease in the remaining portion of the year.

EG&G IDAHO INC.

SMALL BREAK INSTRUMENTS

NUMBER SF7CA0000

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

BUDGET	19	36	59	93	141	171	177	182	188	193	200	205
ACTUAL	11	25	54	83	126	172	201	207	207	207		

MATERIAL

BUDGET	2	3	5	10	16	20	21	21	22	22	22	23
ACTUAL	0	0	4	5	11	18	30	32	32	32		

MANPOWER

BUDGET	4	4	4	7	11	5	1	1	1	1	1	1
ACTUAL	3	4	6	7	8	6	4	1	0	0		

Work completed ahead of schedule.

BUDGET

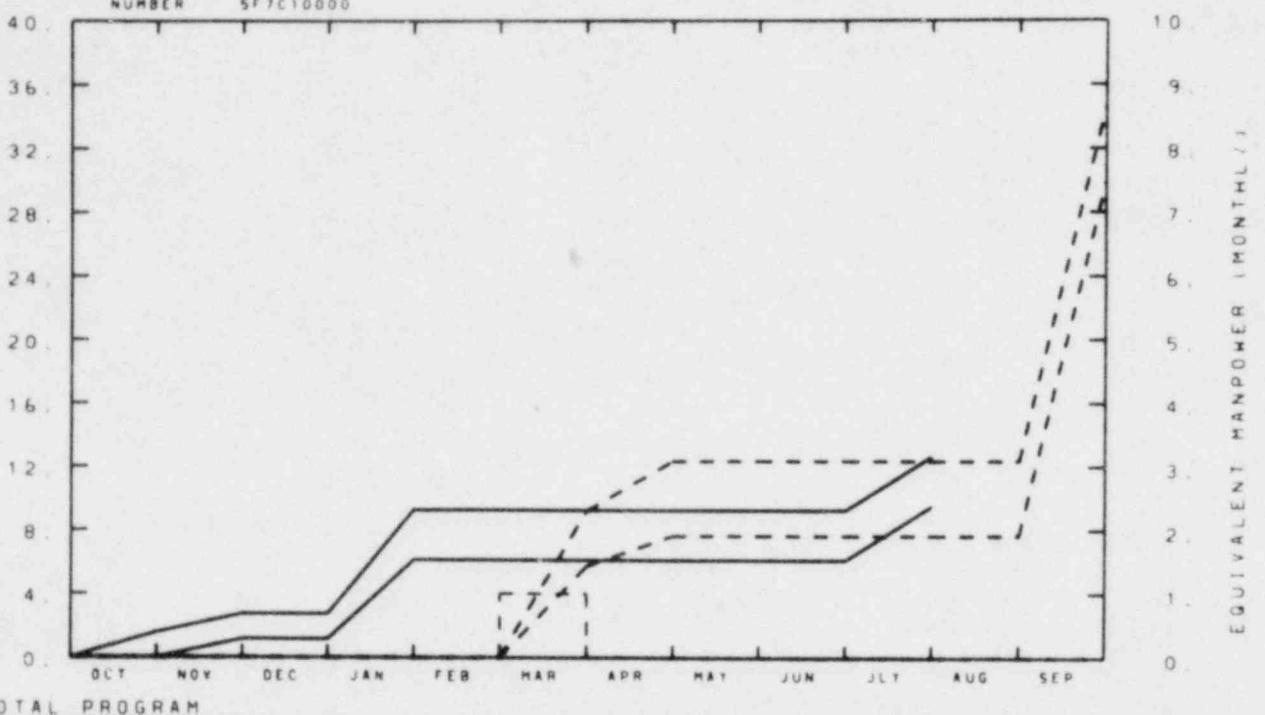
ACTUAL

EG&G IDAHO INC.

FRG MANAGEMENT

NUMBER SF7C10000

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

	BUDGET	ACTUAL										
BUDGET	0	2	0	3	0	9	12	12	12	12	12	35
ACTUAL	0	0	0	0	0	9	9	9	9	9	13	0

MATERIAL

	BUDGET	ACTUAL										
BUDGET	0	0	0	0	0	6	8	8	8	8	8	30
ACTUAL	0	0	1	1	6	6	6	6	6	10	0	0

MANPOWER

	BUDGET	ACTUAL										
BUDGET	0	0	0	0	0	1	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0

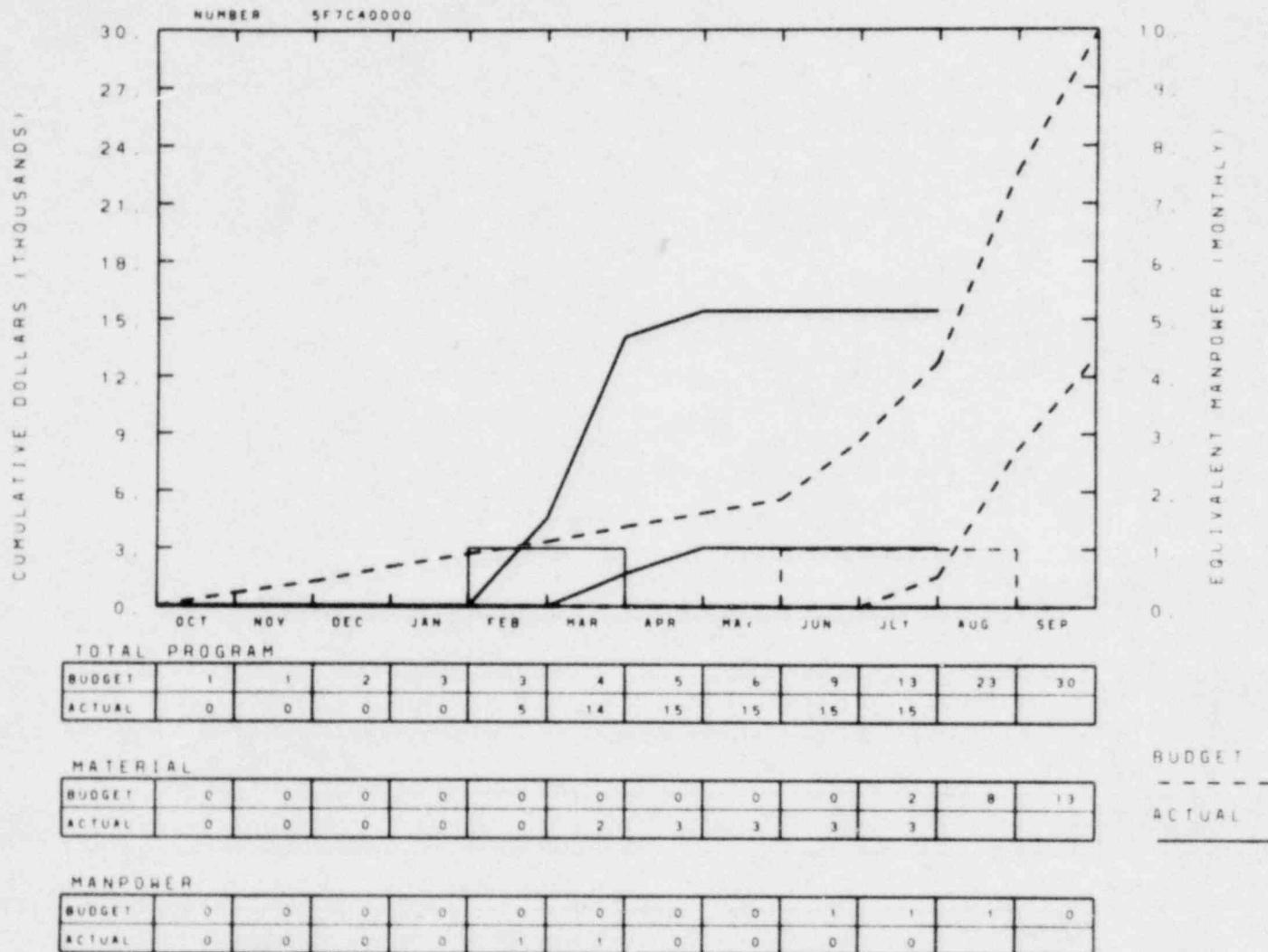
No significant variance.

EQUIVALENT MANPOWER (MONTH/MONTHS)

BUDGET -----
ACTUAL _____

EG&G IDAHO INC.

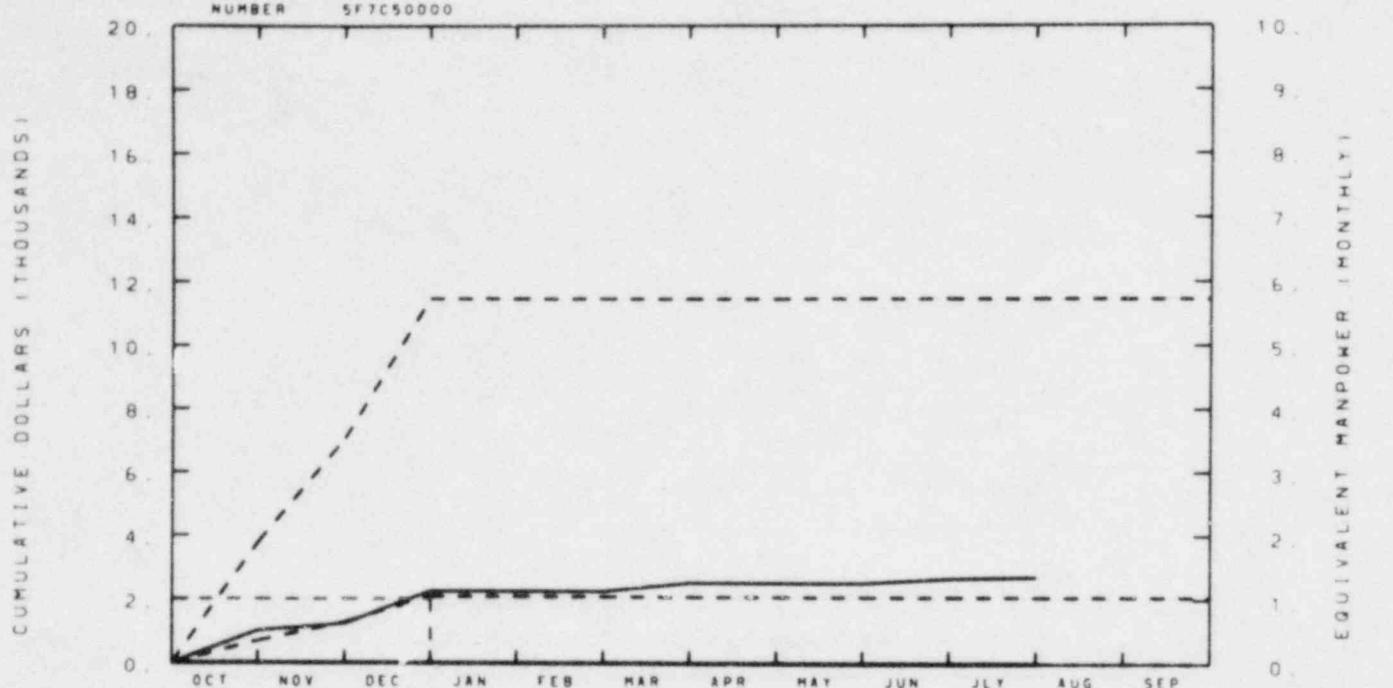
MISCELLANEOUS TASKS



Work completed ahead of schedule. Budget realignment in process.

EG&G IDAHO INC.

STEAM PROBE



MATERIAL

BUDGET	1	1	2	2	2	2	2	2	2	2	2	2
ACTUAL	0	0	0	0	0	0	0	0	0	0		

BUDGET

ACTUAL

MANPOWER

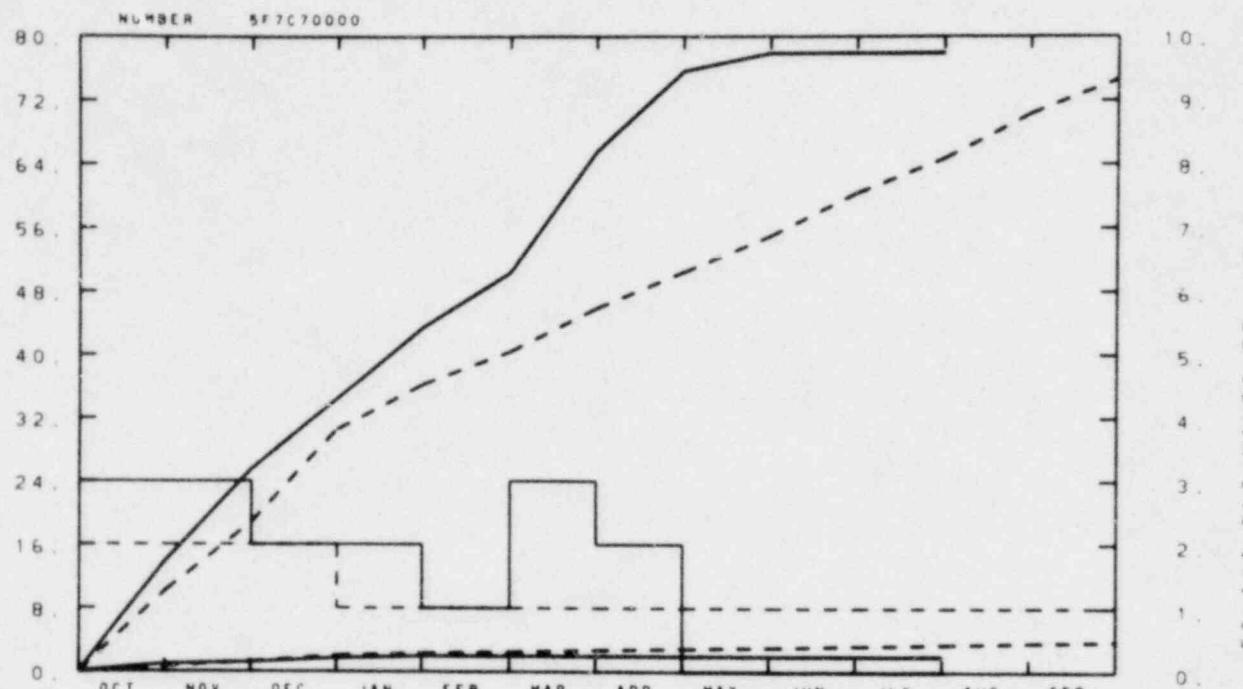
BUDGET	1	1	1	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0		

Work on this task is currently planned to continue into FY-81. Budget realignment is necessary.

EG&G IDAHO INC.

ULTRASONIC DENSITY DETECTOR

CUMULATIVE DOLLARS (THOUSANDS)



BUDGET	10	19	31	36	40	46	50	55	60	65	70	75
ACTUAL	14	26	34	43	50	66	76	78	78	78		

MATERIAL

BUDGET	1	1	2	2	2	3	3	3	3	3	4	4
ACTUAL	1	1	2	2	2	2	2	2	2	2		

BUDGET

ACTUAL

MANPOWER

BUDGET	2	2	2	1	1	1	1	1	1	1	1	1
ACTUAL	3	3	2	2	1	3	2	0	0	0		

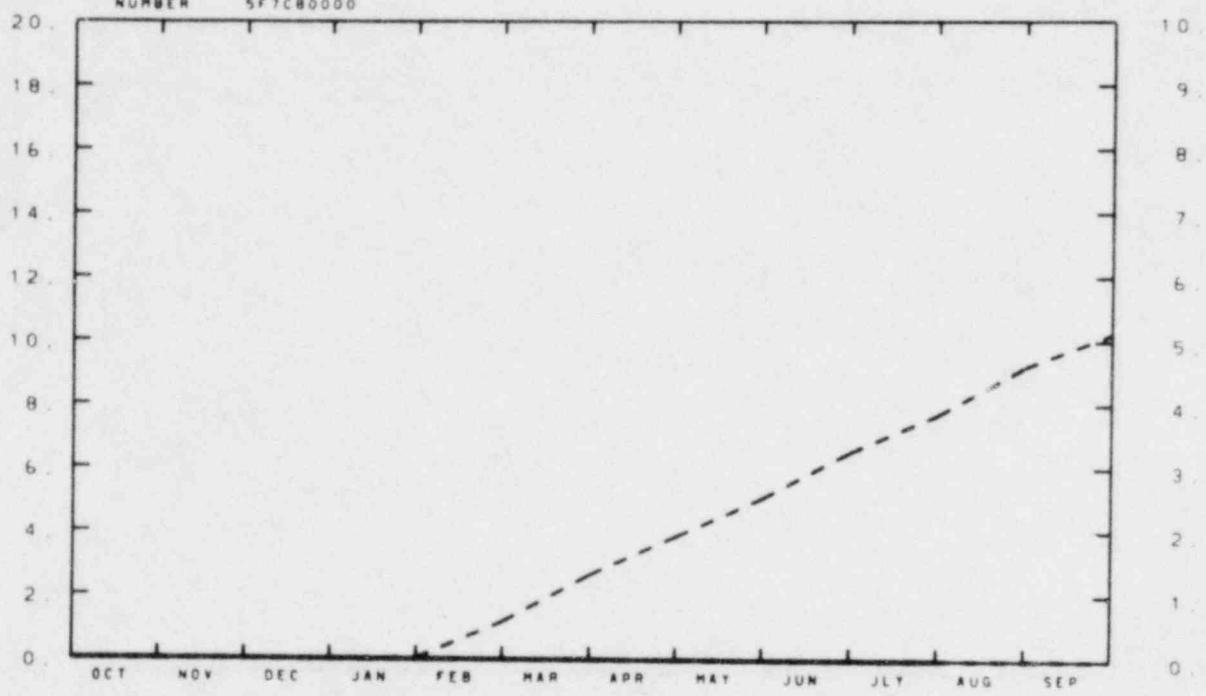
Work completed ahead of schedule. A CCB is in process to cover overrun.

EG&G IDAHO INC.

LOFT STATE VECTOR D&T

NUMBER 5F7CB0000

CUMULATIVE DOLLARS (THOUSANDS)



MATERIAL

	0	0	0	0	0	0	0	0	0	0	0	0
BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0

BUDGET

ACTUAL

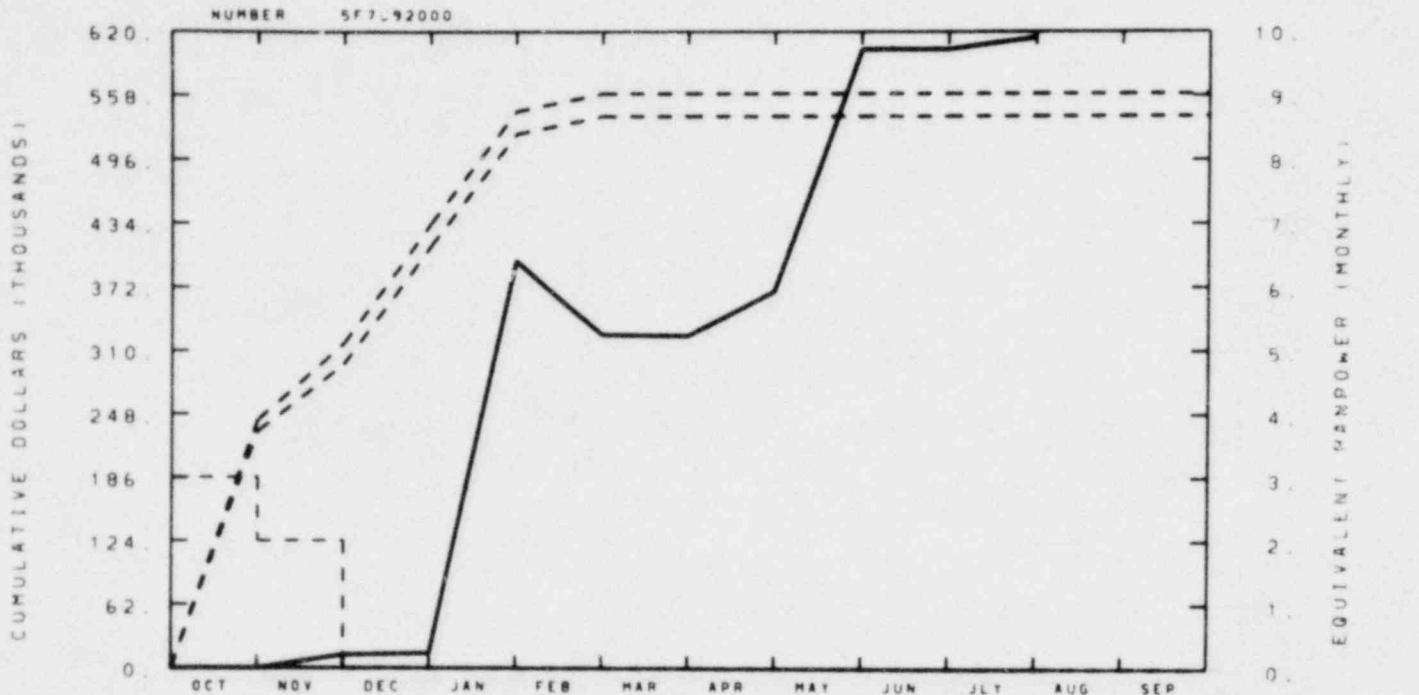
MANPOWER

	0	0	0	0	0	0	0	0	0	0	0	0
BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0

This task is being rebudgeted.

EG&G IDAHO INC.

SHARED TASKS - STEADY STATE TEST



TOTAL PROGRAM

BUDGET	242	317	433	543	560	560	560	560	560	560	560	560
ACTUAL	0	13	15	397	325	324	368	603	603	615		

MATERIAL

BUDGET	231	296	411	521	538	538	538	538	538	538	538	538
ACTUAL	0	13	15	397	325	324	368	603	603	614		

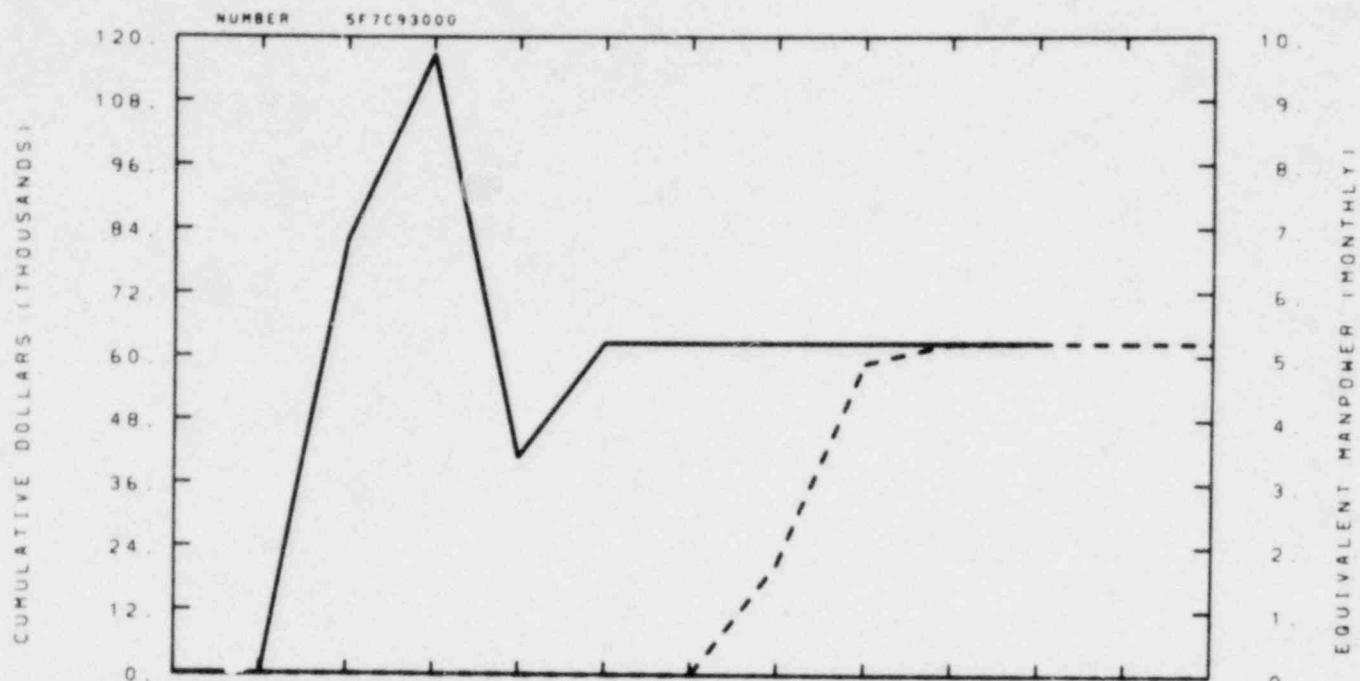
MANPOWER

BUDGET	3	2	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0		

A \$57,000 cost transfer is in process to reduce the variance.

EG&G IDAHO INC.

SHARED TASK - TRAC CODE STUDIES



TOTAL PROGRAM

BUDGET	0	0	0	0	0	0	21	59	62	62	62	62
ACTUAL	0	82	117	41	62	62	62	62	62	62		

MATERIAL

BUDGET	0	0	0	0	0	0	21	59	62	62	62	62
ACTUAL	0	82	117	41	62	62	62	62	62	62		

HANPOWER

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0		

BUDGET

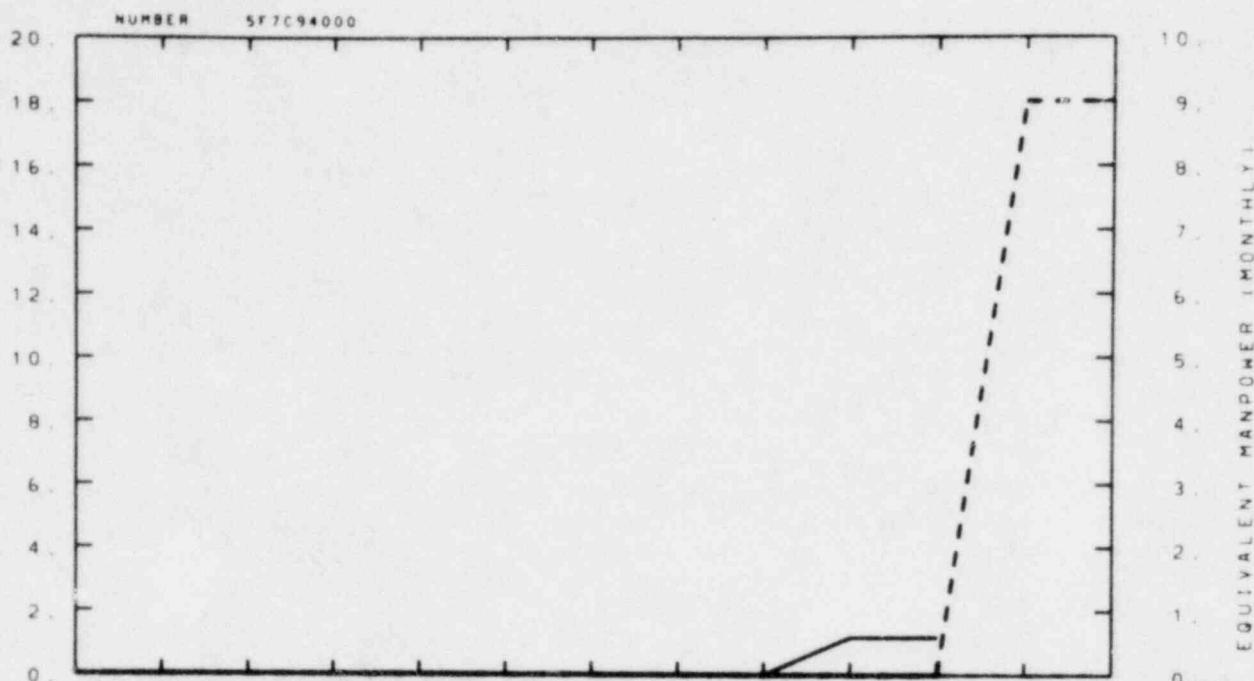
ACTUAL

No significant variance.

EG&G IDAHO INC.

SHARED TASKS TWO PHASE LOOP

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

BUDGET	0	0	0	0	0	0	0	0	0	18	18
ACTUAL	0	0	0	0	0	0	0	1	1		

MATERIAL

BUDGET	0	0	0	0	0	0	0	0	0	18	18
ACTUAL	0	0	0	0	0	0	0	0	0		

MANPOWER

BUDGET	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0		

BUDGET

ACTUAL _____

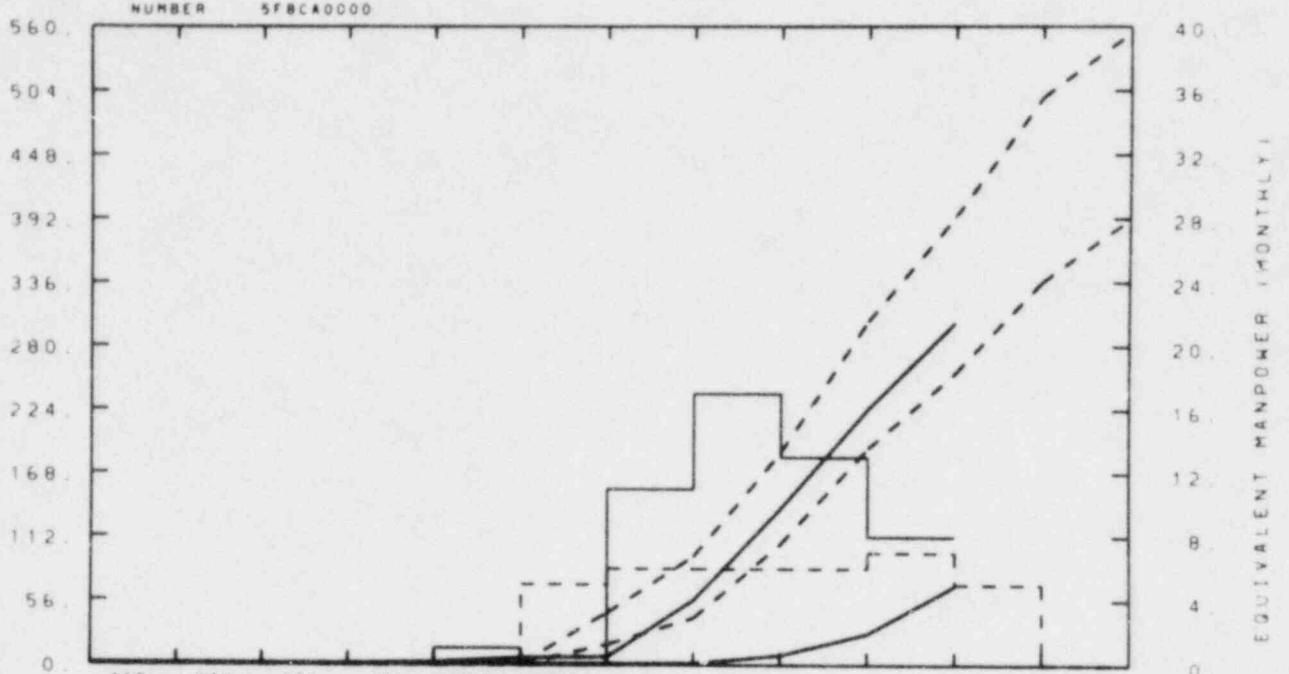
No significant variance.

EG&G IDAHO INC.

SMALL BREAK DENSITOMETERS

NUMBER 5FBCA0000

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

BUDGET	0	0	0	0	0	45	95	126	302	394	499	554
ACTUAL	0	0	0	2	6	7	57	137	225	301		

MATERIAL

BUDGET	0	0	0	0	0	18	41	106	190	256	337	391
ACTUAL	0	0	0	0	0	1	1	9	27	69		

MANPOWER

BUDGET	0	0	0	0	0	5	6	6	6	7	5	0
ACTUAL	0	0	0	0	1	0	11	17	13	8		

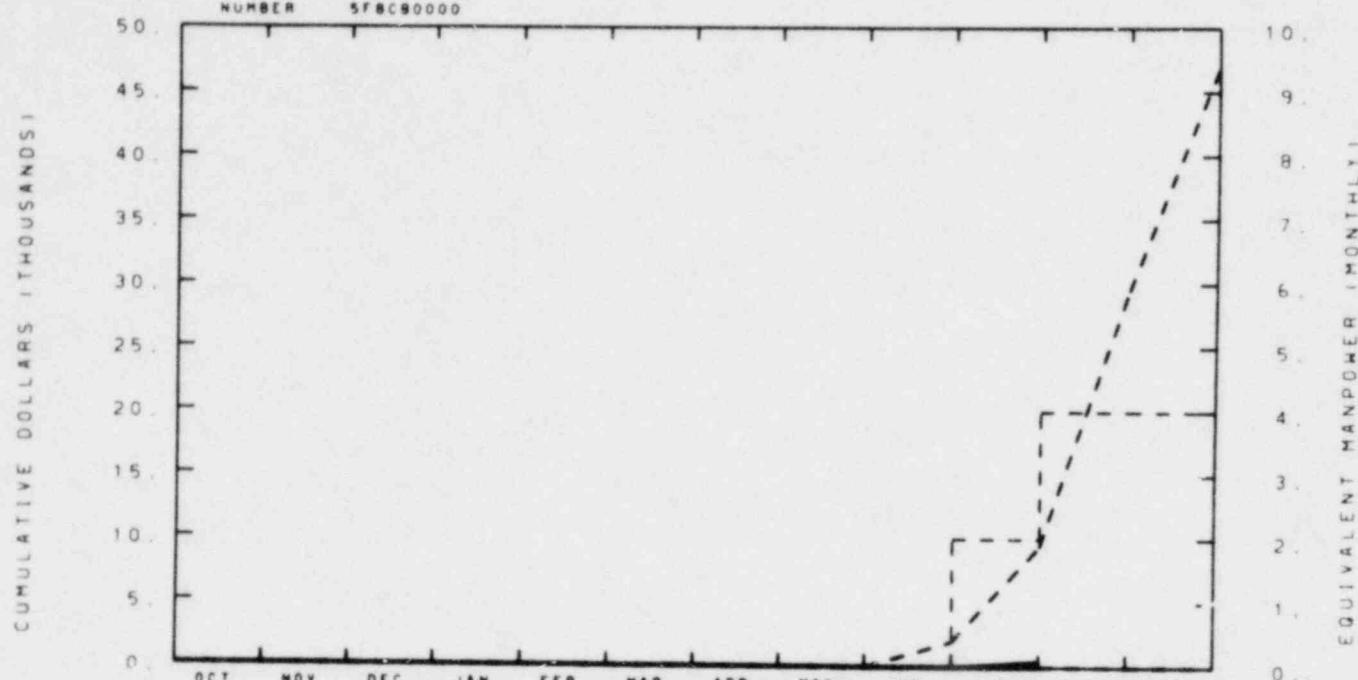
BUDGET

ACTUAL

A CCB has been written to realign the budget and reduce the variance.

EG&G IDAHO INC.

POST CHF HEAT TRANSFER



TOTAL PROGRAM

BUDGET	0	0	0	0	0	0	0	0	2	9	29	47
ACTUAL	0	0	0	0	0	0	0	0	0	0		

MATERIAL

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0		

MANPOWER

BUDGET	0	0	0	0	0	0	0	0	0	2	4	4
ACTUAL	0	0	0	0	0	0	0	0	0	0		

BUDGET

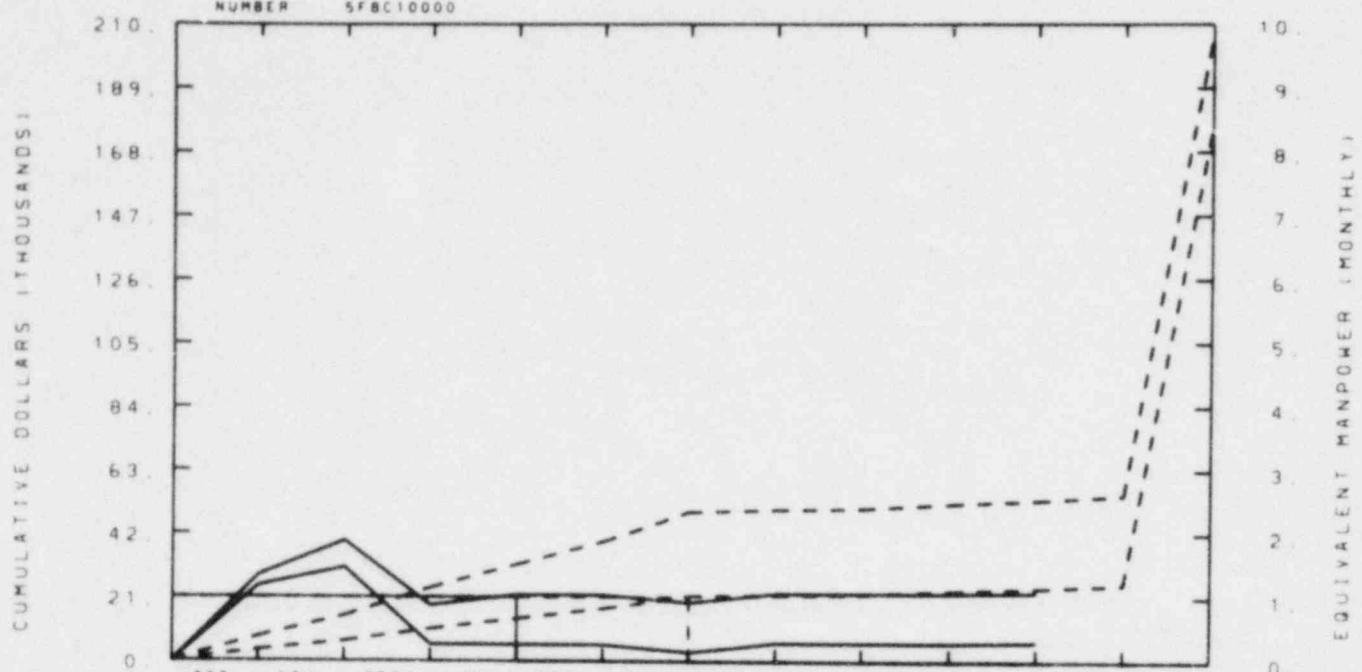
ACTUAL _____

Personnel requirements have delayed this task. It is expected that the variance will decrease in the remaining portion of the year.

EG&G IDAHO INC.

JAERI MANAGEMENT

NUMBER SFBC10000



BUDGET	8	15	24	32	39	49	50	50	52	53	55	207
ACTUAL	28	40	18	22	22	19	22	22	22	23		

MATERIAL

BUDGET	4	7	11	14	17	21	22	22	23	24	25	176
ACTUAL	25	31	5	5	5	3	6	6	6	6		

MANPOWER

BUDGET	1	1	1	1	1	1	0	0	0	0	0	0
ACTUAL	1	1	1	1	0	0	0	0	0	0		

The budget is being respread to remove the variance.

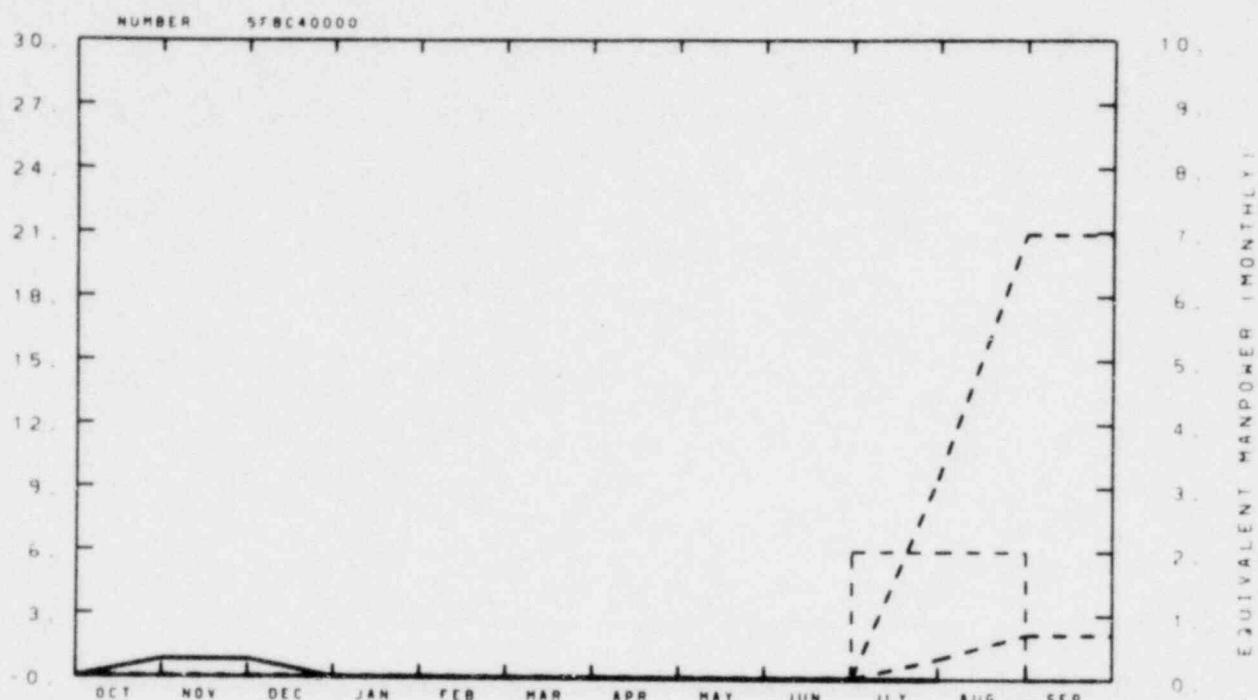
BUDGET

ACTUAL

EG&G IDAHO INC.

DTT - ADVANCED

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

BUDGET	0	0	0	0	0	0	0	0	9	21	21
ACTUAL	1	1	0	0	0	0	0	0	0		

MATERIAL

BUDGET	0	0	0	0	0	0	0	0	1	2	2
ACTUAL	1	1	0	0	0	0	0	0	0		

MANPOWER

BUDGET	0	0	0	0	0	0	0	0	2	2	0
ACTUAL	0	0	0	0	0	0	0	0	0		

BUDGET

ACTUAL

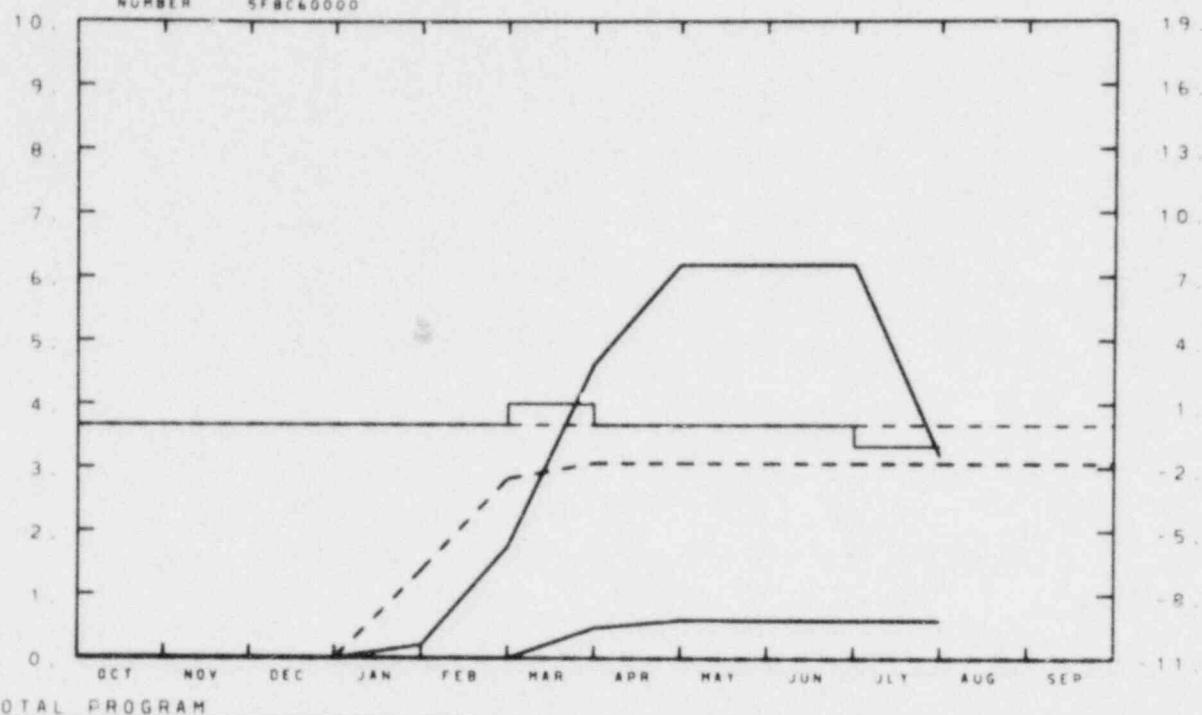
Budget realignment is in process.

EG&G IDAHO INC.

RE-EVAL LOFT EXP'S

NUMBER 5FBC60000

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

BUDGET	0	0	0	1	3	3	3	3	3	3	3	3
ACTUAL	0	0	0	0	2	5	6	6	6	3		

MATERIAL

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	1	1	1	1		

BUDGET

ACTUAL

MANPOWER

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	1	0	0	0	1		

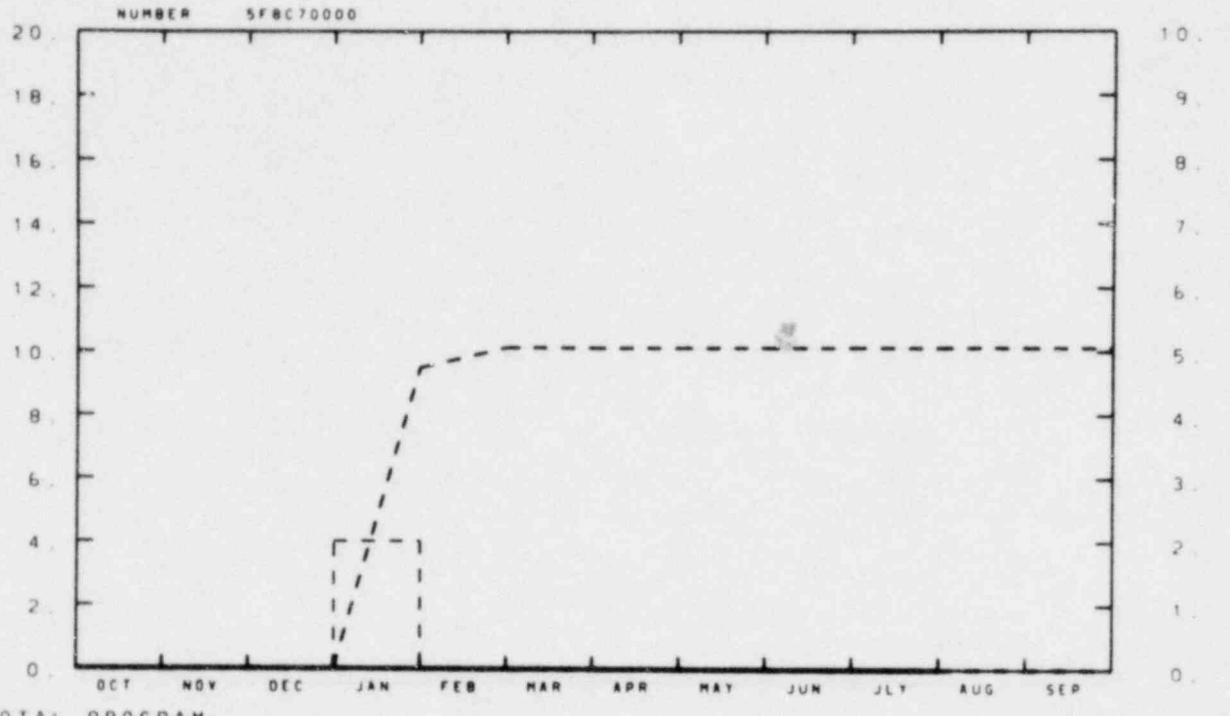
No significant variance. Task is complete.

EG&G IDAHO INC.

CODE STUDIES

NUMBER SFBC70000

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

BUDGET	0	0	0	9	10	10	10	10	10	10	10	10
ACTUAL	0	0	0	0	0	0	0	0	0	0		

MATERIAL

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0		

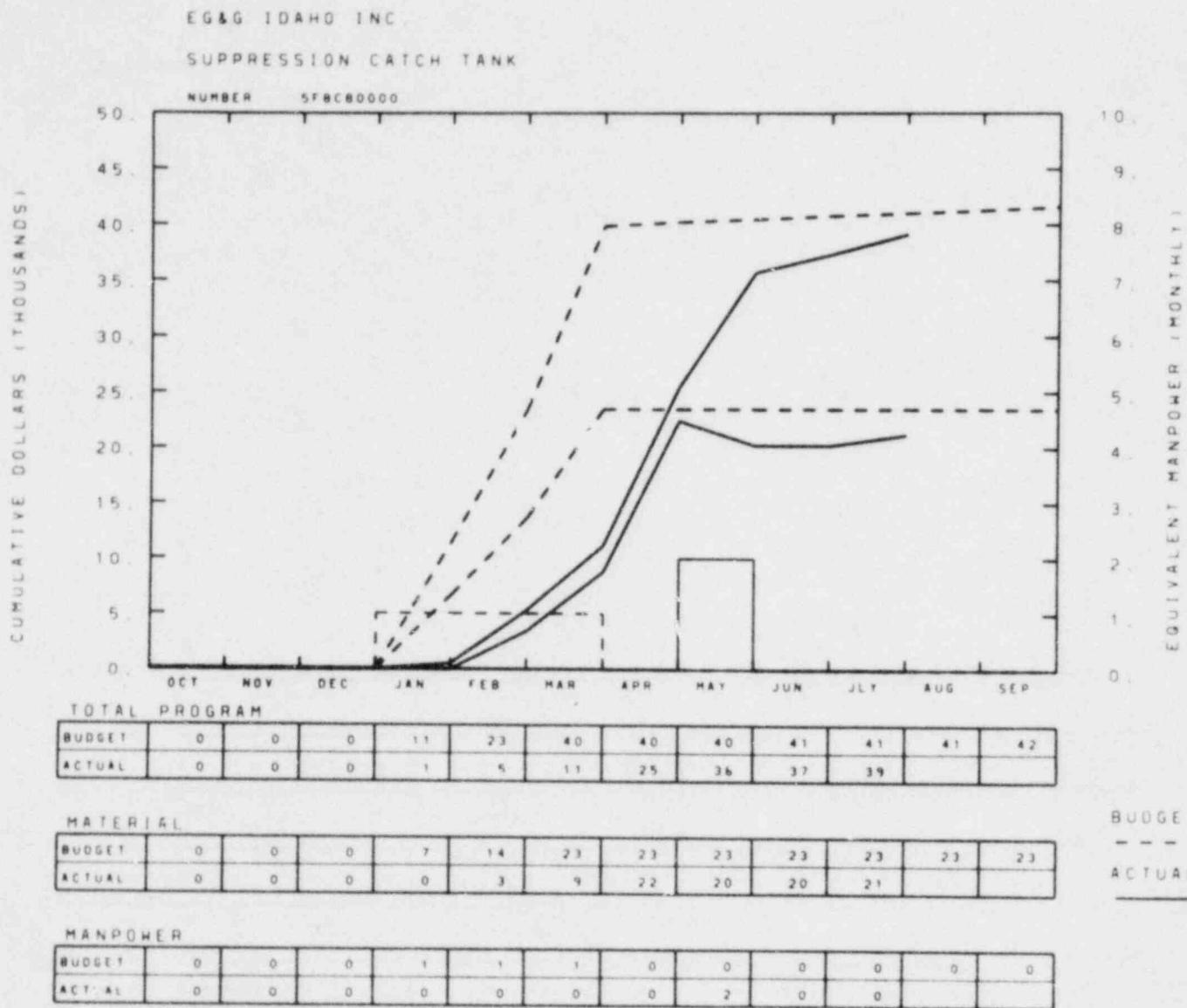
HANPOWER

BUDGET	0	0	0	2	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0		

BUDGET

ACTUAL

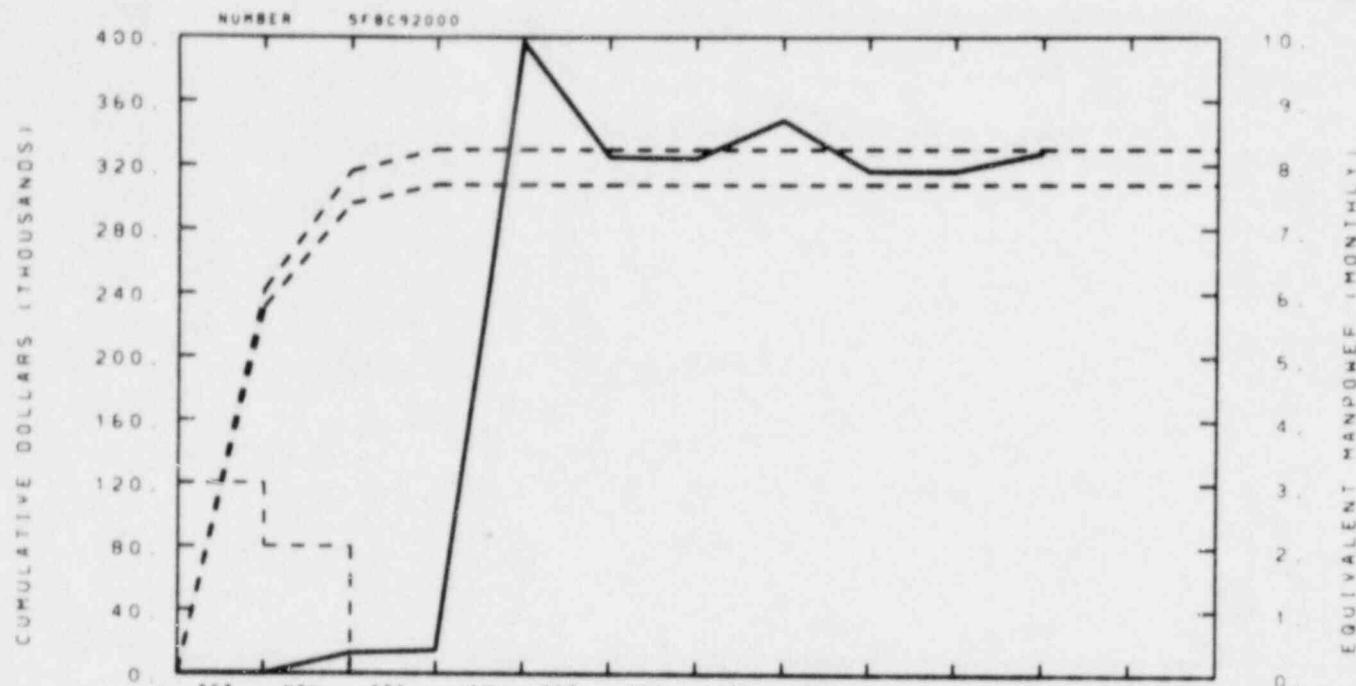
This task has been delayed due to higher priority work assignments.



No significant variance.

EG&G IDAHO INC.

SHARED TASKS - STEADY STATE TEST



TOTAL PROGRAM

BUDGET	242	317	330	330	330	330	330	330	330	330	330	330
ACTUAL	0	13	15	397	325	324	348	316	316	328		

MATERIAL

BUDGET	231	296	308	308	308	308	308	308	308	308	308	308
ACTUAL	0	13	15	397	325	324	348	316	316	328		

MANPOWER

BUDGET	3	2	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0		

No significant variance.

BUDGET

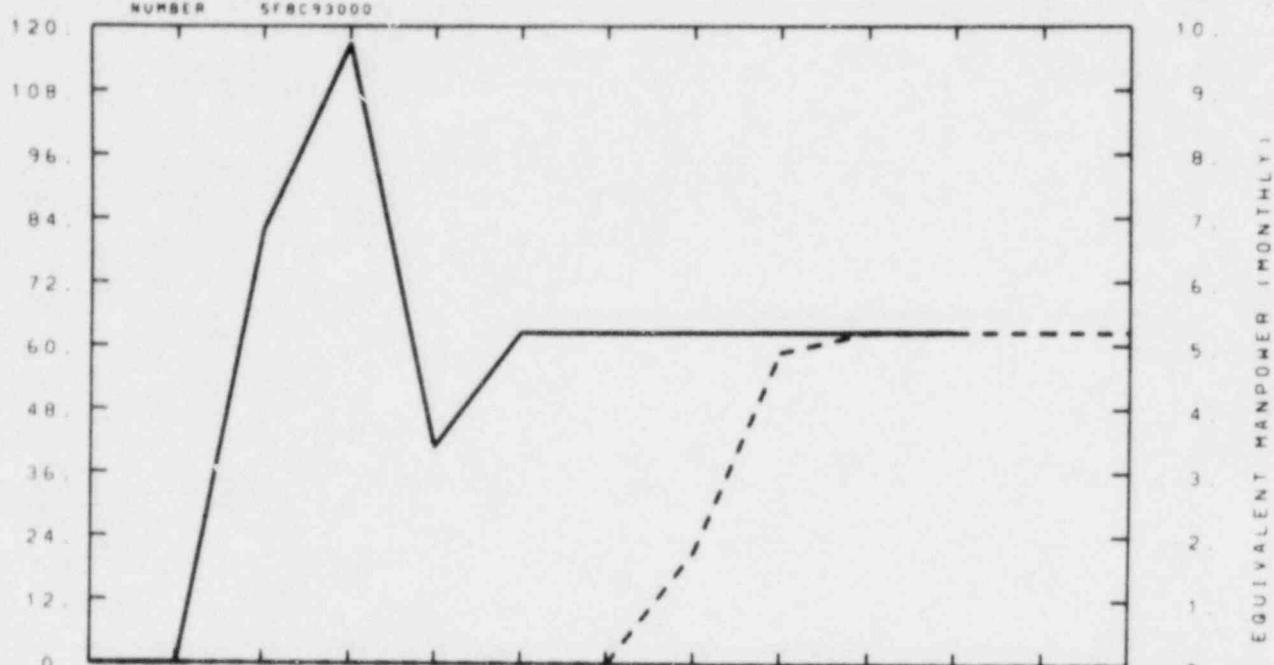
ACTUAL

EG&G IDAHO INC.

SHARED TASKS - TRAC CODE STUDIES

NUMBER SFBC93000

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

BUDGET	0	0	0	0	0	0	21	59	62	62	62	62
ACTUAL	0	82	117	41	62	62	62	62	62	62	62	62

MATERIAL

BUDGET	0	0	0	0	0	0	21	59	62	62	62	62
ACTUAL	0	82	117	41	62	62	62	62	62	62	62	62

MANPOWER

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0

BUDGET

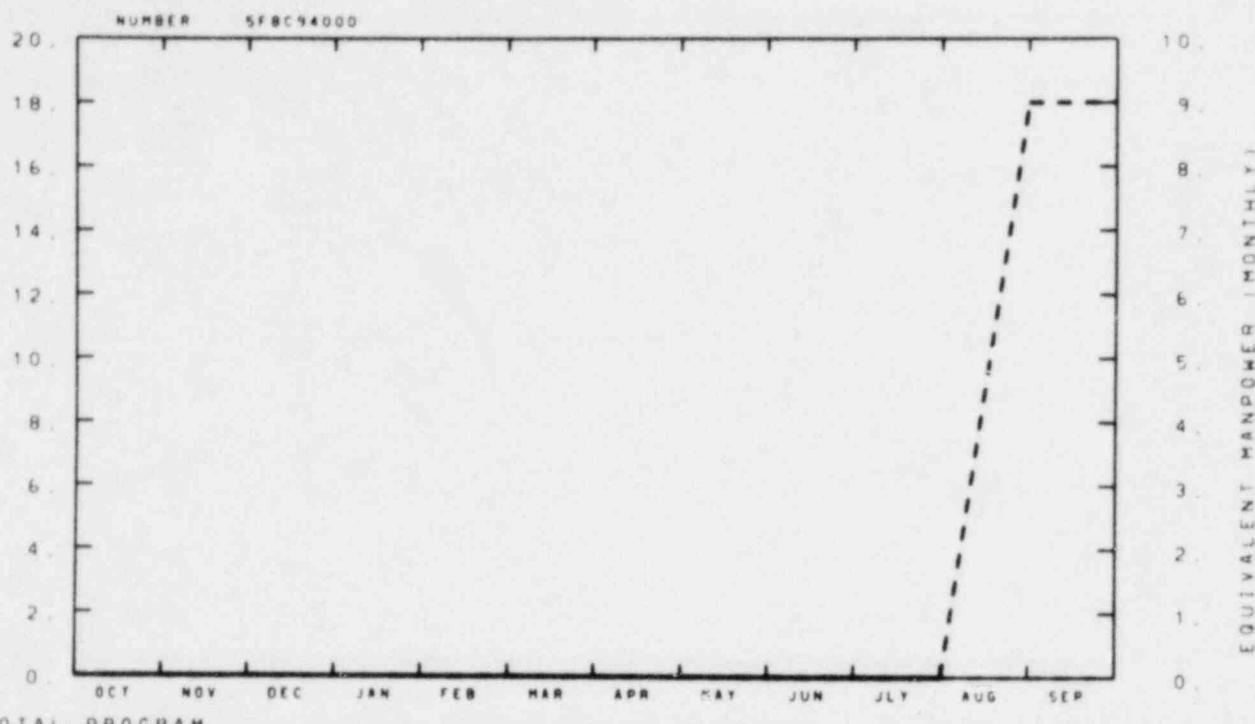
ACTUAL

No significant variance.

EG&G IDAHO INC.

SHARED TASKS TWO PHASE LOOP

CUMULATIVE DOLLARS (THOUSANDS)



TOTAL PROGRAM

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JLY	AUG	SEP
BUDGET	0	0	0	0	0	0	0	0	0	0	18	18
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0

MATERIAL

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JLY	AUG	SEP
BUDGET	0	0	0	0	0	0	0	0	0	0	18	18
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0

MANPOWER

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JLY	AUG	SEP
BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0

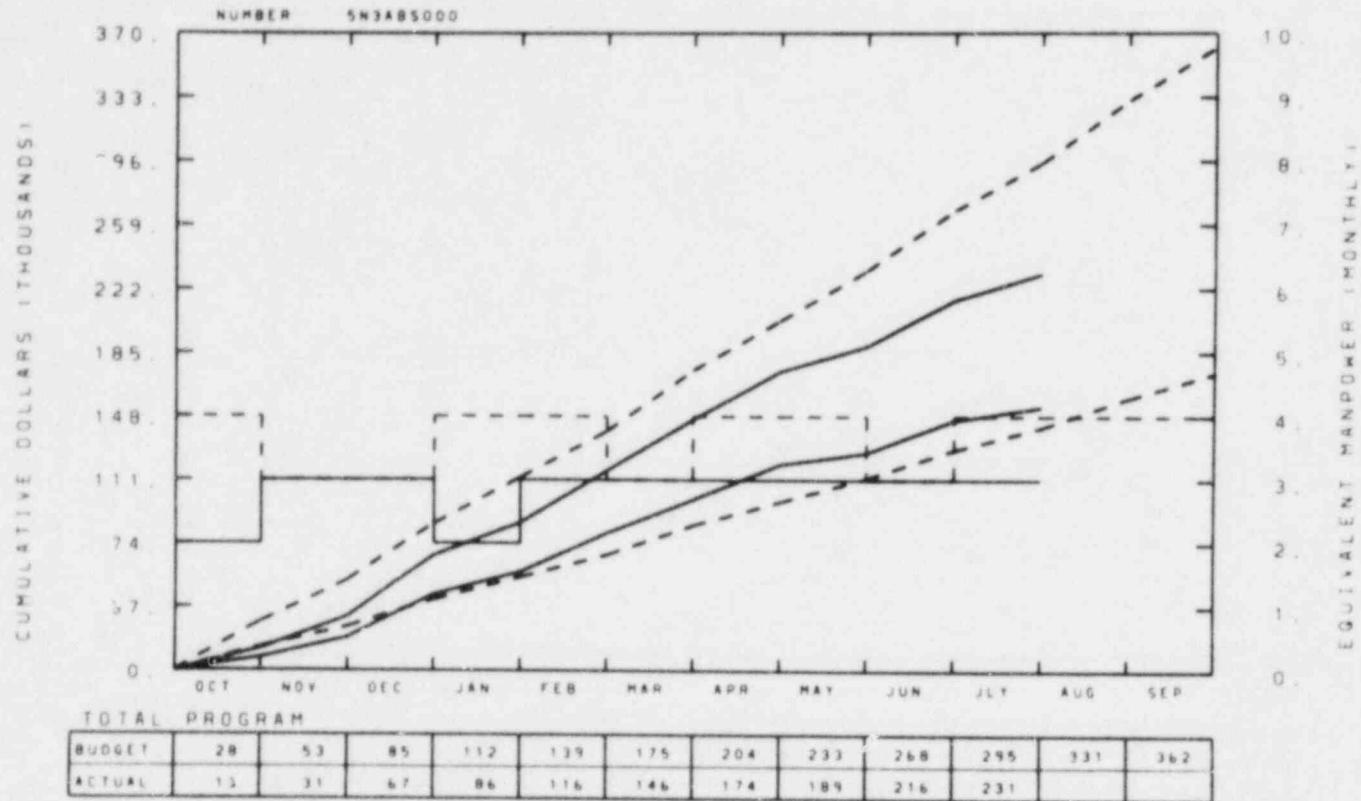
No significant variance.

BUDGET

ACTUAL

EG&G IDAHO INC.

EXP MEAS - BR SUPPORT



MATERIAL

BUDGET	14	25	41	54	67	84	98	112	128	141	159	173
ACTUAL	7	19	44	57	80	100	120	127	146	153		

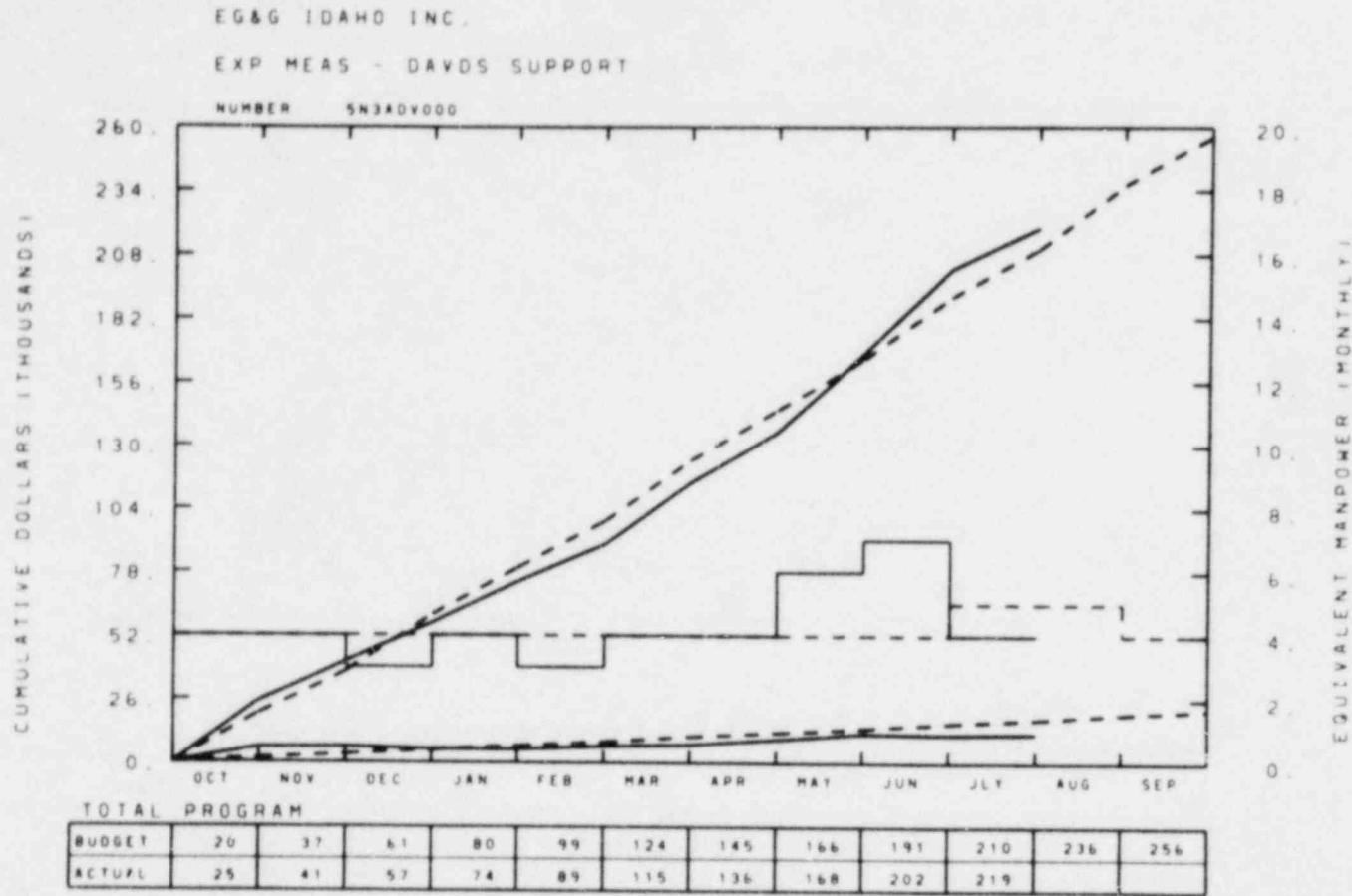
MANPOWER

BUDGET	4	3	3	4	4	3	4	4	3	4	4	4
ACTUAL	2	3	3	2	3	3	3	3	3	3		

BUDGET

ACTUAL

1. A CCB returning \$40,000 to management reserve is in progress. (This will be part of an overall CCB for the Measurements Applications Branch.)
2. Computer usage has been low, but will increase significantly in the next few weeks, bringing variance within a tolerable level.
3. Recent travel charges to this account are not reflected in the baseline or cost graphs.



MATERIAL

BUDGET	2	3	5	7	9	11	12	14	16	18	20	22
ACTUAL	6	6	6	5	7	7	10	12	12	12		

MANPOWER

BUDGET	4	4	4	4	4	4	4	4	4	5	5	4
ACTUAL	4	4	3	4	3	4	4	6	7	4		

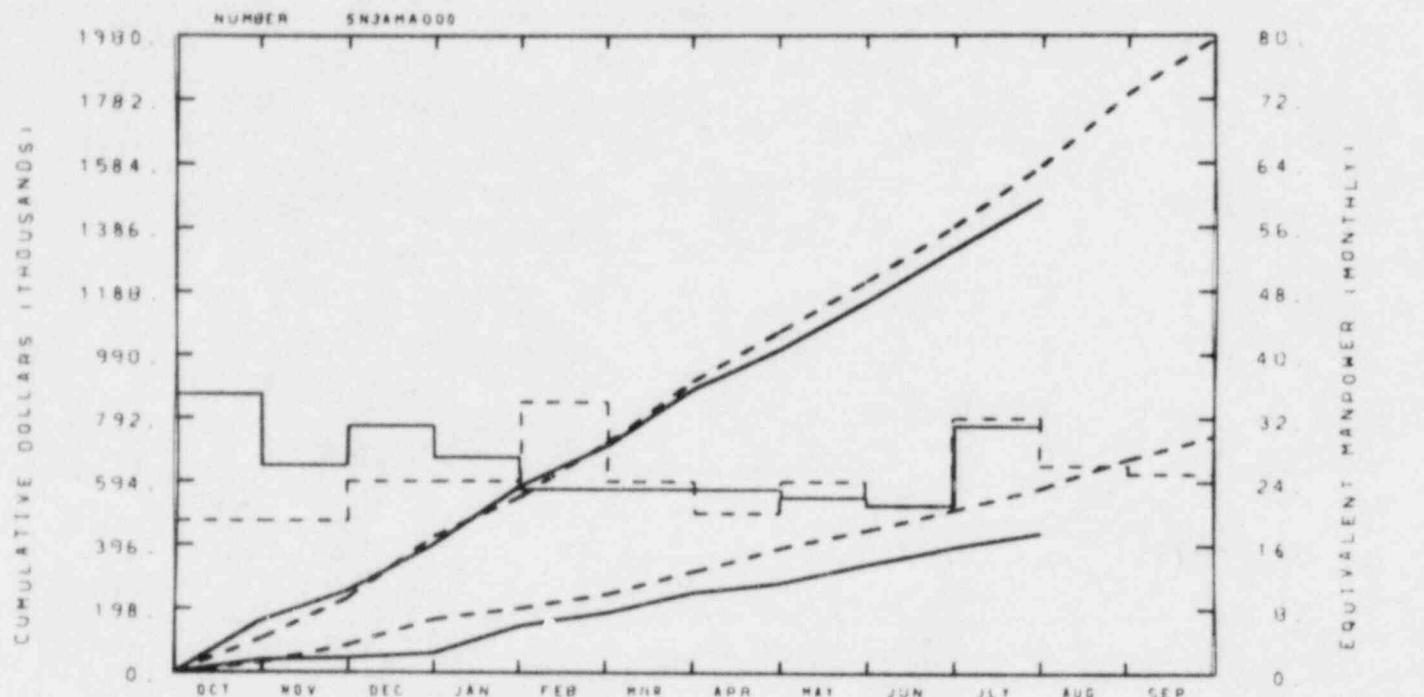
BUDGET

ACTUAL

No significant variance.

EG&G IDAHO INC.

EXP MEAS - MEAS SYSTEM A



MATERIAL

BUDGET	31	85	165	199	243	314	387	443	505	574	664	736
ACTUAL	40	45	60	145	186	249	279	337	390	435		

BUDGET

ACTUAL

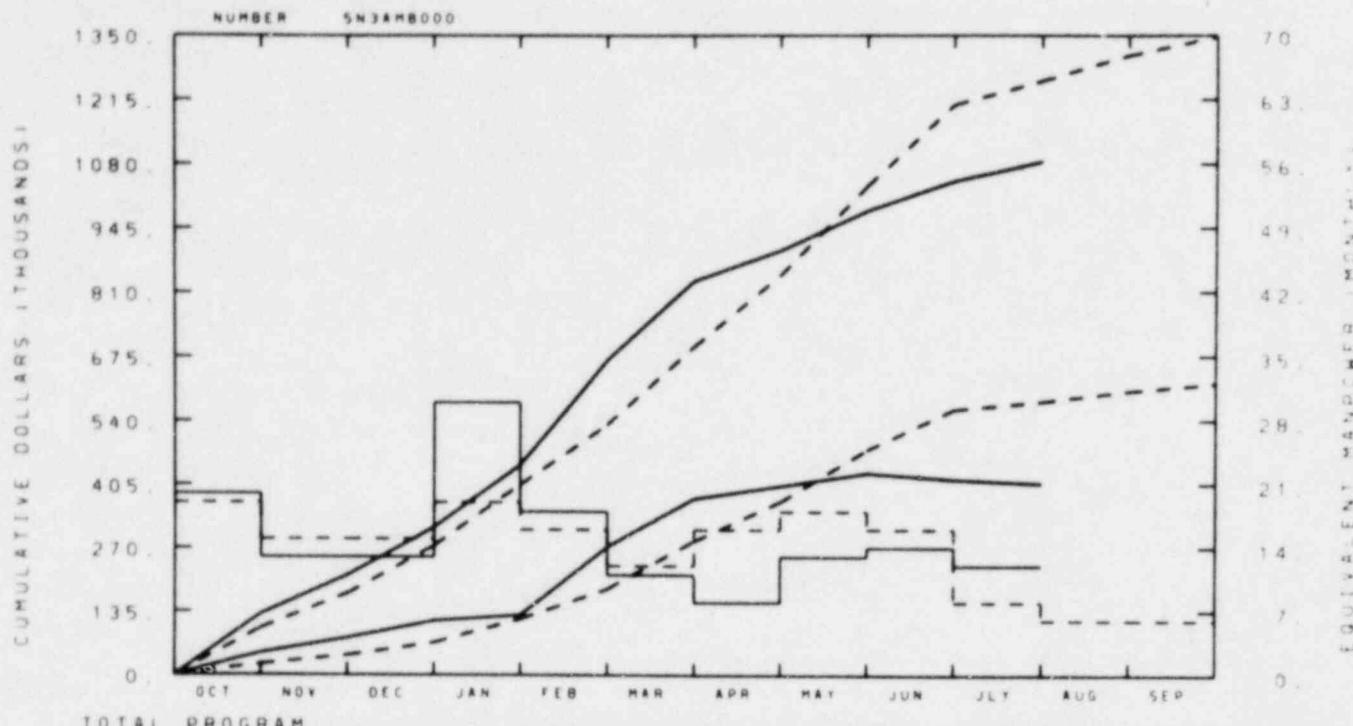
MANPOWER

BUDGET	19	19	24	24	24	24	20	24	21	32	26	25
ACTUAL	35	26	31	31	23	23	23	22	21	31		

No significant variance.

EG&G IDAHO INC

EXP MEAS - MEAS SYSTEM B



MATERIAL

BUDGET	23	42	69	119	183	285	368	479	564	580	602	618
ACTUAL	47	79	115	127	272	375	402	429	416	407		

MANPOWER

BUDGET	19	15	15	14	16	12	16	18	16	8	6	6
ACTUAL	20	13	13	30	18	11	8	13	14	12		

BUDGET

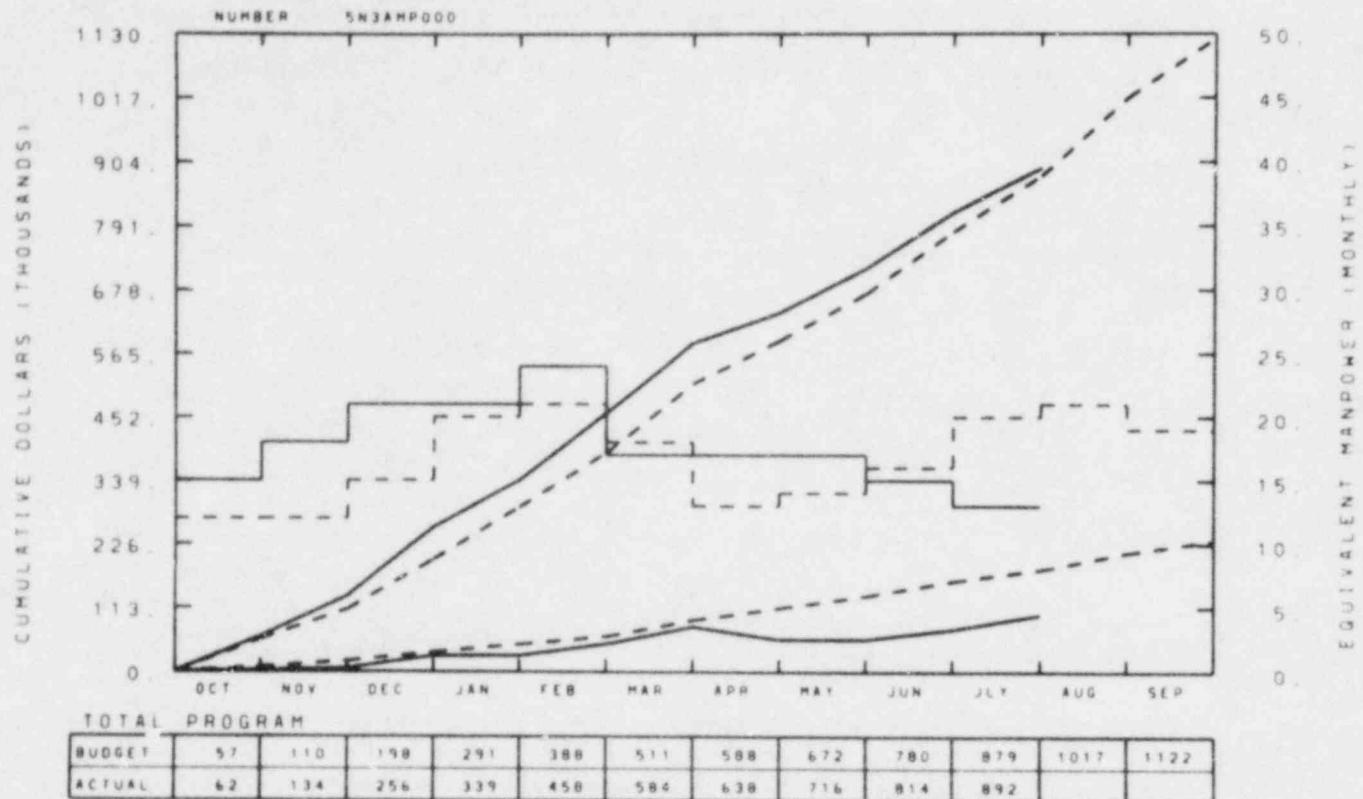
ACTUAL

1. The program owes Sandia \$40,000 for PNA generators that have not been costed. A CCF is in process to reflect the change in the expected date the generators will be costed.
2. Due to changed fuel instrumentation requirements, material dollars originally scheduled this month were delayed. These will be costed this year. A CCF is in process to reflect the changed configuration and new plan.
3. Delays in ZIRC TC qualification and production effort occurred this month. A CCB is in process to reflect the updated plan. This work will be costed this year.
4. Changed requirements for secondary side instrumentation resulted in a delay in originally planned work. A CCB is in process to update the work plan.

* An overall CCB which includes the above items has been submitted, rebaselining this program.

EG&G IDAHO INC.

EXP MEAS - MEAS PERFORMANCE-1



MATERIAL

BUDGET	8	18	35	48	62	91	113	134	160	181	211	233
ACTUAL	3	6	28	29	49	80	57	58	75	101		

MANPOWER

BUDGET	12	12	15	20	21	18	13	14	16	20	21	19
ACTUAL	15	18	21	21	24	17	17	17	15	13		

BUDGET

ACTUAL

No significant variance.

PERFORMANCE ANALYSIS

The LOFT Performance Measurement System provides timely, valid project status information that combines cost and schedule performance data for trend analysis. The Budgeted Cost of Work Scheduled (BCWS) forms a Performance Measurement Baseline for subsequent comparisons with the Budgeted Cost of Work Performed (BCWP). The BCWP also is compared with the Actual Cost of Work Performed (ACWP).

	BCWS		BCWP ^a		ACWP	
	Month	Year-To-Date	Month	Year-To-Date	Month	Year-To-Date
5N2D000	426	2618			234	2514
5N4K000	120	1451			125	1187
5N4P000	81	812			81	677

For 5N2D000, refer to the comment on the summary cost account chart.

For 5N4K000, refer to the comment on the summary cost account chart.

For 5N4P000, refer to the comment on the summary cost account chart.

a. In the process of rebaselining; figures are not yet available.

TABLE 1. FOREIGN FUNDS AVAILABILITY AT END OF JULY 1980
 (In Thousands of Dollars)

<u>Participant</u>	<u>Actual Reserve</u>	<u>Contingency</u>
JAERI	72	77
FRG	16	7
ECN	84	27
SGAE	<u>0</u>	<u>0</u>
Total	172	111

TABLE 2. FOREIGN FUNDED TASK SUMMARY AT END OF JULY 1980

	Project Description	Total Proposal		Funds Spent to Date (\$K)	Expected Task Completion Date
		Est. Inc. Contingency (\$K)	Total Spending Auth. by CCB (\$K)		
<u>JAERI TASKS</u>					
5F8C1	JAERI Management	210	210	176	Sept. 80
5F8C2	Completed Tasks	820	820	820	Done
5F8C4	Advanced DTT	154	154	135	Sept. 80
5F8C5	PBF/LOFT Lead Rod	1881	1881	1882	July 80
5F8C6	Reevaluation of LOFT L1 Exper.	25	25	25	June 80
5F8C7	Misc. Code Studies	20	20	10	Sept. 80
5F8C8	LTSF Suppression Catch Tank	43	41	40	July 80
5F8CA	Small Break Densitometers	692	640	300	Sept. 80
5F8CB	Post CHF Heat Transfer	200	177	0	Jan. 82
5F8C92	Shared Two-Phase Steady-State Loop	782	782	779	May 80
5F8C93	Shared-TRAC Code Studies	83	83	83	June 80
5F8C94	Two-Phase Loop Boiler Building	18	18	0	Sept. 80
<u>FRG TASKS</u>					
5F7C1	FRG Management	156	156	156	Sept. 80
5F7C2	Completed Tasks	2570	2570	2570	Done
5F7C4	Miscellaneous Tasks	58	58	43	Sept. 80
5F7C5	Steam Probe	30	30	22	July 80
5F7C7	Ultrasonic Density Detectors	81	74	78	May 80
5F7C8	LOFT State Vector	10	10	0	Sept. 80
5F7CA	Small Break Inst.	206	206	207	May 80
5F7C92	Shared Two-Phase Steady-State Loop	1012	1012	1066 ^a	May 80
5F7C93	TRAC Code Studies	83	83	83	June 80
5F7C94	Two-Phase Loop Boiler Building	18	18	1	Sept. 80

TABLE 2. (continued)

Project Description		Total Proposal Est. Inc. Contingency (\$K)	Total Spending Auth. by CCB (\$K)	Funds Spent to Date (\$K)	Expected Task Completion Date
<u>ECN TASKS</u>					
5FNC1	ECN Management	10	10	8	Sept. 80
5FNC2	Completed Tasks	92	92	92	Done
5FNC3	RPI Subcontract	117	114	112	Sept. 80
5FNC5	INEL Support	5	5	4	Sept. 80
5FNC6	PNA Techniques	38	33	32	Sept. 80
5FNC7	Critical Flow Studies	53	48	0	Sept. 80
5FNC8	Two-Phase Loop Platform	59	47	11	June 80
5FNCA	Wyle Data Analysis	22	20	5	Sept. 80
<u>SGAE TASKS</u>					
5FAC1	SGAE Management	24	24	11	Sept. 80
5FAC2	Completed Tasks	123	123	123	Done

a. \$57,000 cost transfer reduction in process.

BUDGET STATUS REPORT

TABLE 3. LOFT FY-80 SUMMARY STATUS REPORT
 NUCLEAR REGULATORY COMMISSION
 (In Thousands of Dollars)

<u>WBS#</u>	<u>189 #</u>	<u>Q80-4-3</u>	<u>Approved CCBs</u>	<u>Current PMB # Q80</u>	<u>Current BAC</u>
5N1XX	A6048	4,030	0	4,030	4,030
5N2XX	A6053	3,648	0	3,648	3,648
5N3XX	A6043	5,020	40	5,060	5,060
5N4XX	A6107	10,899	451	11,350	11,350
5N5XX	A6122	4,046	0	4,046	4,046
5N6XX	A6110	3,786	0	3,786	3,786
5N7XX	A6054	7,595	0	7,595	7,595
5N8XX	A6108	<u>971</u>	<u>0</u>	<u>971</u>	<u>971</u>
	A6308				
5NXXX		39,995	491	40,486	40,486
Supplementary programs					5,314
NRC discretionary reserves					50
NRC management reserves					<u>140</u>
Total NRC funding (FY-80)					45,990

TABLE 4. LOFT FUNDING SUMMARY FOR FY-80
(In Thousands of Dollars)

Funds	Current FIN Plan No. 9	Current Budget File (Q80-5-0)
LOFT Foreign Funds	2,867	2,576
LOFT Lead Rod Tests	170	192
Total	3,037	2,768
NRC Operating Funds	45,990	40,676
Electric Heat Rod Evaluation	328	
Computer Code Support	233	
TC-2 Tests	234	
LTSF	2,496	
PWR/BWR Task Group	700	
Standard Problem Analysis	150	
Advanced Instrumentation	973	
TC-3 Tests	200	
Total	45,990	45,990
Total LOFT Funding ^a	49,027	48,758

a. Excludes C.E., GSO, and overhead.

TABLE 5. LOFT FY-80 SUMMARY BUDGET STATUS REPORT OF LOFT FOREIGN FUNDS
(In Thousands of Dollars)

<u>LOFT WBS</u>	<u>189 #</u>	<u>Q80-4-4</u>	<u>Approved CL.I CCBs</u>	<u>Current PBM # Q80-5-0</u>	<u>Current FY-80 Budget</u>	<u>Total Authorized Spending Limit</u>
5FAXX	A6273	3	12	15	15	145
5FNXX	A6271	150	0	150	150	365
5F7XX	A6104	993	0	993	993	4211
5F8XX	A6111	1145	0	1,145	1,337	4,856 ^a
5F9XX	A6104S	0	0	0	0	0
5fXXX		2,291	12	2,303	2,495	9,577
						102
Foreign contingency reserves						111
Foreign management reserves						172
Total FY-80 LOFT foreign funds						2,778
Foreign funds spent through FY-79						6,860
Foreign funds budgeted in FY-81						222
Total foreign funds received to date						9,860
						9,860

^a. Includes LOFT Lead Rod.

TABLE 6. LOFT CAPITAL EQUIPMENT STATUS REPORT THROUGH JULY

Schedule 189a	TITLE	Prior Year Uncosted	Current Year Funds	Total Available to cost	Current Year Costs	Outstanding Commitments	Balance less Costs & Comm.	Estimate to Complete	Balance
4CA101	Integral System Design & Fab.	111,731	(10,000)	101,731	33,553	-0-	68,178	64,605	3,573
4CA102	LOFT Operations	194,419	(68,000)	126,419	115,545	-0-	10,874	9,530	1,344
4CA103	UT & Requalification Program	140,034	78,000	218,034	165,587	-0-	52,447	54,013	(1,566)
TOTAL DOE		446,184	-0-	446,184	314,685	-0-	131,499	128,148	3,351
A-6061	Experimental Measurements*	788,769	789,000	1,577,769	992,267	189,353	399,149	583,183	2,319
A-6048	Integral System Design & Fab.	689,139	1,422,000	2,111,139	718,194	360,793	1,032,152	1,393,535	(590)
A-6088	LOFT Operations	18,091	89,000	107,091	46,009	13,739	47,343	60,363	719
TOTAL NRC		1,495,999	2,300,000	3,795,999	1,756,470	563,885	1,478,644	2,037,081	2,448
TOTAL LOFT		1,942,183	2,300,000	4,242,183	2,071,155	563,885	1,610,143	2,165,229	5,799

* Includes A-6085, A-6086, and A-6089