



173185

January 1981

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LOFT MONTHLY PROGRESS REPORT  
FOR DECEMBER 1980

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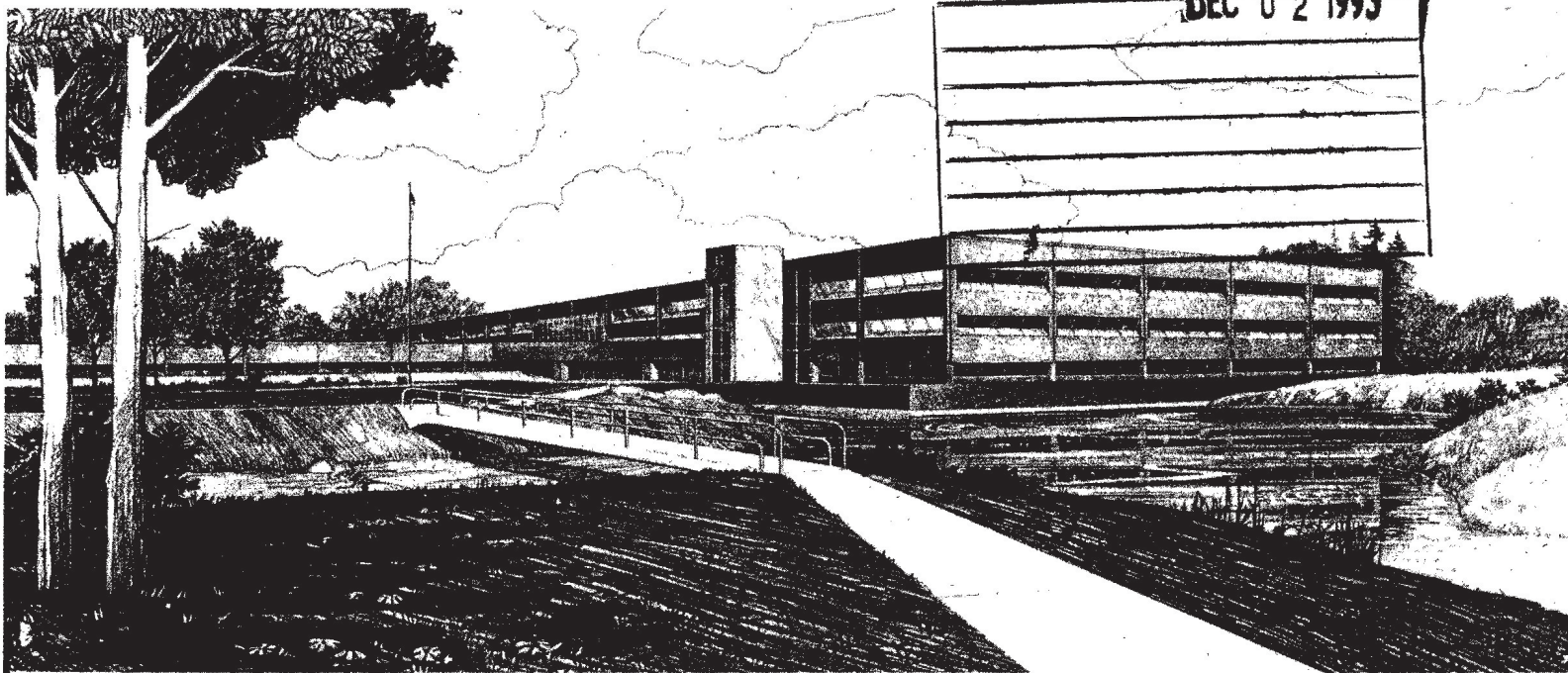
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Prepared for the  
U.S. Nuclear Regulatory Commission  
Under DOE Contract No. DE-AC07-76ID01570  
FIN No. A6048

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## INTERIM REPORT

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for December 1980

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**Author(s):**

L. P. Leach

**Date of Document:**

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**Responsible NRC Individual and NRC Office or Division:**

G. D. McPherson, LOFT

This document was prepared primarily for preliminary or internal use. It has not received full review and approval. Since there may be substantive changes, this document should not be considered final.

EG&G Idaho, Inc.  
Idaho Falls, Idaho 83415

Prepared for the  
U.S. Nuclear Regulatory Commission  
Washington, D.C.  
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NRC FIN No.     A6048    

## INTERIM REPORT

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## LOFT MONTHLY PROGRESS REPORT FOR DECEMBER 1980

### MANAGER'S MONTHLY SUMMARY

On December 10, 1980, LOFT conducted its fifth nuclear test in the L3 Series (small break) as well as the first in the L8 Series (core uncover). The tests, designated L3-6/L8-1, were run in series with each experiment designated to address specific safety questions.

Test L3-6 simulated a four-inch break in a commercial pressurized water reactor. The purpose of this experiment was to investigate the influence of main coolant pump operation on the quantity of fluid which leaves the system and the quantity of fluid in the reactor core region during the experiment. The results of L3-6 are being compared with the results of a previous LOFT test, designated L3-5, which was performed on September 29, 1980.

On December 9 and 10, a special review group committee, commissioned by the NRC, visited LOFT. The purpose of the committee's presence here was to study and evaluate the LOFT project, and then report recommendations to the NRC. The NRC would then use this information to help determine how the resources of the project could best be utilized, and which kind and how many tests should be conducted over how long a time period. Recommendations of this committee are expected to be announced early in February.

The Quick Look Report on experiment L3-6/L8-1, reviewing initial conditions and limited experimental results, was published during the month. More extensive data analysis will continue for the next several months.

The current planned LOFT test schedule and target dates were rescheduled in December which resulted in a major budget revision to the baseline. Successful completion and approval is anticipated by mid-January 1981. Overall current costs are in good agreement with budgets and authorized funding levels.

## ACCOMPLISHMENTS

### LOFT TECHNICAL SUPPORT DIVISION

1. The experiment safety analysis (ESA) for LOFT Experiment L9-1/L3-3 was initiated. L9-1 is planned to be a loss of feedwater test with the plant being depressurized as the power operated relief valve (PORV) is opened and latched open. The pressurizer will be discharged through the PORV to the suppression tank.
2. LOFT Experiment L3-6/L8-1 was successfully conducted; this test provided experimental data on the behavior of the reactor system during a small break with primary coolant pumps operating.
3. The ESA for the conduct of Experiment L3-6/L8-1 was approved by EG&G and DOE. The approved ESA was issued prior to the conduct of the experiment.
4. The LOFT technical specifications for Experiment L3-6/L8-1 operations (DRR-L-3857) were approved by DOE-ID and issued.
5. Draft technical specifications were prepared for revising the transient (cycle) requirements for the LOFT primary and secondary systems.
6. A failure mode effect and consequence analysis (FMECA) was completed and issued for Experiment L3-6/L8-1.
7. A letter summarizing the significant risks and safety issues for Experiment L3-6/L8-1 was issued.
8. Waste gas processing radiological calculations which established limits on the current waste gas processing system operation were prepared.

9. The Three Mile Island (TMI) status book was updated, and the new items resulting from recently published TMI concerns were incorporated.
10. Checkout, calibration, test procedure, and data acquisition of the LOFT traversing in-core probe (TIP) system "in the water level detection mode" during L3-6/L8-1 were completed.
11. TIP probe thermal response during zero power physics operations prior to Experiment L3-6/L8-1 was determined.
12. Using the 3-D LOFT PDQ-7 model computer code, the following were calculated for Experiment L3-6/L8-1:
  - Expected power distributions
  - Expected TIP probe ratios
  - Estimated critical boron concentration.
13. LTR L0-08-80-157, "Description and Reactor Physics Application of the Revised Three-Dimensional PDQ-7 Model of LOFT," was issued.
14. Reactor Cooling Systems personnel were involved with the successful performance of the "pumps on" small break test, L3-6. They monitored the performance of the primary coolant pumps (PCP) during the test for mechanical degradation. Parameters monitored included PCP motor current, PCP RPM, heating temperature, and pump and associated piping vibration. The pumps performed without problem, and retest data showed that no degradation was incurred.

An interesting side issue was observed during the test: pump power and differential pressure were found to be closely related to system fluid density. This phenomenon may have industry-wide interest; thus, LOFT Plant Services Branch (LPSB) personnel are preparing a paper to present the observations.
15. Experiment L3-6 was completed without major component failure and no repair work is required as a result of the test.

16. TMI/NRC Response Issue "Valve Position, Safety-Related Locking Device" research was completed. Data reduction and the LOFT Technical Report (LTR) presenting the resolution were put into the final typing stage. Phase I of this issue is complete.
17. A Site Work Release (SWR) and drawings for L9-1 dummy spool pieces were issued.
18. Twelve valve maintenance work packages were issued.
19. A Facility Change Form (FCF-8846) was prepared to initiate an upgrade of the emergency core cooling (ECC) valve actuator-stem couplings. New valve actuator-stem couplings were installed on seven ECC valves.
20. Several conceptual designs to enable the LOFT facility to increase use and versatility in simulation of large pressurized water reactors (LPWRs) were completed.
21. The task to update the connector stalk assembly to improve grounding and lead termination on the existing "B" and "C" fuel modules stored at TAN-615 was completed.
22. Basic assembly of the LOFT fuel storage rack was completed. The unit is pending final checkout using the "A" fuel module prototype.
23. The final design review for the Irradiated Fuel Storage Facility (IFSF) Pool Cleanup System was held, and the system drawings have been sent to Drafting.
24. The drawings of the control rod storage rack and handling tool have been completed and are now being reviewed.
25. Specification ES-60346 for the spent fuel inspection stand was prepared.

26. Project engineers and technical writers completed two new design descriptions: Preliminary Component Design Description (CDD) 1.1.7.1, "Spent Resin Transfer System" and Preliminary System Design Description (SDD) 1.4.12, "Reactor Vessel Level Measurement System." Another CDD (CDD 1.1.1.9, "LOFT Reactor Vessel") received DOE-ID approval and was released for publication.

## LOFT FACILITY DIVISION

1. The Experiment Operating Procedure (EOP) for Experiment L3-6/L8-1 was completed. Test L3-6 simulated a four-inch break in a commercial pressurized water reactor with the coolant pumps inoperative.
2. The postrequalification testing required for Experiment L3-6/L8-1 was completed.
3. Both cold and hot testing of the primary coolant pumps (PCP) were completed.
4. The inservice inspection (ISI) and surveillance testing that is required prior to the next test was begun.
5. A work window was started in preparation for Experiment L9-1 which is scheduled to be performed on April 15, 1981.

## LOFT MEASUREMENTS DIVISION

1. The examination of the failed L3-5 PC-2 rake was completed. Results of the examination were documented in a letter report. Extended operation following instrument failure resulted in more extensive damage than had occurred in previous experiments. Five of the six bearing keys were lost. All bearings had disintegrated.
2. The final design review on the advanced turbine bearing design was held. Critical path items have been identified and special attention and followup will be provided. All drawings were released in December.
3. The preliminary design has been completed for a modification to allow rake pinning to obtain additional structural support. A requirement for interchangeability of the rakes between instrument penetrations requires as-built dimensions at the piping locations. The final design and drawing will be deferred until this requirement can be met.
4. The drag screen and turbine modules from the L3-4 spool piece assembly are being rebuilt for Experiment L9-1 application. The turbine modules are being changed to the MOD II bearing design. The drag screen will be rebuilt using a new screen and springs.
5. Data was recorded during Experiment L3-6/L8-1 from the liquid level detector, developed by Electric Power Research Institute (EPRI), and an analysis was initiated. In addition, a draindown calibration test was completed. Preliminary evaluation of the results does not indicate any obvious relationship between signal output and liquid level or density.
6. The megabytes stabilized densitometer (MSD) electronics associated with PC-3A and PC-3C were set up and functioned properly for Experiment L3-6, giving good density data. This successful application of MSD electronics indicates that they could be used to replace existing densitometer electronics and thereby significantly reduce the time and costs associated with densitometer data reduction.

7. Experiment L9-1 instrumentation requirements were defined and work was begun to supply the required power operated relief valve (PORV) instrumentation. Preliminary designs of the gamma densitometer spool piece, drag screen turbine spool piece, and PORV spool piece were completed. Preliminary layout of piping configuration was completed. Conceptual and preliminary design reviews were conducted, and an integrated planning schedule was completed.
8. Nine embedded thermocouple probes were successfully fabricated, and acceptance testing is being conducted. These will be used in the F<sub>1</sub> bundle, after assembly into the thermocouple assemblies.
9. Kaman Sciences completed fabrication of a group of eight external fuel thermocouple assemblies.
10. A test on thermocouple upper limits was run for LOFT by Hanford Engineering Development Laboratory (HEDL). This was on a zircaloy-sheathed, BeO insulated, W5/W26 Re elements, 0.028-inch diameter thermocouple. At 1300°C (2370°F), the thermocouple failed and a sheath-insulation reaction occurred. Investigation is continuing.
11. Fifteen stainless steel, MgO thermocouples (1-foot length) were completed and stored at Central Facilities in support of the modular drag-disc turbine transducer (MDTT) efforts.
12. Final design reviews were held on the feedwater flow rate measurement system for L9-1 and for the steam generator primary inlet and outlet temperature measurements.
13. A data acquisition and recording system was assembled and installed in LOFT to acquire data from an experimental thermal neutron liquid level detector during the LOFT L3-6/L8-1 tests. This work was a cooperative effort between LOFT and EPRI to evaluate the performance of an EPRI-developed liquid level device intended for use in commercial power reactors.

14. The LOFT Test Support Facility (LTSF) test requirements for the L9-1 drag-disc turbine transducer (DTT) spool piece and orifice have been drafted. A final test plan will be issued in January.
15. The Data Integrity Review Committee (DIRC) activities for L3-6/L8-1 were completed.
16. Calculation of reactor vessel mass was made on a real-time basis during Experiment L3-6/L8-1. The calculation provided a better indication of system inventory than the real-time level indicators.
17. The draft of an LTR, entitled "The LOFT Pulsed Neutron Activation/Transmit Time Flowmeter," has been completed.
18. The MSD system densitometer data were examined and the data processing procedures were specified and developed. Although no direct comparisons exist between MSD and PHA (Pulse Height Analysis), indications are that MSD is providing worthwhile density data.
19. An LTR, entitled "Density Profile and Mass Flow Rate Calculation Procedures," was completed. This report describes the calculation procedures and computer programs used in calculating two-phase density profiles.
20. A letter report on the L3-6 neutron flux liquid level monitor has been completed. The conclusion was that the data were useless.
21. The L6-1, L6-2, and L6-3 Experiment Data Report was completed and issued.
22. The L3-6 breakflow and system void fraction were calculated and excellent agreement was found between the mass flow calculated from the blowdown suppression tank and the drag disc-turbine meter combination.

23. The L3-6 Liquid Distribution Movie and the L3-5 Data Versus L3-5 Experiment Prediction Reactor Vessel Level Movie were completed ahead of schedule.
24. The initial phase of the critical flow scaling study was completed. Two-sigma data scatter for all twelve, 0.110-inch diameter nozzle tests correlated to within  $\pm 3\%$ .
25. The analog transducer-patch panel portion of the Spares Catalog has been completed (data base design plus reports) and data are being entered. This portion of the Spares Catalog will be published in January.
26. The automated data qualification work has shown substantial progress. The batch thermocouple information quality functions (IQFs) (limit, noise, redundancy) have been programmed and checked out.
27. Instrumented Fuel Branch representatives made presentations to the LOFT Special Review Group Subcommittee on the subjects of "Degraded Cooling and Core Melt Experiments in LOFT" and "Ability of Electric Heater Rods to Simulate Nuclear Rod Behavior During LWR LOCAs."
28. LTR LO-14-80-073, "Estimating Steady-State Fuel Pellet Stored Energy from POST-DNB Cladding Temperature Response for the LOFT L2-2 and L2-3 Tests," was issued by the Fuel Evaluation Section.
29. The Plant Services Division completed improvements (lifting fixture vertical alignment and thermocouple grounding) to the Reload Core I instrumented fuel modules.
30. The Plant Services Division completed fabrication of the first Reload Core II control rod assembly.

31. Exxon submitted the final design package to EG&G for approval for the Power Burst Facility (PBF) TC-4 test replacement fuel rods with the special embedded cladding thermocouple.
32. Colored movies of the LOCE L3-6/L8-1 core axial fuel rod cladding surface thermocouple indications were prepared; the movies vividly portrayed the precursory core top-down cooling before the arrival of the accumulator cooling water.

## LOFT PROGRAM DIVISION

1. The Experiment Subcommittee for Experiment L9-1/L3-3 was set up. The first meeting will be held in early January. This subcommittee follows the preparation for the test at a working level, interfacing with various support groups and pursuing action items generated at meeting discussions.
2. Twelve RELAP4/MOD7 computer runs designed to identify the conditions which contribute to core flow stagnation in LOFT during a large break blowdown were completed. This effort was established to identify the worst case core hydraulic conditions to apply to preliminary planning calculations for Experiment L2-5, currently scheduled for January 1982.
3. A member of the Analytical Model Application Section has been appointed by the Nuclear Regulatory Commission (NRC) to serve on the PWR-Blowdown Heat Transfer (PWR-BDHT) Review Group.
4. The experimental prediction document for LOFT Loss-of-Coolant-Accident (LOCA) L3-6/L8-1 was issued.
5. Presentations were made to the LOFT Blue Ribbon Review Committee by two members of the Analytical Model Application Section.
6. The quick look report for Experiment L3-6/L8-1 was issued on December 22. The reference is: Glenn E. McCreery, Quick Look Report on LOFT Nuclear Experiment L3-6/L8-1, EGG-LOFT-5318, December 1980.
7. A draft of the research information letter, titled "LOFT Reactor Safety Program Research Results from Loss-of-Coolant Experiments L3-0, L3-1, L3-2, and L3-7," was completed and transmitted to the NRC.

## 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 5F8C2 -- Program Development and Analysis

The Related Programs Branch continued task selection for a two-year master plan for use of foreign funds. A draft copy of the plan was completed for management review. The Related Programs Branch continued monitoring foreign-funded tasks using JAERI funds.

#### 2. Task 5F8C3 -- Component Development

The preliminary data report for the pressure balanced drag turbine transducer (advanced DTT) has not been completed due to priority conflicts with L9-1 planning. The data report is awaiting review prior to final processing and distribution.

#### 3. Task 5F8C4 -- Post-CHF Heat Transfer

Comments from the preliminary design review as well as comments from Ramu Sundaram, who worked on the original post-CHF test at Lehigh University, have been incorporated into the experiment design specification. Also, a design-requirements document has been completed. The power supply problem at the LOFT Test Support Facility has been investigated. A letter is currently being written describing the findings and recommendations.

#### 4. Task 5F8C5 -- Small Break Instrumentation

All charges have been submitted to Accounting Division for the LOFT PC-3 gamma densitometer. All charge numbers for this task were closed.

## SUMMARY OF GERMAN-FUNDED (FRG) TASKS

### 1. Task 5F7C2 -- Program Development and Analysis

Requirements for upgrading the two-phase loop steam supply vessels to 3000 psia have been transmitted to the Applied Mechanics Branch for use in subsequent analysis. Available funding will limit analysis to steady-state thermal and pressure conditions, and review of the results will be required prior to determining the need for additional analysis.

The annual FRG contribution was received by the NRC, and task proposals have been prepared and submitted for appropriate reviews prior to Change Control Board action.

### 2. Task 5F7C3 -- Component Development

Delays in funding for the REBEKA rod-embedded thermocouple installation work at Exxon Nuclear and funding for work on the design of the fuel rods for the Power Burst Facility TC-4 test have caused a 6-week delay in delivery of the REBEKA rod. This will not affect the 9-rod bundle test schedule since the L9-1 test will be conducted first at the LOFT Test Support Facility. The work at Exxon Nuclear is on a schedule which will complete rod fabrication by mid-February 1981.

## SUMMARY OF NETHERLANDS-FUNDED (ECN) TASKS

### 1. Task 5FNC2 -- Program Development and Analysis

An analysis was completed using a modified Burnell model on all twelve available Semiscale, 0.110-in.-diameter test calibration runs. This analysis showed that 99% of the data falls within  $\pm 3\%$  of the subcooling correlation. Based on this narrow data spread, it is concluded that the correlation is not pressure-dependent within the stated accuracy limits. The correlation was also performed on the four verifiable 0.028-inch diameter Semiscale nozzle calibration runs. The resultant data spread about the correlation value was very small (less than 3%).

The 0.028-in. nozzle tests did not show an increase in mass flux over the 0.110-in. nozzle tests. It is suspected that possible capillary type effects result in a maximum mass flux being achieved somewhere between the two nozzle diameters examined so far.

#### SUMMARY OF FRENCH-FUNDED (CEA) TASKS

##### 1. Task 5FFC2 -- Program Development and Analysis

French foreign funds have been received by the USNRC. Planning is complete and proposals have been prepared for Change Control Board approval for the release and use of these funds. Fund usage has been proposed for Reload Core II test instrumentation fabrication, LOFT F2 fuel bundle fabrication by Exxon Nuclear, CEA foreign fund management, USNRC travel, and CEA delegate support.

#### SUMMARY OF AUSTRIAN-FUNDED (FZS) TASKS

##### 1. Task 5FAC2 -- Program Development and Analysis

No significant activity during December.

##### 2. FZS In-Kind Support to LOFT

A report entitled "Suggestion for a Homogenizer Installation in LOFT Small Break Two-Phase Measurement" was completed and sent to EG&G Idaho.

Autoclave testing of optical materials continued. Of the optical materials, Spinel is the only one unaffected by the borated water. Some of the DAVCO material cracked, but it will be further tested to see if this effect continues.

The steam-water-mixer is on schedule.

Approval of the Austrian licensing authority (TUV) is pending but no major changes are expected.

The draft LOFT Standard Problem Document was completed and mailed to EG&G Idaho.

## SUMMARY OF SWITZERLAND IN-KIND (EIR) SUPPORT

### 1. NEPTUN Reflood Test Program

The review of the Swiss program document was completed. This review was conducted to update the NEPTUN test program to include tests which will be of major importance to the LOFT project. Completion of the Swiss NEPTUN-LOFT program document is in progress.

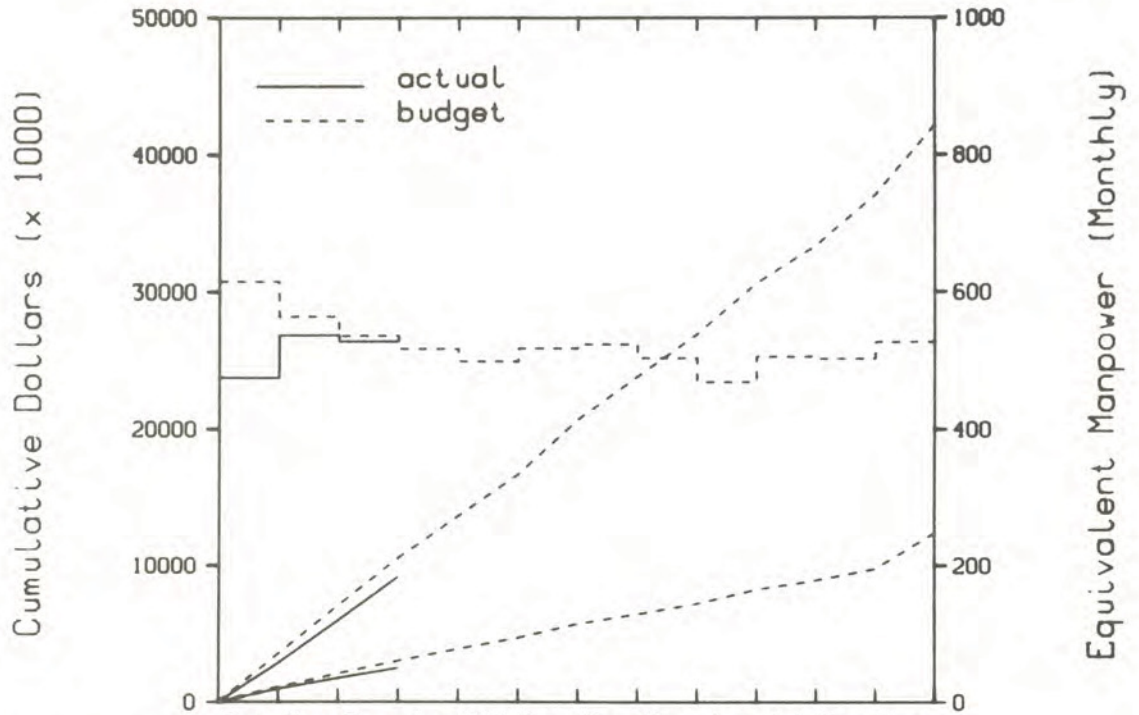
Assembly of the NEPTUN test facility has continued without any major delays or problems reported. Heater rod fabrication continues with eleven rods completed.



LOFT Overall Funding

5xxxxx

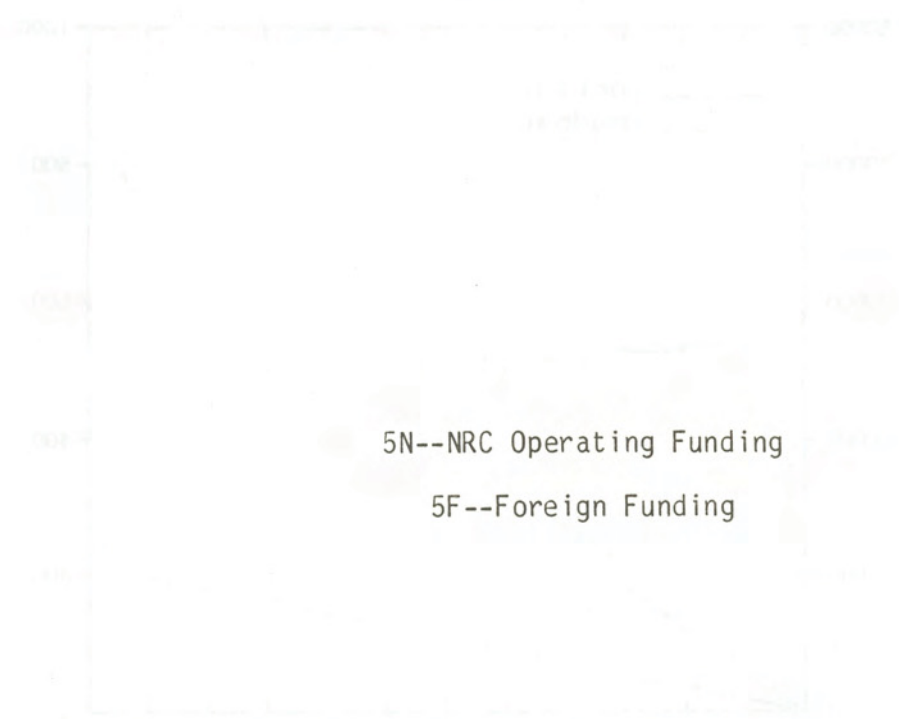
### LOFT Program Cost/Budget Summary LOFT OVERALL FUNDING



	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Total	Bud	3548	7081	10568	13639	16705	20706	23842	26944	30647	33392	37081	42148
	Act	2856	5992	9193									
Material	Bud	1089	2081	3009	3880	4701	5729	6443	7210	8253	8912	9750	12378
	Act	976	1756	2483									
Manpower	Bud	615	564	536	517	499	518	524	504	469	506	503	527
	Act	475	537	528									

The Nuclear Regulatory Commission (NRC) and foreign-funded budgets reflect the LOFT Q81-0 Rev 0/3 baseline approved in December 1980. Refer to the Manager's Monthly Summary for comments.

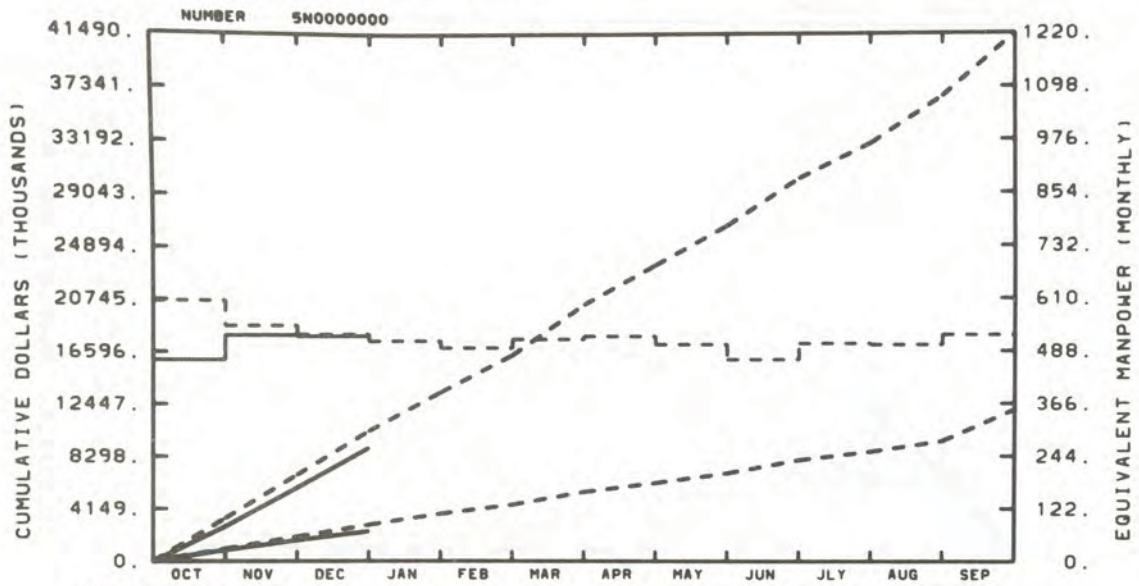
UNITED STATES NUCLEAR REGULATORY COMMISSION  
 FUNDING



5N--NRC Operating Funding  
 5F--Foreign Funding

Year	Operating	Foreign	Total
1970	200	50	250
1971	250	60	310
1972	300	70	370
1973	350	80	430
1974	400	90	490
1975	450	100	550
1976	500	110	610
1977	550	120	670
1978	600	130	730
1979	650	140	790
1980	700	150	850

EG&G IDAHO INC.  
LOFT-NRC OPERATING FUNDS



TOTAL PROGRAM

BUDGET	3415	6842	10279	13319	16262	20235	23358	26452	30145	32883	36561	41482
ACTUAL	2751	5819	8957									

MATERIAL

BUDGET	989	1951	2871	3739	4456	5476	6185	6949	7987	8643	9476	11967
ACTUAL	897	1660	2355									

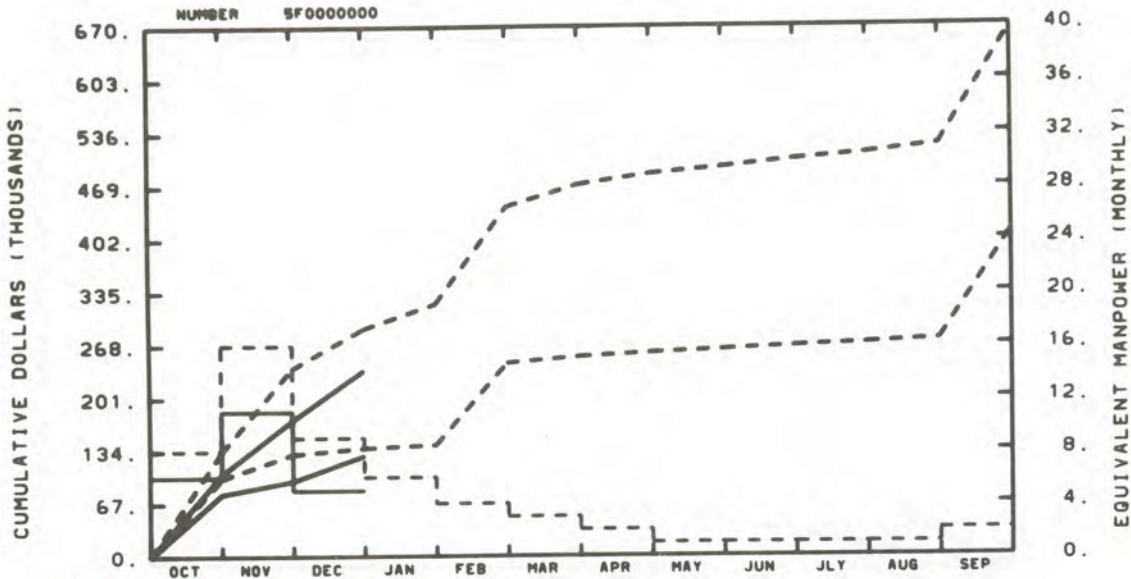
MANPOWER

BUDGET	607	548	527	511	495	515	522	503	468	505	502	525
ACTUAL	469	526	523									

BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

Refer to the summary cost accounts for specific cost versus budget variance comments.

EG&G IDAHO INC.  
LOFT-FOREIGN FUNDING



TOTAL PROGRAM

BUDGET	133	239	289	320	443	471	484	492	502	509	520	666
ACTUAL	105	173	236									

MATERIAL

BUDGET	100	130	138	141	245	253	258	261	266	269	274	411
ACTUAL	79	96	128									

MANPOWER

BUDGET	8	16	9	6	4	3	2	1	1	1	1	2
ACTUAL	6	11	5									

BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

Refer to the summary cost accounts for comments.



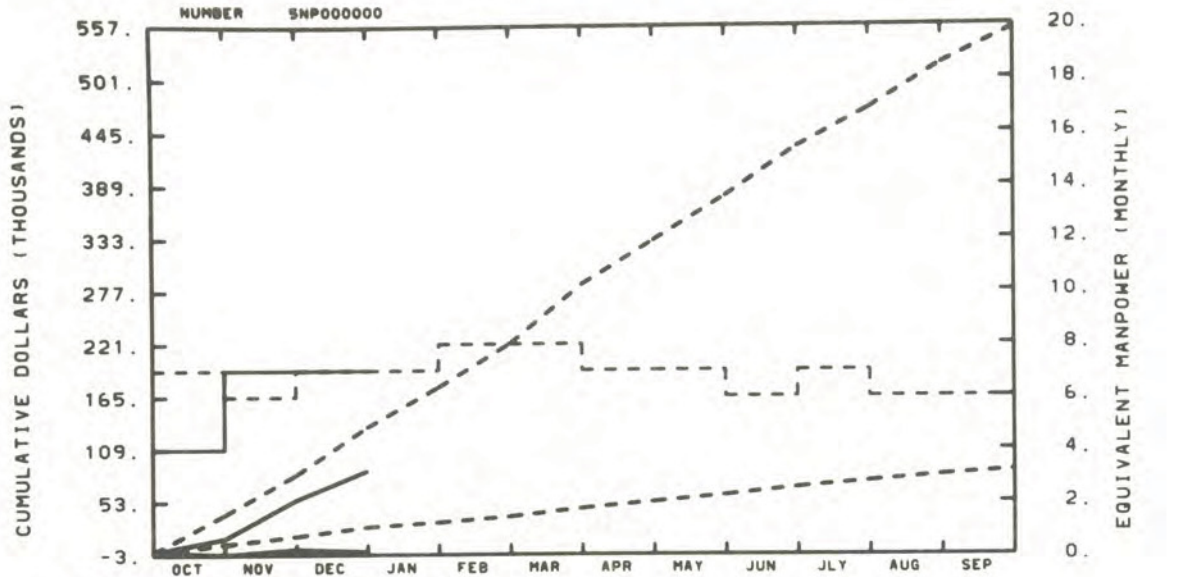
LOFT 189a Summary

5NX--NRC 189a

5FXX--Foreign 189a

Item	Category	Value	Unit	Notes
1	...	...	...	...
2	...	...	...	...
3	...	...	...	...
4	...	...	...	...
5	...	...	...	...
6	...	...	...	...
7	...	...	...	...
8	...	...	...	...
9	...	...	...	...
10	...	...	...	...

EG&G IDAHO INC.  
 A6308-CRT DISPLAY DESIGN/ANALYSIS



TOTAL PROGRAM

BUDGET	40	83	133	176	222	284	331	378	429	470	516	553
ACTUAL	15	56	87									

MATERIAL

BUDGET	8	17	27	32	38	46	53	60	69	75	81	86
ACTUAL	-2	3	1									

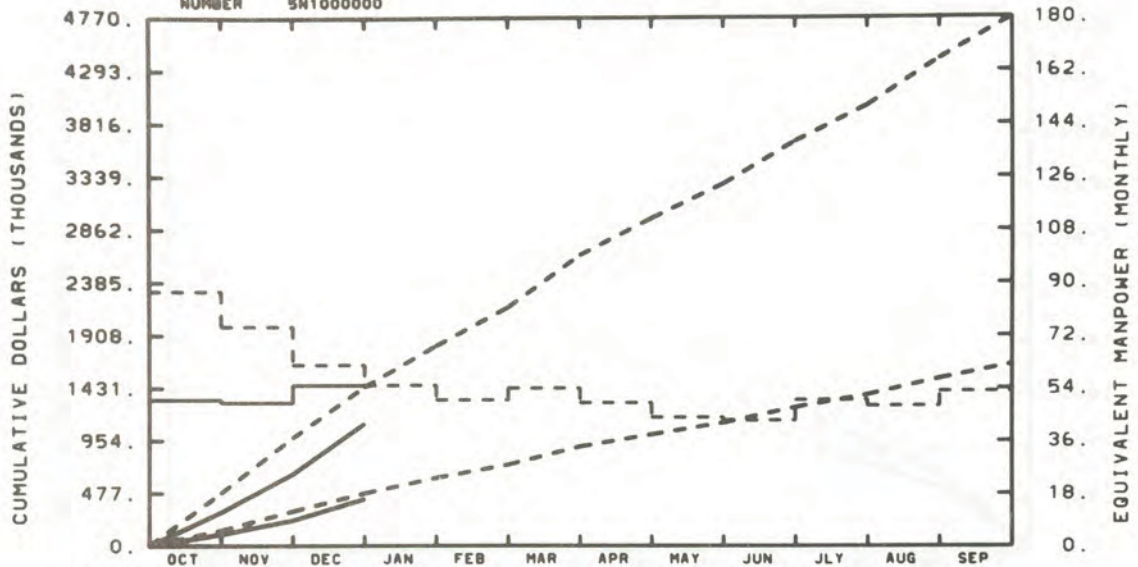
MANPOWER

BUDGET	7	6	7	7	8	8	7	7	6	7	6	6
ACTUAL	4	7	7									

October manpower was significantly below budget levels; this has now been corrected. Resulting late start on some activities has delayed procurement activities.

EG&G IDAHO INC.  
 NRC 189A A6048 EXPER PROGRAM

NUMBER 5W1000000



TOTAL PROGRAM

BUDGET	480	982	1444	1815	2163	2635	2966	3276	3659	3979	4397	4770
ACTUAL	305	653	1111									

MATERIAL

BUDGET	140	315	479	617	737	901	1011	1117	1257	1371	1518	1648
ACTUAL	105	232	426									

MANPOWER

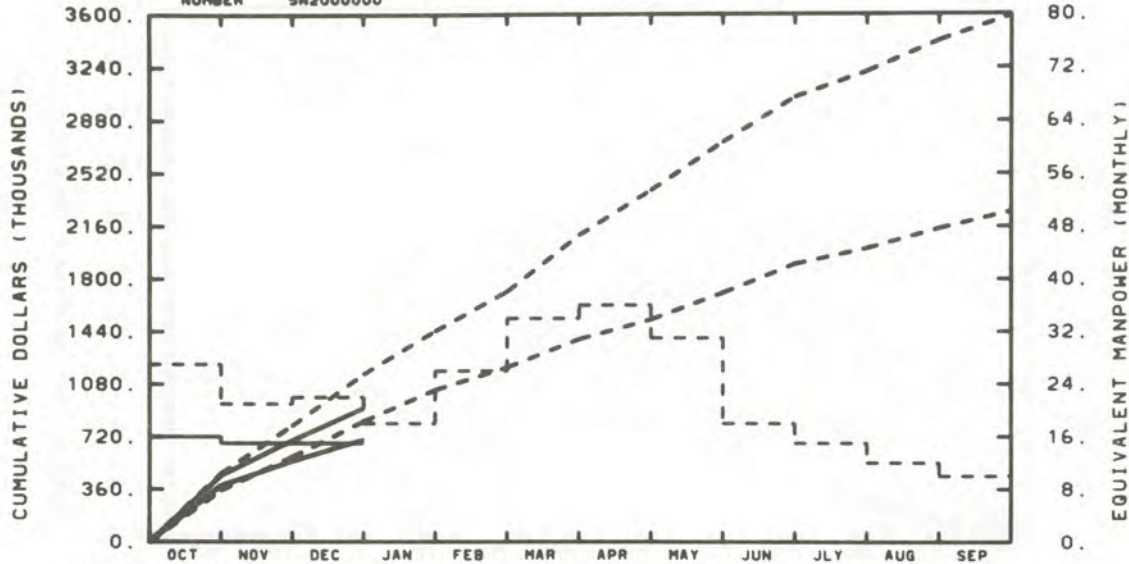
BUDGET	87	75	62	55	50	54	49	44	43	50	48	53
ACTUAL	50	49	55									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

Refer to the summary cost accounts for comments.

EG&G IDAHO INC.  
 NRC 189A A6053 FUEL

NUMBER 5N2000000



TOTAL PROGRAM												
BUDGET	466	794	1147	1443	1715	2101	2406	2733	3038	3211	3421	3590
ACTUAL	453	693	915									

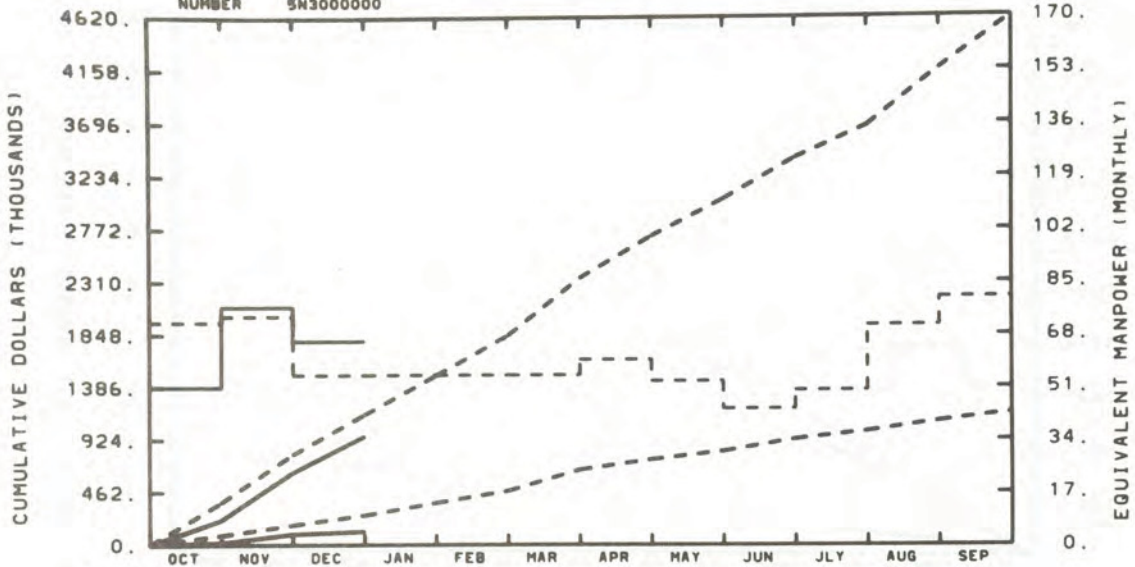
MATERIAL												
BUDGET	351	581	825	1040	1194	1387	1522	1706	1903	2011	2146	2262
ACTUAL	384	551	699									

MANPOWER												
BUDGET	27	21	22	18	26	34	36	31	18	15	12	10
ACTUAL	16	15	15									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

The underruns are caused by delays in hardware item procurements and availability of key personnel in summary cost accounts 5N2D00000 and 5N2F00000. Refer to summary cost account cost graphs for detailed explanations and planned corrective actions.

EG&G IDAHO INC.  
 NRC 189A A6043 EXPER INSTR  
 NUMBER 5N3000000



TOTAL PROGRAM

BUDGET	373	798	1147	1490	1842	2345	2713	3033	3392	3671	4162	4612
ACTUAL	219	639	957									

MATERIAL

BUDGET	85	177	262	370	474	660	749	822	928	997	1085	1161
ACTUAL	20	97	119									

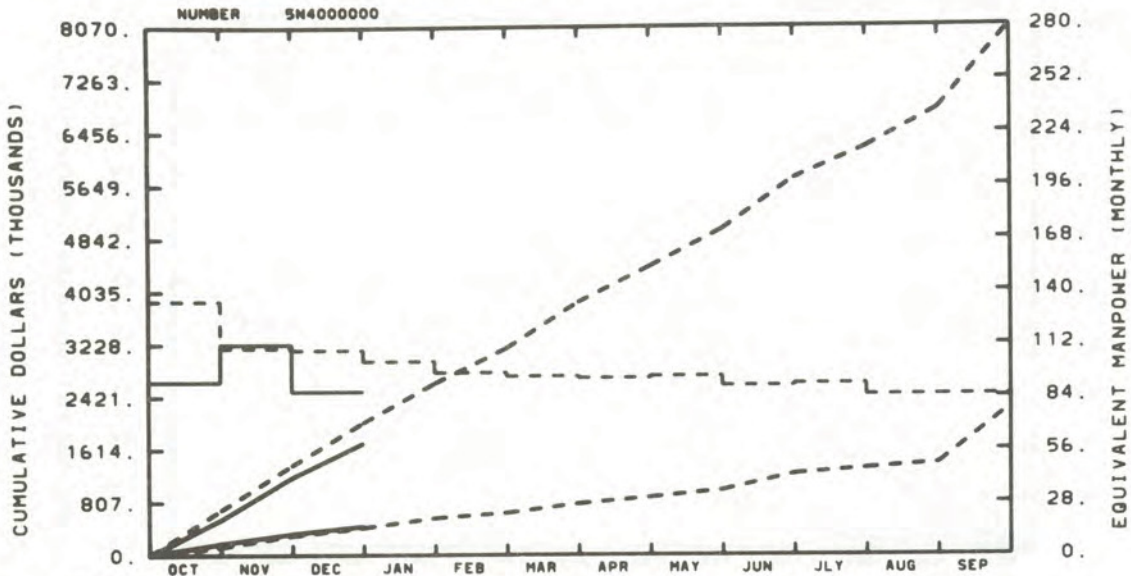
MANPOWER

BUDGET	72	74	55	55	55	55	60	53	44	50	71	80
ACTUAL	51	77	66									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

The existing baseline does not reflect the work occurring. A new baseline is being implemented and this will bring the budget and actuals into much closer agreement. The underspend is due primarily to 1. Schedule slippage from FY-80 to FY-81 caused work loads in excess of available manpower, 2. Fuel instrumentation was delayed due to higher priority LOFT work at Exxon, 3. L9-1 Instrumentation was delayed due to changes in the test and the piping configuration.

EG&G IDAHO INC.  
 NRC 189A A6107 PLANT SUPPORT



TOTAL PROGRAM

BUDGET	690	1375	2032	2633	3166	3868	4414	4978	5749	6222	6801	8064
ACTUAL	543	1190	1715									

MATERIAL

BUDGET	129	300	420	566	645	782	879	988	1237	1323	1403	2256
ACTUAL	179	328	440									

MANPOWER

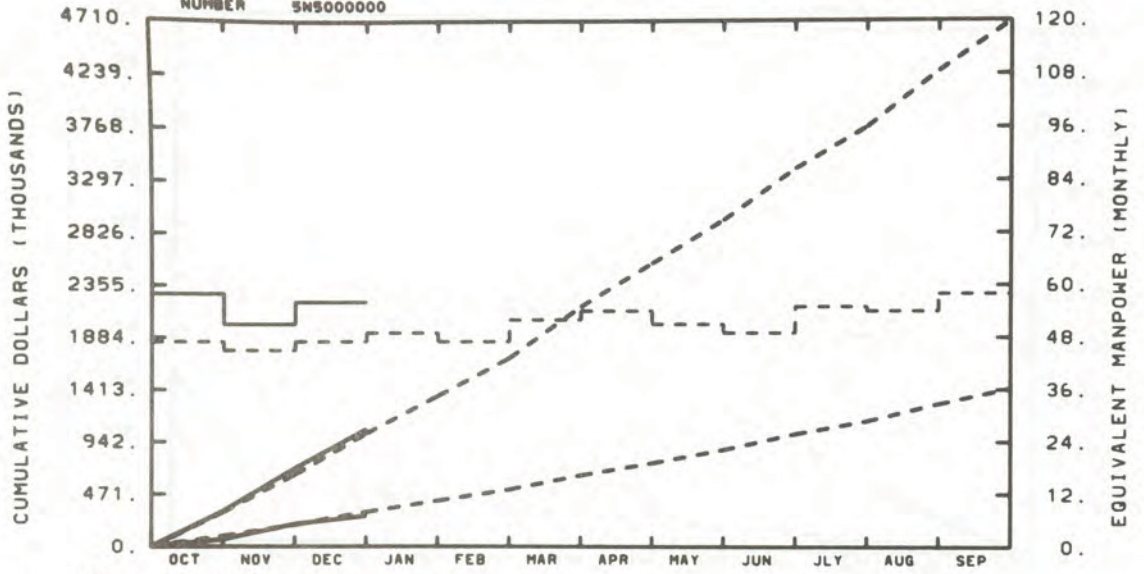
BUDGET	135	110	109	103	97	95	94	95	90	91	85	85
ACTUAL	92	112	87									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

CCF's/CCB's have been submitted reducing the overall budget by \$199K and level the manpower loading. See the individual summary cost accounts for comments.

EG&G IDAHO INC.  
 NRC 189A A6122 CORE & SAFETY SUP

NUMBER 5N5000000



TOTAL PROGRAM												
BUDGET	312	646	1018	1355	1696	2159	2548	2938	3396	3768	4263	4703
ACTUAL	320	703	1056									

MATERIAL												
BUDGET	95	196	311	412	512	641	750	871	1013	1128	1283	1423
ACTUAL	67	203	276									

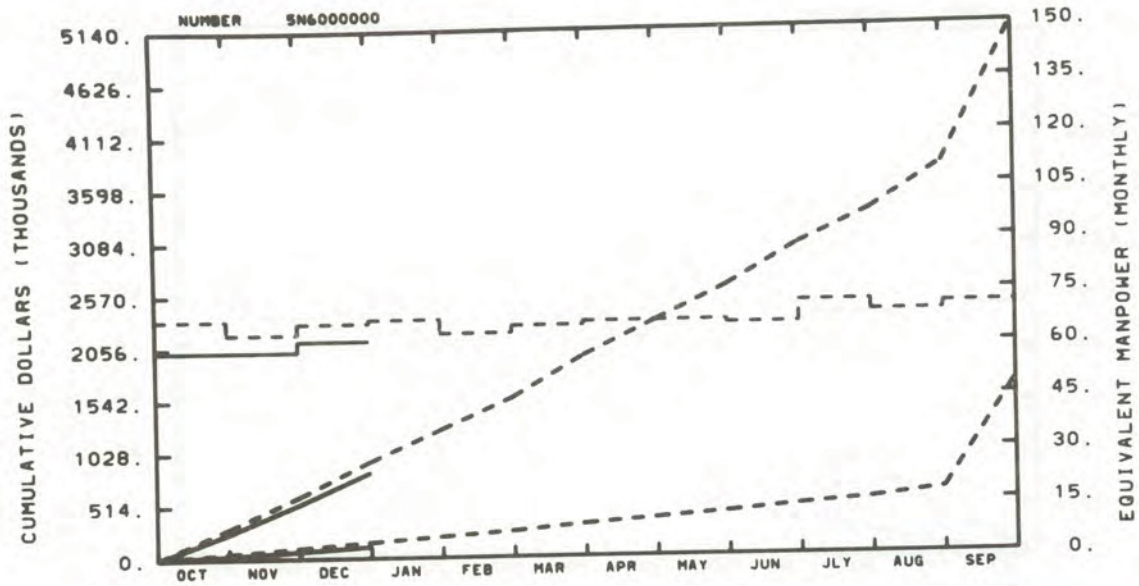
MANPOWER												
BUDGET	47	45	47	49	47	52	54	51	49	55	54	58
ACTUAL	58	51	56									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

Refer to the summary cost accounts 5N5N for comments.

EG&G IDAHO INC.  
NRC 189A A6110 COMMON SUPPORT

NUMBER SN6000000



TOTAL PROGRAM												
BUDGET	296	606	945	1252	1559	1962	2295	2629	3029	3350	3786	5137
ACTUAL	247	531	837									

MATERIAL												
BUDGET	52	102	156	204	252	315	367	419	482	535	621	1676
ACTUAL	31	72	114									

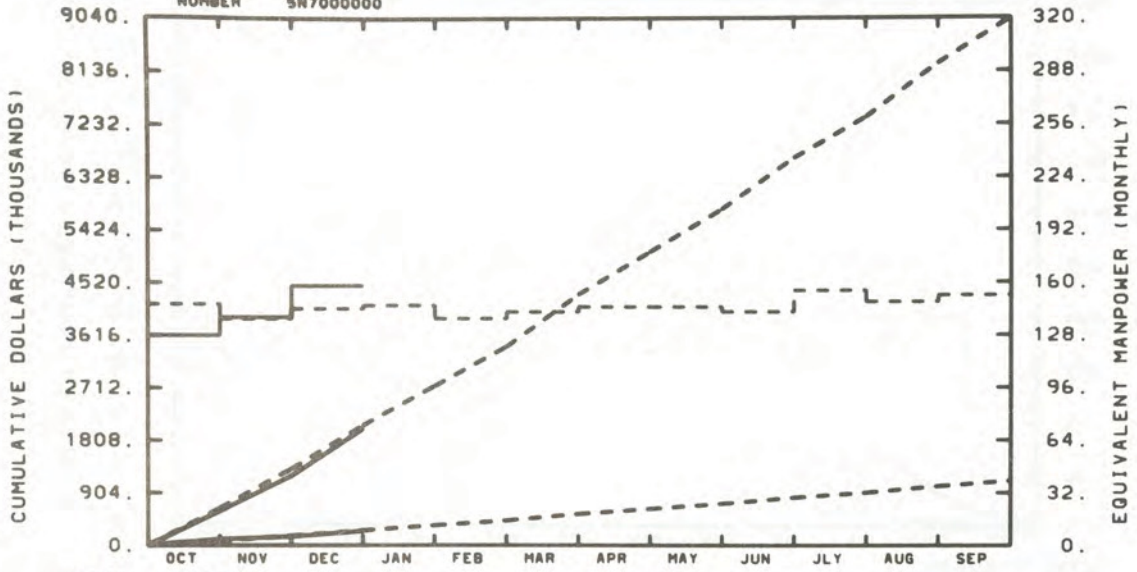
MANPOWER												
BUDGET	68	64	67	68	64	66	67	67	66	72	69	71
ACTUAL	59	59	62									

BUDGET  
-----  
ACTUAL

Refer to summary cost accounts for comments.

EG&G IDAHO INC.  
 NRC 189A A6054 FACILITY OPERATE

NUMBER 5N7000000



TOTAL PROGRAM

BUDGET	641	1317	2065	2741	3418	4308	5040	5773	6651	7347	8262	9031
ACTUAL	589	1193	2006									

MATERIAL

BUDGET	80	165	258	343	427	539	628	717	823	908	1019	1113
ACTUAL	108	153	248									

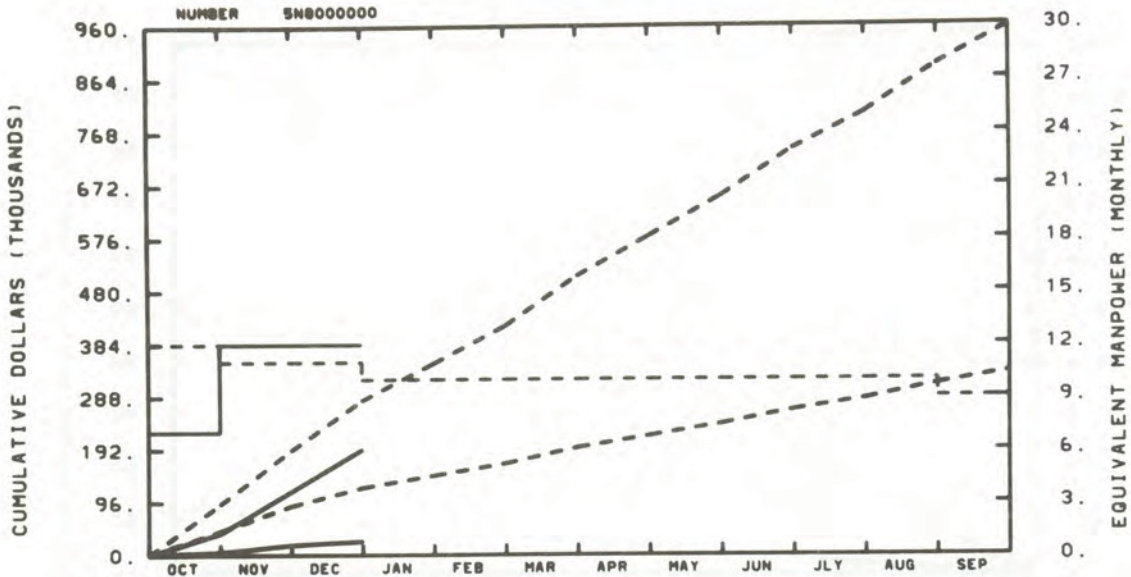
MANPOWER

BUDGET	147	138	144	146	138	142	145	145	142	155	148	152
ACTUAL	128	139	158									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

No significant variance.

EG&G IDAHO INC.  
A6108 AUGEM OPER CAPABILITY



TOTAL PROGRAM

BUDGET	93	191	282	349	417	508	580	652	737	802	887	956
ACTUAL	40	116	193									

MATERIAL

BUDGET	44	90	123	145	167	195	217	238	264	284	310	332
ACTUAL	5	19	25									

MANPOWER

BUDGET	12	11	11	10	10	10	10	10	10	10	10	9
ACTUAL	7	12	12									

BUDGET

-----

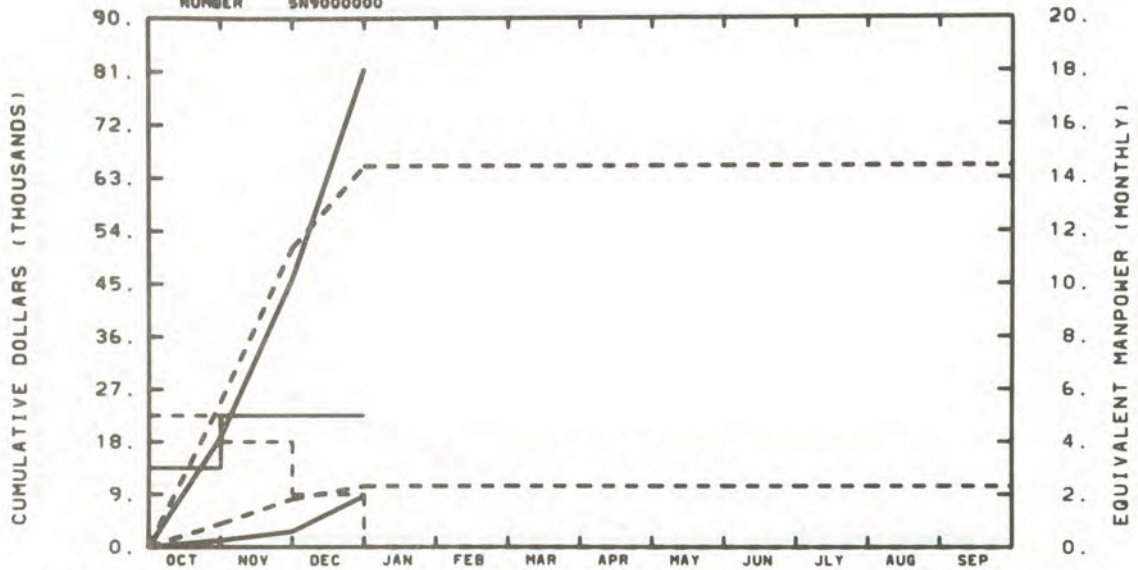
ACTUAL

\_\_\_\_\_

Refer to summary cost account 5N8V for comments.

EG&G IDAHO INC.  
A6351-CORE MELT MITIG SYS DESIGN

NUMBER 5N9000000



TOTAL PROGRAM

BUDGET	25	51	65	65	65	65	65	65	65	65	65	65
ACTUAL	19	46	81									

MATERIAL

BUDGET	4	8	10	10	10	10	10	10	10	10	10	10
ACTUAL	1	3	9									

MANPOWER

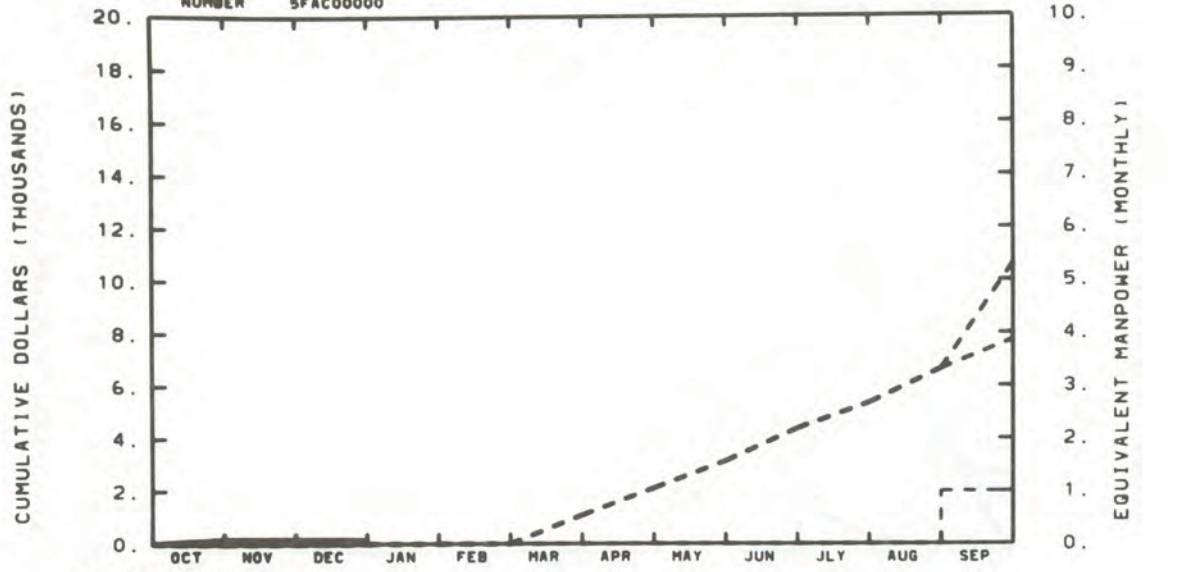
BUDGET	5	4	2	0	0	0	0	0	0	0	0	0
ACTUAL	3	5	5									

BUDGET

ACTUAL

The first phase of this task has been completed. All future funding and progress has been transferred to the Thermal Fuels Behavior Program through CCB 81-23.

EG&G IDAHO INC.  
 A6273 - AUSTRIAN FUNDS  
 NUMBER 5FAC00000



TOTAL PROGRAM

BUDGET	0	0	0	0	0	1	2	3	4	5	7	11
ACTUAL	0	0	0									

MATERIAL

BUDGET	0	0	0	0	0	1	2	3	4	5	7	8
ACTUAL	0	0	0									

MANPOWER

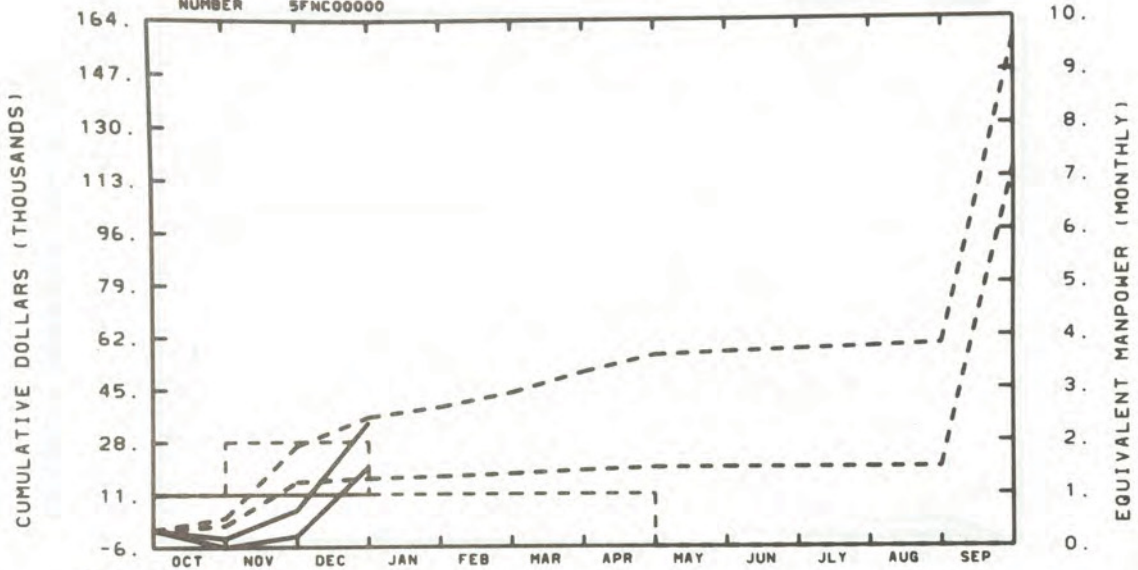
BUDGET	0	0	0	0	0	0	0	0	0	0	0	1
ACTUAL	0	0	0									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

Budget graphs at this level contain reserves and contingencies. Refer to lower level graphs (summary cost accounts) for more meaningful budget review.

EG&G IDAHO INC.  
A6271 - NETHERLAND FUNDS

NUMBER 5FNC00000



TOTAL PROGRAM

BUDGET	4	27	36	40	44	51	56	57	58	59	60	158
ACTUAL	-2	6	35									

MATERIAL

BUDGET	1	15	17	17	18	19	20	20	20	20	20	117
ACTUAL	-5	-1	20									

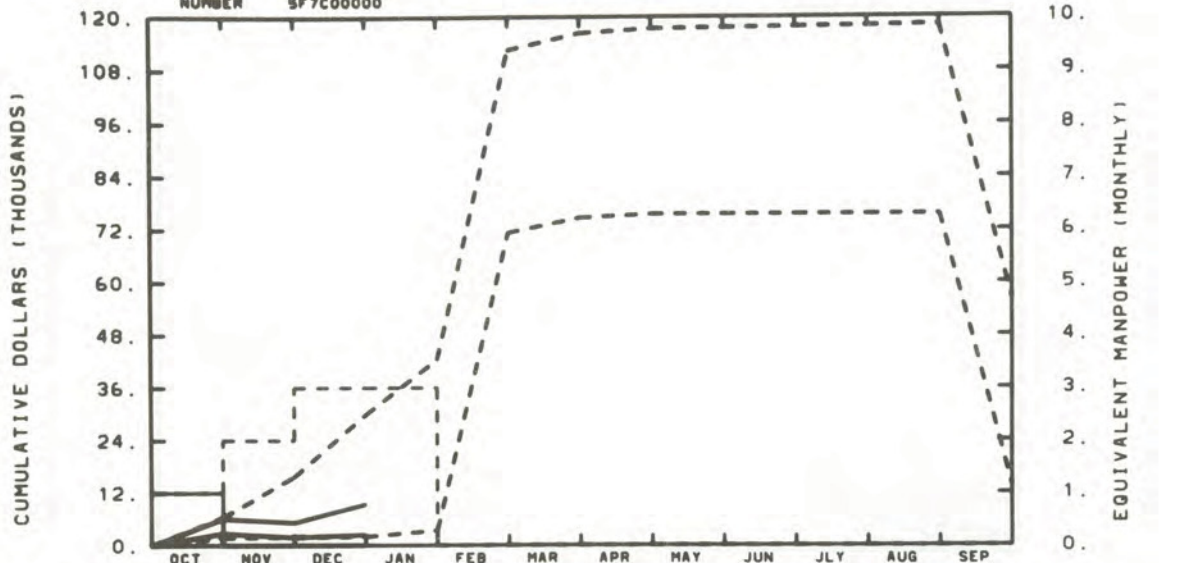
MANPOWER

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

BUDGET  
-----  
ACTUAL

Budget graphs at this level contain reserves and contingencies. Refer to lower level graphs (summary cost accounts) for more meaningful budget review.

EG&G IDAHO INC.  
 A6104 - GERMAN FUNDS  
 NUMBER SF7C00000



TOTAL PROGRAM

BUDGET	6	16	30	42	113	116	117	118	118	118	118	56
ACTUAL	6	5	9									

MATERIAL

BUDGET	2	2	2	3	71	75	75	75	75	75	75	14
ACTUAL	3	2	2									

MANPOWER

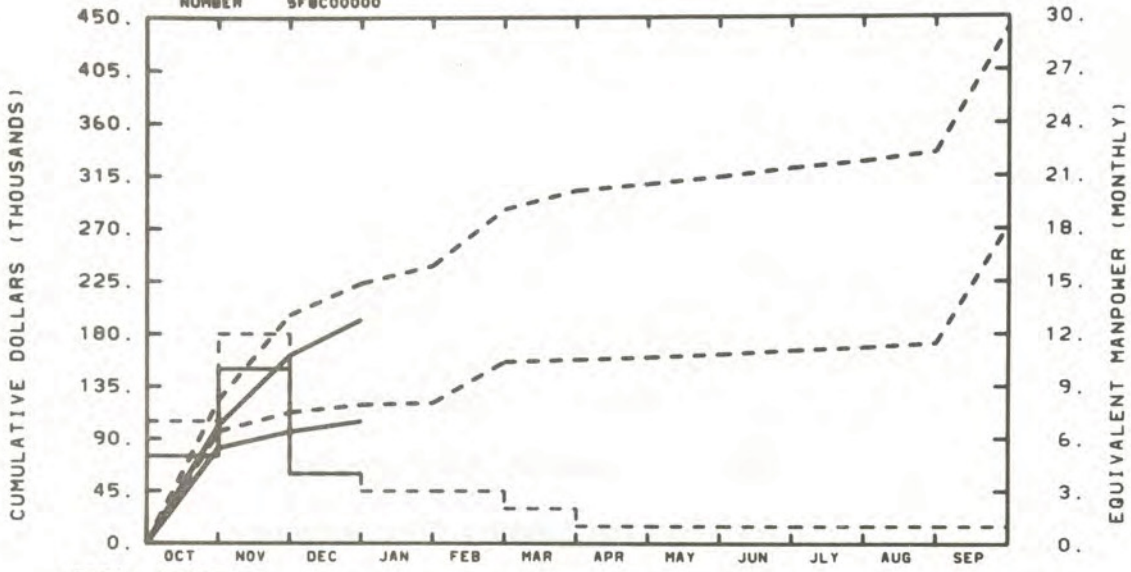
BUDGET	1	2	3	3	0	0	0	0	0	0	0	0
ACTUAL	1	0	0									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

Budget graphs at this level contain reserves and contingencies. Refer to lower level graphs (summary cost accounts) for more meaningful budget review.

EG&G IDAHO INC.  
A6111 - JAPANESE FUNDS

NUMBER SF8C00000



TOTAL PROGRAM

BUDGET	123	196	223	238	286	303	308	314	322	327	335	441
ACTUAL	101	162	192									

MATERIAL

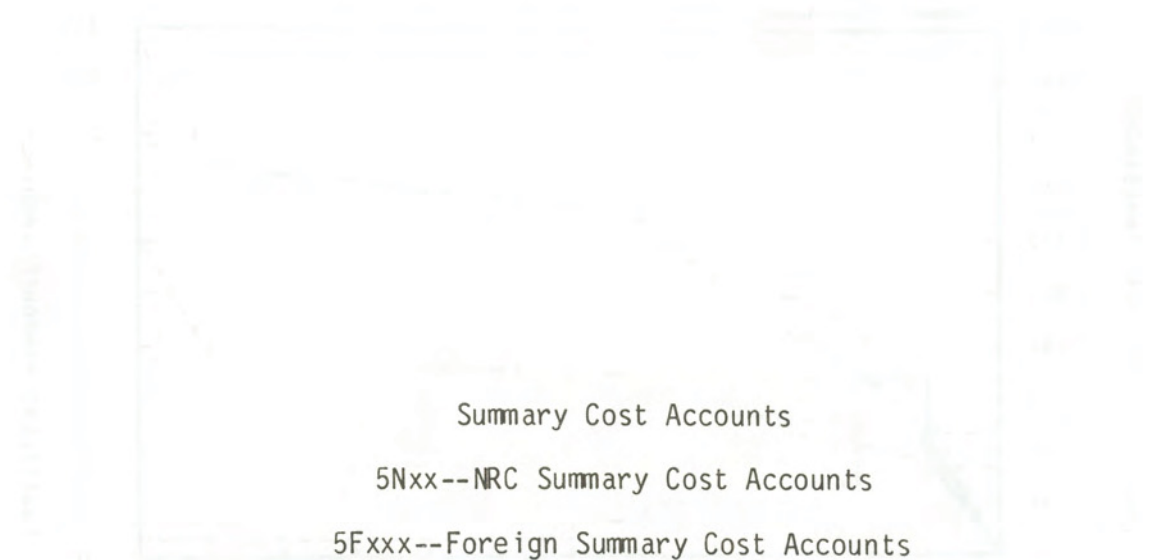
BUDGET	96	113	119	121	156	158	160	163	166	168	172	273
ACTUAL	82	96	105									

MANPOWER

BUDGET	7	12	4	3	3	2	1	1	1	1	1	1
ACTUAL	5	10	4									

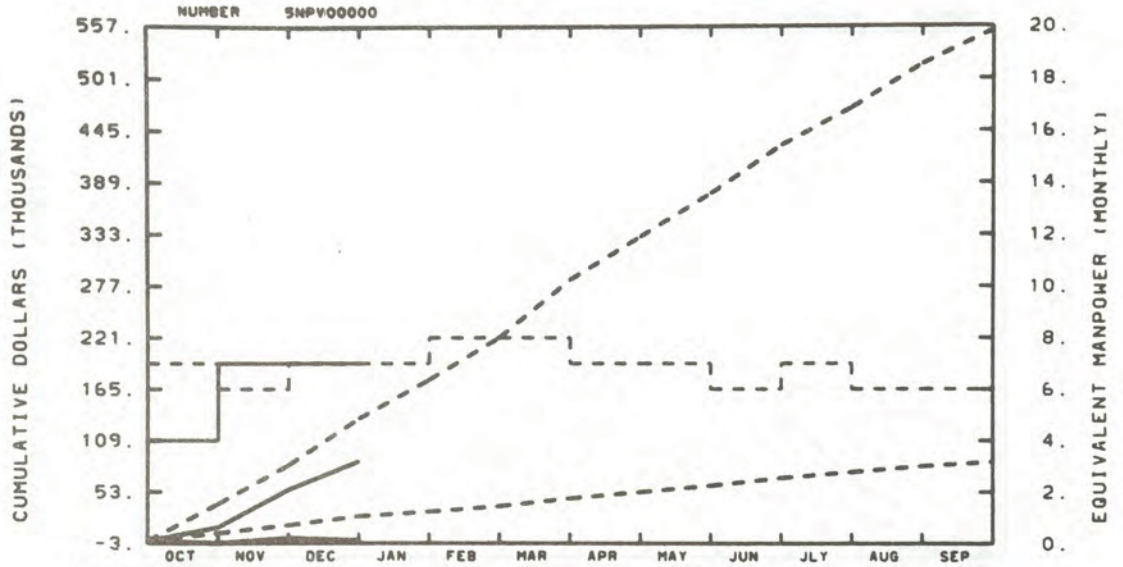
BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

Budget graphs at this level contain reserves and contingencies. Refer to lower level graphs (summary cost accounts) for more meaningful budget review.



Year	5Nxx--NRC Summary Cost Accounts	5Fxxx--Foreign Summary Cost Accounts
1980	100	100
1981	95	95
1982	90	90
1983	85	85
1984	80	80
1985	75	75
1986	70	70
1987	65	65
1988	60	60
1989	55	55
1990	50	50
1991	45	45
1992	40	40
1993	35	35
1994	30	30
1995	25	25
1996	20	20
1997	15	15
1998	10	10
1999	5	5
2000	0	0

EG&G IDAHO INC.  
 A6308-CRT DISPLAY DESIGN/ANALYSIS



TOTAL PROGRAM

BUDGET	40	83	133	176	222	284	331	378	429	470	516	553
ACTUAL	15	56	87									

MATERIAL

BUDGET	8	17	27	32	38	46	53	60	69	75	81	86
ACTUAL	-2	3	1									

MANPOWER

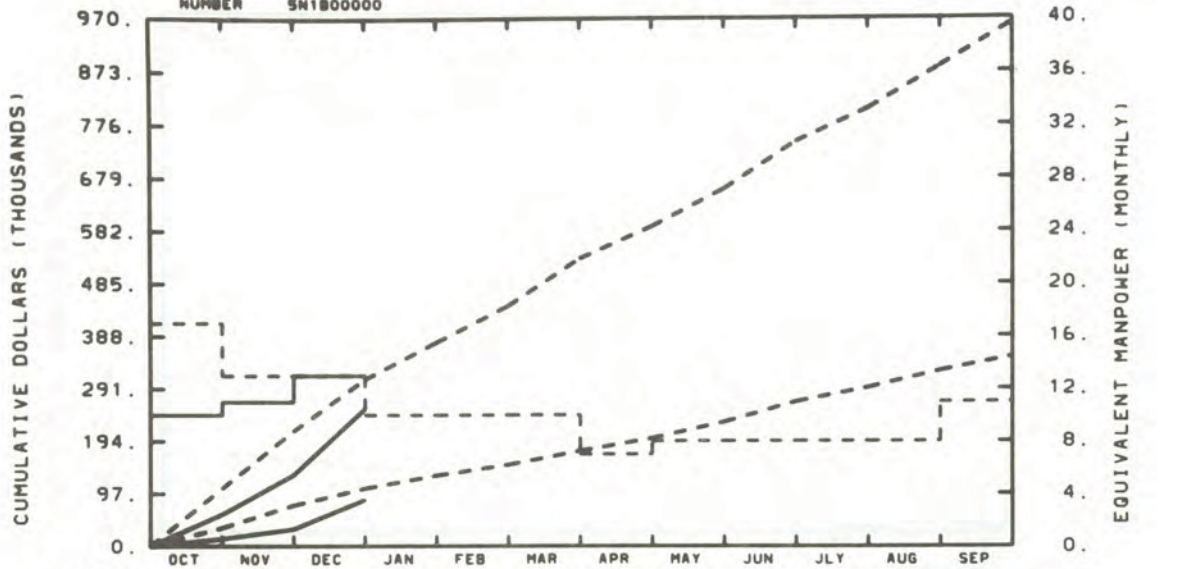
BUDGET	7	6	7	7	8	8	7	7	6	7	6	6
ACTUAL	4	7	7									

BUDGET  
 -----  
 ACTUAL  
 \_\_\_\_\_

Late start on some activities has delayed procurement activities.

EG&G IDAHO INC.  
 EXP PROG - PROG PLAN & EVAL

NUMBER 5N1800000



TOTAL PROGRAM												
BUDGET	107	213	309	376	444	531	590	658	744	805	882	961
ACTUAL	59	132	254									

MATERIAL												
BUDGET	34	75	107	131	150	176	199	229	267	293	324	349
ACTUAL	14	32	86									

MANPOWER												
BUDGET	17	13	13	10	10	10	7	8	8	8	8	11
ACTUAL	10	11	13									

This budget does not reflect the latest LOFT test schedule. New CCB's have been submitted which will better reflect our current manpower needs.

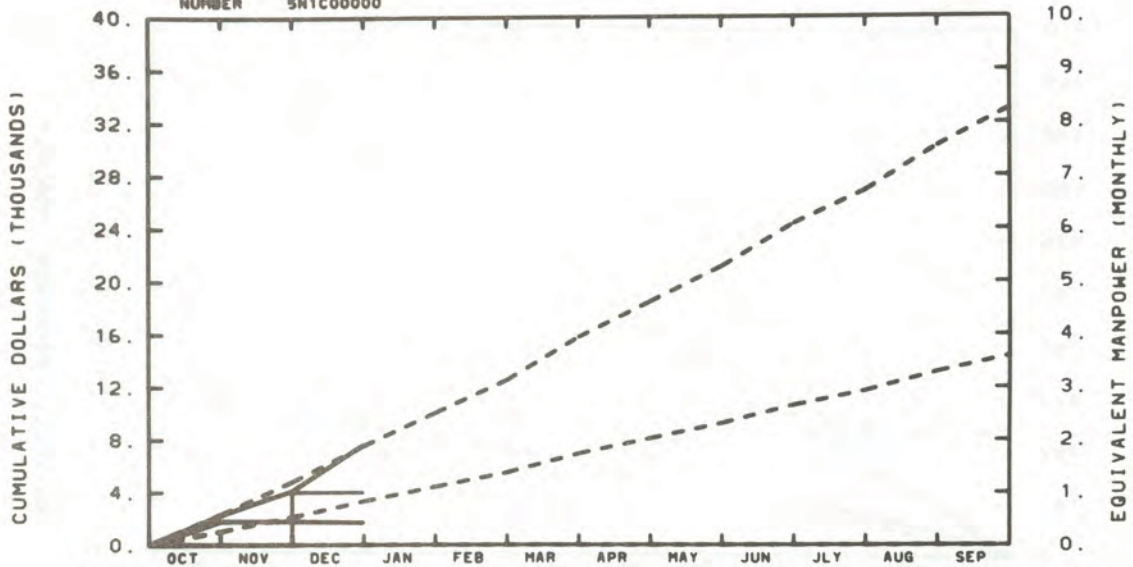
At our current manpower level, we will overspend the above budget by about 10%.

Year-to-date actuals through December of 1980 reduced by \$13,000 due to premature deletion of account number 51LPPXX. Has been corrected for January 1981 business.

EG&G IDAHO INC.

SWISS REFLOOD

NUMBER 5N1C00000



TOTAL PROGRAM

BUDGET	2	5	8	10	13	16	18	21	24	27	30	33
ACTUAL	2	4	8									

MATERIAL

BUDGET	1	2	3	4	6	7	8	9	11	12	13	14
ACTUAL	2	2	2									

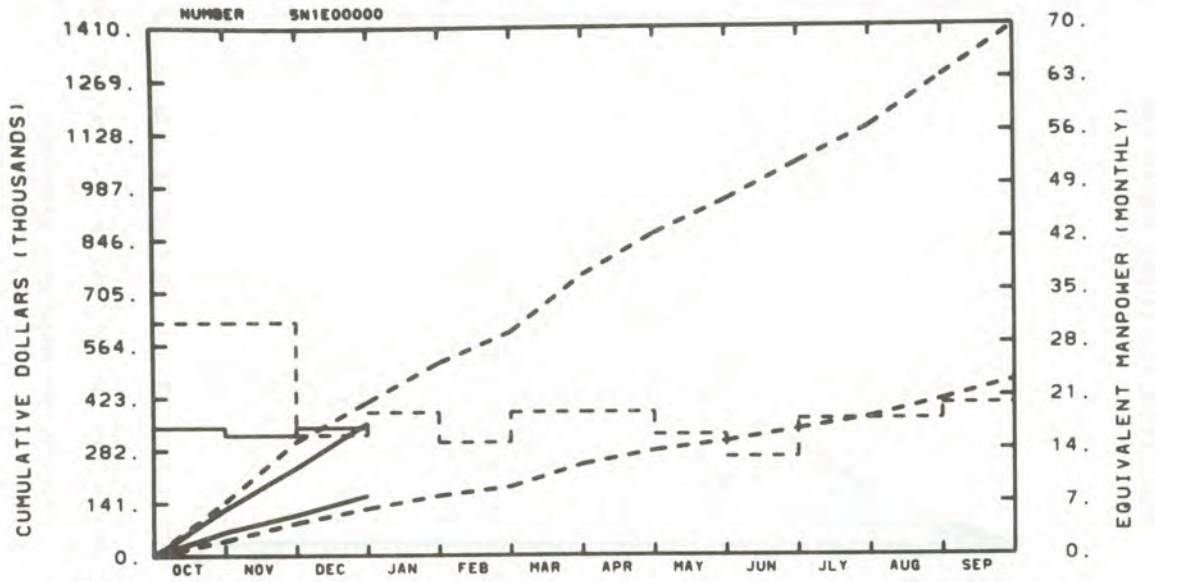
MANPOWER

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

BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

No significant variance.

EG&G IDAHO INC.  
 EXP PROG - LOFT DATA SYSTEMS



TOTAL PROGRAM

BUDGET	145	305	411	515	597	749	859	948	1047	1142	1275	1404
ACTUAL	125	235	354									

MATERIAL

BUDGET	41	87	125	159	183	243	279	304	335	367	413	464
ACTUAL	64	109	160									

MANPOWER

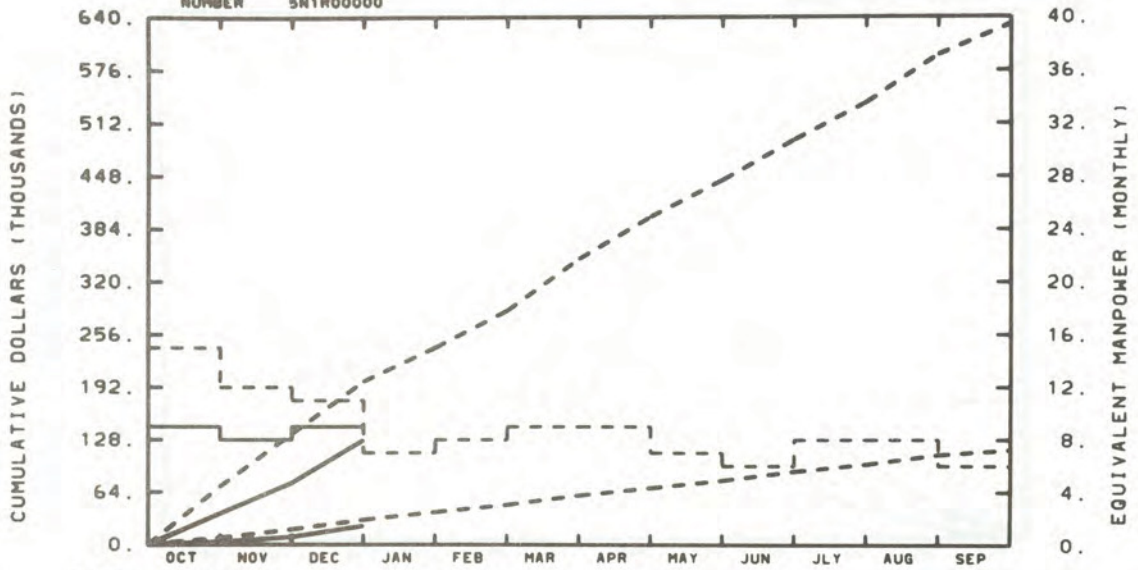
BUDGET	31	31	16	19	15	19	19	16	13	18	18	20
ACTUAL	17	16	17									

BUDGET - - - - -  
 ACTUAL - - - - -

The peak testing activity at LOFT during October produced a backlog of effort which will stretch into the coming months.

EG&G IDAHO INC.  
 DATA ANALYSIS BR - TEST EVAL

NUMBER 5N1R00000



TOTAL PROGRAM

BUDGET	71	135	199	240	285	348	399	443	492	537	595	632
ACTUAL	38	75	128									

MATERIAL

BUDGET	8	19	31	40	49	60	69	79	90	98	110	116
ACTUAL	3	10	23									

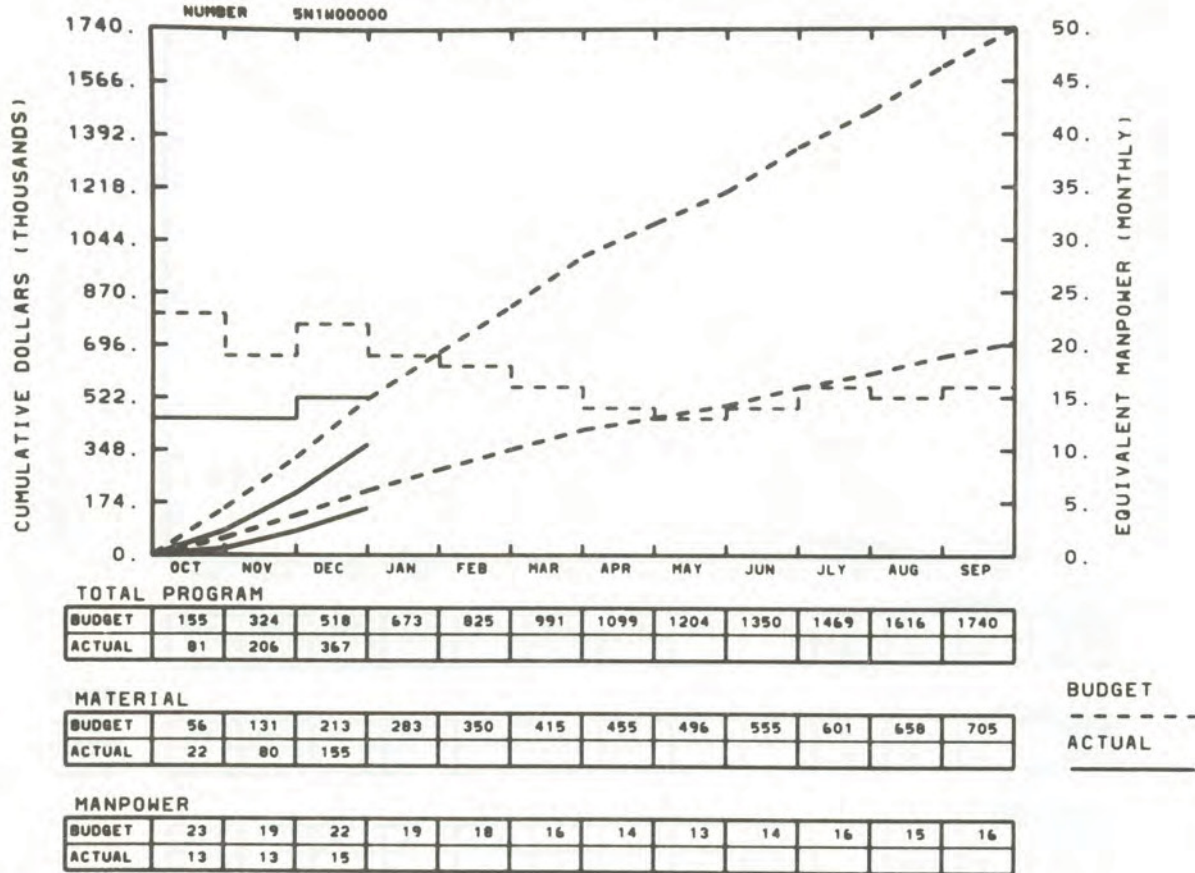
MANPOWER

BUDGET	15	12	11	7	8	9	9	7	6	8	8	6
ACTUAL	9	8	9									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

Budget reflects improper monthly manpower allocation. Total budgeted manyears reflect proper distribution. Budget realignment is necessary to show proper monthly allocation.

EG&G IDAHO INC.  
EXPER EVAL BRANCH - 6420

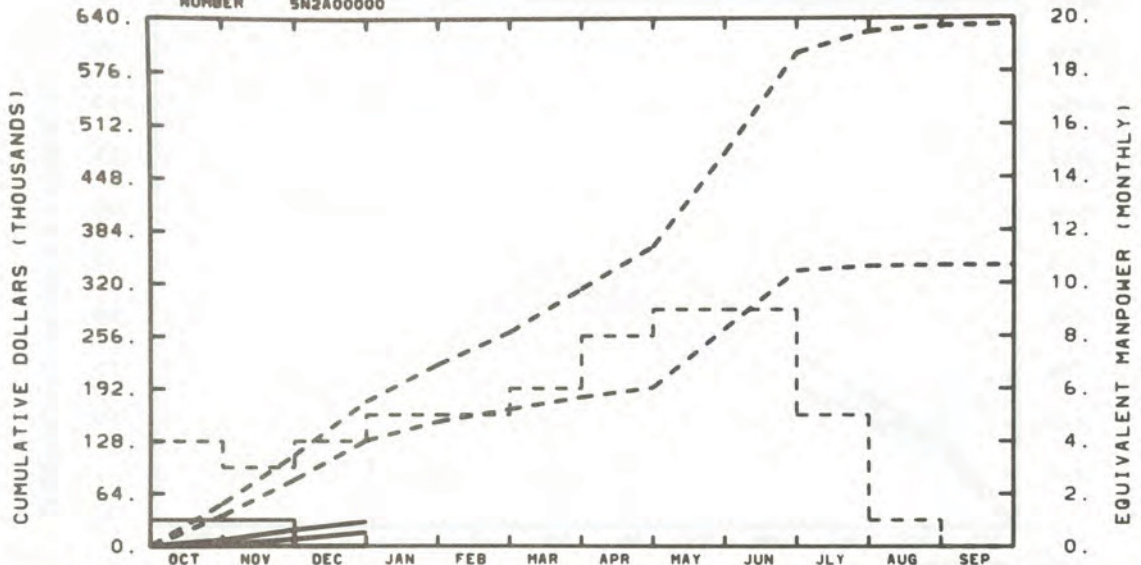


Below budget because of less manpower than projected.

Actual costs to date are understated by approximately \$25,000. Corrective action has been initiated and will be resolved for February 1981 business.

EG&G IDAHO INC.  
FUEL INSTRUMENTATION

NUMBER 5N2A00000



TOTAL PROGRAM

BUDGET	52	111	176	221	260	313	364	478	598	624	630	632
ACTUAL	8	20	30									

MATERIAL

BUDGET	37	81	129	152	167	181	193	265	335	340	342	342
ACTUAL	2	9	17									

MANPOWER

BUDGET	4	3	4	5	5	6	8	9	9	5	1	0
ACTUAL	1	1	0									

BUDGET

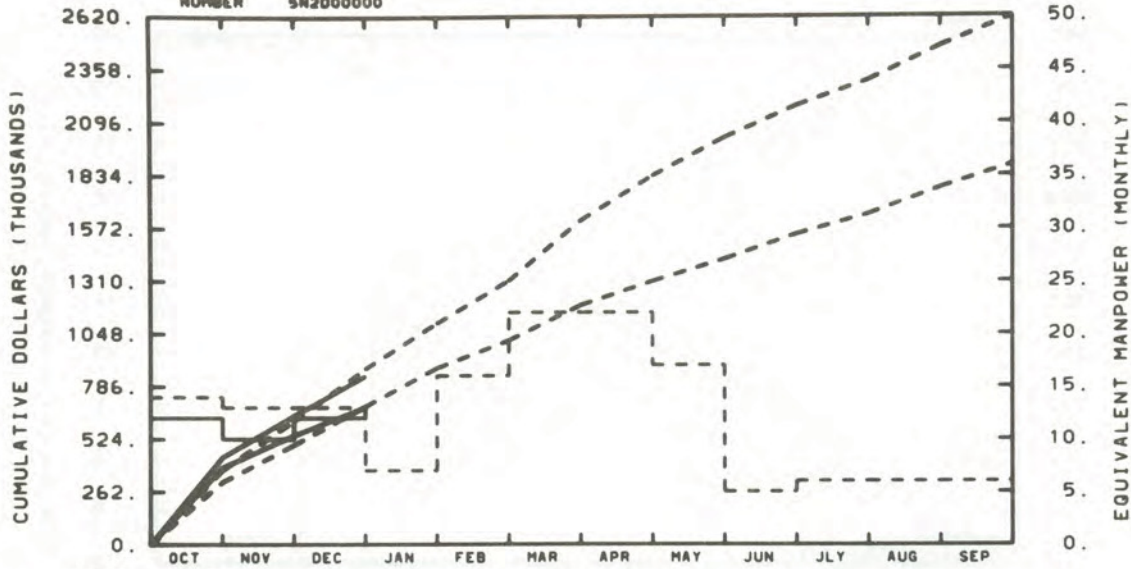
ACTUAL

Due to changes in test and fuel schedule, much instrument procurement and fabrication activity was delayed longer than originally planned.

A new baseline is being implemented which will more closely match present planning.

EG&G IDAHO INC.  
 FUEL - FUEL DSGN & ANALYSIS

NUMBER 5N2D00000



TOTAL PROGRAM												
BUDGET	370	615	873	1100	1311	1610	1832	2020	2177	2303	2471	2617
ACTUAL	434	639	837									

MATERIAL												
BUDGET	309	493	686	877	1014	1188	1308	1417	1542	1641	1771	1886
ACTUAL	382	541	681									

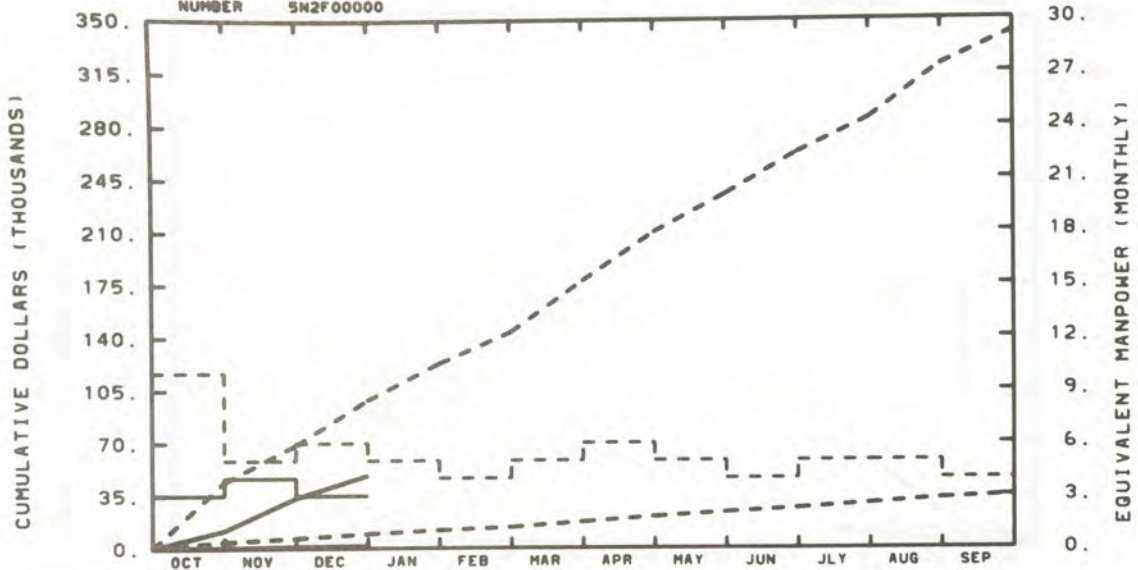
MANPOWER												
BUDGET	14	13	13	7	16	22	22	17	5	6	6	6
ACTUAL	12	10	12									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

No significant variance.

EG&G IDAHO INC.  
POST TEST EXAM

NUMBER 5N2F00000



TOTAL PROGRAM

BUDGET	44	69	99	123	143	177	210	235	262	284	319	341
ACTUAL	12	34	48									

MATERIAL

BUDGET	4	7	10	12	14	17	21	24	26	30	33	35
ACTUAL	0	1	2									

MANPOWER

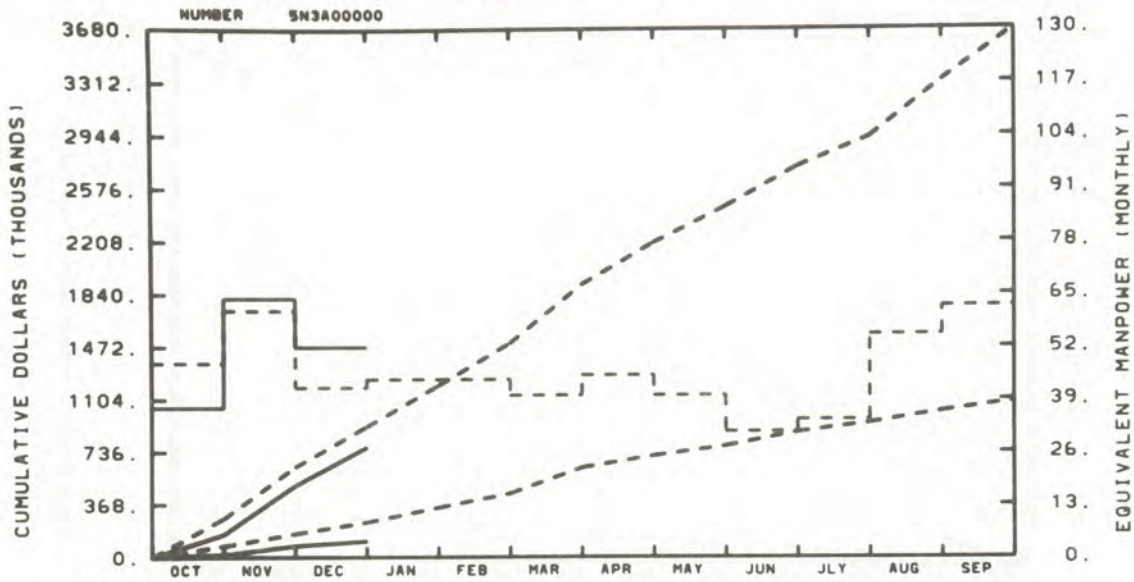
BUDGET	10	5	6	5	4	5	6	5	4	5	5	4
ACTUAL	3	4	3									

BUDGET

ACTUAL

The underrun is caused by 1. unanticipated delivery delays of FMIRC load cell data acquisition system hardware 2. nonavailability of key personnel to prepare fuel bundle destructive examination procedures and 3. less than anticipated labor costs incurred in performing the posttest Level I fuel requalifications which was based on incurring fuel damage. A CCB will be prepared to reduce the Level I fuel requalification budget to a level that is consistent with requalification of undamaged fuel.

EG&G IDAHO INC.  
 EXP INSTR - EXPER MEAS BR 6110



TOTAL PROGRAM

BUDGET	272	634	915	1202	1498	1906	2197	2447	2724	2929	3319	3675
ACTUAL	160	504	770									

MATERIAL

BUDGET	80	166	244	347	445	625	708	775	874	938	1019	1088
ACTUAL	19	81	112									

MANPOWER

BUDGET	48	61	42	44	44	40	45	40	31	34	55	62
ACTUAL	37	64	52									

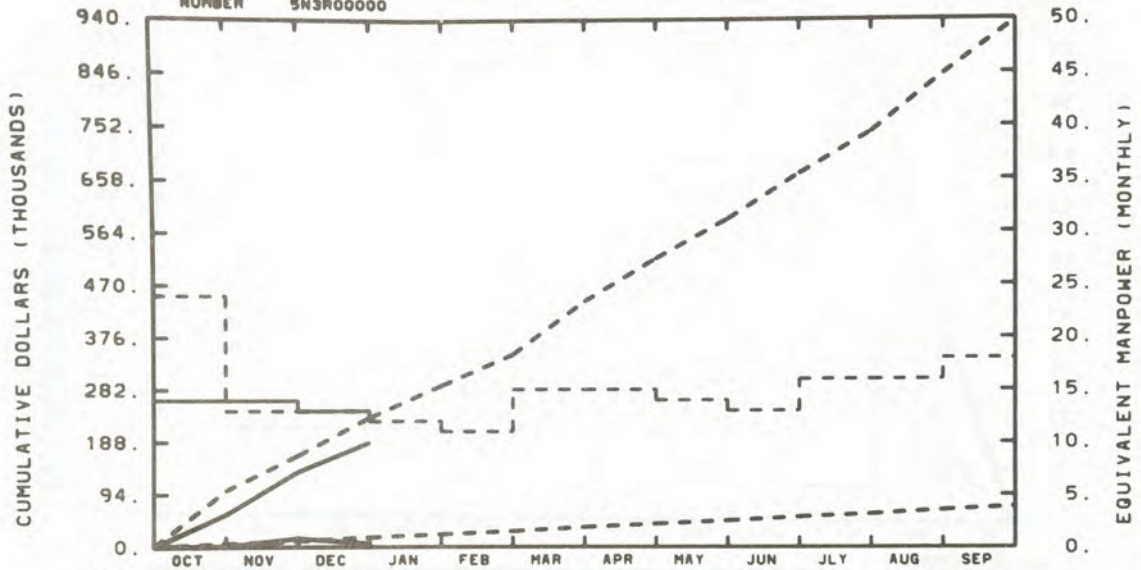
BUDGET ---  
 ACTUAL ———

Original baseline was underspent due to: 1. a delay in planning for L9-1, which impacted instrumentation activities; 2. moving up of REBEKA and TC-4 instrument fabrication, which delayed F1 instrument procurement and fabrication.

A new baseline has been implemented, which brings budget into agreement with present plans.

EG&G IDAHO INC.  
 DATA ANALYSIS BRANCH - 6130

NUMBER 5N3R00000



TOTAL PROGRAM												
BUDGET	101	164	232	289	344	440	516	586	667	741	843	937
ACTUAL	58	135	188									

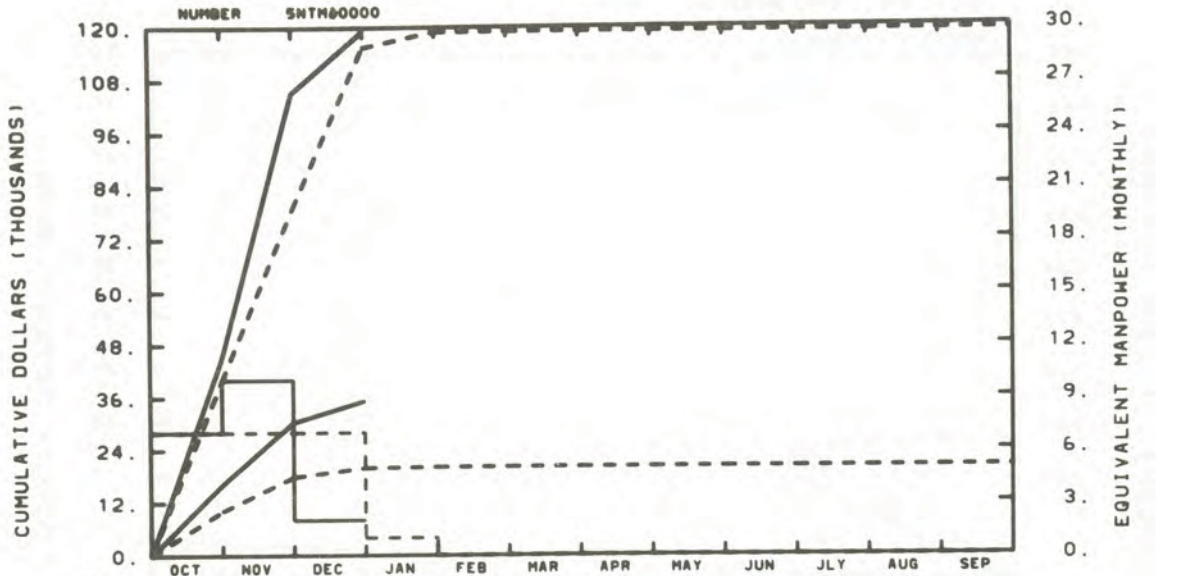
MATERIAL												
BUDGET	6	11	17	23	28	35	41	47	54	59	67	73
ACTUAL	1	16	6									

MANPOWER												
BUDGET	24	13	13	12	11	15	15	14	13	16	16	18
ACTUAL	14	14	13									

BUDGET - - - -  
 ACTUAL - - - -

Current staffing levels are below the allocated budget. Steps are being taken to alleviate the problem.

EG&G IDAHO INC.  
THREE MILE ISLAND SUPPORT



TOTAL PROGRAM											
BUDGET	40	79	115	119	119	119	119	119	119	119	119
ACTUAL	45	105	119								

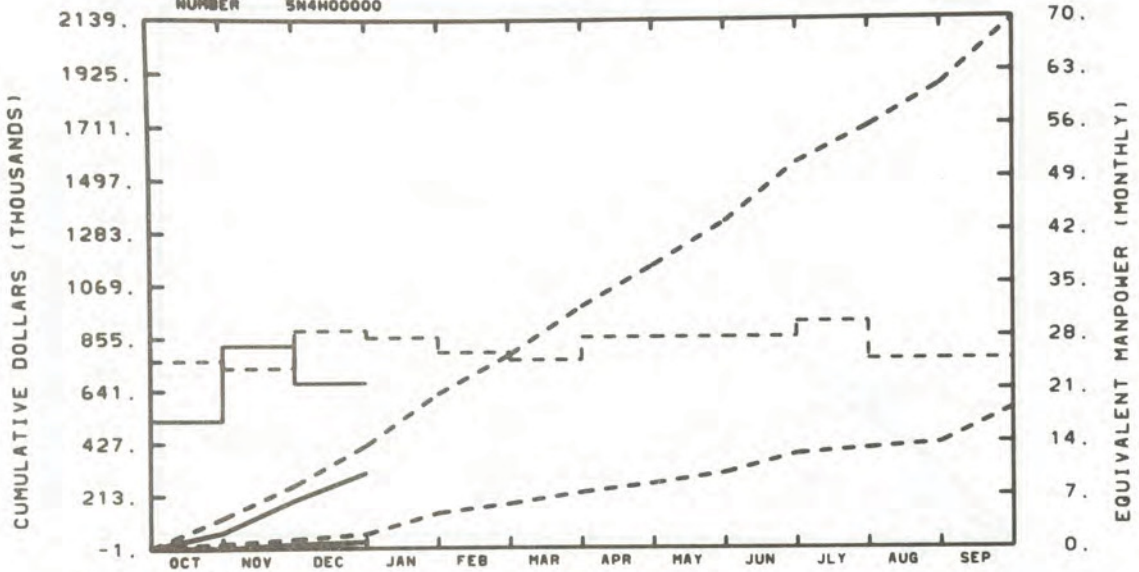
MATERIAL											
BUDGET	10	18	20	20	20	20	20	20	20	20	20
ACTUAL	16	30	35								

MANPOWER											
BUDGET	7	7	7	1	0	0	0	0	0	0	0
ACTUAL	7	10	2								

No significant variance.

EG&G IDAHO INC.  
 PLANT SUPPORT - PLANT SYS NO 3

NUMBER 5N4H00000



TOTAL PROGRAM												
BUDGET	123	256	410	625	784	979	1145	1322	1560	1704	1870	2129
ACTUAL	64	196	306									

MATERIAL												
BUDGET	18	36	57	141	178	224	260	303	380	401	422	562
ACTUAL	0	17	25									

MANPOWER												
BUDGET	25	24	29	28	26	25	28	28	28	30	25	25
ACTUAL	17	27	22									

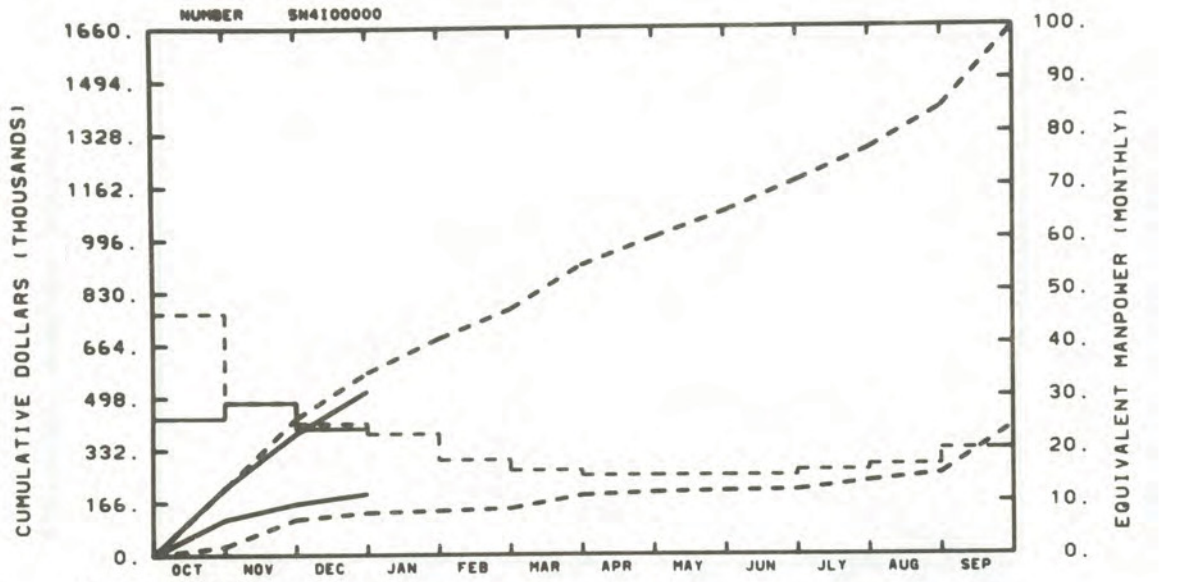
BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

Actuals trail the budget due to initial front-end loading and the fact that a large portion of the budget is test support. CCF 3071 is being prepared to respread the budget according to the test schedule published in NCK-274-80.

CCF 3071 is in verification process, anticipate approval 12-15-80 and pass to CAPS prior to December month-end close.

CCF 3071 did not pass to CAPS prior to December close and is expected prior to January month-end close.

EG&G IDAHO INC.  
 PLANT SUPPORT - PLANT SYS NO 1



TOTAL PROGRAM

BUDGET	211	431	576	683	774	913	999	1081	1177	1277	1404	1653
ACTUAL	212	384	517									

MATERIAL

BUDGET	28	112	132	138	145	186	195	200	203	230	253	404
ACTUAL	112	162	193									

MANPOWER

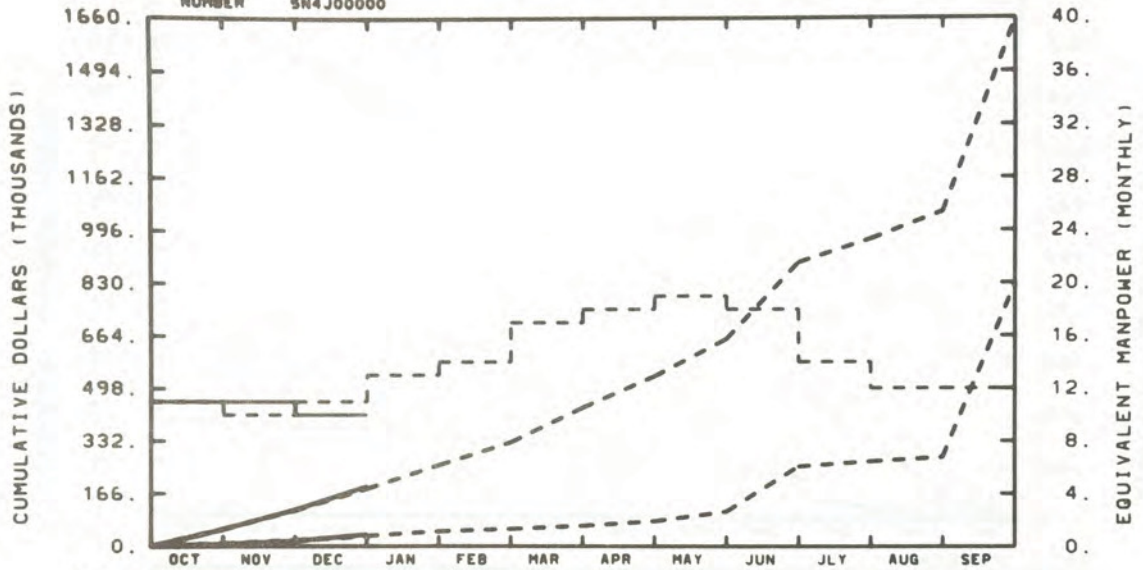
BUDGET	46	29	25	23	18	16	15	15	15	16	17	20
ACTUAL	26	29	24									

BUDGET -----  
 ACTUAL \_\_\_\_\_

Major contributors to the material overrun, are work packages 5N4I06000 and 5N4I04000. CCF 3120 and CCB 81-62, respectively, have been submitted with new logic which brings those budgets in line.

EG&G IDAHO INC.  
 PLANT SUPPORT - PLANT SYS NO 2

NUMBER SN4J00000



TOTAL PROGRAM

BUDGET	55	114	181	255	327	437	536	653	894	969	1054	1657
ACTUAL	54	115	180									

MATERIAL

BUDGET	9	19	33	48	55	64	79	110	251	267	281	826
ACTUAL	7	17	37									

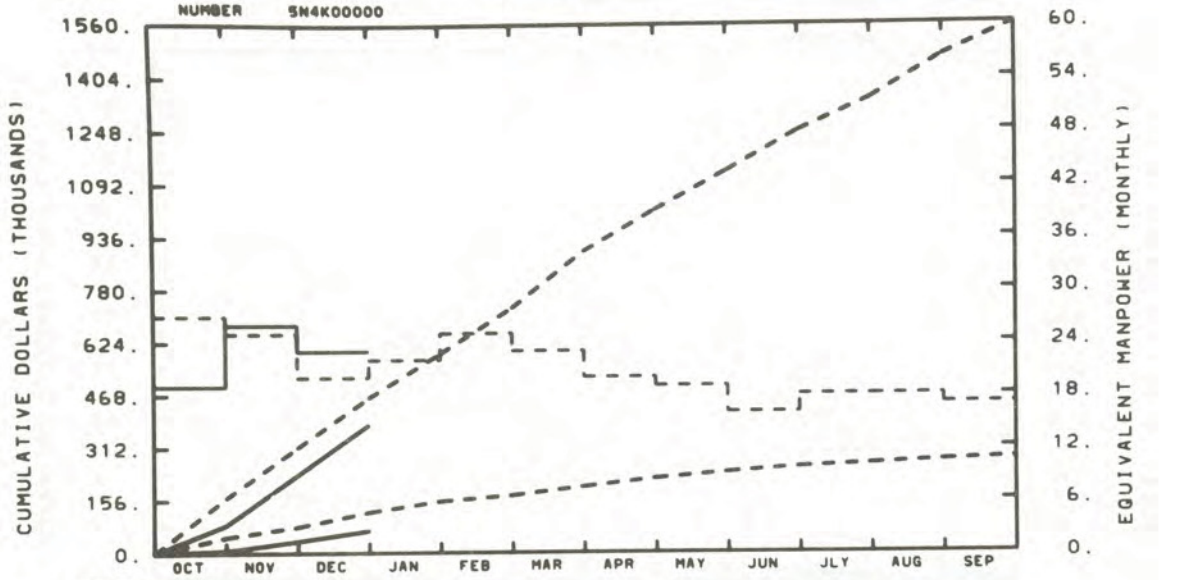
MANPOWER

BUDGET	11	10	11	13	14	17	18	19	18	14	12	12
ACTUAL	11	11	10									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

No significant variance.

EG&G IDAHO INC.  
 PLANT SUPPORT - P&C REACTOR CONT



TOTAL PROGRAM

BUDGET	164	314	460	590	724	892	1013	1128	1246	1339	1464	1558
ACTUAL	84	232	380									

MATERIAL

BUDGET	48	78	121	152	169	195	218	236	252	261	271	278
ACTUAL	8	36	66									

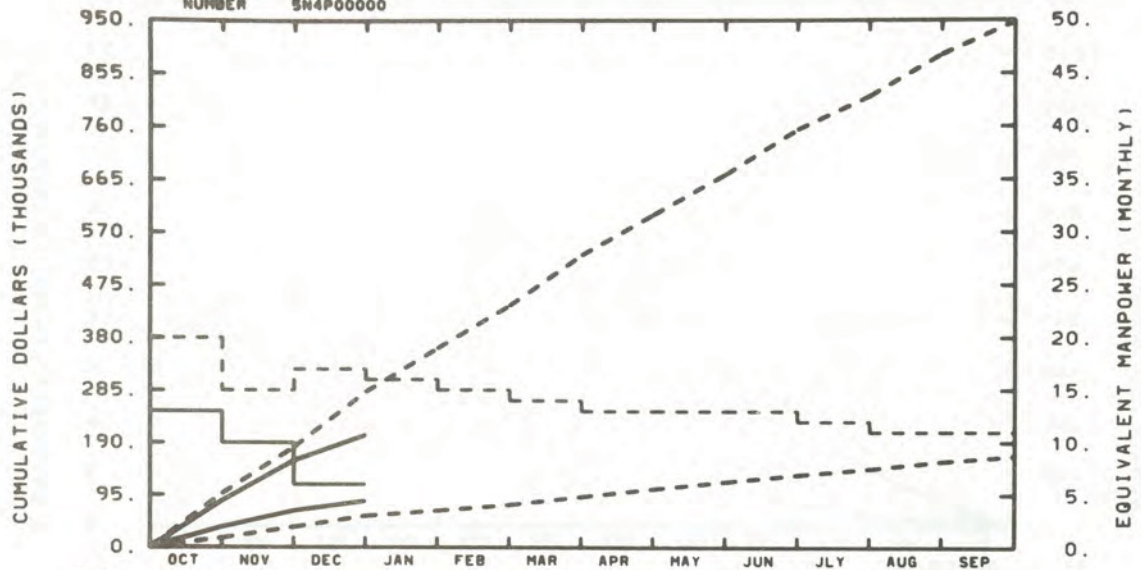
MANPOWER

BUDGET	27	25	20	22	25	23	20	19	16	18	18	17
ACTUAL	19	26	23									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

Non-labor costs for material and construction work have not been paid as soon as anticipated.

EG&G IDAHO INC.  
 PLANT SUPPORT - P&C I&E SUPPORT  
 NUMBER 5N4P00000



TOTAL PROGRAM

BUDGET	98	182	282	361	438	529	602	674	754	814	889	947
ACTUAL	85	157	204									

MATERIAL

BUDGET	17	37	57	66	77	92	106	119	132	143	156	166
ACTUAL	37	67	84									

MANPOWER

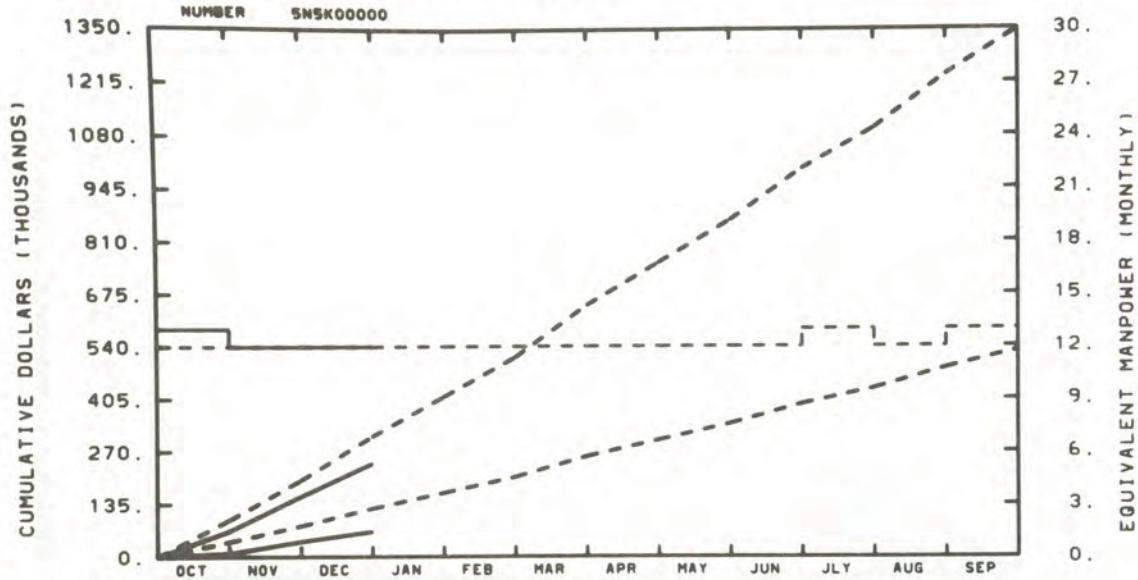
BUDGET	20	15	17	16	15	14	13	13	13	12	11	11
ACTUAL	13	10	6									

BUDGET - - - - -  
 ACTUAL - - - - -

Significant electrical engineering manpower has been diverted to test-related work funded by other LOFT accounts.

Radiation monitoring upgrade tasks are behind schedule; corrective action (reprioritization and rescheduling) is in progress.

EG&G IDAHO INC.  
CORE & SAFETY SUPT-PROTECT & CON



TOTAL PROGRAM

BUDGET	95	197	309	411	512	645	754	863	994	1097	1233	1347
ACTUAL	66	155	240									

MATERIAL

BUDGET	38	79	124	164	204	257	299	341	391	431	484	528
ACTUAL	9	39	64									

MANPOWER

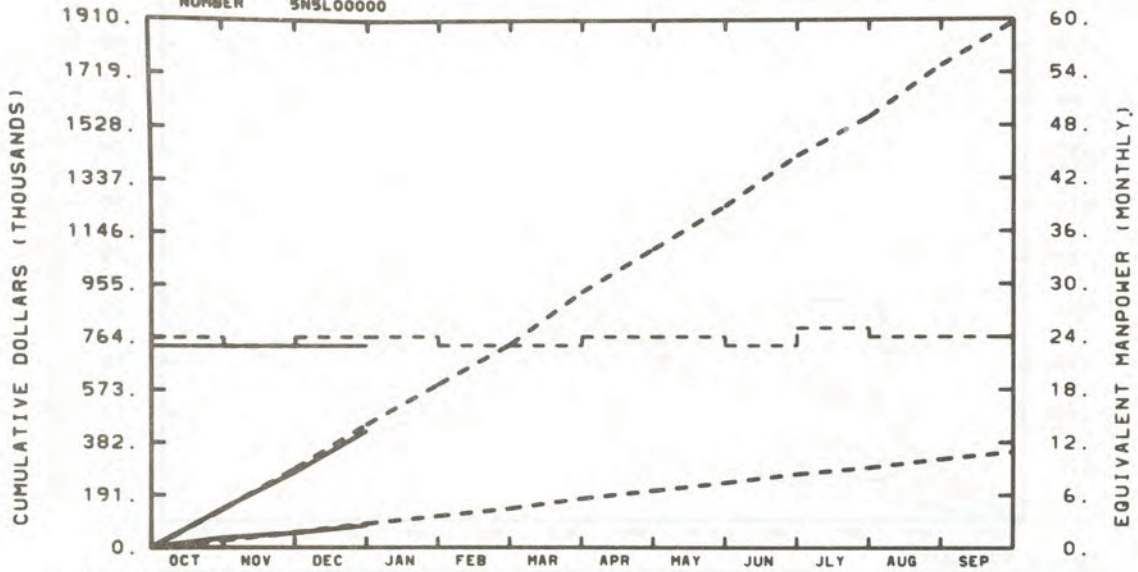
BUDGET	12	12	12	12	12	12	12	12	12	13	12	13
ACTUAL	13	12	12									

BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

Manpower budget reflects the actual spending. Through cost effective management of analysis effort, the current computer actual spending rate is lower than the budgeted allocations.

EG&G IDAHO INC.  
CORE & SAFETY SUPT-REACTOR SYS

NUMBER 5N5L00000



TOTAL PROGRAM

BUDGET	140	286	446	591	735	925	1081	1237	1419	1560	1745	1901
ACTUAL	143	275	424									

MATERIAL

BUDGET	27	56	86	114	141	177	206	235	267	290	321	348
ACTUAL	36	53	80									

MANPOWER

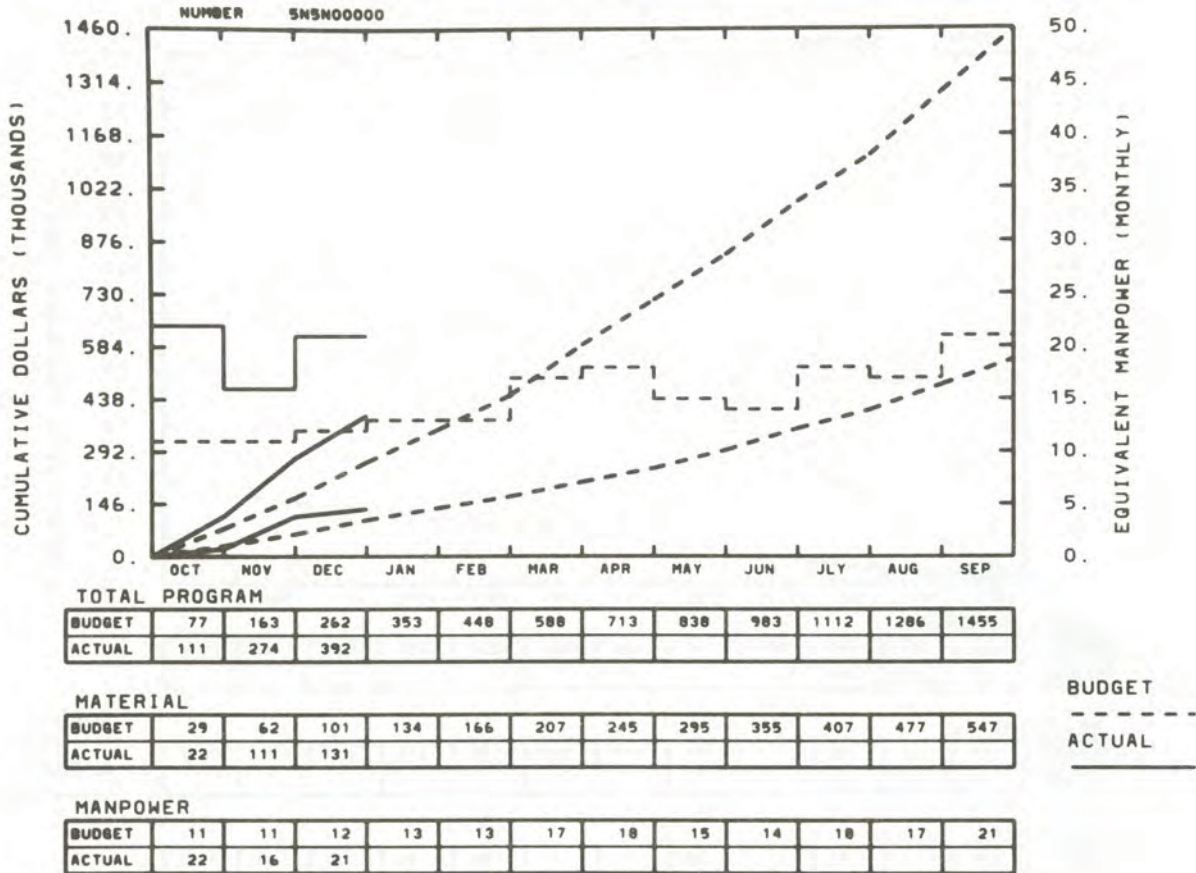
BUDGET	24	23	24	24	23	23	24	24	23	25	24	24
ACTUAL	23	23	23									

BUDGET

-----  
ACTUAL

No significant variance.

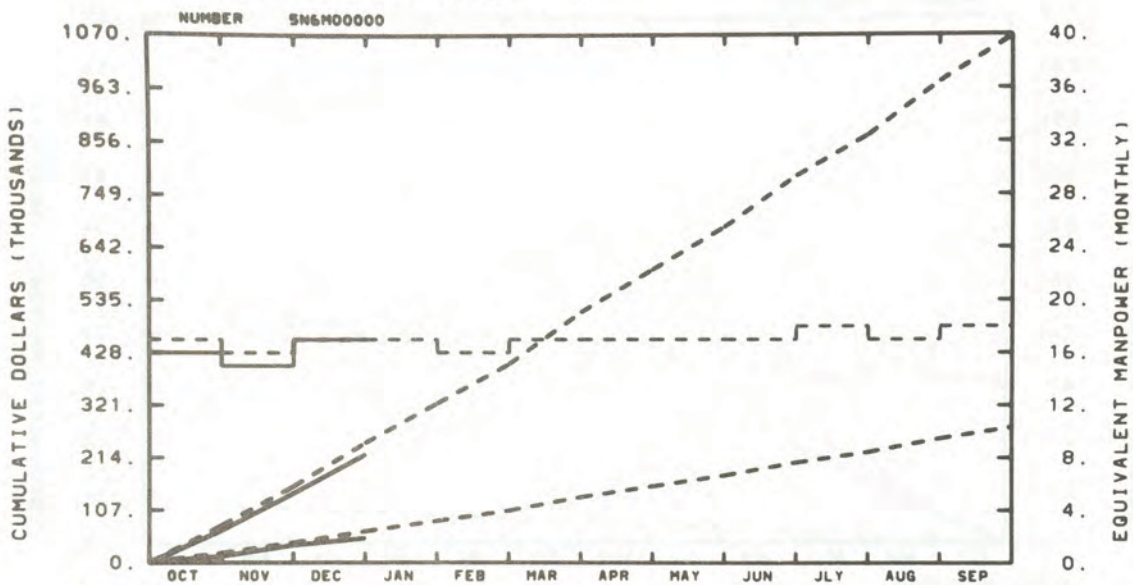
EG&G IDAHO INC.  
CORE & SAFETY SUPT-FUEL ENG & OP



Indicated overrun is due to two items: 1. labor overrun resulting from fabrication of LOFT fuel storage rack and 2. material charges billed from Hot Shop for October and November support.

CCB's in process to correct current work accomplishments.

EG&G IDAHO INC.  
COMMON SUPP - CDCS/TECH SUPT



TOTAL PROGRAM

BUDGET	76	156	244	324	404	510	596	683	786	868	976	1067
ACTUAL	66	141	220									

MATERIAL

BUDGET	20	41	64	85	106	134	156	178	204	225	253	276
ACTUAL	13	36	50									

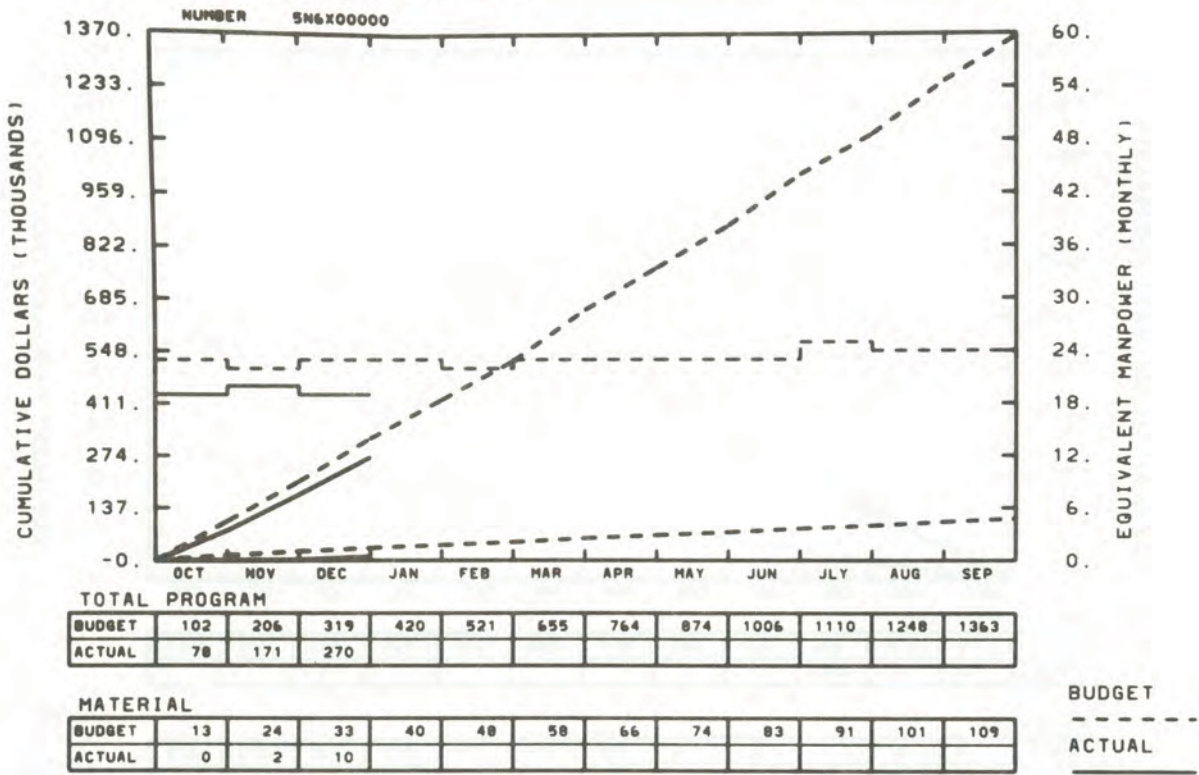
MANPOWER

BUDGET	17	16	17	17	16	17	17	17	17	18	17	18
ACTUAL	16	15	17									

BUDGET  
-----  
ACTUAL

No significant variance.

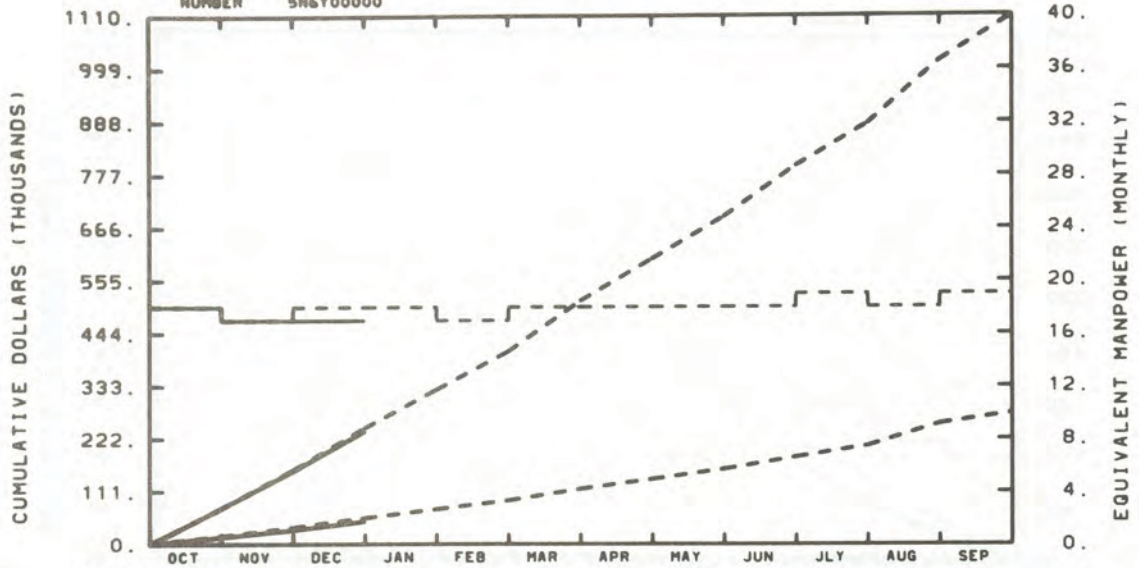
EG&G IDAHO INC.  
COMMON SUPPORT - QUALITY



No significant variance. Subcontract material costs under investigation for resolution.

EG&G IDAHO INC.  
COMMON SUPPORT - PLANS & BUDGETS

NUMBER 5H6Y00000



TOTAL PROGRAM

BUDGET	76	157	246	326	407	512	601	689	796	884	1015	1108
ACTUAL	76	154	239									

MATERIAL

BUDGET	17	36	56	74	92	116	137	158	183	207	254	276
ACTUAL	15	30	48									

MANPOWER

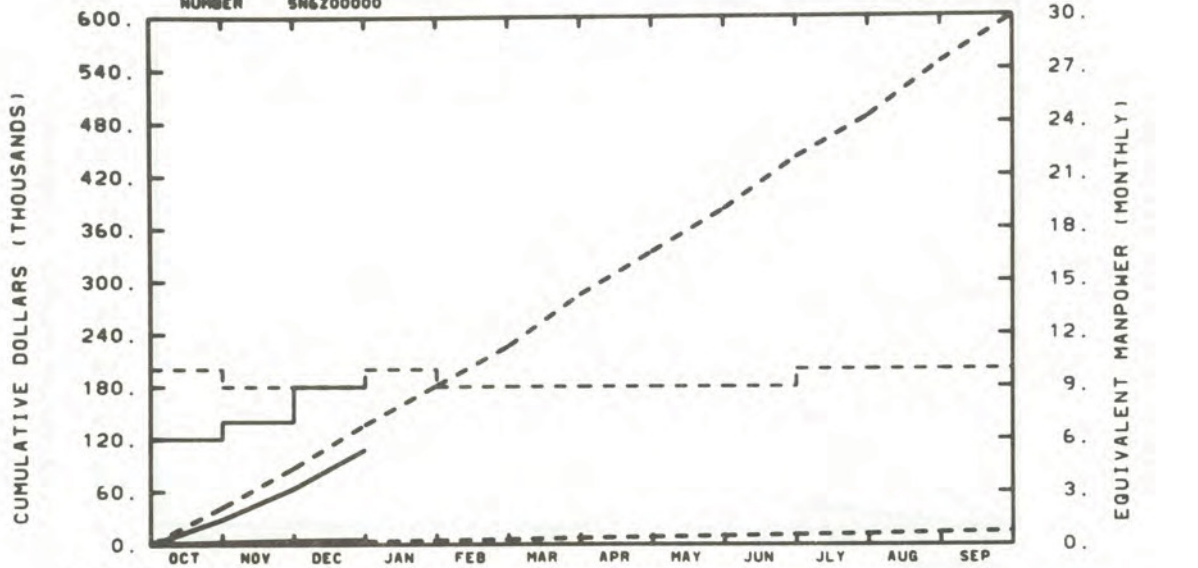
BUDGET	18	17	18	18	17	18	18	18	18	19	18	19
ACTUAL	18	17	17									

BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

No significant variance.

EG&G IDAHO INC.  
COMMON SUPPORT - SAFETY

NUMBER 5N6Z00000



TOTAL PROGRAM

BUDGET	42	87	137	181	226	285	334	382	441	487	548	599
ACTUAL	20	64	108									

MATERIAL

BUDGET	1	2	3	5	6	7	8	10	11	12	14	15
ACTUAL	3	4	6									

MANPOWER

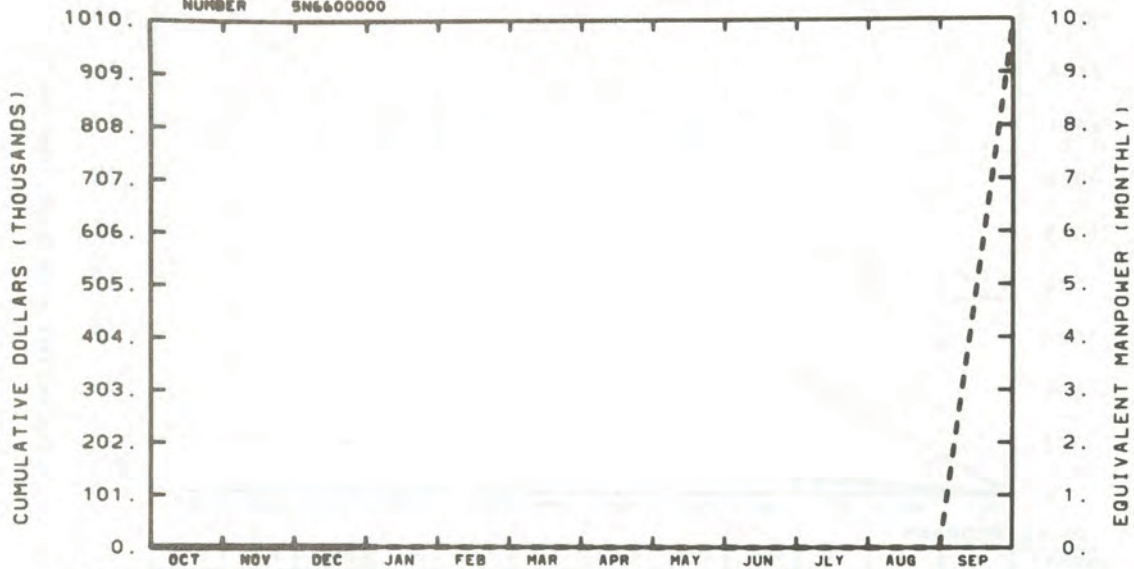
BUDGET	10	9	9	10	9	9	9	9	9	10	10	10
ACTUAL	6	7	9									

BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

Underrun due to manpower shortage for priority assignment to TMI.

EG&G IDAHO INC.  
DIVISION CONTROL

NUMBER 5N6600000



TOTAL PROGRAM

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0	1000
ACTUAL	0	0	0										

MATERIAL

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0	1000
ACTUAL	0	0	0										

MANPOWER

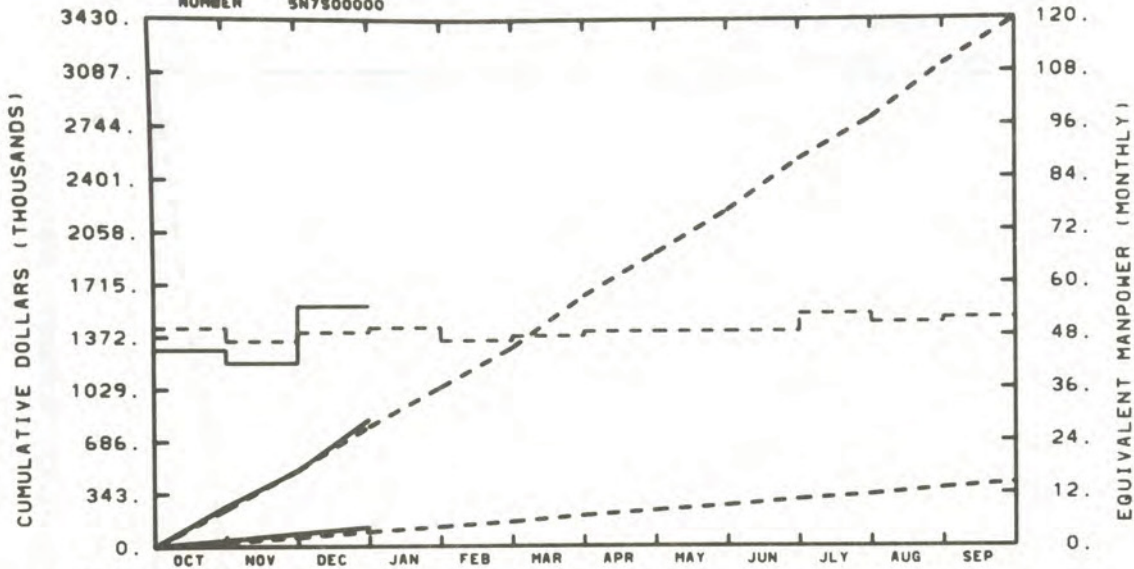
BUDGET	0	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0										

BUDGET - - - - -  
ACTUAL - - - - -

Management reserve.

EG&G IDAHO INC.  
LOFT OPERS BRANCH

NUMBER 5N7900000



TOTAL PROGRAM

BUDGET	243	499	783	1039	1295	1633	1911	2188	2521	2785	3132	3424
ACTUAL	265	496	831									

MATERIAL

BUDGET	29	61	95	126	157	198	231	264	303	334	375	409
ACTUAL	41	84	124									

MANPOWER

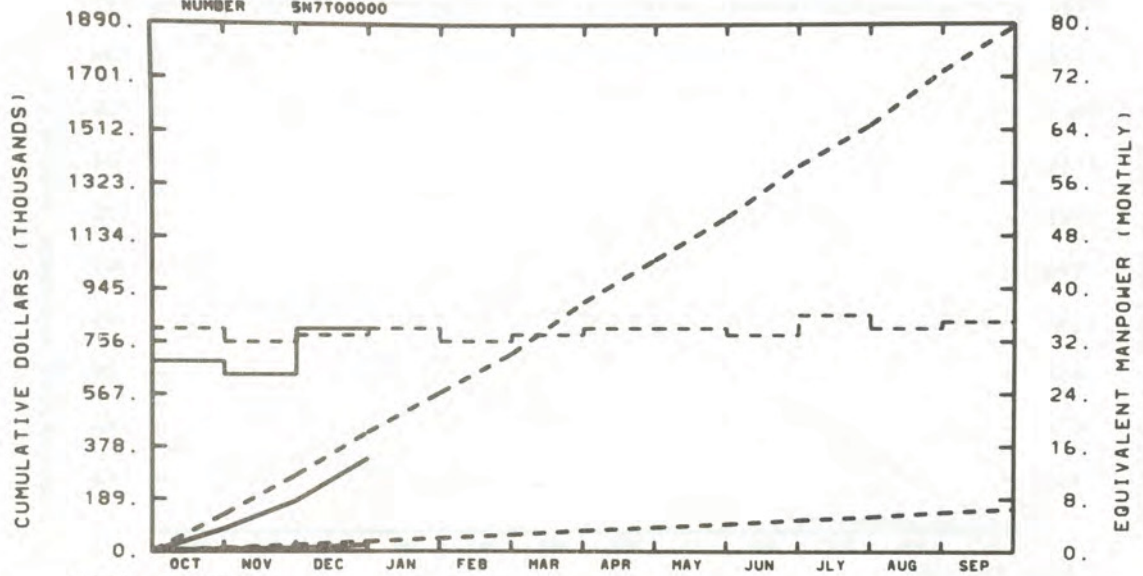
BUDGET	50	47	49	50	47	48	49	49	49	53	51	52
ACTUAL	45	42	55									

BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

No significant variance.

EG&G IDAHO INC.  
LOFT TEST & DATA

NUMBER 5N7T00000



TOTAL PROGRAM

BUDGET	133	274	430	571	711	897	1049	1202	1385	1530	1720	1881
ACTUAL	81	181	335									

MATERIAL

BUDGET	11	23	36	47	59	75	87	99	114	126	141	154
ACTUAL	9	11	24									

MANPOWER

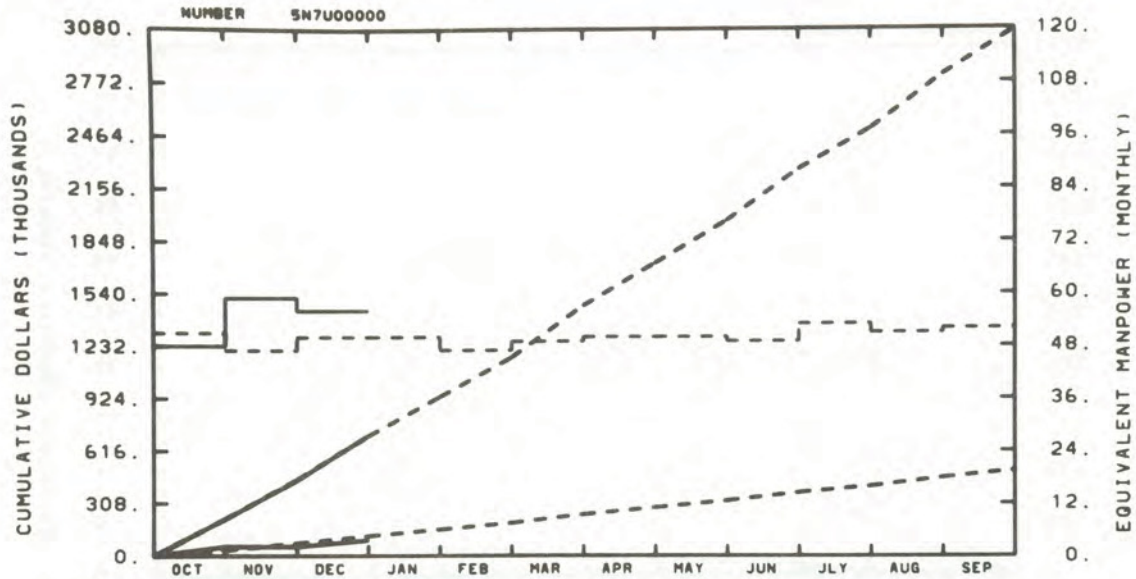
BUDGET	34	32	33	34	32	33	34	34	33	36	34	35
ACTUAL	29	27	34									

BUDGET

ACTUAL

Underrun still caused by manpower expectations not being fulfilled.

EG&G IDAHO INC.  
LOFT FACILITY SUPPORT



TOTAL PROGRAM

BUDGET	218	448	703	933	1163	1466	1715	1964	2263	2499	2810	3071
ACTUAL	218	443	705									

MATERIAL

BUDGET	36	74	116	154	192	242	282	322	370	408	458	500
ACTUAL	55	54	91									

MANPOWER

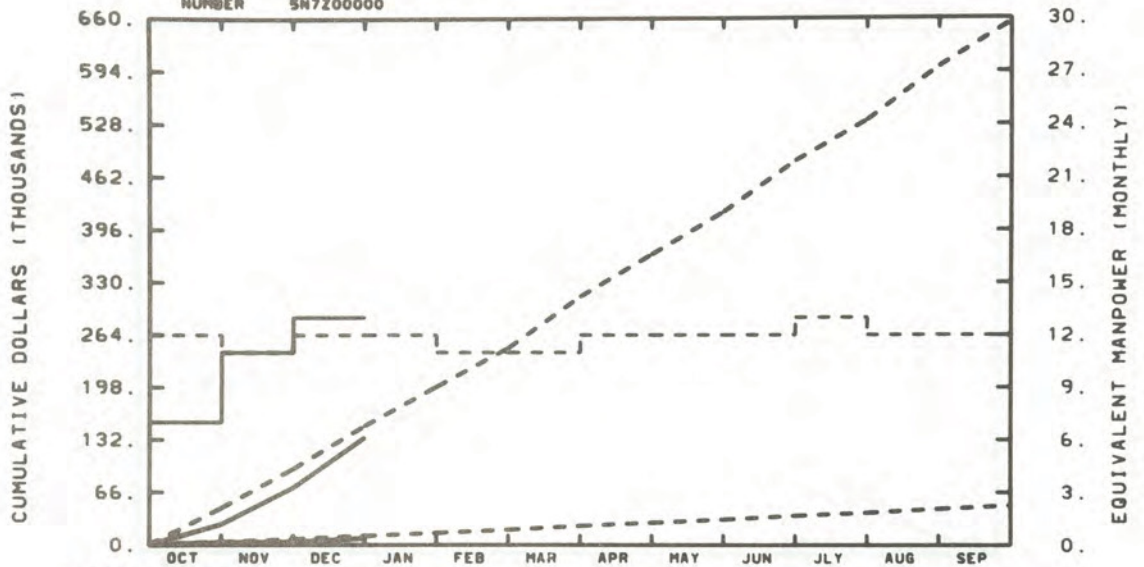
BUDGET	51	47	50	50	47	49	50	50	49	53	51	52
ACTUAL	48	59	56									

BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

No significant variance.

EG&G IDAHO INC.  
OUTSIDE SERVICE SUPPORT

NUMBER 5N7Z00000



TOTAL PROGRAM

BUDGET	46	95	150	199	248	312	365	419	482	533	600	655
ACTUAL	26	72	135									

MATERIAL

BUDGET	4	7	12	15	19	24	28	32	37	41	46	50
ACTUAL	3	4	8									

MANPOWER

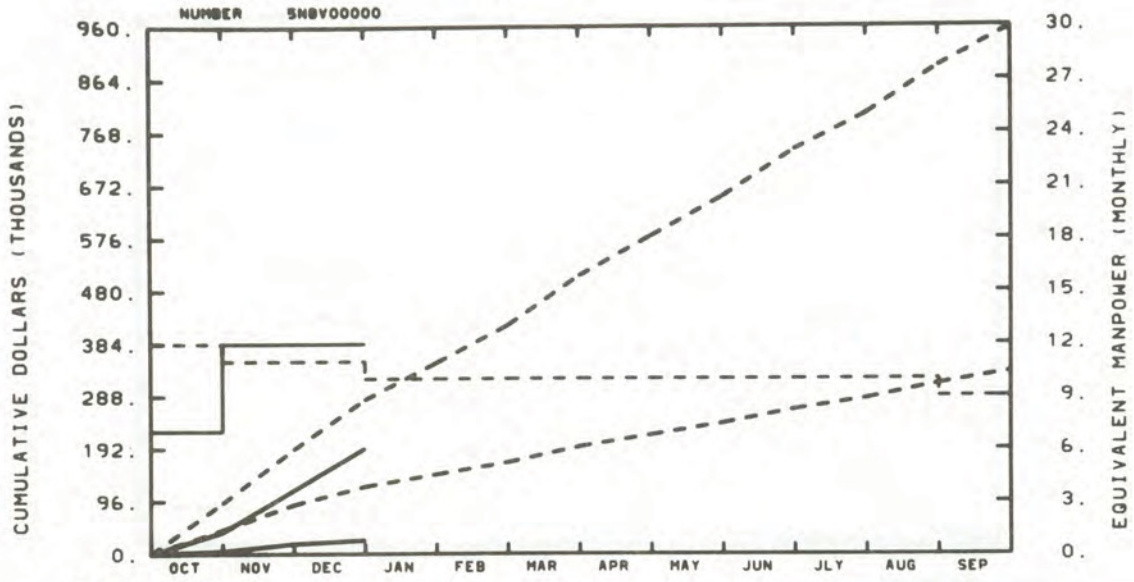
BUDGET	12	11	12	12	11	11	12	12	12	13	12	12
ACTUAL	7	11	13									

BUDGET

ACTUAL

Underrun is still the result of the October underrun.

EG&G IDAHO INC.  
AUGMENTED OPER CAPABILITY



TOTAL PROGRAM

BUDGET	93	191	282	349	417	508	580	652	737	802	887	956
ACTUAL	40	116	193									

MATERIAL

BUDGET	44	90	123	145	167	195	217	238	264	284	310	332
ACTUAL	5	19	25									

MANPOWER

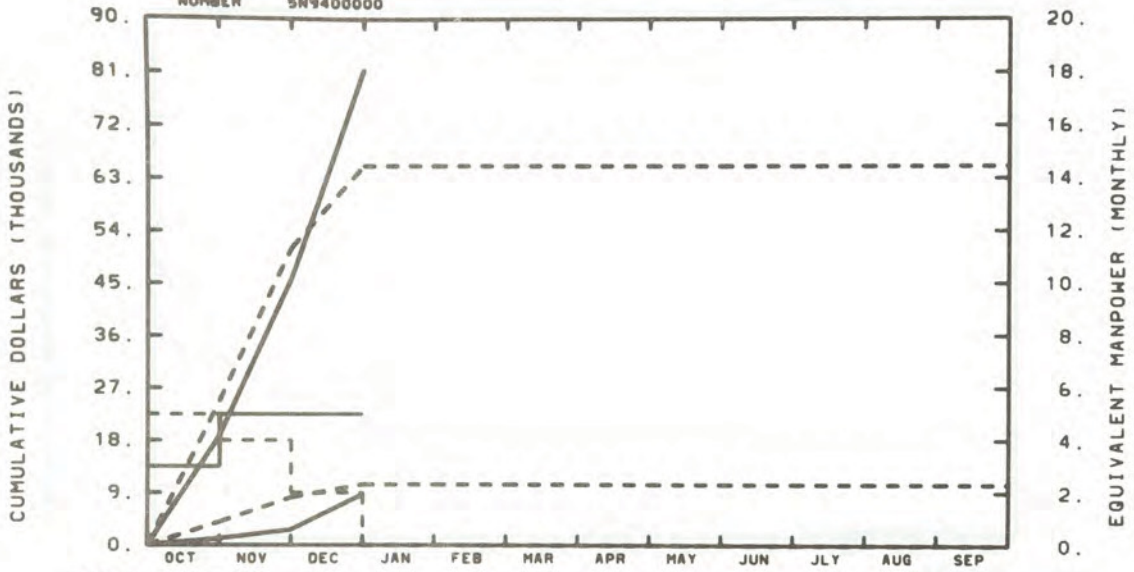
BUDGET	12	11	11	10	10	10	10	10	10	10	10	9
ACTUAL	7	12	12									

BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

Billing and payment for subcontract activities has been slower than anticipated.

EG&G IDAHO INC.  
CORE MELT MITIGATION

NUMBER 5N9400000



TOTAL PROGRAM

BUDGET	25	51	65	65	65	65	65	65	65	65	65	65
ACTUAL	19	46	81									

MATERIAL

BUDGET	4	8	10	10	10	10	10	10	10	10	10	10
ACTUAL	1	3	9									

MANPOWER

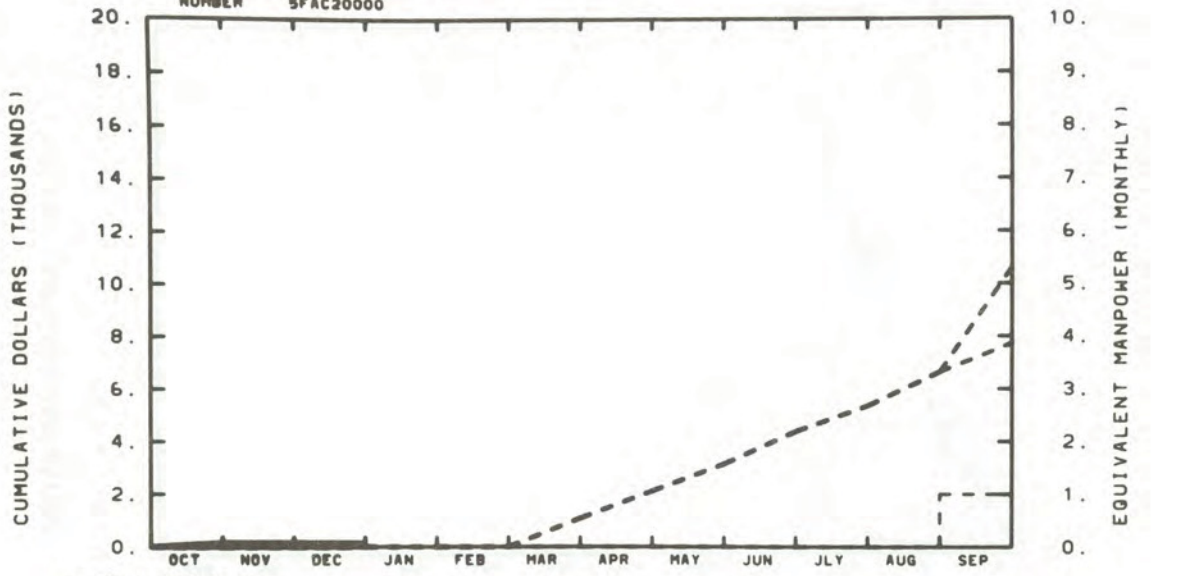
BUDGET	5	4	2	0	0	0	0	0	0	0	0	0
ACTUAL	3	5	5									

BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

The first phase of this task has been completed. All future funding and progress has been transferred to the Thermal Fuels Behavior Program, per CCB 81-23.

EG&G IDAHO INC.  
PROGRAM DEVELOPMENT & ANALYSIS

NUMBER 5FAC20000



TOTAL PROGRAM

BUDGET	0	0	0	0	0	1	2	3	4	5	7	11
ACTUAL	0	0	0									

MATERIAL

BUDGET	0	0	0	0	0	1	2	3	4	5	7	8
ACTUAL	0	0	0									

MANPOWER

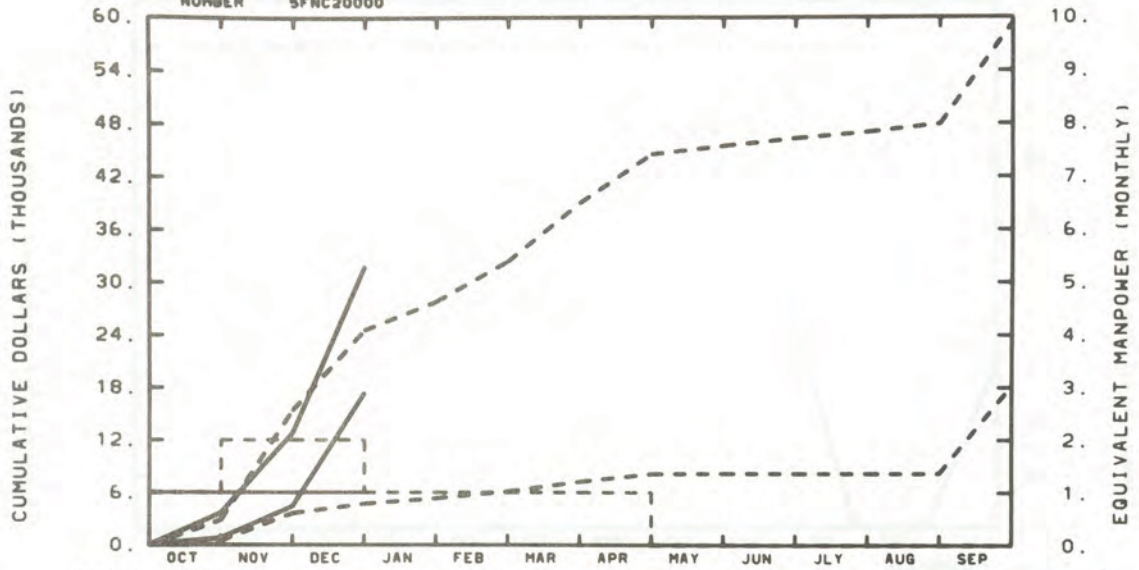
BUDGET	0	0	0	0	0	0	0	0	0	0	0	1
ACTUAL	0	0	0									

BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

No significant variance.

EG&G IDAHO INC.  
 PROG DEVELOPMENT & ANALYSIS

NUMBER 5FNC20000



TOTAL PROGRAM

BUDGET	3	15	25	28	32	39	45	45	46	47	48	59
ACTUAL	4	13	32									

MATERIAL

BUDGET	0	4	5	5	6	7	8	8	8	8	8	18
ACTUAL	1	4	17									

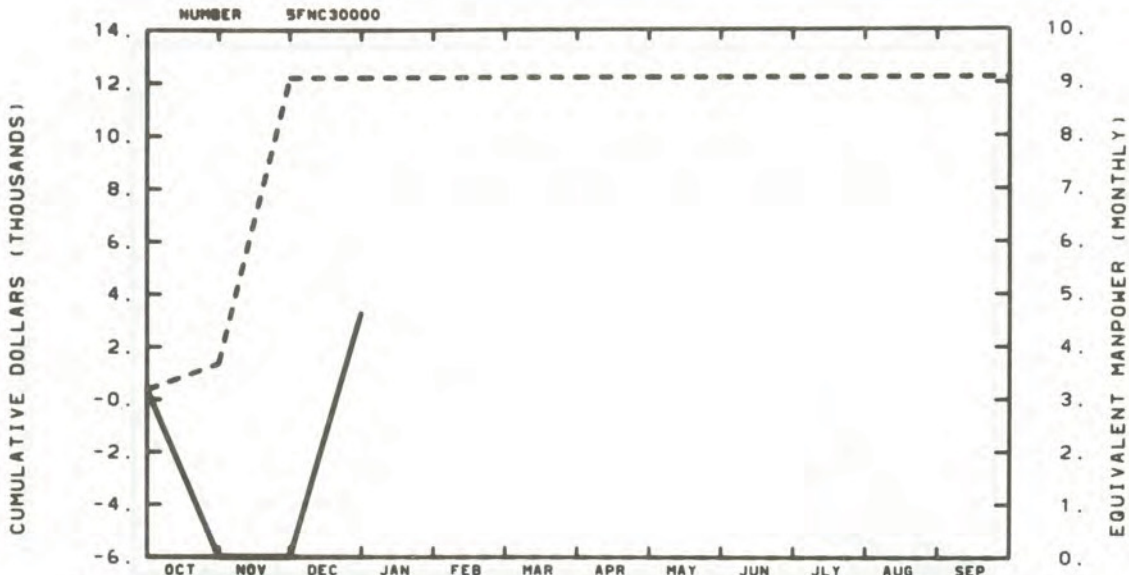
MANPOWER

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

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

Actual costs are shown \$10.7K too high because an accrual reversal is shown in the suspense ledger. A cost transfer is in progress to move it to the correct charge number.

EG&G IDAHO INC.  
 COMPONENT DEVELOPMENT



TOTAL PROGRAM

BUDGET	1	12	12	12	12	12	12	12	12	12	12	12
ACTUAL	-5	-5	3									

MATERIAL

BUDGET	1	12	12	12	12	12	12	12	12	12	12	12
ACTUAL	-5	-5	3									

MANPOWER

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

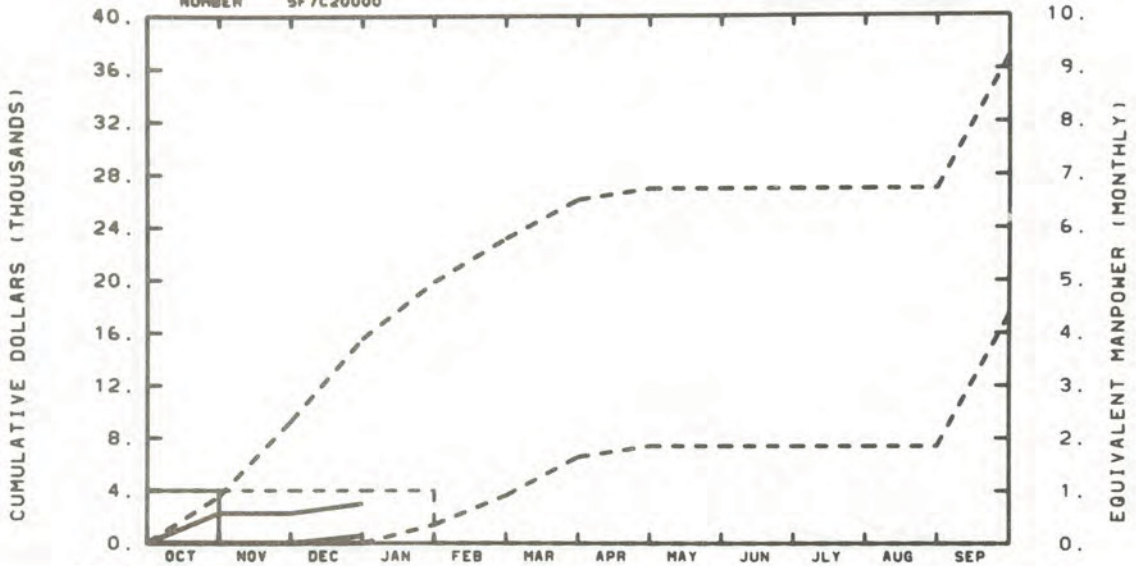
BUDGET

-----  
 ACTUAL

An overrun has occurred of approximately \$2K due to construction contractor charges for the two-phase loop platform and stairs at the LOFT Test Support Facility. The cost graph shows an underrun because \$10.7K in charges for the internal cladding thermocouple design by Exxon Nuclear has not yet been charged against this foreign fund account. Cost transfers to correct the Exxon Nuclear charges are in progress.

EG&G IDAHO INC.  
 PROG DEVELOPMENT & ANALYSIS

NUMBER SF7C20000



TOTAL PROGRAM

BUDGET	4	9	16	20	23	26	27	27	27	27	27	37
ACTUAL	2	2	3									

MATERIAL

BUDGET	0	0	0	1	4	7	7	7	7	7	7	17
ACTUAL	0	0	1									

MANPOWER

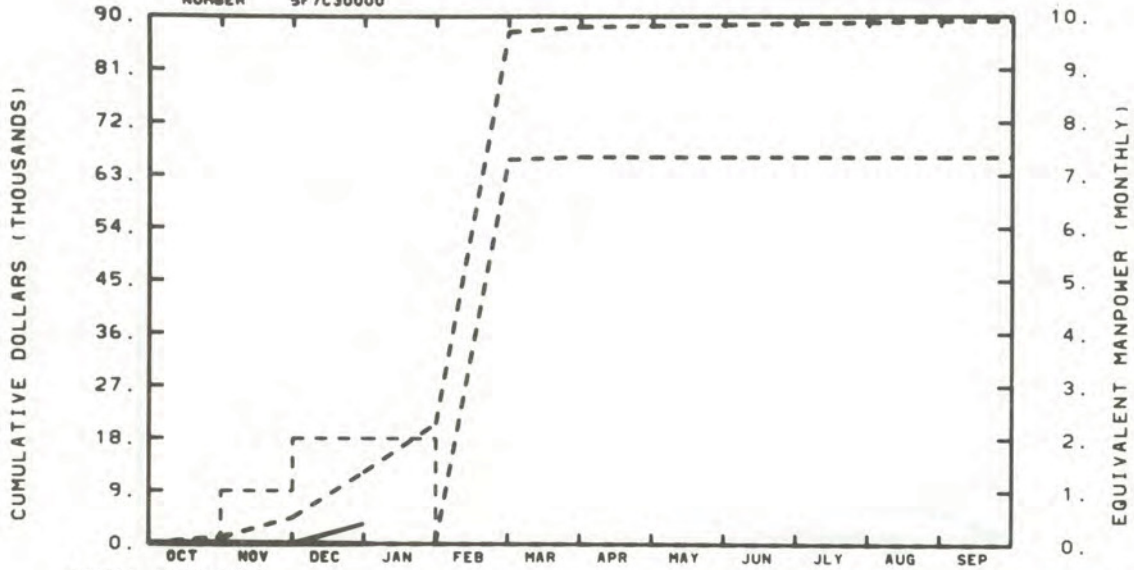
BUDGET	1	1	1	1	0	0	0	0	0	0	0	0
ACTUAL	1	0	0									

BUDGET  
 - - - -  
 ACTUAL  
 \_\_\_\_\_

The actual charges are underrun because of the following reasons. LOFT Related Programs Branch Management charges for German (FRG) Foreign fund administration have not been made because of the delay in the receipt of the German funds. Higher priority work has delayed start on the storage tank analysis task. The LOFT state vector task is being reevaluated.

EG&G IDAHO INC.  
 COMPONENT DEVELOPMENT

NUMBER SF7C30000



TOTAL PROGRAM

BUDGET	1	4	12	21	87	88	88	89	89	89	89	89
ACTUAL	0	0	3									

MATERIAL

BUDGET	0	0	0	0	66	66	66	66	66	66	66	66
ACTUAL	0	0	0									

MANPOWER

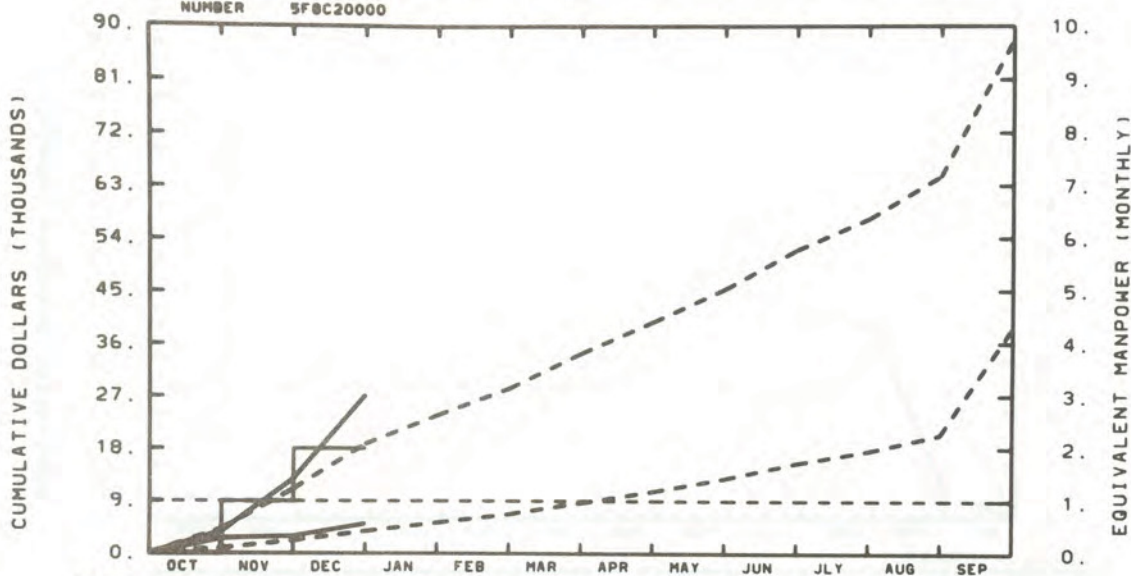
BUDGET	0	1	2	2	0	0	0	0	0	0	0	0
ACTUAL	0	0	0									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

Budget is underrun because the steam probe task is being reevaluated and no costs have occurred.

EG&G IDAHO INC.  
 PROG DEVELOPMENT & ANALYSIS

NUMBER 5F0C20000



TOTAL PROGRAM

BUDGET	4	11	19	24	28	34	40	45	52	57	65	88
ACTUAL	4	13	27									

MATERIAL

BUDGET	1	2	4	5	7	9	11	13	15	18	20	39
ACTUAL	3	3	5									

MANPOWER

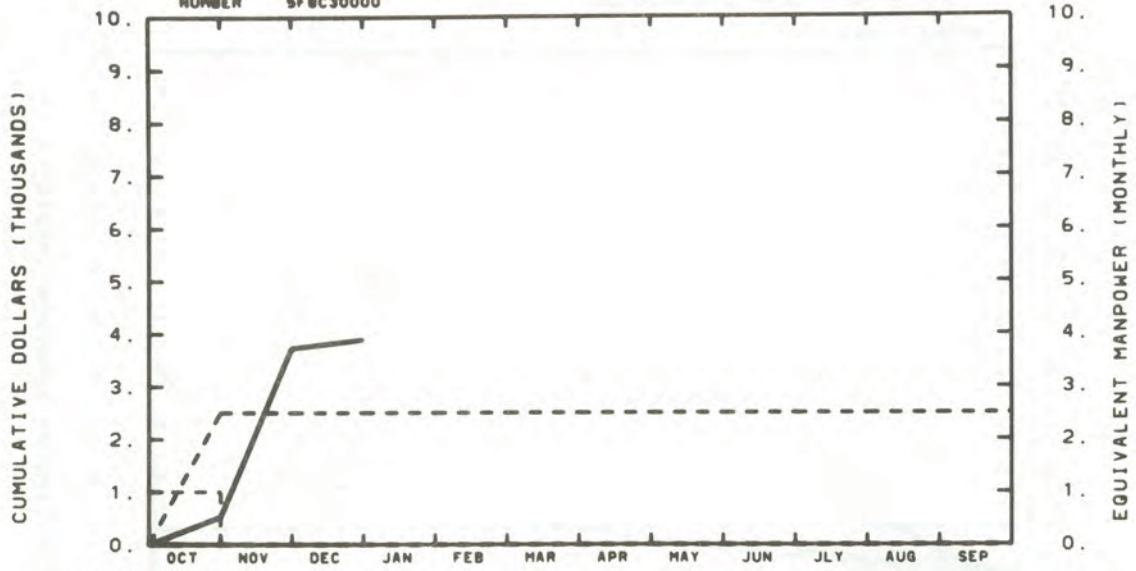
BUDGET	1	1	1	1	1	1	1	1	1	1	1	1
ACTUAL	0	1	2									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

Overrun is due to increased management charges to JAERI funds until the German funds became available. Now that German funds will soon be available appropriate adjustments in management charges will be made to compensate for the underrun.

EG&G IDAHO INC.  
 COMPONENT DEVELOPMENT

NUMBER SF0C30000



TOTAL PROGRAM

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

MATERIAL

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	1	4	4									

MANPOWER

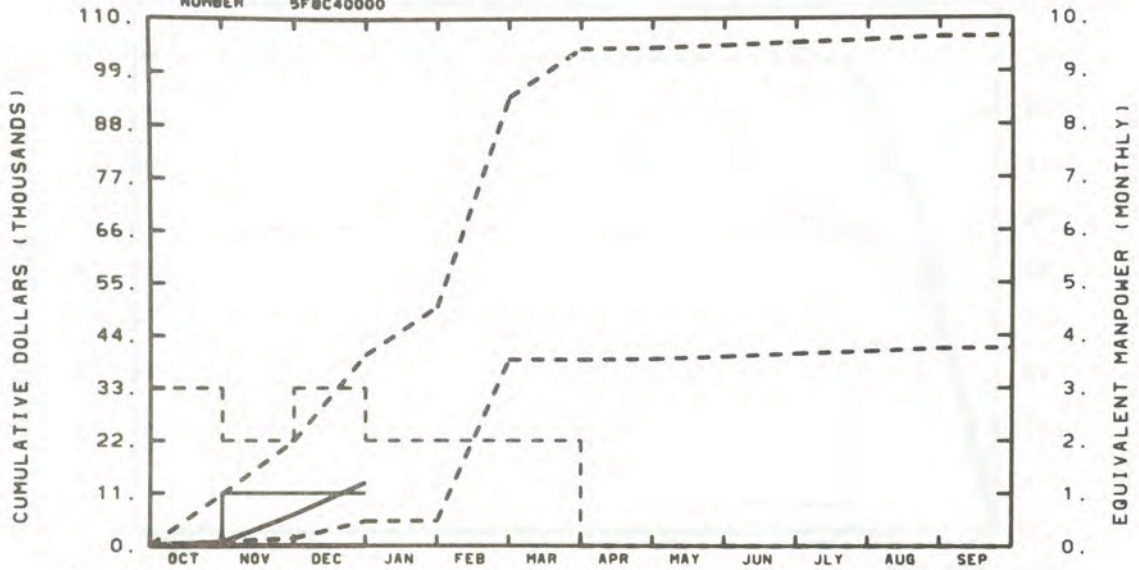
BUDGET	1	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

The overrun is high by \$2.2K because the offsetting accrual reversal is against a different number.

EG&G IDAHO INC.  
POST CHF HEAT RRANSFER

NUMBER 5F0C40000



TOTAL PROGRAM

BUDGET	11	22	40	50	94	104	104	104	105	105	106	106
ACTUAL	1	7	13									

MATERIAL

BUDGET	1	2	5	5	39	39	39	40	40	41	41	41
ACTUAL	0	0	0									

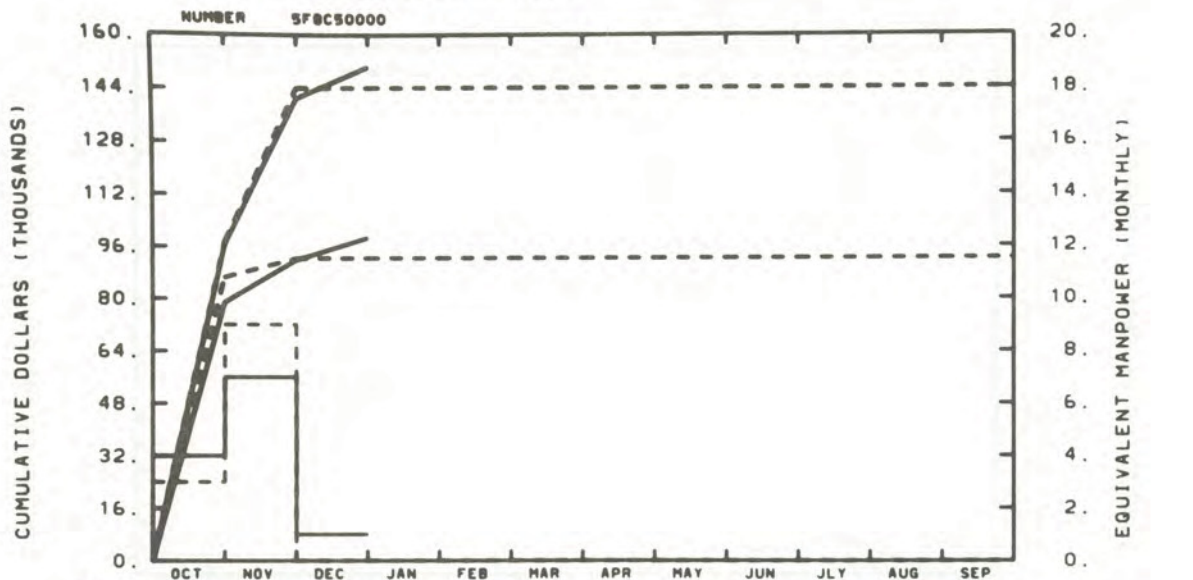
MANPOWER

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

BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

The budget is underrun because work schedules have been changed due to higher priority work. Adjustments to the budget will be made to more accurately reflect the current schedule.

EG&G IDAHO INC.  
SMALL BREAK INSTRUMENTATION



TOTAL PROGRAM

BUDGET	97	144	144	144	144	144	144	144	144	144	144	144
ACTUAL	96	141	150									

MATERIAL

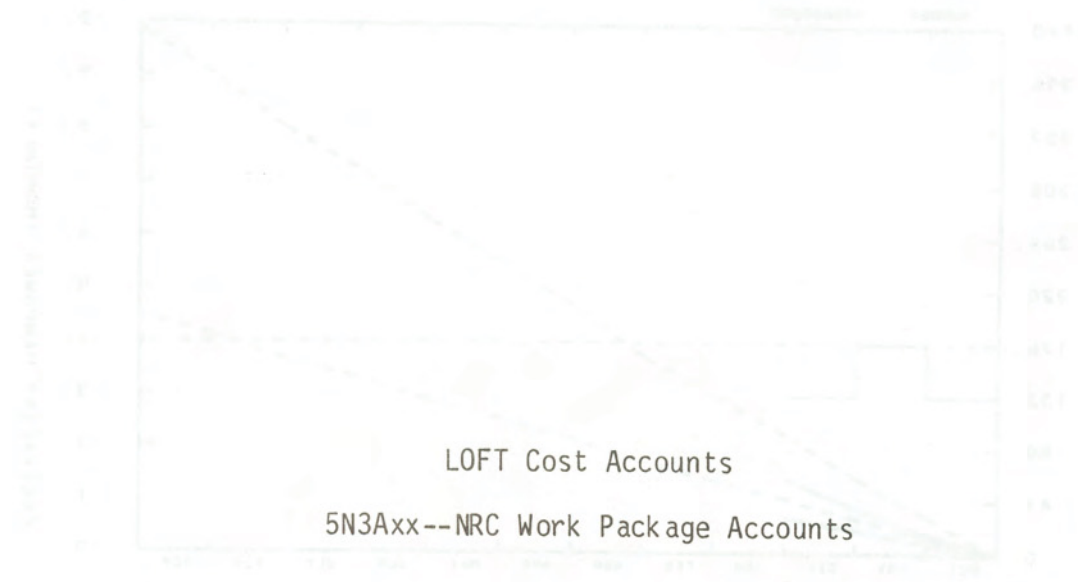
BUDGET	87	92	92	92	92	92	92	92	92	92	92	92
ACTUAL	79	92	98									

MANPOWER

BUDGET	3	9	0	0	0	0	0	0	0	0	0	0
ACTUAL	4	7	1									

This task has been completed. When all outstanding charges are received against this account, CCB action will be requested to transfer from contingency funds to cover the overrun.

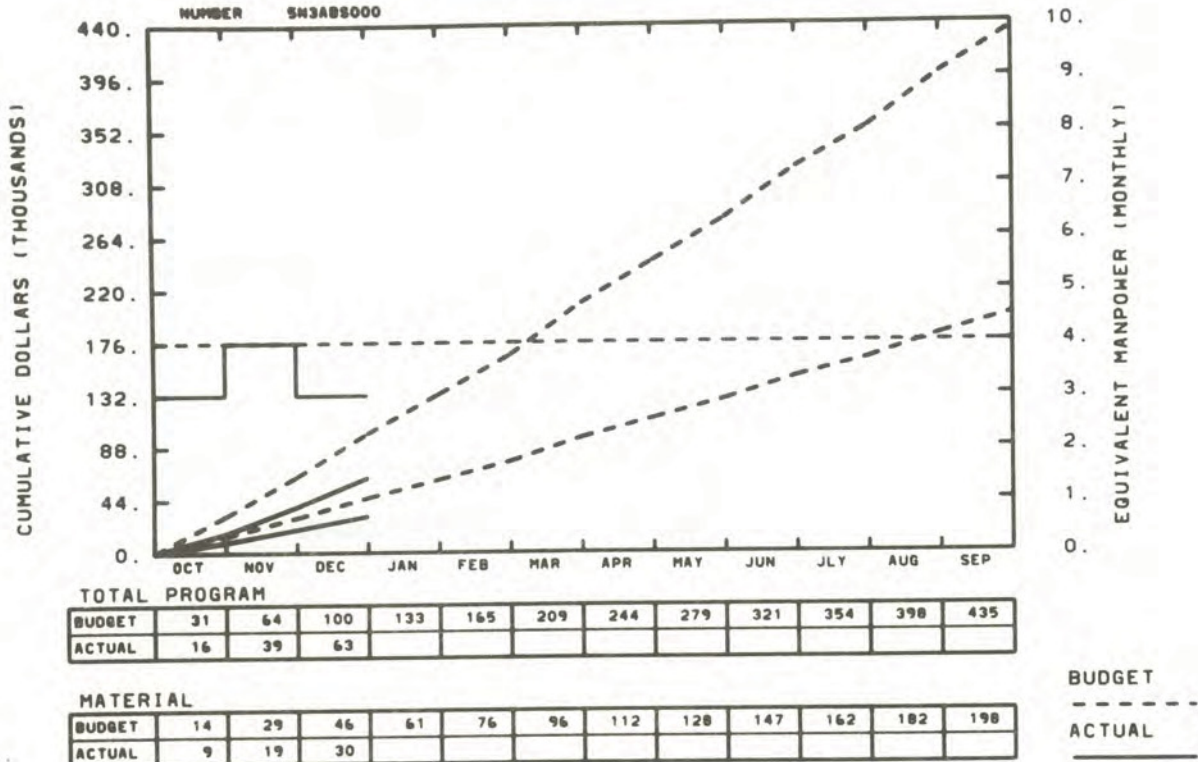
LOFT Cost Accounts  
5N3Axx--NRC Work Package Accounts



Year	LOFT Cost Accounts (Millions)	5N3Axx--NRC Work Package Accounts (Millions)
1974	100	25
1975	75	20
1976	50	15
1977	25	10
1978	0	0

LOFT Cost Accounts and 5N3Axx--NRC Work Package Accounts are shown in the graph above. The LOFT Cost Accounts are shown in solid lines and the 5N3Axx--NRC Work Package Accounts are shown in dashed lines. The LOFT Cost Accounts are shown in millions of dollars and the 5N3Axx--NRC Work Package Accounts are shown in millions of dollars.

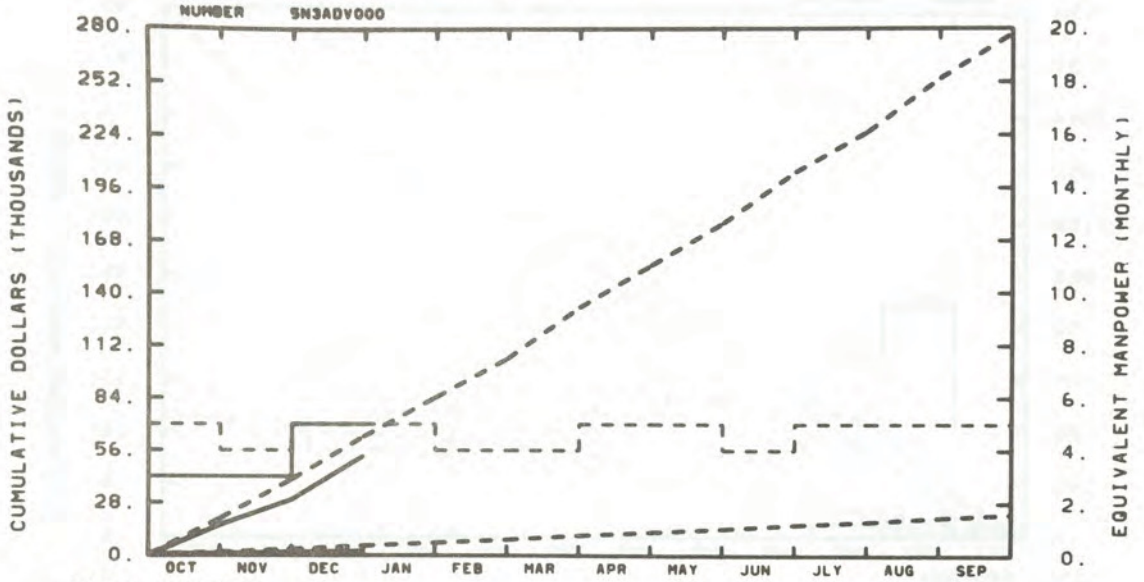
EG&G IDAHO INC.  
 EXP MEAS - BRANCH SUPPORT



Less funds are being spent for computer work than originally estimated; this is due to a manpower shortage which existed in the first part of the year and to cost savings implemented by the computer users.

EG&G IDAHO INC.  
EXP MEAS -DAVDS SUPPORT

TE



TOTAL PROGRAM

BUDGET	20	40	63	84	105	132	155	177	204	226	254	277
ACTUAL	16	30	53									

MATERIAL

BUDGET	2	3	5	7	9	11	13	14	16	18	20	22
ACTUAL	1	2	2									

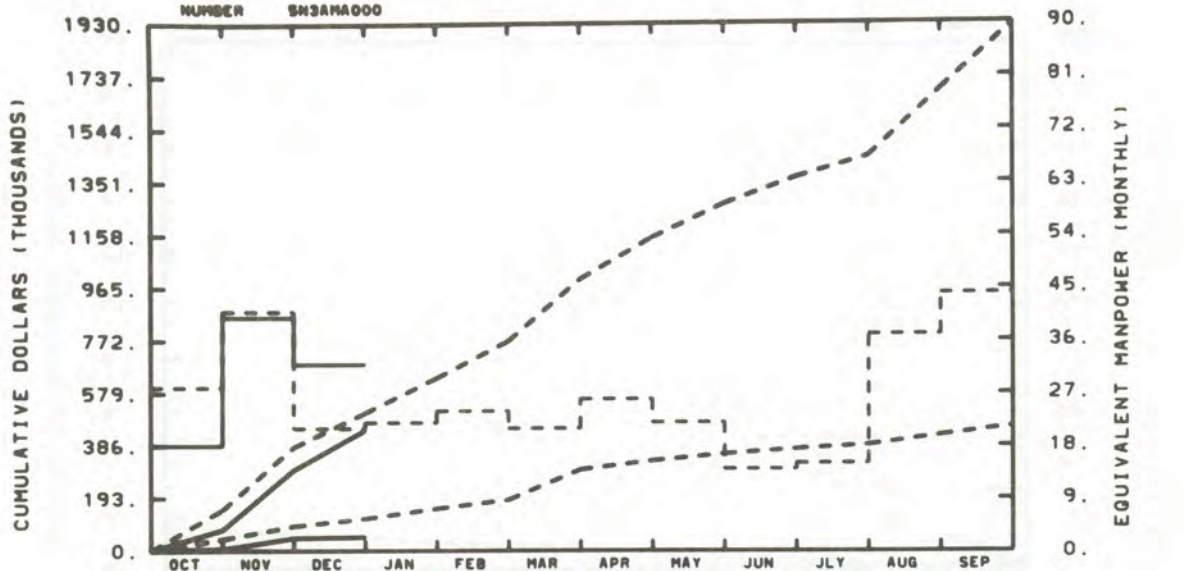
MANPOWER

BUDGET	5	4	5	5	4	4	5	5	4	5	5	5
ACTUAL	3	3	5									

BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

Manpower was assigned to another project, which resulted in slightly less being accomplished than originally planned. Spending is expected to pick up in January and will be within normal variance.

EG&G IDAHO INC.  
EXP MEAS -MEAS SYST A



TOTAL PROGRAM

BUDGET	151	382	507	636	770	997	1149	1271	1367	1443	1686	1922
ACTUAL	77	298	444									

MATERIAL

BUDGET	43	91	119	155	187	298	331	355	374	389	424	457
ACTUAL	7	47	51									

MANPOWER

BUDGET	28	41	21	22	24	21	26	22	14	15	37	44
ACTUAL	18	40	32									

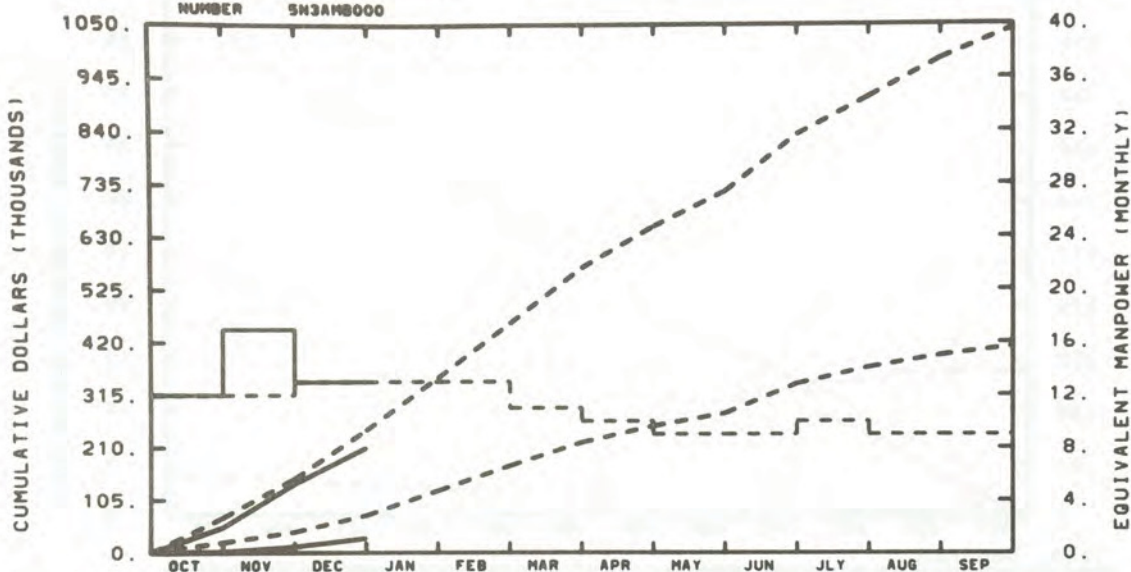
BUDGET  
-----  
ACTUAL  
\_\_\_\_\_

Delays in planning for the L9-1 test impacted our projects which had been established to support it. Also, some material items are arriving slower than originally expected.

A new baseline is being implemented which matches spending and present planning.

EG&G IDAHO INC.  
 EXP MEAS -MEAS SYST B

NUMBER 5N3AM8000



TOTAL PROGRAM												
BUDGET	70	148	245	349	457	568	650	720	832	906	982	1041
ACTUAL	51	137	210									

MATERIAL												
BUDGET	21	42	75	124	173	220	253	278	337	369	393	411
ACTUAL	2	12	29									

MANPOWER												
BUDGET	12	12	13	13	13	11	10	9	9	10	9	9
ACTUAL	12	17	13									

BUDGET  
 - - - - -  
 ACTUAL  
 \_\_\_\_\_

Account is underspent in materials. We had delays at Exxon in work supporting instrument design activities, and delays in production of LOFT embedded TC's. Both were caused by REBEKA and PBF-TC-4 work which had higher priority.

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

Project Description	Total Proposal Est. Inc. Contingency (\$K)	Total Spending Auth. by CCB (\$K)	Funds Spent to Date (\$K)	Expected Task Completion Date
<u>JAERI TASKS</u>				
5F8C11 Completed Tasks	820	820	820.0	Done
5F8C21 Management and Delegate Support	262	262	210.0	Sept. 81
5F8C22 Analysis and Evaluation	16	16	10.0	Sept. 81
5F8C31 Instrumentation	154	154	155.4	Dec. 80
5F8C32 Hardware Components	43	41	41.6	Dec. 80
5F8C41 Post-CHF Heat Transfer	200	177	76.9	Sept. 81
5F8C51 PC-3 and Small Break Instrumentation	692	660	666.4	Dec. 80
5F8C92 Two-phase Loop	782	782	783.1	Done
5F8C94 Boiler Building	18	18	0	Done
<u>FRG TASKS</u>				
5F7C11 Completed Tasks	2937	2937	2852.9	Done
5F7C21 Management and Delegate Support	249.3	249.3	235.9	Sept. 81
5F7C22 Analysis and Evaluation	58	58	44.0	Sept. 81
5F7C23 Task Development	10	10	3.6	Feb. 81
5F7C31 Instrumentation	120	111	25.2	Sept. 81
5F7C92 Two-phase Loop	1012	1012	1013.7	Done
5F7C94 Boiler Building	18	18	34.8a	Done

TABLE 2. (continued)

ECN TASKS	Project Description	Total Proposal Est. Inc. Contingency (\$K)	Total Spending Auth. by CCB (\$K)	Funds Spent to Date (\$K)	Expected Task Completion Date
5FNC11	Completed Tasks	91	91	91.6	Done
5FNC21	Management and Delegate Support	27	27	11.7	Sept. 81
5FNC22	Analysis and Evaluation	234	219	194.0	Sept. 81
5FNC31	Instrumentation	11	11	0	Dec. 80
5FNC32	Hardware Components	59	47	48.9	Dec. 80
FZS TASKS					
5FAC11	Completed Tasks	123	123	123.0	Done
5FAC21	Management and Delegate Support	24	24	13.5	Sept. 81
a. Half of these costs will be transferred to JAERI 5F8C94					

BUDGET STATUS REPORT

TABLE 3. LOFT FY-81 SUMMARY STATUS REPORT  
 NUCLEAR REGULATORY COMMISSION  
 (In Thousands of Dollars)

<u>WBS#</u>	<u>189 #</u>	<u>Q81-0-3</u>	<u>Approved CCBs<sup>a</sup></u>	<u>Current PMB # Q81-0-3</u>	<u>Current BAC</u>
5N1XX	A6048	4,769	0	4,769	4,769
5N2XX	A6053	3,590	0	3,590	3,590
5N3XX	A6043	4,612	0	4,612	4,612
5N4XX	A6107	8,063	0	8,063	8,063
5N5XX	A6122	4,703	0	4,703	4,703
5N6XX	A6110	4,137	0	4,137	4,137
5N7XX	A6054	9,031	0	9,031	9,031
5N8XX	A6108	963	<6> <sup>b</sup>	956	956
5NPXX	A6308	553	0	553	553
5N9XX	A6351	<u>65</u>	<u>0</u>	<u>65</u>	<u>65</u>
5NXXX		40,494	<6>	40,487	40,487
	Supplementary programs				2,836
	NRC management reserves				<u>1,000</u>
	Total NRC funding (FY-81)				44,323

a. The Change Control Board did not meet in December.

b. Rate change.

TABLE 4. LOFT FUNDING SUMMARY FOR FY-81  
(In Thousands of Dollars)

Funds	Current FIN Plan #3	Current Budget File (Q81-0-3)
LOFT Foreign Funds	651	667 <sup>a</sup>
Total	651	667
NRC Operating Funds	43,856	41,487
Electric Heat Rod Evaluation		278
LTSF		1,694
Advanced Instrumentation		751
TC-3 Tests		113
Total		44,323
Total LOFT Funding	44,507	44,990 <sup>b</sup>

a. In process of adjustment.

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

