EG&G Idaho, Inc.

Report No: LO-MR-007

Date: June 1980

INTERNAL TECHNICAL REPORT

Title: LOFT MONTHLY PROGRESS REPORT
FOR MAY 1980

Organization: LOFT PROGRAM

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LOFT MONTHLY PROGRESS REPORT FOR MAY 1980

DIRECTOR'S MONTHLY SUMMARY

On May 29, 1980, the fifth in a series of nuclear experiments was conducted. The experiment, designated L6-5, simulated events which would follow a loss-of-feedwater to all of the steam generators of a large commercial nuclear powered reactor system. Initial results from the experiment indicate that all significant events occurred as expected. Analysis of experimental results is continuing.

In addition to conducting Test L6-5, preparations continued for the next small-break test, L3-7. Currently, efforts for that test are ahead of schedule and targeted for 6/19/80. This test is designed to investigate natural circulation modes and their stability. Of particular interest is two-phase cooling modes with water levels significantly reduced.

Costs to date are in good agreement with current budgets and authorized funding levels. However, overall actual expenditures are overstated due to an accrual problem of $250,000, an electrical facility overcharge of approximately $125,000, and a cost transfer of $57,000 related to the two-phase flow loop task. Corrections for this overstatement have been filed.

ACCOMPLISHMENTS

LOFT TECHNICAL SUPPORT DIVISION

1. The L6-5 experiment was conducted May 29, 1980.

2. Technical Specifications and Experiment Safety Analysis (ESA) for the L3-7 experiment were submitted to the Department of Energy - Idaho Operations Office (DOE-ID) for approval.

3. The ESA and the appropriate technical specifications for L6-5 were approved by DOE-ID.

4. Work was initiated on failure mode effects and consequence analysis (FMECA) for the conduct of experiments which will incorporate experience from post-Three Mile Island (TMI), Licensing Information Service (LIS), and industry.

5. The damage criteria for the conduct of the L6-5 experiment were approved by DOE-ID and were incorporated in the appropriate technical specification.

6. A loss-of-coolant accident (LOCA) analysis was completed using current reflood analysis models and techniques for removing the reflood assist bypass valves (RABVs). Results of current analyses do not warrant modifying the existing 10-inch valves in the system at this time. Documentation of the results has begun.

7. An initial assessment was made of additional blowdown model capabilities to analyze successfully future small-break experiments.

8. A summary of significant risk and safety issues associated with the conduct of the L6-5 and L3-7 experiments was prepared and issued for management's information.

9. In response to the TMI Short-Term Lessons Learned, the task of reviewing whether additional changes to the technical specifications were required to initiate plant shutdown in the event of the loss of a safety function was completed. This in-depth evaluation concluded that the current technical specifications are adequate and need no additional changes.

10. The following technical specifications were submitted to DOE-ID for approval:

    A. DRR-3847, which clarified fracture toughness curves relative to conducting primary coolant system hydrostatic tests

    B. DRR-3849, which provides a temporary waiver for operating the loss-of-fluid test (LOFT) reactor with one high-pressure injection system (HPIS) pump operable.

11. A system is being established to track LOFT Technical Support Division's (LTSD's) response to the Nuclear Regulatory Commission's (NRC's) safety issues as established in information items and enforcement letters.

12. Design requirements were developed for the predicted curie concentration, filtration, and pump for the isotope detection system (IDS).

13. Analyses were completed and required documentation for ESA was issued for experiments L6-1, L6-2, and L6-5.

14. The first rewritten draft of the LOFT zero power physics testing document, Detailed Operating Procedure (DOP) 01-005 was completed. This rewritten DOP is much more streamlined than the old version and relies heavily on computerized data acquisition.

15. Zero power physics requalification was completed for the LOFT core following loss-of-coolant experiment (LOCE) L3-2. In comparison with the baseline, the requalification parameters have changed no more than expected through normal power operation. It has been recommended that the LOFT core be requalified for further testing.

16. The feasibility of constructing a neutron shield below the existing LOFT shield tank was analyzed. This shield would help protect neutron-sensitive measuring devices such as the pulse neutron activation (PNA) system and the gamma densitometer. The shield would also serve as a possible replacement for the existing neutron biological shield.

17. A data compression program has begun on the LOFT process computer [(plant log and surveillance system (PLSS)]. The program compresses recorded data prior to transferring the data from disk to magnetic tape storage. This allows continuous data recording by reducing tape usage by a factor of 25.

18. A plotting program has been added to the PLSS computer. The plotting program quickly produces time-history plots of any recorded instrument channel. Plots can be made of past data or can be built up in real-time by current data. The plots were used successfully during the L6-5 experiment.

19. Some improvements have been completed in the paged data display of the process computer. The selection of data on pages has been reorganized, and brief measurement descriptions are being added to the pages.

20. The Physics Division conducted a meeting with LOFT personnel to discuss its proposal for building the computerized portion of the LOFT IDS.

21. Delivery of the stack monitor has been delayed until mid-June to permit modification of the software so the stack flowrate can be used to make calculations automatically.

22. In-place testing was completed for the silver zeolite filters in heating and ventilating (HV) systems 8 and 9. Results from all three filters were satisfactory.

23. A modification was completed to supply nitrogen to outside HV valve actuators to prevent potential freezing of condensed water in the actuation line.

24. The break-flow-measuring, drag-disc turbine spool piece for the L3-4 experiment was finished.

25. Modification to the primary coolant system hot leg to allow installation of the vertical sweepolet was completed. This modification provides improved flow measurements during small-break testing. Because of the large scope of this modification, the following were included:.

    A. Removal of the existing emergency core cooling hot leg injection line.

    B. Stress analysis of the piping modification, which led to removal of two existing supports and installation of four new rigid supports.

    C. ASME Section III hydrostatic test.

26. The fluid drive control valves on both pumps of the high pressure injection system (HPIS) were replaced with new valves, and the operational checkout was satisfactorily completed. These control valves are vital to plant operation because they control the speed of the HPIS pumps.

27. The level-indicating systems of the steam generator were modified to correct errors between the narrow- and wide-range systems. This modification was satisfactorily tested and it responded as designed during operational transient L6-5. Improving the agreement between the two level systems increases the accuracy of the steam generator liquid inventory, and leads to more accurate test results.

28. Work was initiated to purchase a new 14-x 14-x 10-inch block tee for the blowdown system. This component must be monitored closely in plant cycle counting because it has a low limit on the maximum number of allowed cycles.

29. A sightglass was installed on emergency core cooling system accumulator A to improve data during accumulator blowdown testing.

30. RV-211, one of the purification system relief valves, was reworked to reduce seat leakage.

31. All system readiness reviews to support performance of the L6-5 and L3-7 experiments were completed.

32. The electrical wiring and circuitry has been installed for control valves CV-P139-57 and -58, which will be used in the small-break test.

33. The Site Work Release (SWR) was completed to replace 13.8 kV lightning arrestors in A and B buses and test all 13.8 kV cables and switchgear from the Test Area North (TAN) substation to and through LOFT.

34. "As-built" drawing documentation for installation of the new air compressor was completed.

35. Connectors in the fuel assembly A and B junction boxes were modified to allow access to tungsten-rhenium thermocouples.

36. The output capability o. the vital batteries was investigated to determine if replacement or modifications are necessary. A Gould representative inspected and supervised the tests of vital batteries A and B. No immediate action is required.

37. The "as-built" drawings for the primary system motor generator (PSMG) air-handling systems were completed. The new PSMG air-handling system will ensure that ambient temperature will be maintained between 70 and 80 F in PSMG Room B-239.

38. The conceptual design report on expansion of the LOFT emergency power system was completed. The report concludes that an additional generator is necessary to provide reliability and flexibility for the LOFT test program.

39. The necessary circuit cables have been provided for the new steam generator dome pressure transducer (PE-SGS-1).

40. Instrumentation checkout for evaluating time-response characteristics of resistance temperature device (RTD) transducers used in LOFT plant protection system (PPS) circuits was completed.

41. Reliability analysis of the secondary system feedwater reactor shutdown interlock has been completed and submitted for approval.

42. The HPIS-A and HPIS-B pump speed control valves were replaced by new type control valves. This has significantly increased the pump speed control capabilities.

43. The full-page printer of the facility temperature monitor (FTM) has been completed. A malfunctioning microprocessor had delayed final checkout. The microprocessor was replaced, and the system checkout was completed.

44. Redundant water level transducer si ls from the steam generator were wired into the data acquisition and visual display system (DAVDS). These signals will provide backup for the LT-P4-8A and -8B level transducers.

45. Buffered signals for Tl-P138-170 and -171 were wired to the DAVDS. These temperature indicators and transmitters provide temperature information for the hot and cold blowdown legs.

46. Control valves CV-P4-186 and -187 were installed in the reference fill legs of LT-P4-8A, -8AA, -8B, and -8BB to provide separate fill paths for the steam generator level transmitters.

47. The meterological recorder was modified to eliminate trace smearing.

48. A task has begun to update LOFT instrumentation drawings in the principal plant systems. Existing drawings are primarily construction drawings, often requiring several documents to gain end-to-end information on any instrumentation system. The new drawings will provide end-to-end circuit information, generally on a single drawing, and will permit following a system function schematically on a single drawing.

49. New drawings are being developed on the new computer-aided design (CAD) drafting system which will save more time than conventional drafting techniques. The quality of the drawings and the system's flexibility are excellent.

50. Wiring drawings (containing conduit lists, cable lists, cable trays, and sleeve lists) have been updated.

51. The conceptual design specification for a LOCE control system has been completed. The new control system will replace the present LOCE control panel and will control the experiment during LOCE and transient tests.

52. The final design has been completed on the power-operated relief valve (PORV) flow monitoring system. The flow measurement will be made using an acoustical flow detector system.

53. Two continuous air monitors (CAMs) have been fabricated and will be installed at the north and south air intake stations for HV System 10. These CAMs will provide redundant radioactivity air sampling for HV System 10 which provides breathing air to Building TAN-630 during periods of isolation. Readouts of all four CAMs will be provided in the HP office.

54. Design of a replacement containment differential pressure monitoring system has been initiated. The present system does not provide acceptable accuracy or resolution. The new system will provide an accuracy of ±.05 percent and readout to 0.03 psi.

55. A new displacement transducer has been procured for evaluation to replace valve position limit switches that do not meet accuracy requirements or have excessive failure rates. The transducer will be placed on valve CV-P139-47 for evaluation purposes. This valve is in the primary coolant pump circuit and has a small valve stem movement whose status (open or closed) is hard to monitor.

56. An SWR has been issued to the INEL Radio and Alarm Shop to provide signals from the Halon systems in Rooms 218 and 219 to the INEL American District Telegraph (ADT) alarm system.

57. Twelve of the 14 inservice inspection (ISI) sections have been compiled into the computer program for the ISI status report; the remaining two sections are currently being compiled. The initial computerization effort for the ISI status report is scheduled to be completed in July 1980.

58. Checkout of fuel examination equipment required for Phase III was completed. Deficiencies identified during training on the channel-spacing probe have been corrected. Equipment setup in the TAN Hot Shop is scheduled for June 1980.

59. Design has been completed on the fuel module installation and removal cask (FMIRC) coolant-boron charging system; fabrication will start in July 1980.

LOFT OPERATIONS DIVISION

1. A hydrostatic test of the primary coolant system was successfully conducted following the modification of the sweepolet at the PC-2 location.

2. Inservice inspection (ISI) and surveillance testing were completed as required for the conduct of the first operational transient test (L6-5).

3. The L6-5 operational transient test was successfully completed two days ahead of schedule.

LOFT MEASUREMENTS DIVISION

1. The experiment operating specification (EOS) for the L6 experiment series was issued after receiving DOE-ID approval for L6-5 only.

2. The EOS for the L3-7 experiment was approved by DOE-ID and was issued by LOFT Configuration Document Control and Services (CDCS).

3. The modification program has been completed for the modular drag-disc turbine transducer (MDTT). All drawings, assembly, and test procedures have been revised and released.

4. The PC-2 instruments (MDTT) for the L3-7 experiment received Quality Division (QD) release. They were assembled into the rake and delivered to LTSF for further testing. Sufficient tests were performed to ensure there were no manufacturing defects.

5. Fabrication of the MDTT rake handling fixture has been resumed and should be complete in about six weeks.

6. Work continued on a short- and long-term design effort to correct problems of turbine bearing survivability. A design review was completed on the short-term design that uses most of the existing turbine parts but is expected to have a limited lifetime. Preliminary work on the long-term design was begun, with the goal of providing a bearing with a considerably extended lifetime.

7. A final draft was completed for the LOFT Technical Report (LTR) on the failure analysis of liquid level transducers (LLTs).

8. The data obtained from an accumulator blowdown was analyzed and found to be excellent in quality compared with previous transit time flowmeter (TTF) data. This still does not preclude the fact that once saturation temperature occurs within the region of the TTF, the thermocouple sensor efficiency drops off sharply.

9. Failed gamma densitometer detector components [photomultiplier tubes (PMTs) or preamps] were replaced. Functioning detectors are in place at all PC-1, PC-2, and BL-1 locations. Functioning units are also installed at BL-2A and BL-2B.

10. For the PC-3 nuclear-hardened gamma densitometer, large-motion scratch gauges were installed on the sliding support plate of the steam generator. Data from the gauges, taken during the L6-5 experiment will provide information on the relative motion between the pipe and the sliding plate on which the densitometer will be mounted.

11. The final draft of the operation and maintenance manual for the pump speed measurement (OMM-141-26) was routed for review comments.

12. Qualification testing of Gould pressure transducers was completed. Transducers data in all ranges were good, and with some modifications, these transducers will be acceptable for use in LOFT.

13. The following new pressure transducer installations were checked out and were found to be operating properly:

A. PdE-SV-1, Suppression tank differential pressure level transducer.

B. PDE-BL-13, Steam generator simulator differential pressure level transducer.

C. PDE-BL-14, Steam generator simulator differential pressure level transducer.

D. Pe-SGS-1, Steam generator secondary side absolute pressure transducer.

14. The engineering design file (EDF) for the ECC Pitot tube rakes was compiled. The completed EDF was submitted to LOFT CDCS.

15. A change of scope was made within the fuel rod instrumentation task to delete 30 centerline thermocouples and add 23 pellet-clad gap thermocouples. These added thermocouples will aid in evaluating the core heat transfer without perturbing the hydraulics of the rod.

16. Eleven of 13 W/Re tubes used for building fuel rod centerline thermocouples were accepted by Kaman Sciences. Two were rejected for excessive wall thinning.

17. Eddy current testing of the zircaloy-4 tubing material was completed. Reporting of this technique and the test results has started.

18. Four new neutron generators for the pulsed neutron activation (PNA) system have been received from Sandia. These units were installed and satisfactorily passed the checkout procedure. The downstream detector is functioning properly, as are the associated electronics; hence, the PNA system is in a "go" mode. During the L6-5 experiment, the PNA system will be activated to establish baselines, signal-to-noise ratio, and the effectiveness of the modified shielding. This information will be useful in conducting the L3-7 experiment.

19. Conceptual designs were completed for the new type PNA generators. The new generators are 13 inches in diameter, 26 inches long, weigh 120 pounds, and are temperature limited to 100 F.

20. Eighty-five titanium-sheathed thermocouples have been obtained from reworked Control Product and Semco thermocouples. Of these, 46 have been shipped to Exxon, while the remainder will be shipped shortly. This will be a sufficient supply for the F1 fuel bundle plus adequate spares.

21. All of the zircaloy tubing has been eddy current tested and categorized. It appears that about 40% have defects presently defined as unacceptable (defects greater than 22% of wall thickness).

22. Information has been gathered and sent to LOFT CDCS for the zircaloy TC Engineering Design File.

23. The design and drawings for the small-break thermocouple support have been completed. The thermocouples to be used in the LTSF testing have been completed, and the thermocouples to be used in LOFT will be completed in early June.

24. A feasibility study of the application of commercial, ultrasonic, flow-measurement technique to LOFT small-break tests was completed. A minimum of one year of development work would probably be needed if ultrasonic technique application is required.

25. A preliminary evaluation was completed of Auburn International Model 1080 void-fraction-measurement instrument which can measure steam-water 0-100% void fraction under high temperature pressure conditions. Potential application of this instrument is under investigation, and more detail evaluation will be made if application exists. The technical advantages are as follows:

    A. No additional pressure drop.

    B. Almost instantaneous response, good for measurement of a transient.

    C. Moderate cost: about $20,000 per spool piece.

    D. Velocity independent; can be used for a wide range of LOFT tests.

26. The change control board (CCB) for secondary cooling system temperature measurement system, at condenser inlet and condensate receiver has been approved. The project is in progress.

27. The downstream spool piece, with drag screen and turbine installed, was delivered to LOFT Test Support Facility for blowdown testing and two-phase calibration. The spool piece will ultimately be used in conducting LOFT small-break tests.

28. An analysis was performed on the steam generator secondary side liquid level measurement. This investigation led to a procedure revision to obtain more accurate level measurements.

29. The experiment data report (EDR) uncertainty statements for the L6-5 experiment were reviewed and corrected as required.

30. Final revisions to the LTR comparing 3-beam and 6-beam densitometers were completed. This report is being distributed.

31. The first draft of the pitot tube performance LTR was completed.

32. The Measurement Capabilities List (MCL) for experiments L6-5 and L3-7 has been published and distributed.

33. Pre-LOCE cold and hot pressure and frequency tests have been reduced on the 4052 computer. These data are also available as Appendices A, C, and D of LTR 141-63.

34. Pump coastdown, pump speed, and temperature tests have been reduced on the CYBER-176.

35. A proposal for development of automated data integrity techniques was prepared and renewed.

36. The pretest text for the L6-5 experiment data report was completed.

37. A computer program was completed and calculations were made for determining liquid distribution in the LOFT system during a LOCE.

38. A computer program was developed to perform an energy balance on the steam generator.

39. The Advanced Instrumentation Branch of the Water Reactor Research Division (WRRD), prepared a sample of an 0.027-inch diameter, zircaloy-sheathed thermocouple that was flattened to 0.010-inch thickness and embedded in small section (patch) of fuel-rod cladding. The purpose was to demonstrate the potential feasibility of imbedding a small-diameter thermocouple within the LOFT fuel-rod cladding.

40. The LOFT center fuel module was featured on the cover of the May issue of Nuclear News and was accompanied by a short article explaining the results of examinations of this module. The results were furnished by LOFT.

41. A proposal was prepared to conduct additional tests in the blowdown facility for evaluating the behavior of surface thermocouples continuously welded to the cladding surface. It is believed that making the thermocouples a more integral part of the cladding will reduce the apparent: (a) preferential measurement of coolant temperature during reflooding events, and (b) thermocouple enhancement of fuel rod cooling.

42. A letter report summarizing the status of thin-film thermocouples for possible use in LOFT core measurement was prepared. The report concluded that a large development program would be required and that no further consideration would be given to this concept.

43. The LOFT Fuel Requalification Review Group concurred that the installed fuel was qualified for performance of the L6-5 experiment. This concurrence was transmitted to LOFT Operations.

LOFT PROGRAM DIVISION

1. A paper, "Modeling a Nuclear Reactor for Experimental Purposes," was presented by V. T. Berta at the American Engineering Model Society Seminar held May 5-8 in Pittsburgh.

2. A seminar on separation of two-phase flow in a tee was presented to the Program Division. The purpose of the seminar was to identify the correlation developed for two-phase separation and to elicit comments from the staff prior to completing a paper on the subject. A draft of the paper was used in the seminar.

3. A formal report, "Large Break Transient Calculations in a Commercial PWR and LOFT Prototypicality Assessment," EGG-LOFT-5093, was written by Lambert Winters of Netherlands and printed and released on April 11, 1980.

4. Errors were discovered in the Energy Inc. RETRAN experimental predictions for the first three anticipated transient tests. These errors required new runs to be made for the L6-5 experimental prediction. The runs were completed, and a simplified experimental prediction document was issued prior to the test.

5. Additional models were included in RELAP5 to allow countercurrent flow in the horizontal pipes. This will allow RELAP5 to calculate the reflux natural circulation which is expected to occur during the L3-7 experiment.

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

   A. The funding of office costs of the authorized JAERI delegate was approved.

   B. PMS IV adjustments were made to correct minor errors in the system.

   C. The annual JAERI contribution was received at the Idaho National Engineering Laboratory (INEL) at the end of May, and will be entered into PMS IV in early June. Program cost graphs do not yet reflect planned expenditures, and efforts continue to improve these graphs.

   D. A LOFT Program information meeting was held for all foreign delegates.

2. Task 5F8C4 -- Advanced DTT

   The components needed for testing the pressure-balanced drag turbine have been identified and located. Requests have been forwarded to cognizant organizations to have the subject equipment sent to the LOFT Test Support Facility (LTSF) in preparation for transient testing in late FY-80 or early FY-81 in the blowdown facility.

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

   The final report review comments were incorporated, and another draft was issued for technical review.

4. Task 5F8C6 -- Reevaluation of LOFT Experiments

The report on the reevaluation of the L1 experiment series is being prepared for distribution.

5. Task 5F8C7 -- Miscellaneous Code Studies

This task was inactive during May.

6. Task 5F8C8 -- LTSF Suppression Tank

All of the temperature and pressure instruments were installed on the catch tank. A steady-state fill and emptying were performed to compare the measurement of the load cells with the reference turbine meter. The load cells agreed with the turbine within 10 lbm out of 12,000 lbm.

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

The downstream spool piece, with the drag screen and turbine installed, was delivered to the LTSF for blowdown testing and two-phase calibration.

SUMMARY OF GERMAN-FUNDED (FRG) TASKS

1. Task 5F7C1 -- FRG Management

A. Various discussions were held concerning the FRG participation in LOFT, and one work package was prepared.

B. Funding adjustments were approved for one task and were prepared for a second task.

C. A LOFT Program information meeting was held for all foreign delegates.

2. Task 5F7C4 -- Miscellaneous Tasks

Review of the Wyle transient test data for the LOFT emergency core cooling (ECC) pitot tube rake was discussed with Dr. S. Bannerjee. A design package for the rake was prepared to support the modeling efforts.

3. Task 5F7C5 -- Steam Probe

This task remained inactive during May.

4. Task 5F7C8 -- LOFT State Vector

During May, an effort was made to obtain background material for this task.

5. Task 5F7CA -- Small-Break Instrumentation

The FRG-funded portion of this task is completed. The total cost will be set at $206,000. JAERI funds are being used to support phase two (5F8CA) of this task, and technical information is presented under Task 5F8CA.

SUMMARY OF JAERI/FRG SHARED TASKS

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

Except for the preparation of "as-built" drawings, which are 25% complete, all work on this task has been completed.

2. Task 5F9C3 -- TRAC Code Studies

An additional $66,000 was transferred from reserves to pay for the cost overruns on this task. The final task report is in management review.

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

A. This is not a newly approved task but is a part of Task 5F9C2. It has been identified separately to clarify progress monitoring.

B. The construction package for the two-phase loop boiler building is in final review prior to its release.

SUMMARY OF NETHERLANDS-FUNDED (ECN) TASKS

1. Task 5FNC1 -- ECN Management

A. A new $22,000 task proposal on Wyle test mass-flow analysis was prepared.

B. Program monitoring continued during May, and efforts continue to improve the comparisons between the budget and the actual cost.

C. A LOFT Program information meeting was held for all foreign delegates.

2. Task 5FNC3 -- RPI Subcontract

Analysis of two-phase flow through orifices continued under the direction of Dr. R. Gay at Rensselaer Polytechnic Institute (RPI). Development of techniques for using orifices to measure two-phase mass flow, and comparison with experimental data were continued.

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

A review of the LOFT drag turbine transducer (DTT) modeling effort at RPI was discussed with Mr. P. Kamath. His analysis using Wyle data has been completed, and a report is being prepared.

4. Task 5FNC6 -- Analysis of PNA Techniques

Monte Carlo calculation results have shown an improvement in the pipe fluid transverse activity for two or more neutron sources, compared to one source. However, the axial dispersion from these sources remains essentially the same, despite the number of sources. If it is desirable to tag only a limited axial region, then the sources may have to be placed farther from the pipe and collimate the neutrons. This increases the cost of the experiment because the intensity will be reduced from the distant source and more sources may be needed.

5. Task 5FNC7 -- Critical Flow Scaling Studies

This task was inactive in May. Efforts will begin in mid-June.

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

The design for the two-phase loop platform and stairs was completed and has been approved. Material is being procured.

SUMMARY OF AUSTRIAN-FUNDED (SGAE) TASKS

1. Task 5FAC1 -- SGAE Management

A. Efforts continue to develop new, in-kind work proposals for performance at Vienna. Two of the existing tasks were cancelled because they were no longer valuable to the LOFT Program.

B. A LOFT information meeting was held for all foreign delegates.

2. SGAE In-Kind Support to LOFT

A. The RELAP4 scaling study was cancelled, but a new task may be negotiated when SGAE has adequately resolved current difficulties associated with running RELAP4/MOD6.

B. Approval was obtained to continue the literature survey on optical probe material. A final task report was requested by June 30, 1980.

C. The LOFT downcomer void pattern task was cancelled because the task was not beneficial to the program.

D. SGAE was requested to prepare new work proposals for in-kind support.

SUMMARY OF SWITZERLAND IN-KIND (EIR) SUPPORT

1. NEPTUN Reflood Test Program

A. LOFT has received the thermocouple (TC) material and is preparing to fabricate finished TCs for installation in the NEPTUN facility.

B. EIR has provided comments on the NEPTUN test program developed within LOFT.

FOREIGN COOPERATIVE SUPPORT TO LOFT

Various 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

A. FEBA and REBEKA full-length electric heater rods are being used in this LTSF test. Laser welding of LOFT TCs onto one REBEKA rod has been completed.

B. The heater vessel has been installed in the blowdown loop.

2. REBEKA Thermocouple Tests

Two TC tests were conducted before May 19, and computer data on the tests were to be evaluated before proceeding. Additional tests were expected in late May.

3. COSIMA Thermocouple Tests

Results of the tests of the COSIMA heater with and without LOFT-type external thermocouples were discussed with the COSIMA staff at KfK. The tests of this heater rod were conducted in January and February. Because the results were unexpected, extensive testing of additional COSIMA rods has been carried out at KfK. Analysis of these tests is continuing, but is appears that KfK has demonstrated repeatability of results from rod to rod for rods that are similarly fabricated and tested, and a consistent variation of measured temperatures has been shown as repeated tests are made with the same rod.

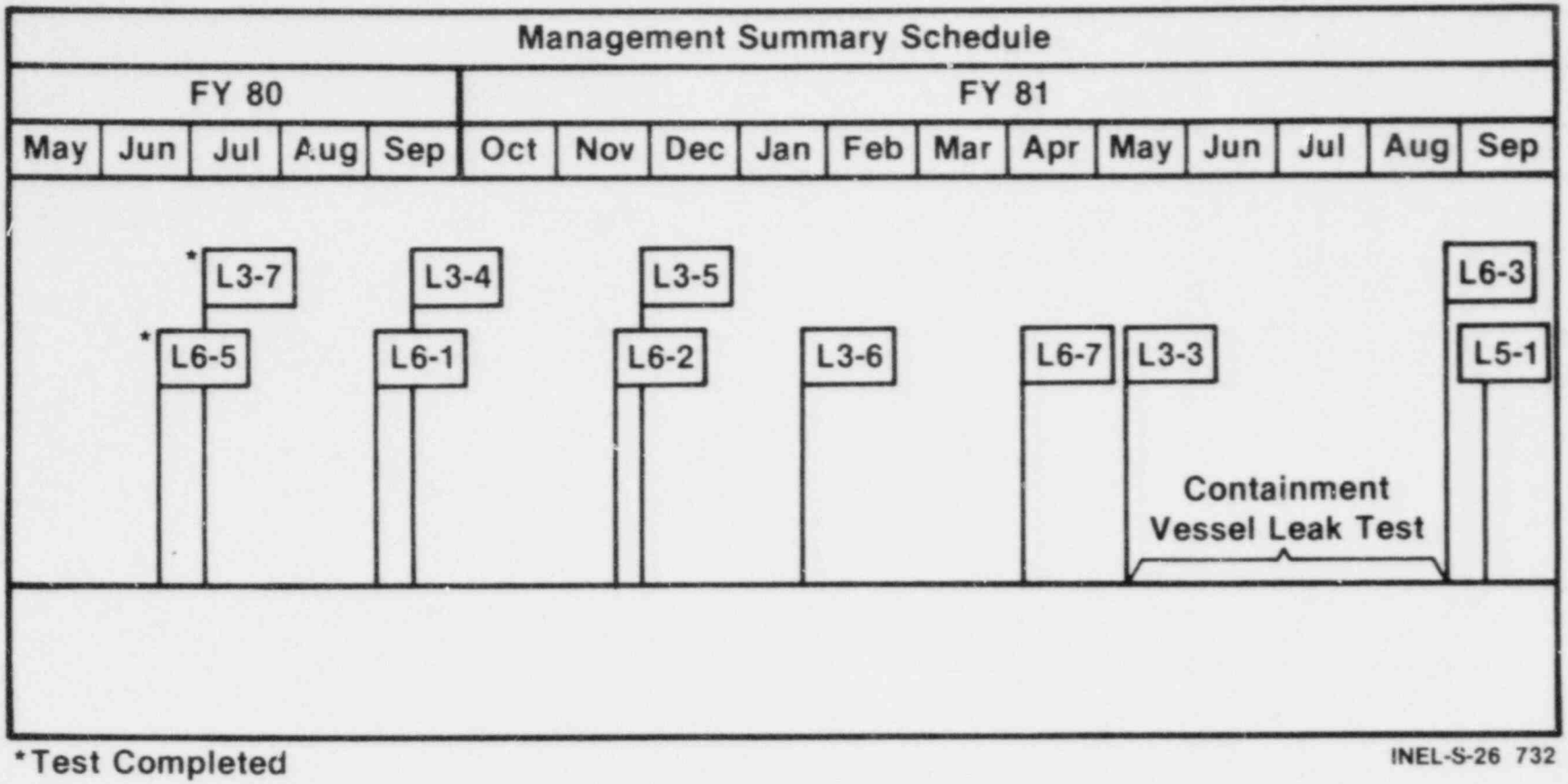

Figure 1. Management Summary Schedule.

LOFT Overall Funding

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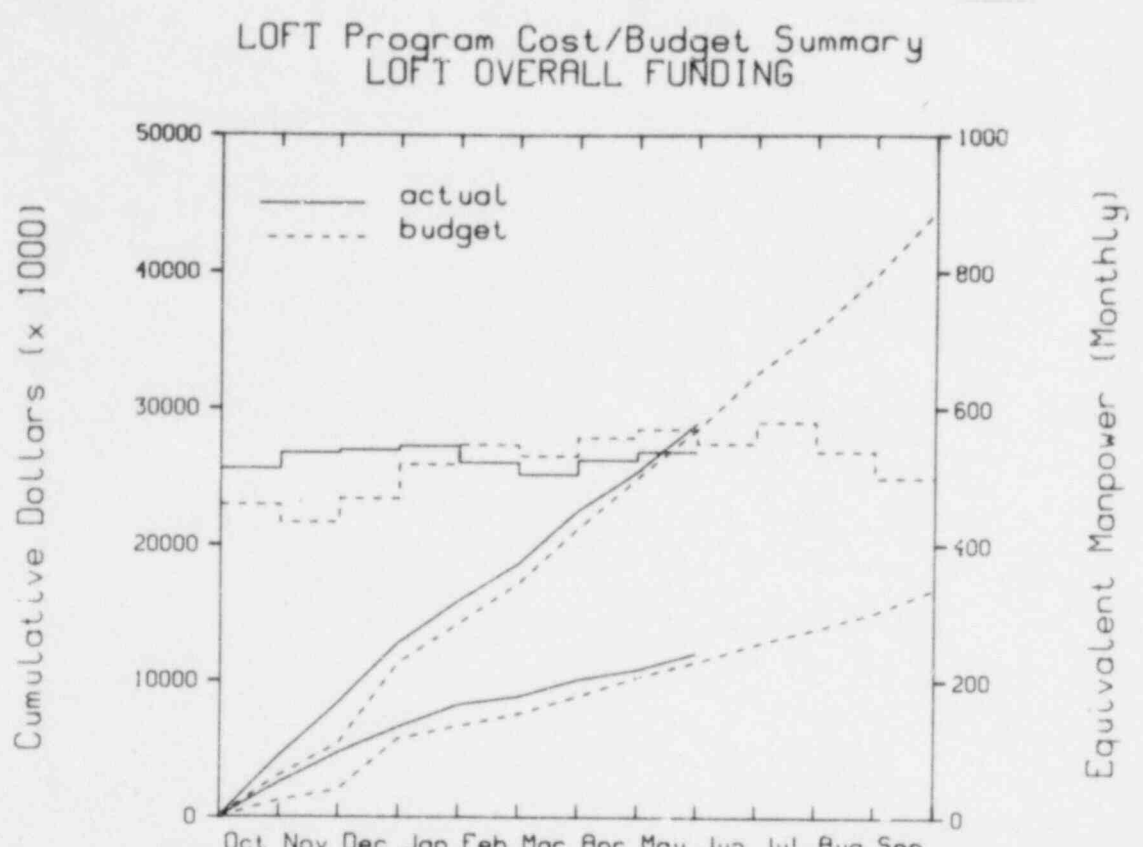


Total	Bud	3053	5400	11329	14198	17164	21193	24953	28465	32566	35808	39736	44513
	Act	4492	8417	12796	15880	18624	22545	25424	28949				
Material	Bud	1215	2010	5752	6665	7563	8859	10279	11411	12711	13816	15024	16752
	Act	2529	4729	6616	8247	8851	10103	10839	12056				
Manpower	Bud	459	433	468	518	547	531	558	570	549	580	537	498
	Act	512	535	539	545	521	504	525	537				

The Nuclear Regulatory Commission (NRC) and foreign-funded budgets reflect the LOFT Q80-4-3 Baseline approved in May. Refer to Director's Monthly Summary for comments.

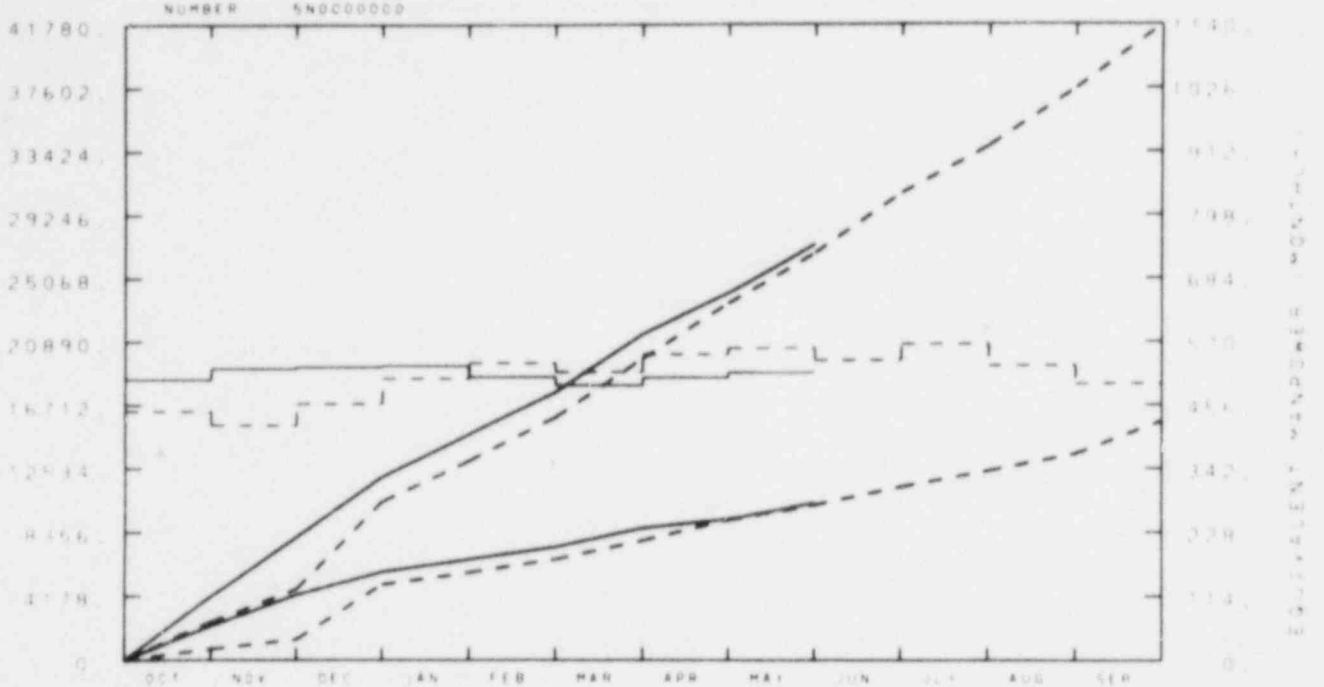
5N--NRC Operating Funding

5F--Foreign Funding

EG&G IDAHO INC.

LOFT - NRC OPERATING FUNDING

NUMBER SN0C00000



TOTAL PROGRAM

BUDGET	2498	4636	10369	13047	15911	19806	23448	26767	30708	33820	37599	41715
ACTUAL	4150	8057	11986	14800	17574	21422	24124	27346				

MATERIAL

BUDGET	719	1354	4344	5727	6580	7822	9165	10151	11353	12383	13491	15442
ACTUAL	3230	4269	5711	6594	7395	8639	9232	10303				

MANPOWER

BUDGET	445	420	459	504	532	516	549	559	537	544	527	494
ACTUAL	502	522	525	527	507	492	506	515				

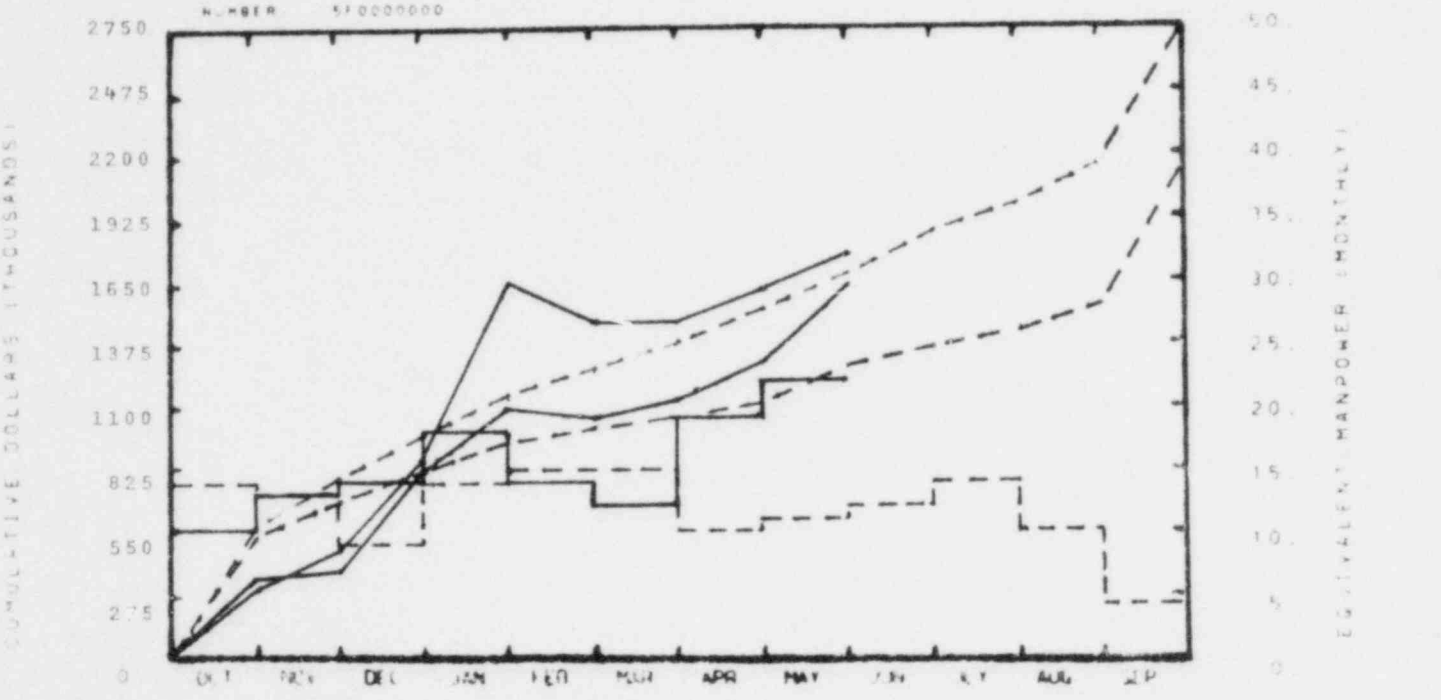
B. COST

ACTUAL

Refer to the summary cost accounts for comments.

EG&G IDAHO INC.

LOFT - FOREIGN FUNDING



TOTAL PROGRAM

BUDGET	555	764	960	1151	1253	1387	1505	1698	1858	1988	2137	2738
ACTUAL	347	360	801	1080	1045	1123	1300	1601				

MATERIAL

BUDGET	496	654	803	938	983	1037	1114	1260	1358	1433	1527	2110
ACTUAL	294	460	839	1653	1456	1464	1607	1353				

MANPOWER

BUDGET	14	13	1	14	15	15	10	11	12	14	10	4
ACTUAL	10	13	14	14	14	12	19	22				

BUDGET

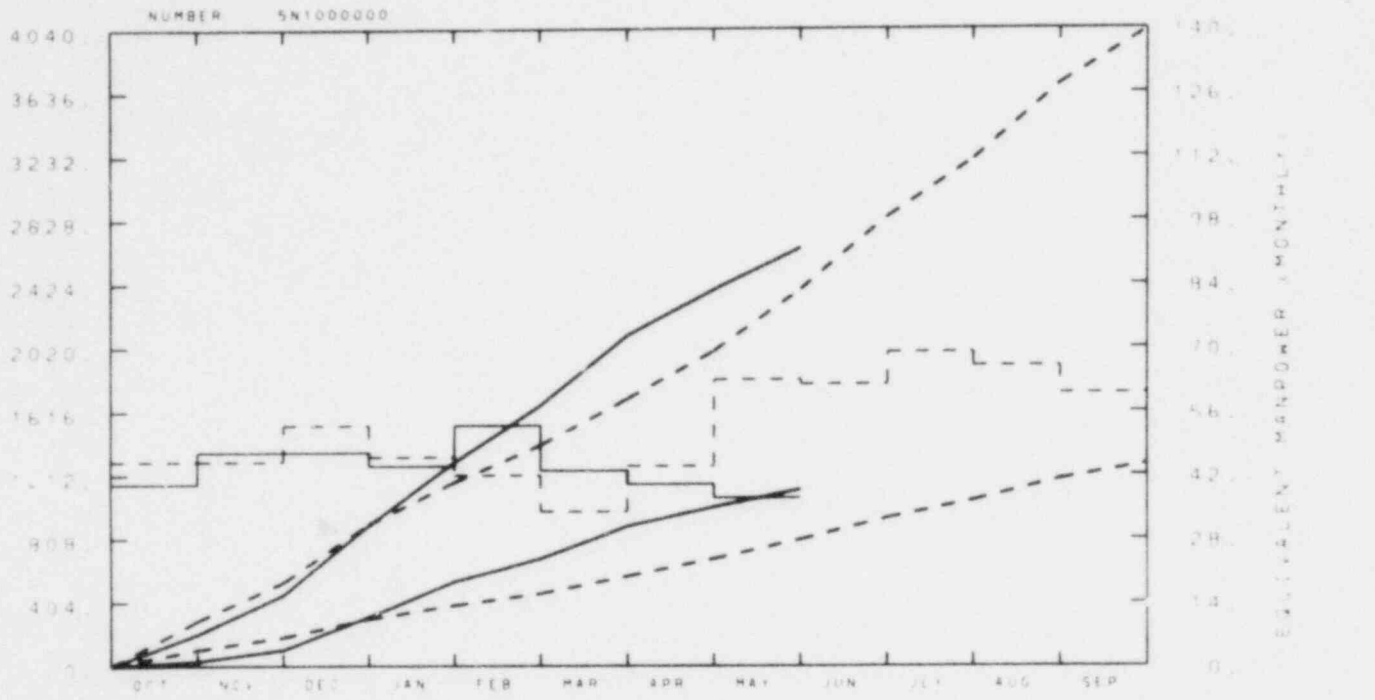
ACTUAL

Refer to the summary cost accounts for comments.

LOFT 189a Summary

5NX--NRC 189a

5FXX--Foreign 189a



TOTAL PROGRAM

BUDGET	267	532	900	1167	1403	1697	2000	2390	2848	3213	3691	4030
ACTUAL	202	453	894	1294	1656	2100	2389	2653				

MATERIAL

BUDGET	101	191	299	386	461	570	680	803	938	1050	1184	1281
ACTUAL	1	103	312	537	692	887	1008	1120				

MAN-MTH

BUDGET	45	45	5	46	42	34	44	63	62	69	66	60
ACTUAL	43	47	47	44	53	43	40	37				

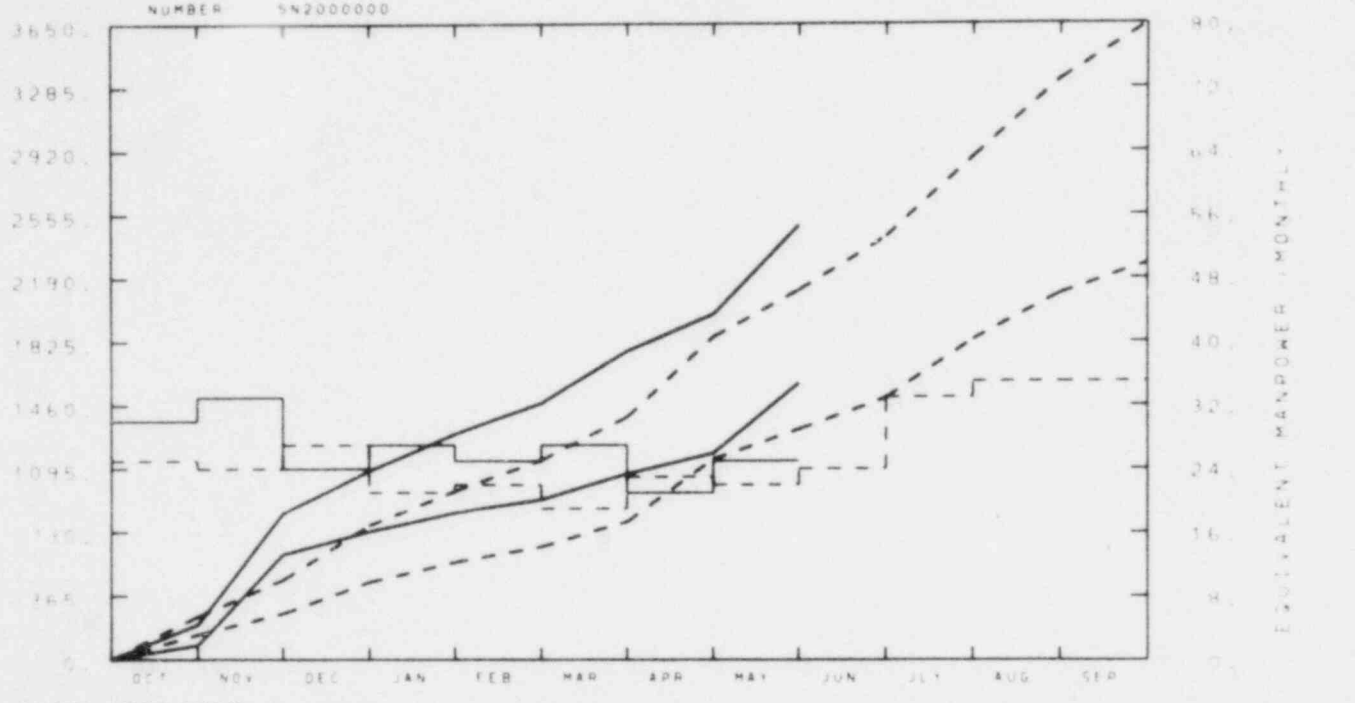
BUDGET

ACTUAL

Budget and actuals should be more in line by yearend as spending level is decreasing.

EG&G IDAHO INC.

NRC 189A A6053 - FUEL



TOTAL PROGRAM

BUDGET	247	457	769	966	1145	1394	1854	2122	2430	2837	3330	3648
ACTUAL	200	838	1082	1295	1473	1774	1984	2495				

MATERIAL

BUDGET	143	264	445	559	649	792	1151	1322	1503	1837	2102	2272
ACTUAL	82	603	735	843	919	1067	1184	1587				

MANPOWER

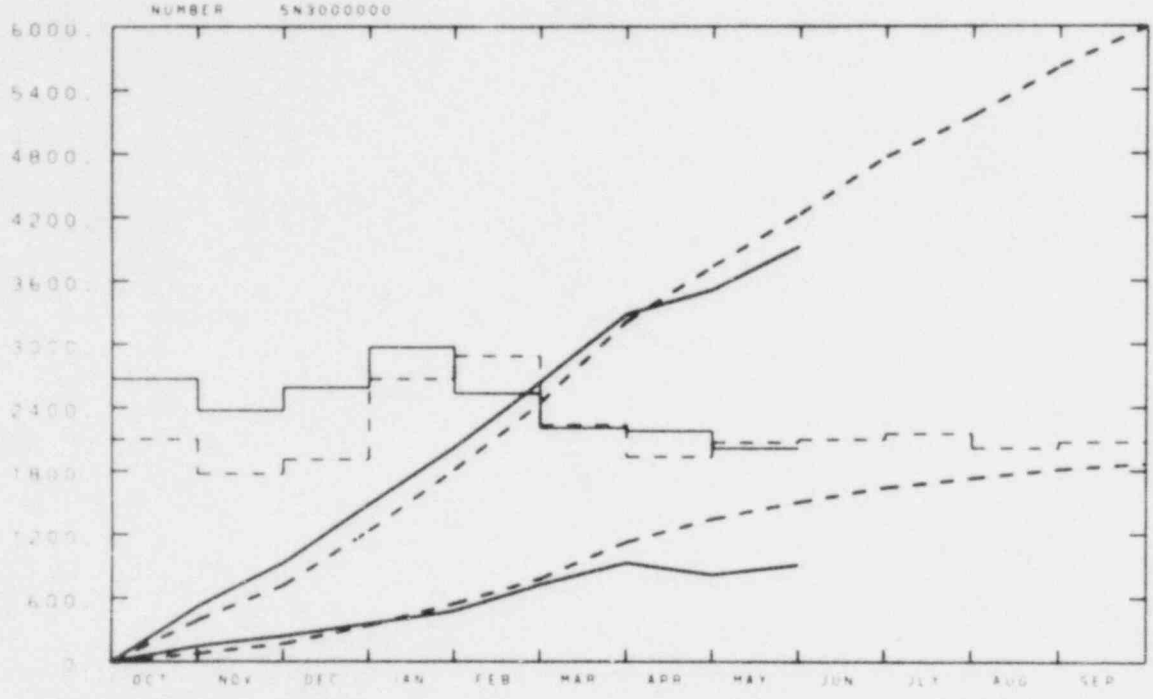
BUDGET	25	24	27	21	22	19	23	22	24	33	35	35
ACTUAL	30	33	24	27	25	27	21	25				

The variance is caused by a subcontract S-210 payment ($250K) that was costed against the 5N2D account instead of the actual account. The mistake will be corrected in June.

EG&G IDAHO INC.

NRC 189A A6043 - EXPER INSTR

NUMBER SN3000000



TOTAL PROGRAM

BUDGET	391	718	1231	1809	2445	3217	3743	4232	4771	5156	5621	5997
ACTUAL	521	930	1482	2022	2643	3287	3520	3930				

MATERIAL

BUDGET	98	169	342	545	781	1127	1346	1508	1645	1733	1815	1870
ACTUAL	147	242	357	478	726	932	922	915				

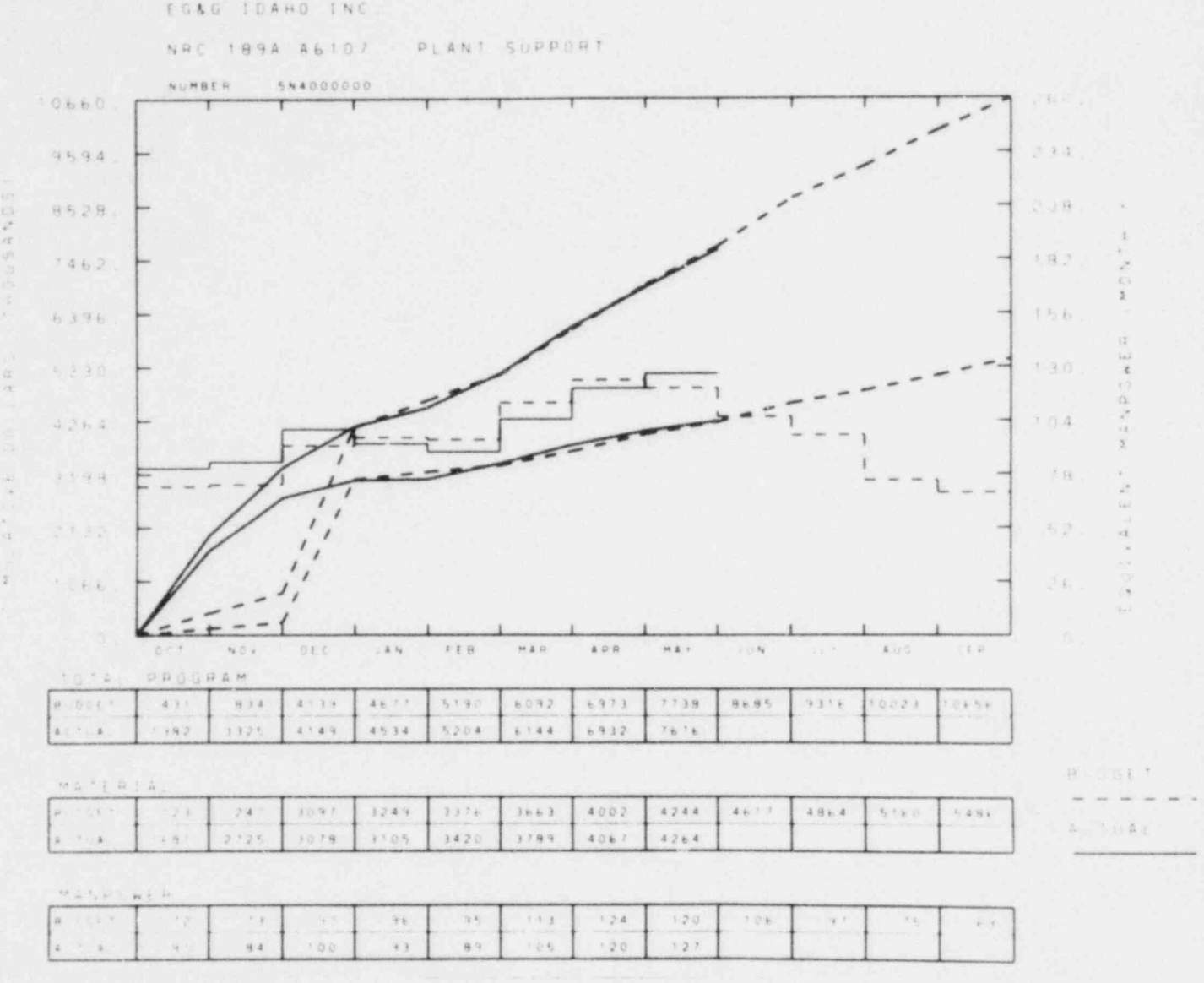
MANPOWER

BUDGET	77	65	70	98	106	82	71	76	77	79	74	76
ACTUAL	98	97	95	109	93	81	80	74				

BUDGET

ACTUAL

Refer to the summary cost accounts for comments. Corrective action is continuing.

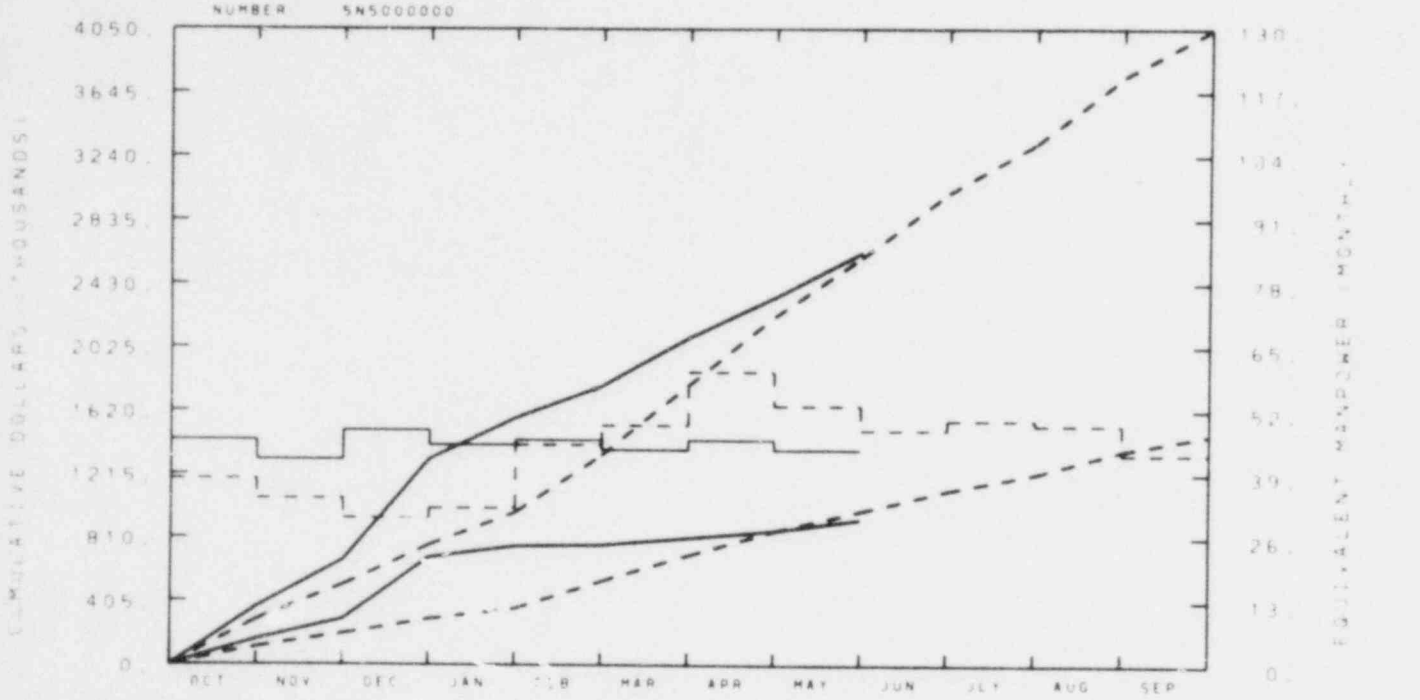


No significant variance.

EG&G IDAHO INC.

NRC 189A A6122 - CORE & SAFE SPT

NUMBER SN5000000



TOTAL PROGRAM

BUDGET	285	508	762	968	1337	1783	2224	2602	3009	3323	3748	4046
ACTUAL	366	664	1311	1575	1778	2088	2348	2632				

MATERIAL

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

MANPOWER

BUDGET	39	34	30	32	45	49	60	53	48	50	49	43
ACTUAL	46	42	48	45	46	44	46	44				

BUDGET

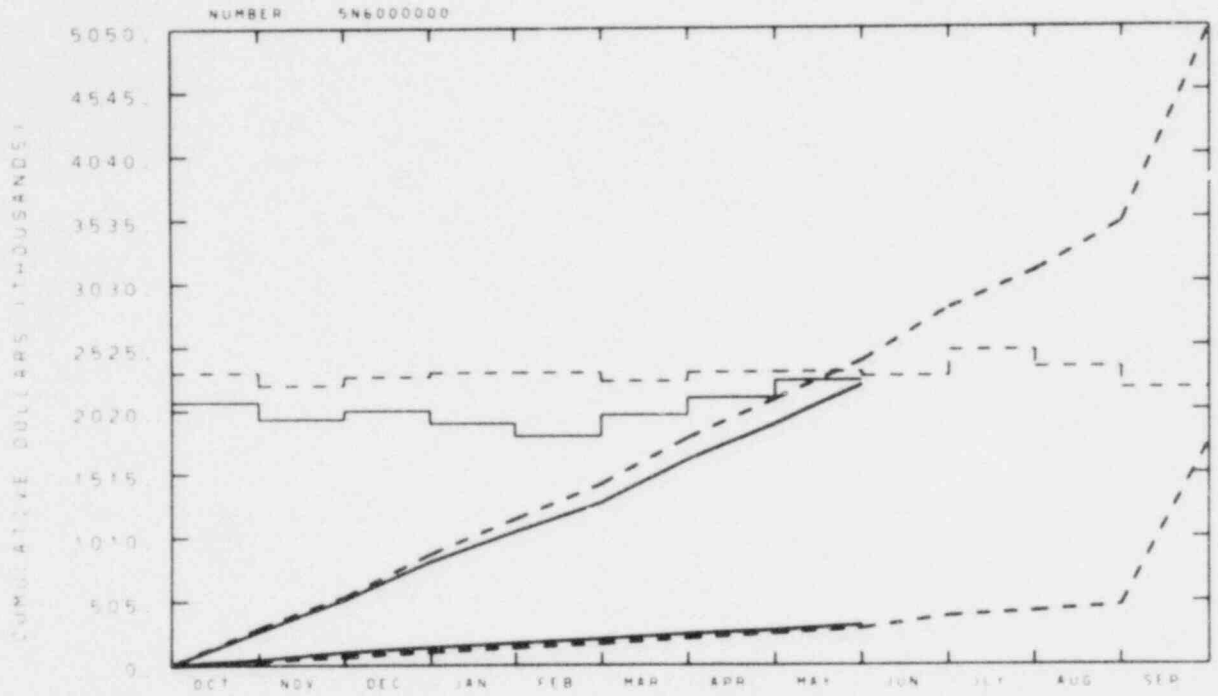
ACTUAL

No significant variance.

EG&G IDAHO INC.

NRC 189A A6110 - COMMON SUPPORT

NUMBER SN6000000



TOTAL PROGRAM

BUDGET	293	542	879	1158	1436	1803	2108	2413	2830	3120	3502	5048
ACTUAL	267	521	820	1057	1290	1629	1910	2220				

MATERIAL

BUDGET	35	64	104	137	164	213	251	289	385	42	470	1762
ACTUAL	42	103	142	174	207	248	275	315				

MANPOWER

BUDGET	67	66	68	69	69	67	69	69	68	14	70	69
ACTUAL	67	58	60	57	58	59	63	67				

BUDGET

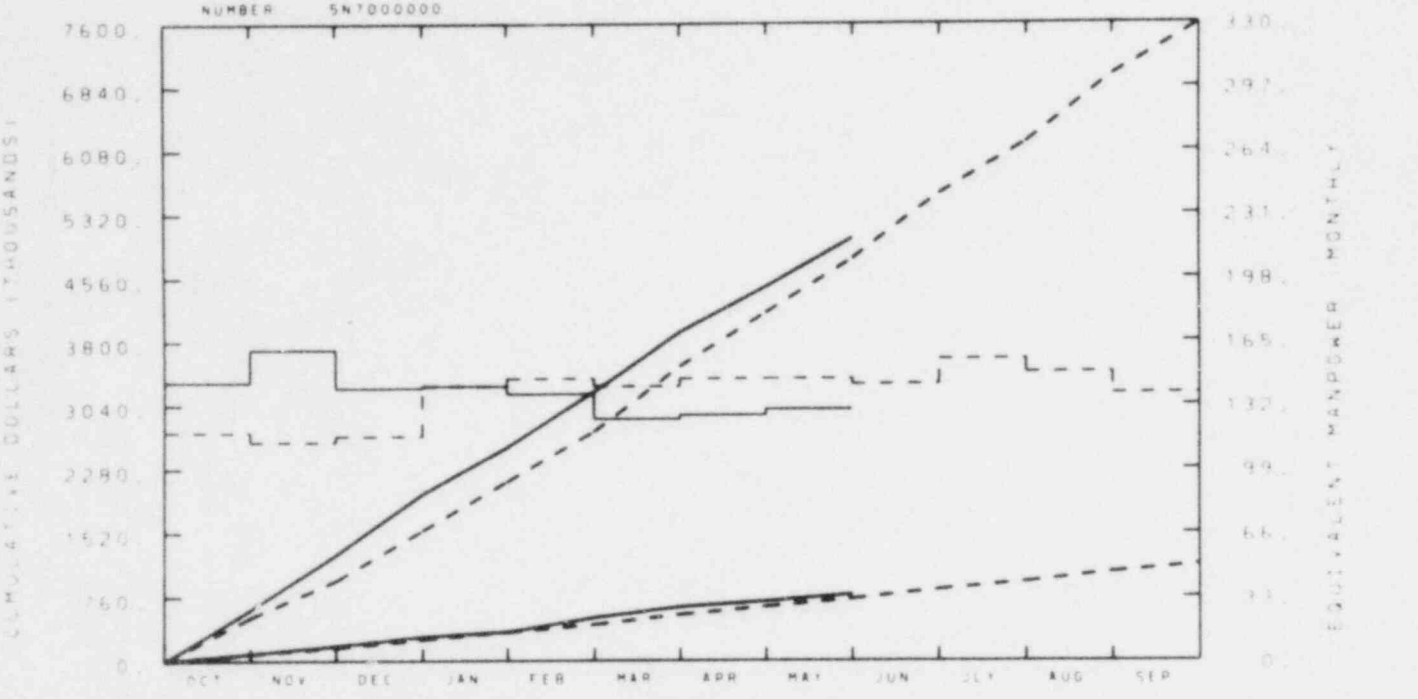
ACTUAL

No significant variance.

EG&G IDAHO INC.

NRC 189A A6054 - FACILITY OPER

NUMBER SN7000000



TOTAL PROGRAM

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

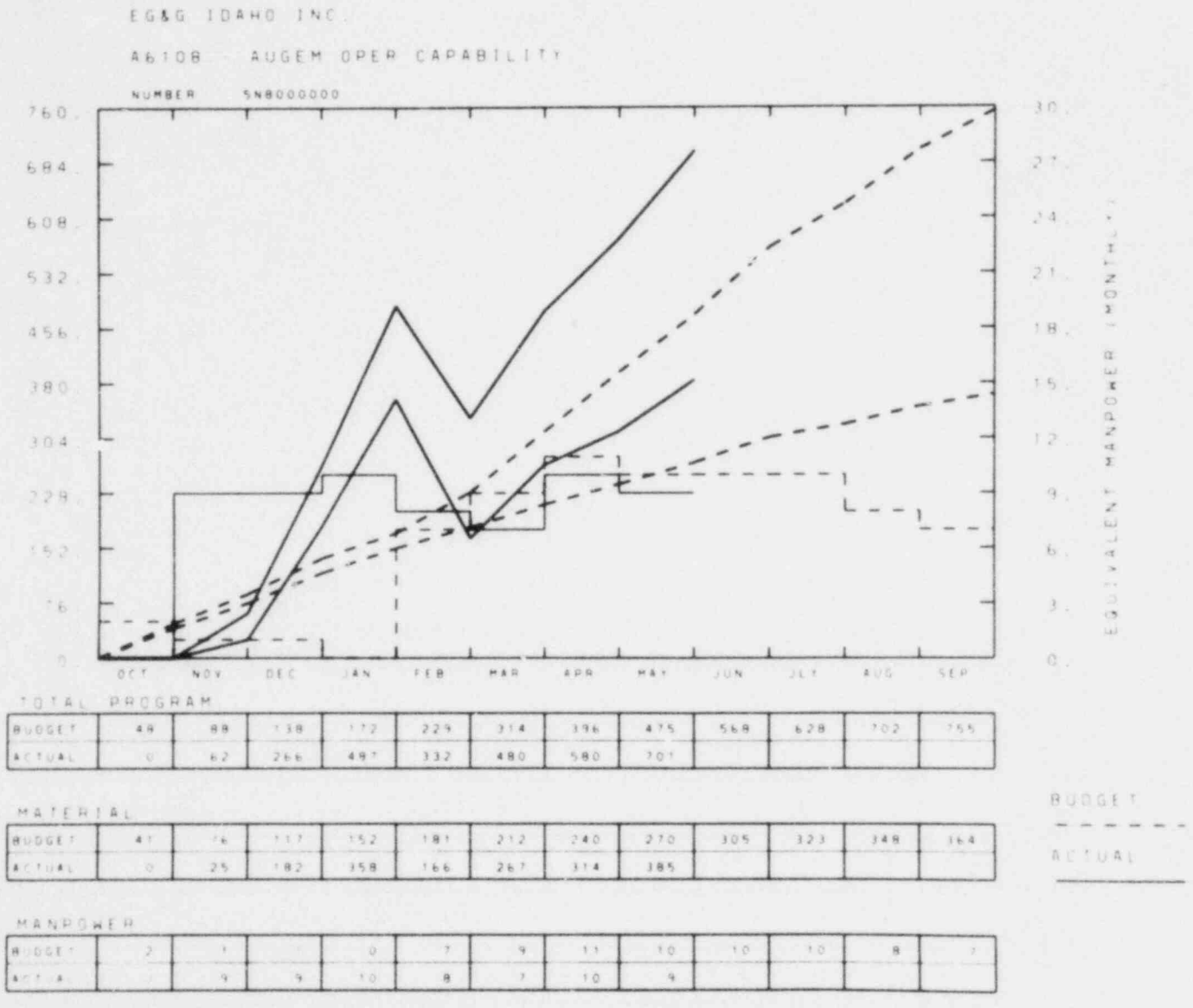
MATERIAL

BUDGET	95	157	255	343	431	548	641	735	847	935	1052	1141
ACTUAL	87	179	288	345	514	641	706	790				

MANPOWER

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

No significant variance.



TOTAL PROGRAM

BUDGET	48	88	138	172	229	314	396	475	568	628	702	755
ACTUAL	0	62	266	497	332	480	580	701				

MATERIAL

BUDGET	41	76	117	152	181	212	240	270	305	323	348	364
ACTUAL	0	25	182	358	166	267	314	385				

MANPOWER

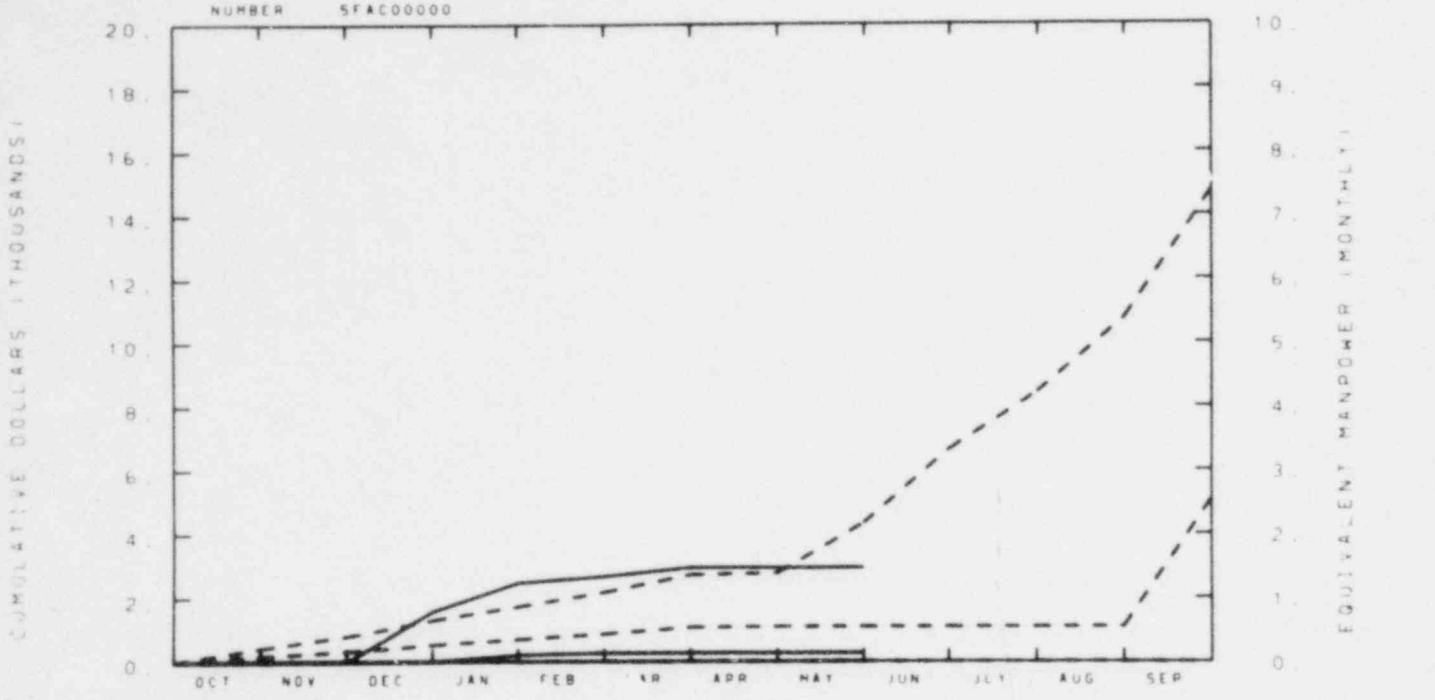
BUDGET	2	1	1	0	7	9	11	10	10	10	8	7
ACTUAL	1	9	9	10	8	7	10	9				

Budgets for the remainder of the year are being adjusted to correct the apparent overrun.

EG&G IDAHO INC.

A6273-AUSTRIAN FUNDS

NUMBER SFAC00000



TOTAL PROGRAM

BUDGET	0	1	1	2	2	3	3	4	7	8	11	15
ACTUAL	0	0	2	2	3	3	3	3				

MATERIAL

BUDGET	0	0	1	1	1	1	1	1	1	1	1	5
ACTUAL	0	0	0	0	0	0	0	0				

MANPOWER

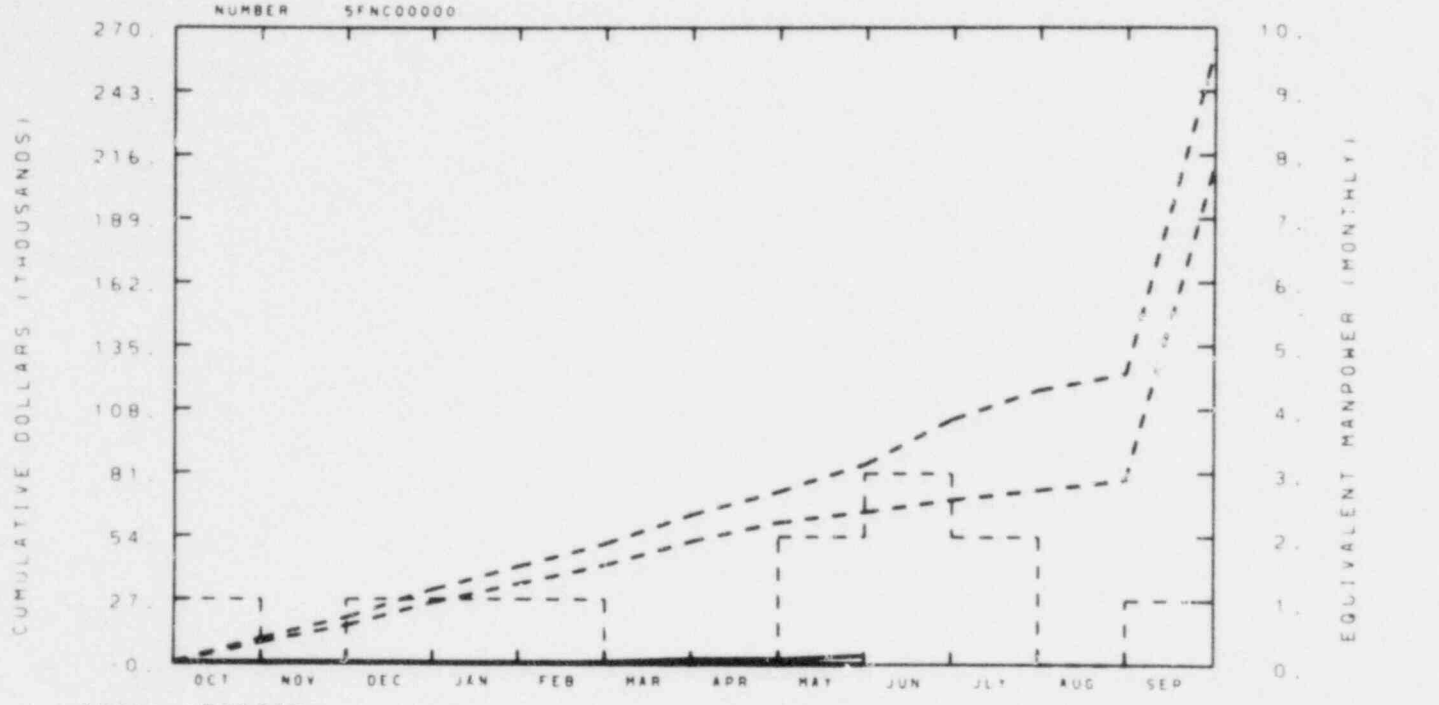
BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0				

The Austrian funds include a $12,000 management reserve and contingency. No significant variance exists.

EG&G IDAHO INC.

A6271 - NETHERLANDS FUNDS

NUMBER SFNC00000



TOTAL PROGRAM

BUDGET	10	19	31	40	50	63	73	84	104	11	123	261
ACTUAL	0	0	0	0	0	2	2	3				

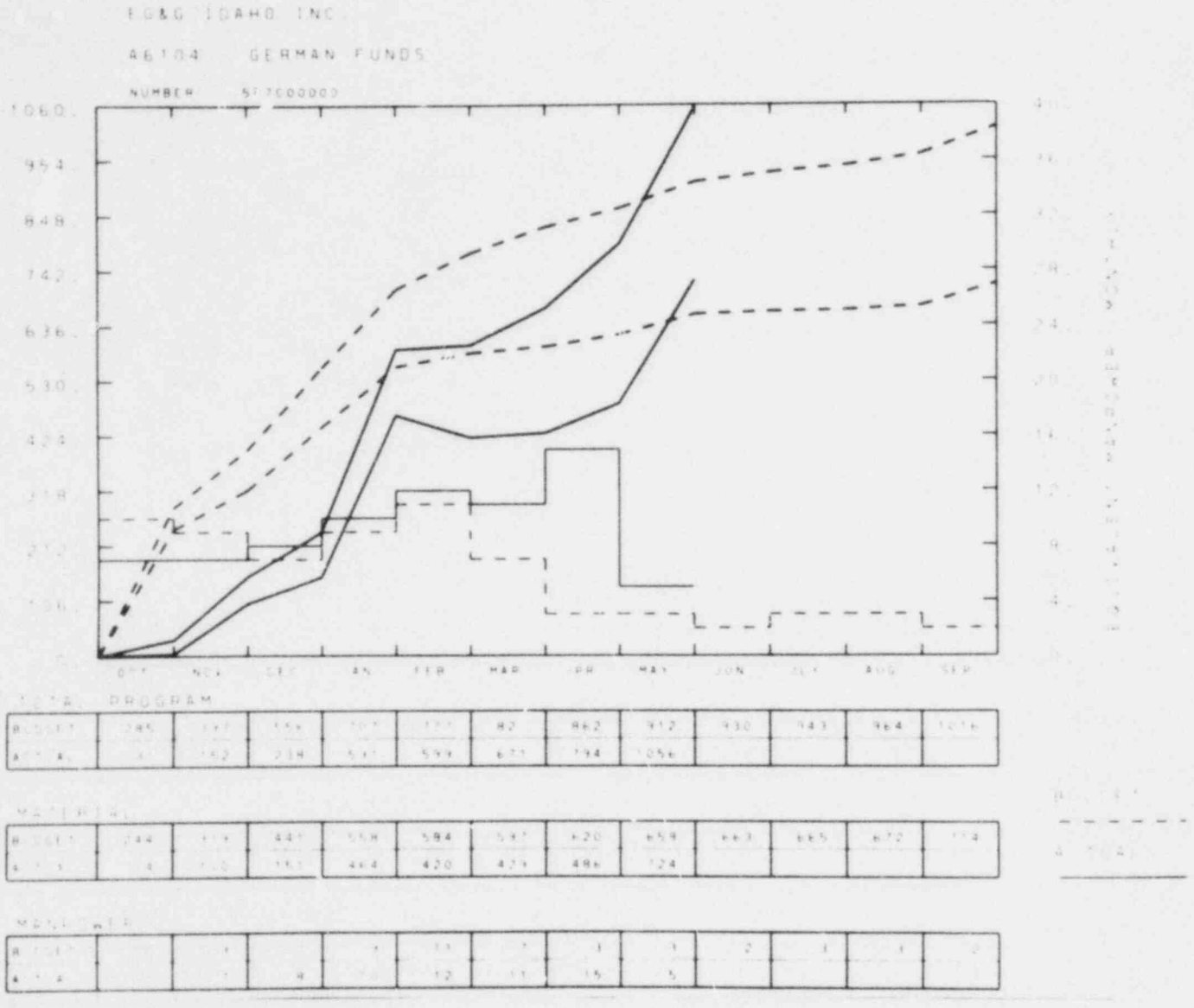
MATERIAL

BUDGET	8	15	25	33	41	52	60	64	69	74	78	212
ACTUAL	0	0	0	0	0	0	0	0				

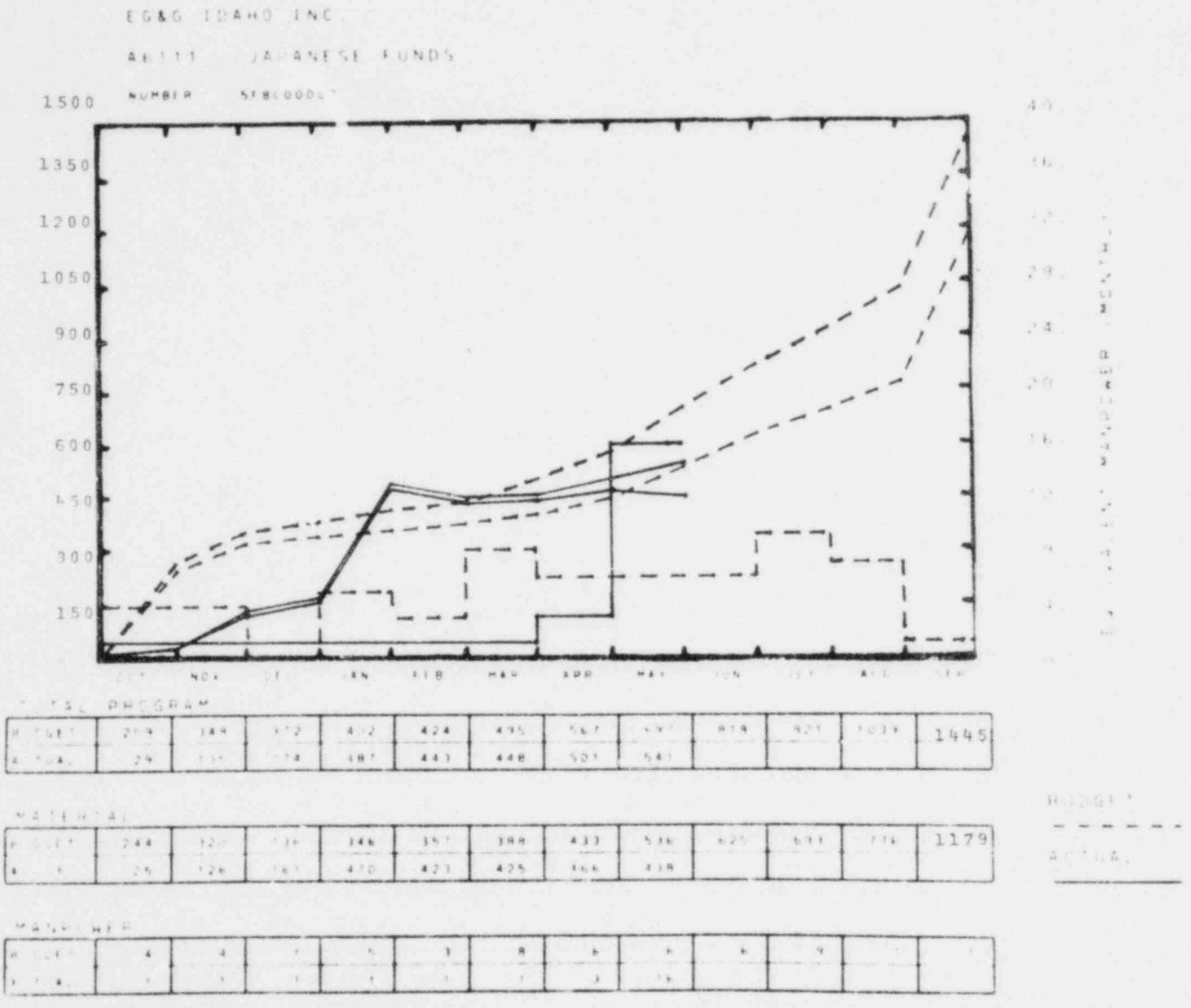
MANPOWER

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

The variance is a result of: (1) delayed billing; (2) manpower requirements for higher priority items; (3) improperly spread budget.



The variance is due primarily to: (1) completion of tasks ahead of schedule; and (2) cost overruns on small break instrumentation. Corrective action has been initiated to transfer overruns to JAERI-funded portion of this task.



Variance is due to: (1) a delay in transferring costs from another account; (2) a delay in subcontract billing; (3) manpower requirements.

Summary Cost Accounts

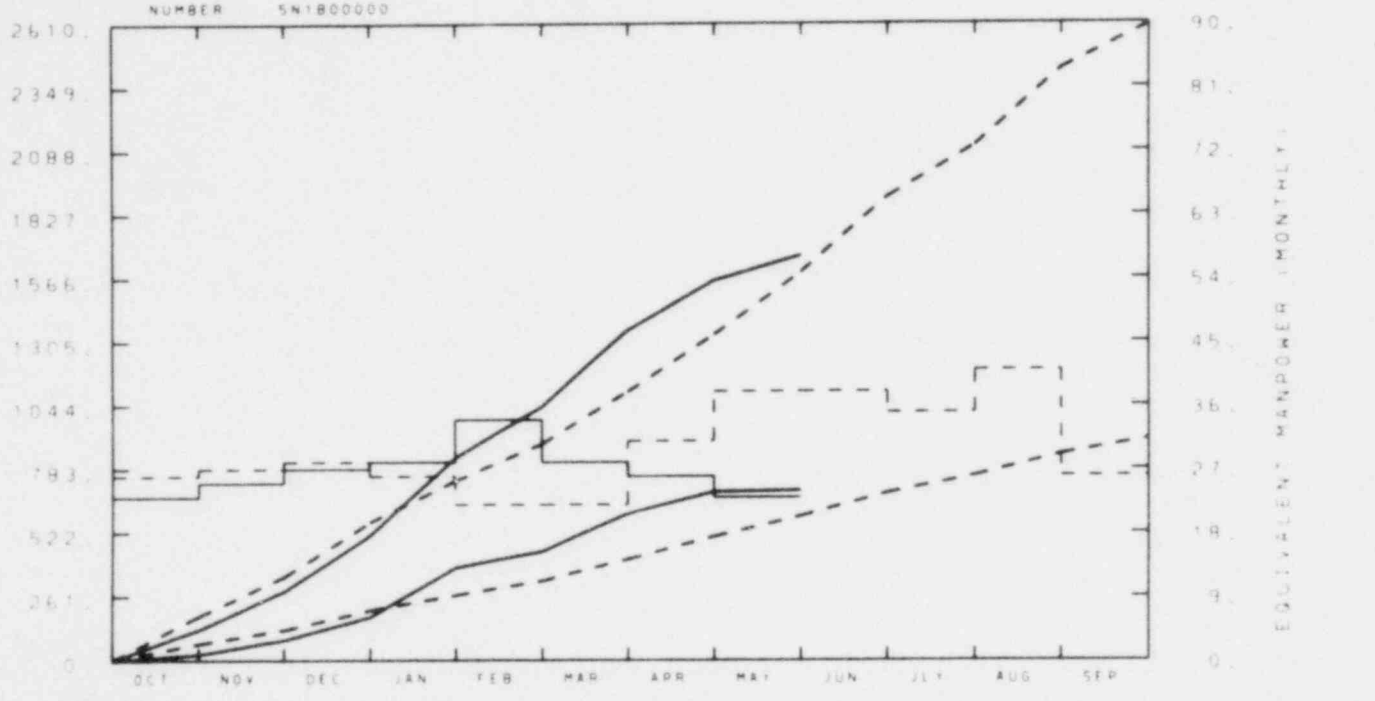
5Nxx--NRC Summary Cost Accounts

5Fxxx--Foreign Summary Cost Accounts

EG&G IDAHO INC.

EXPR PROG - PROGRAM PLAN & EVAL

NUMBER SN1800000



TOTAL PROGRAM

BUDGET	180	342	564	735	887	1102	1334	1591	1898	2109	2422	2601
ACTUAL	125	282	511	829	1040	1355	1557	1659				

MATERIAL

BUDGET	61	124	205	266	325	413	506	589	684	754	842	904
ACTUAL	24	84	178	379	446	600	689	695				

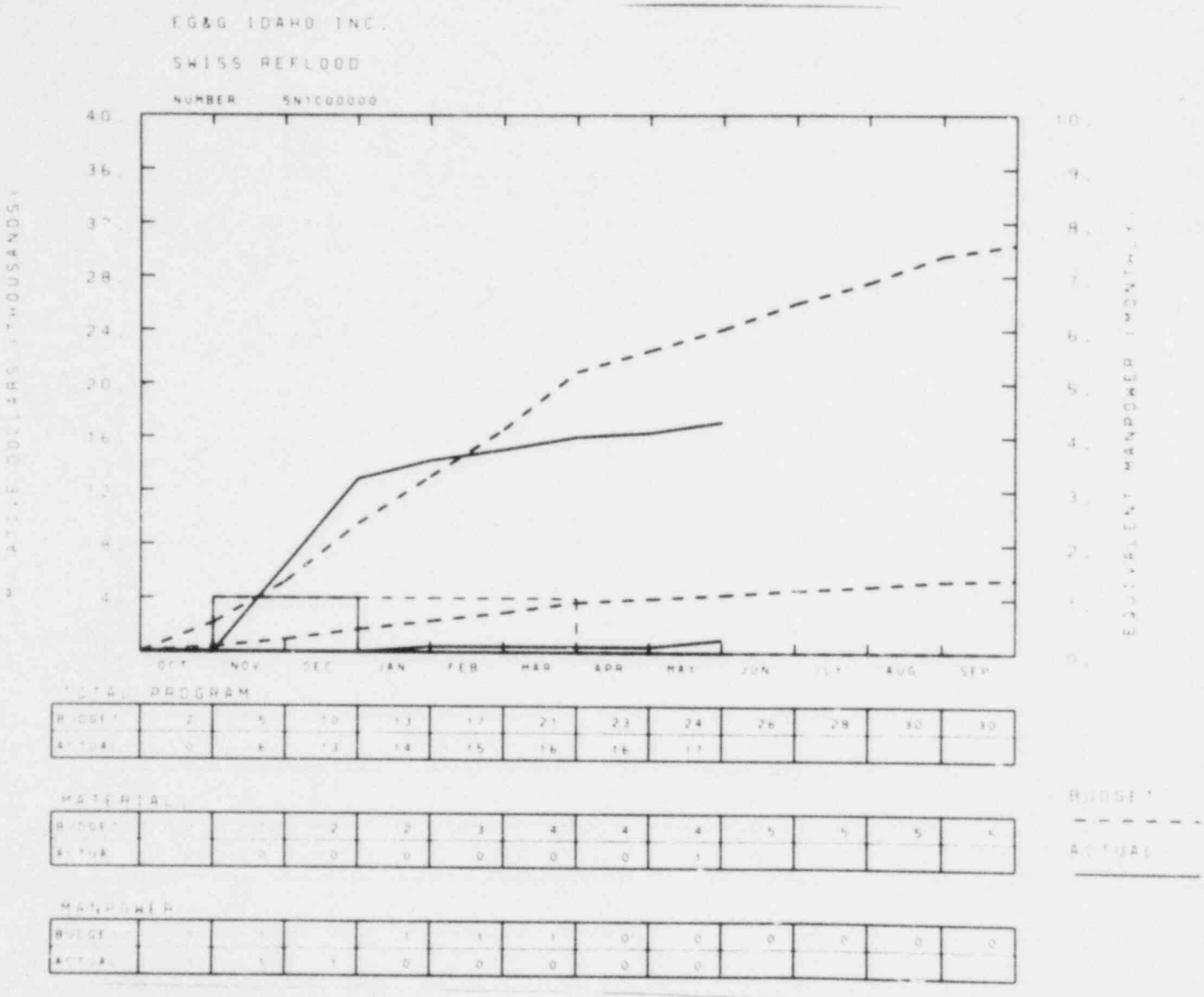
MANPOWER

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

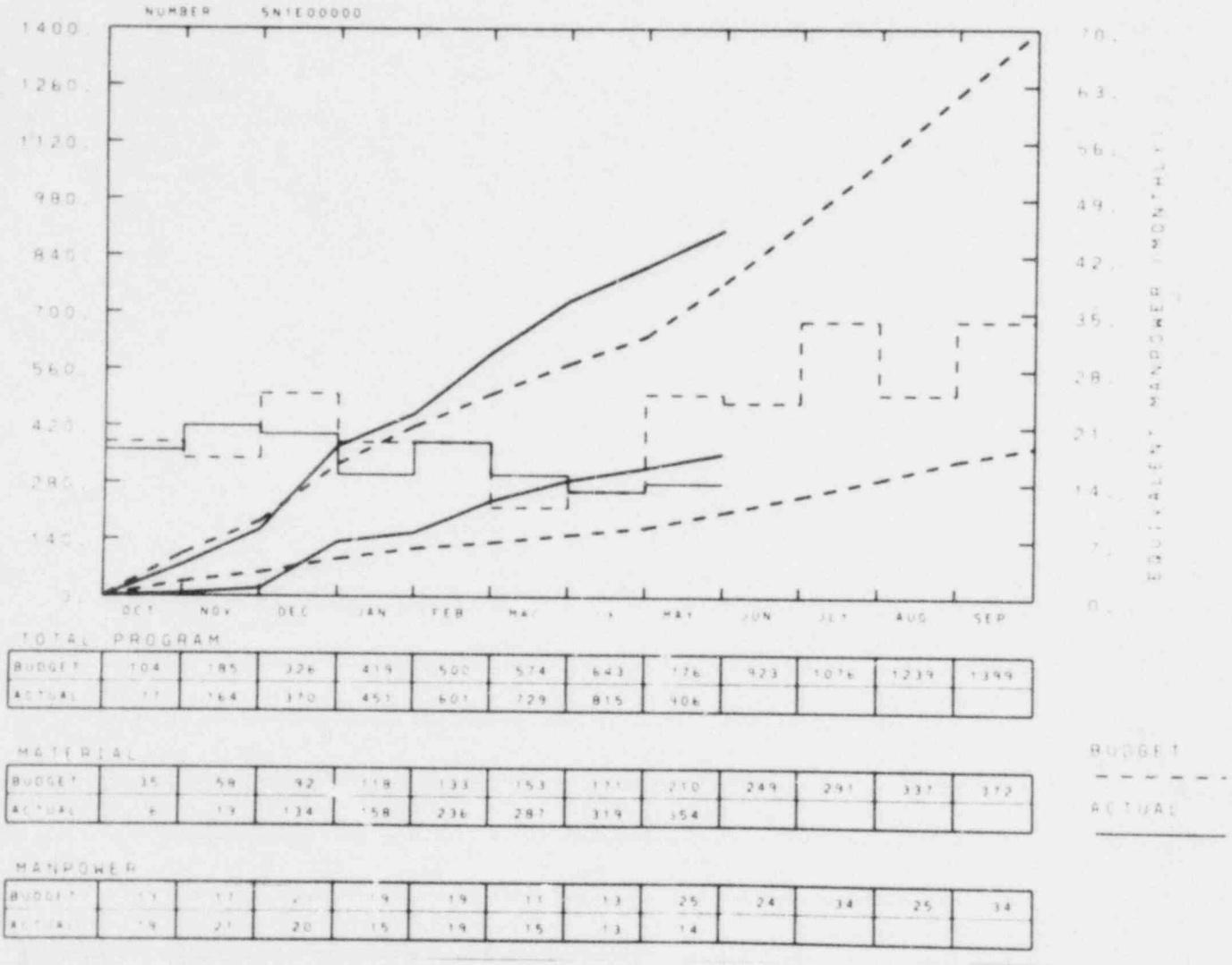
BUDGET - - - - - -

ACTUAL ———

No significant variance.



Program has experienced a delay in fabricating thermocouples to be used in NEPTUN. Material received and should now spend at a rate to catch projected spending.

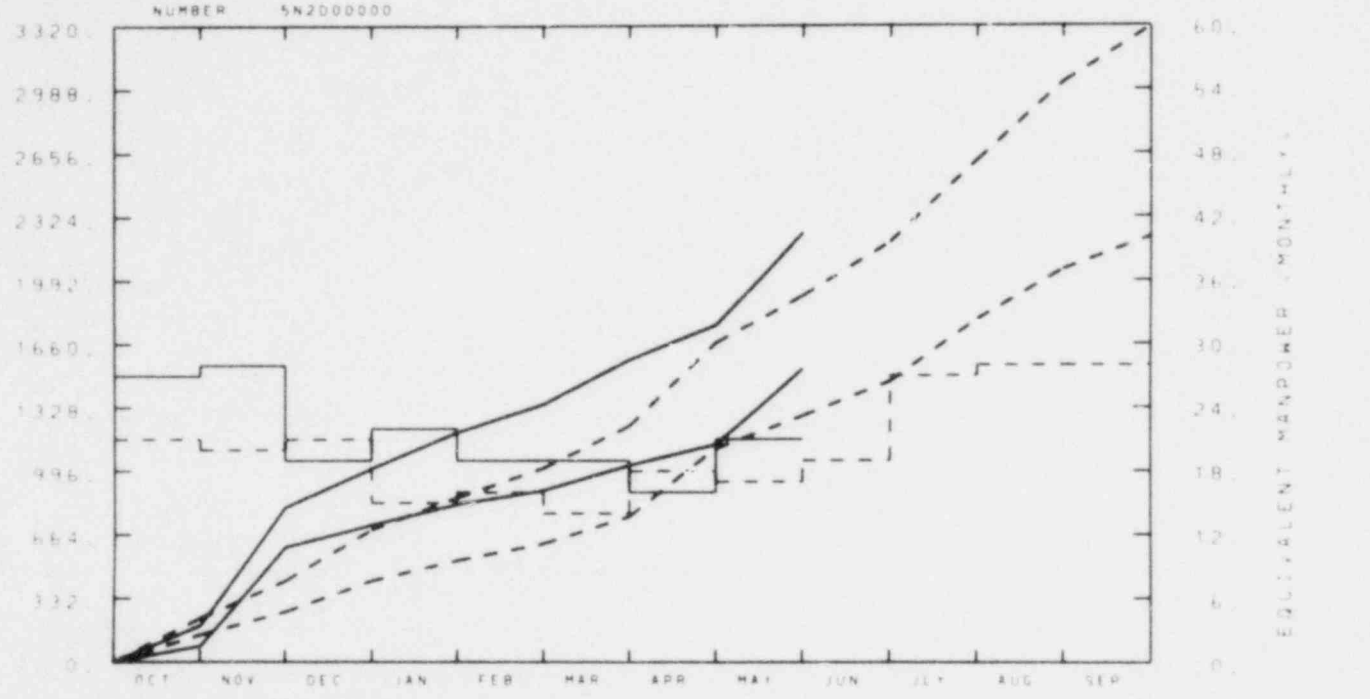


The budget reflects the latest change in schedule. Assuming no further schedule delays, the cost concurrence will occur at about the end of July.

EG&G IDAHO INC.

FUEL - REFUEL DESIGN & ANALYSIS

NUMBER 5N2000000



TOTAL PROGRAM

BUDGET	228	423	690	857	1011	1232	1667	1912	2193	2618	3026	3313
ACTUAL	190	806	1008	1197	1345	1579	1760	2241				

MATERIAL

BUDGET	141	262	424	529	617	759	1116	1285	1465	1788	2051	2220
ACTUAL	92	598	714	821	895	1027	1136	1530				

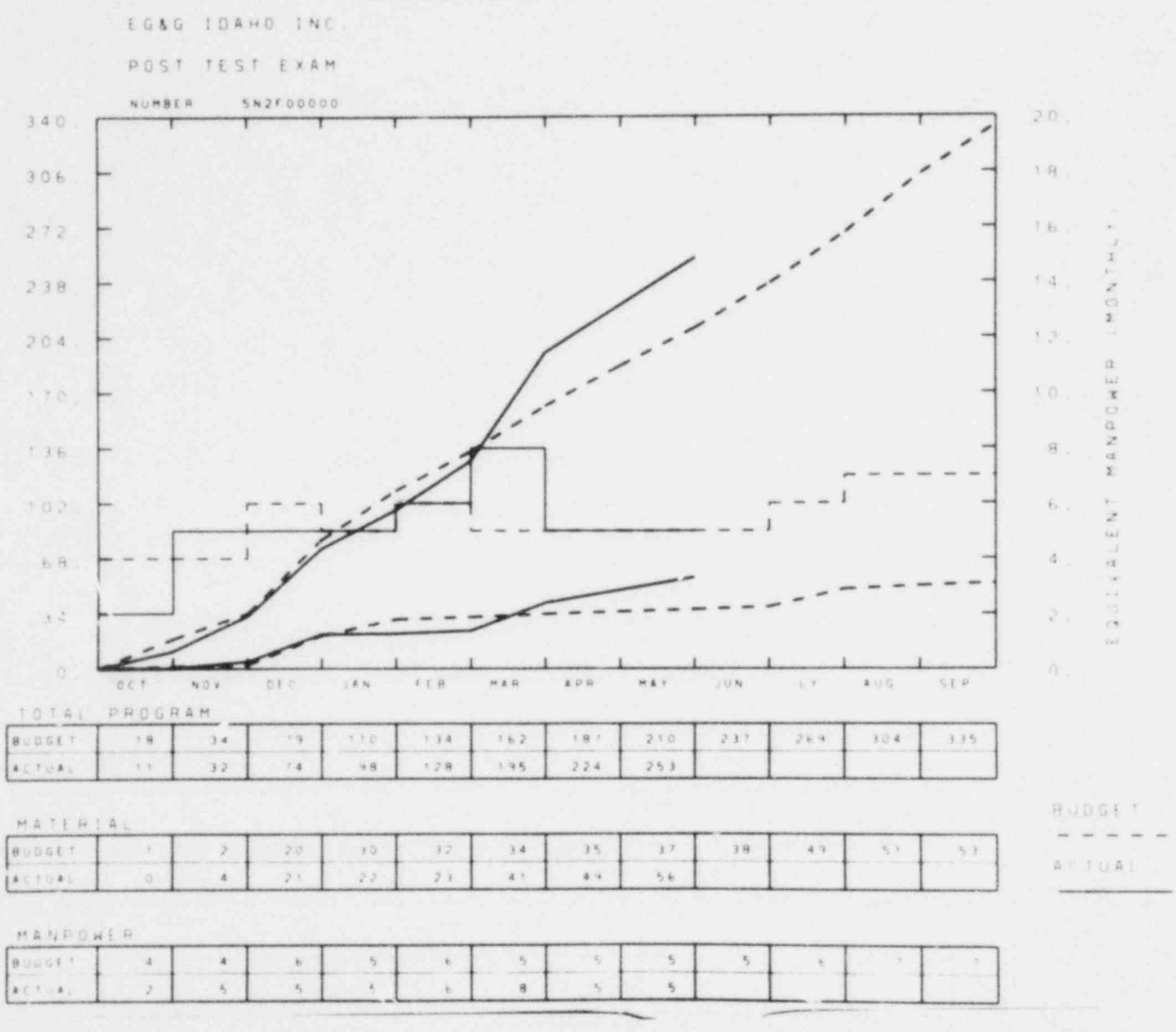
MANPOWER

BUDGET	21	20	17	15	16	14	18	17	19	21	28	28
ACTUAL	27	28	19	22	19	19	16	21				

BUDGET

ACTUAL

The variance is caused by a subcontract S-210 payment ($250K) that was costed against the 5N2D account instead of the accrual account. The mistake will be corrected in June.



TOTAL PROGRAM

BUDGET	18	34	79	110	134	162	187	210	237	264	304	335
ACTUAL	11	32	74	98	128	195	224	253				

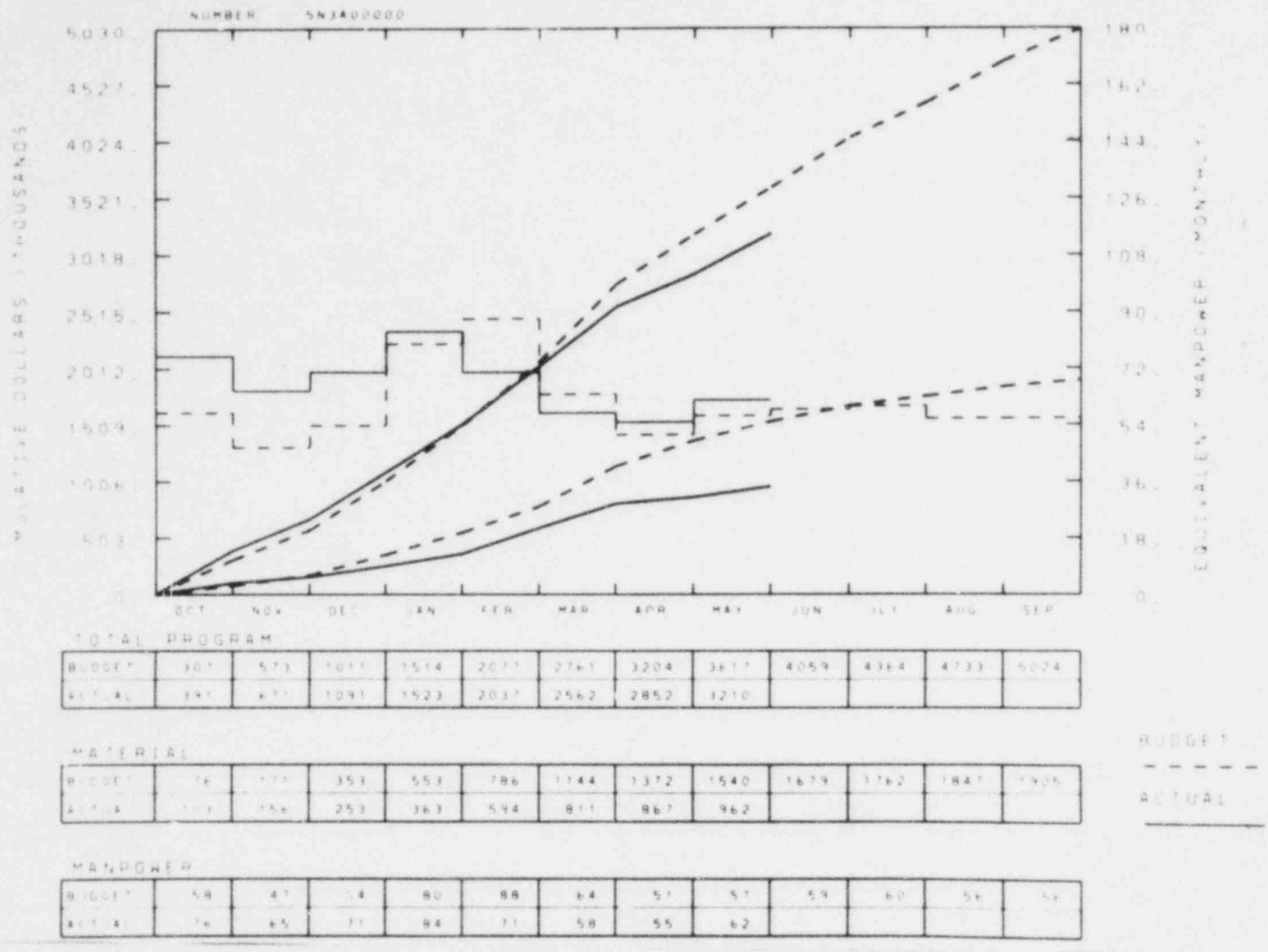
MATERIAL

BUDGET	1	2	20	30	32	34	35	37	38	49	51	53
ACTUAL	0	4	21	22	23	41	44	56				

MANPOWER

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

The overrun is caused by: (1) the unanticipated "facility rate" ($57/hr) charges for consulting services of Nondestructive Engineering Branch engineer ($34 hr) in March, April, and May; (2) concentrated effort on the Fission Gas Collection and Analysis System by Mechanical Design Branch in March; (3) a 138% higher labor rate charge by Fuel Technology Branch engineers than is used in CAPS labor rate file. The NDE Engineering Branch participation termination has been scheduled. Other activities will be curtailed to satisfy the yearend budget value.



The variance is a result of the following:

1. Underspending in the Experimental Measurements Section "B" which consists of the following:

   (a) A CCB to add $57K for the secondary side instrumentation was input incorrectly, starting the task in April, which reflects as under-spending on cost graph. Another CCB is in process to correct this error. (b) A portion of 53AMB09 was inadvertently coded into FY-80 during the transition from Q80-3-3 to Q80-4-0. This resulted in the transfer to $69,000 from FY-81 into FY-80. A CCF has been approved, but not reflected in the cost graph, to transfer $69K from FY-80 back into FY-81. (c) $40,000 owed to Sandia Corp. for PNA generators is not reflected in May actuals. (d) A CCB is approved, but not reflected in the cost graph, returning $51K to management reserve from the Fuel Rod Instrument Task (53AMB03).

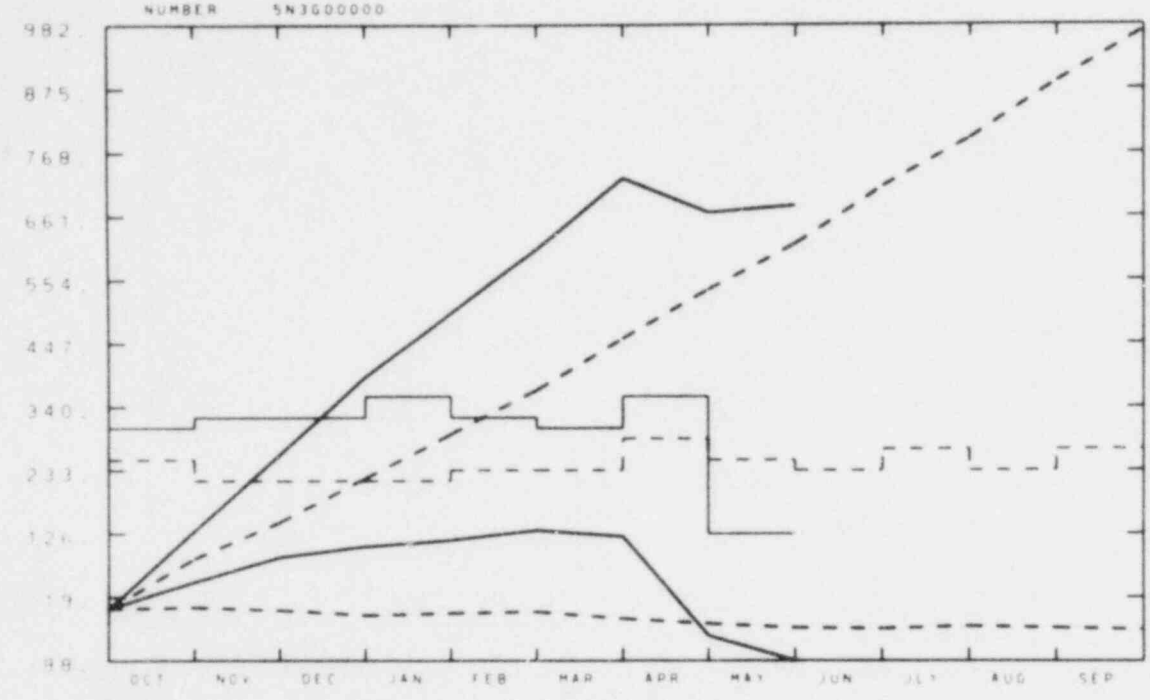
2. A CCB adding $69K to the computer budget to compensate for the computer overrun is reflected in the cost graph as underspending at this time; however, as computer charges continue to be high, the variance will become less as FY-80 closes.

3. Drag disc turbine rakes scheduled to be built for L2-5 have been delayed until later in the year. A CCF has been prepared to reflect this change, but is not shown below in cost graph.

EG&G IDAHO INC.

EXPR INST - ADVANCE INST BR 3720

NUMBER 5N3G00000



TOTAL PROGRAM

BUDGET	84	145	220	294	369	456	539	615	712	792	887	973
ACTUAL	130	259	391	498	607	726	668	680				

MATERIAL

BUDGET	2	2	11	1	5	16	24	31	33	29	31	34
ACTUAL	44	86	104	115	132	121	45	87				

MANPOWER

BUDGET	14	17	17	17	18	18	21	14	18	20	19	20
ACTUAL	22	23	23	25	23	22	25	12				

BUDGET

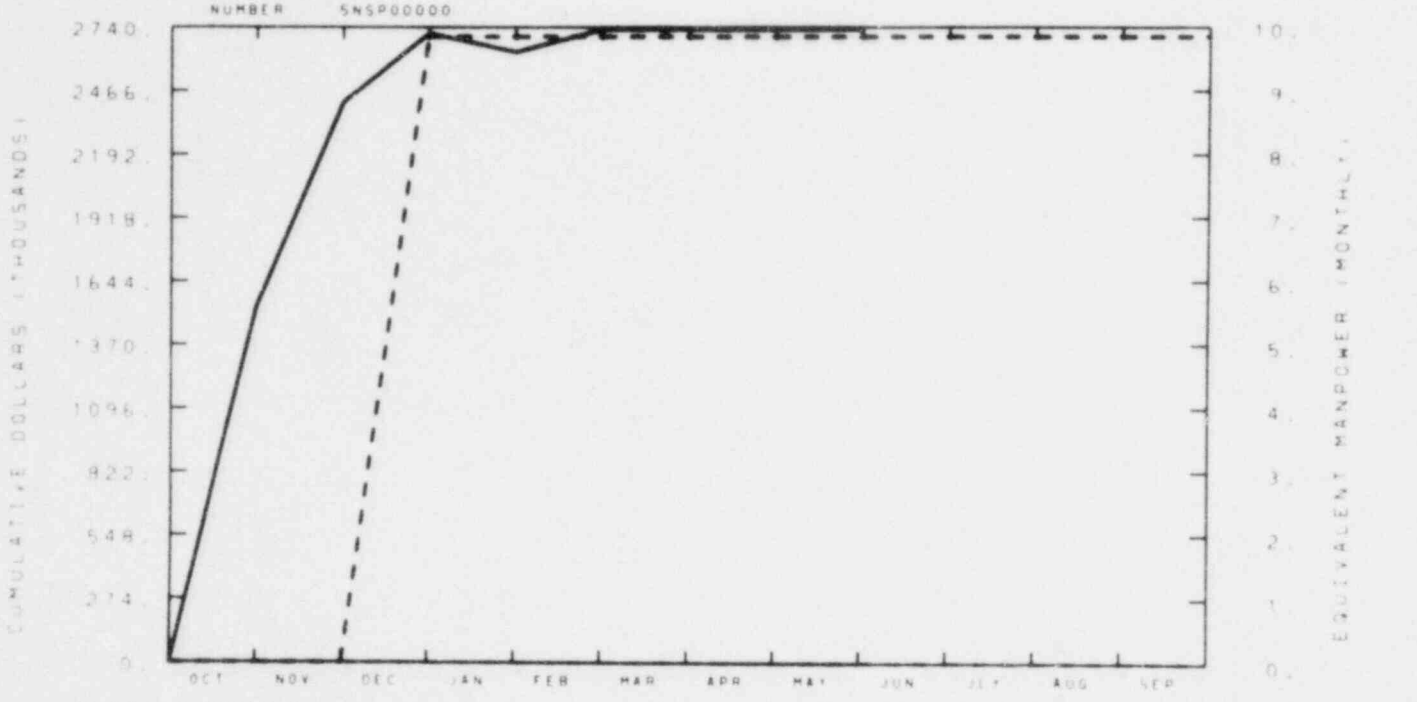
ACTUAL

A management plan has been implemented to bring Advance Instrument within budget by yearend. CCB 80-156 has been approved which moves both actuals and budget to the 3-D Program in June.

EG&G IDAHO INC.

SPECIAL PROCESS SPARES

NUMBER SNSP00000



TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

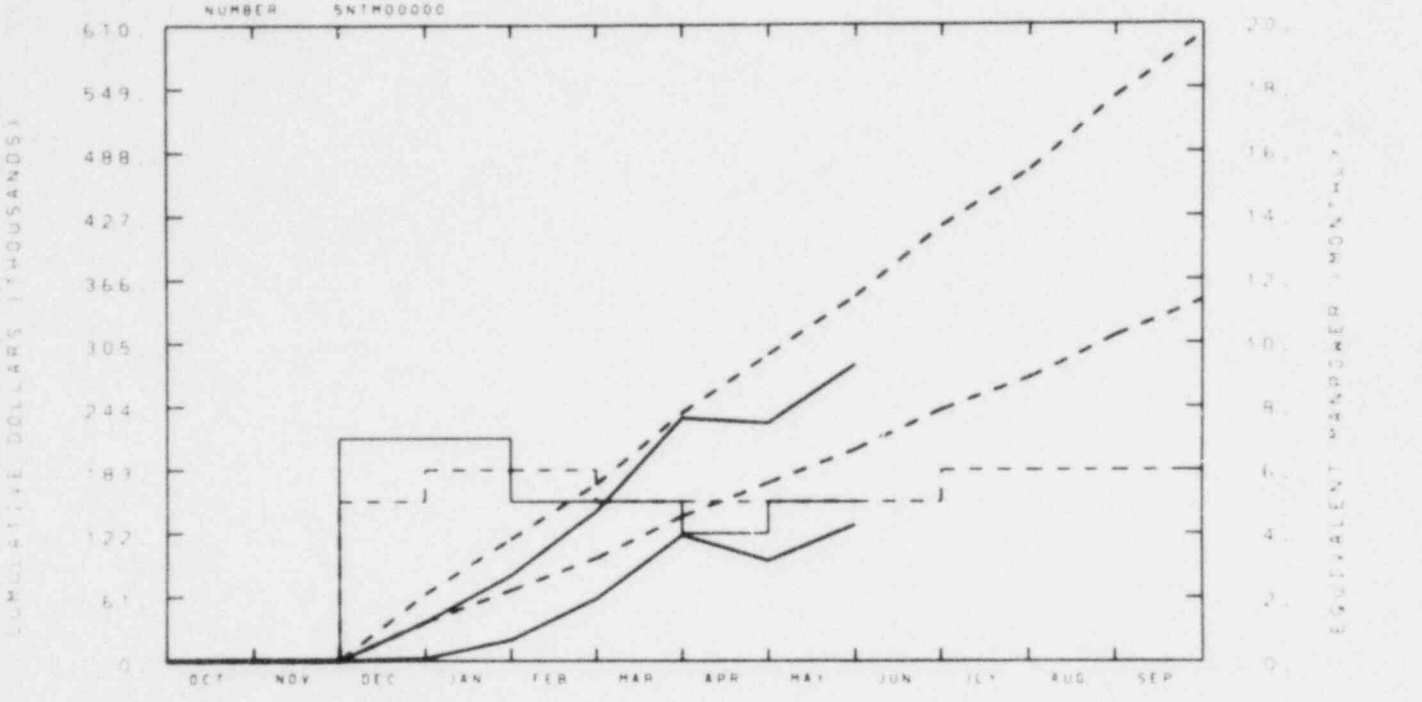
BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0				

No significant variance.

EG&G IDAHO INC.

THREE MILE ISLAND SUPPORT

NUMBER SNTM00000



TOTAL PROGRAM

BUDGET	0	0	64	116	169	238	294	350	418	471	541	600
ACTUAL	0	0	37	82	143	233	228	285				

MATERIAL

BUDGET	0	0	37	68	98	138	170	203	241	272	312	346
ACTUAL	0	0	2	20	59	120	96	130				

MANPOWER

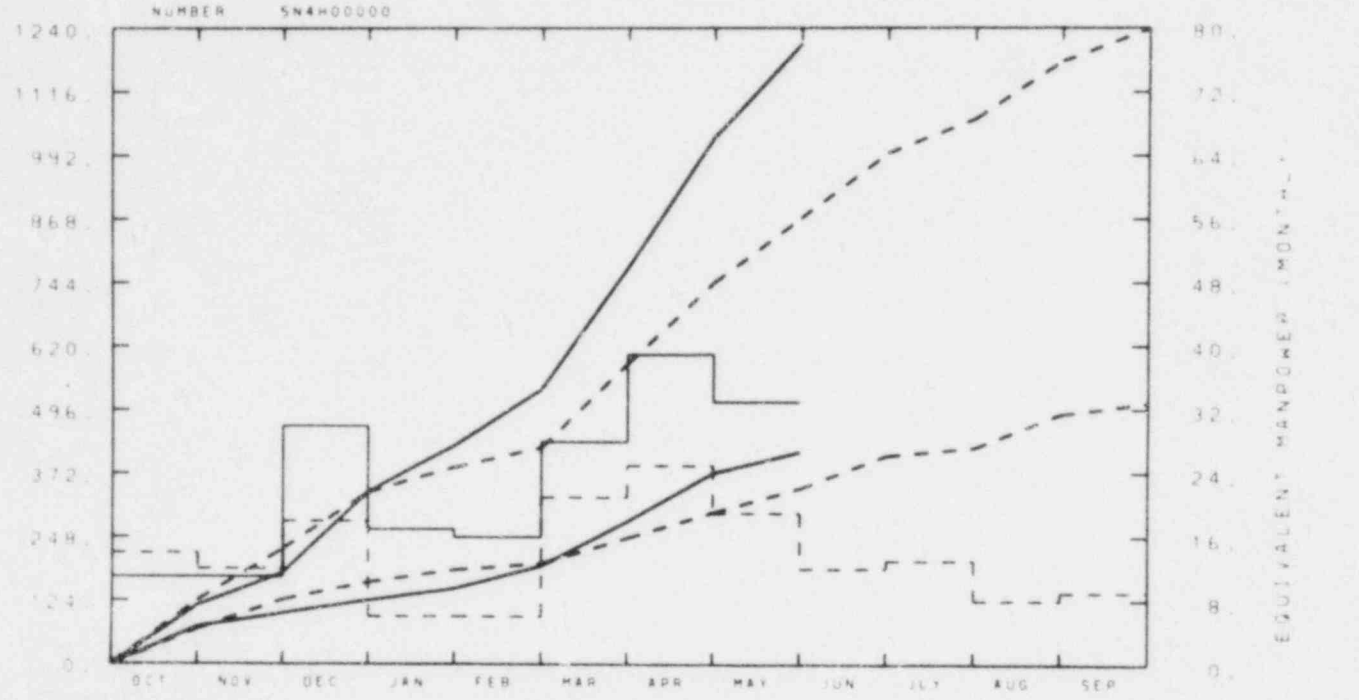
BUDGET	0	0	3	6	6	5	5	5	5	6	6	6
ACTUAL	0	0	1	1	5	5	4	5				

No significant variance.

EG&G IDAHO INC.

PLANT SUPPORT - PLANT SYS NO 3

NUMBER SN4H00000



TOTAL PROGRAM

BUDGET	125	225	336	384	423	586	744	870	997	1064	1176	1239
ACTUAL	115	178	336	427	537	774	1027	1209				

MATERIAL

BUDGET	69	126	160	184	197	246	296	343	407	422	487	508
ACTUAL	73	99	125	147	192	279	373	414				

MANPOWER

BUDGET	14	12	18	6	6	21	25	19	12	13	8	4
ACTUAL	11	11	30	17	16	28	39	33				

BUDGET - - - - -

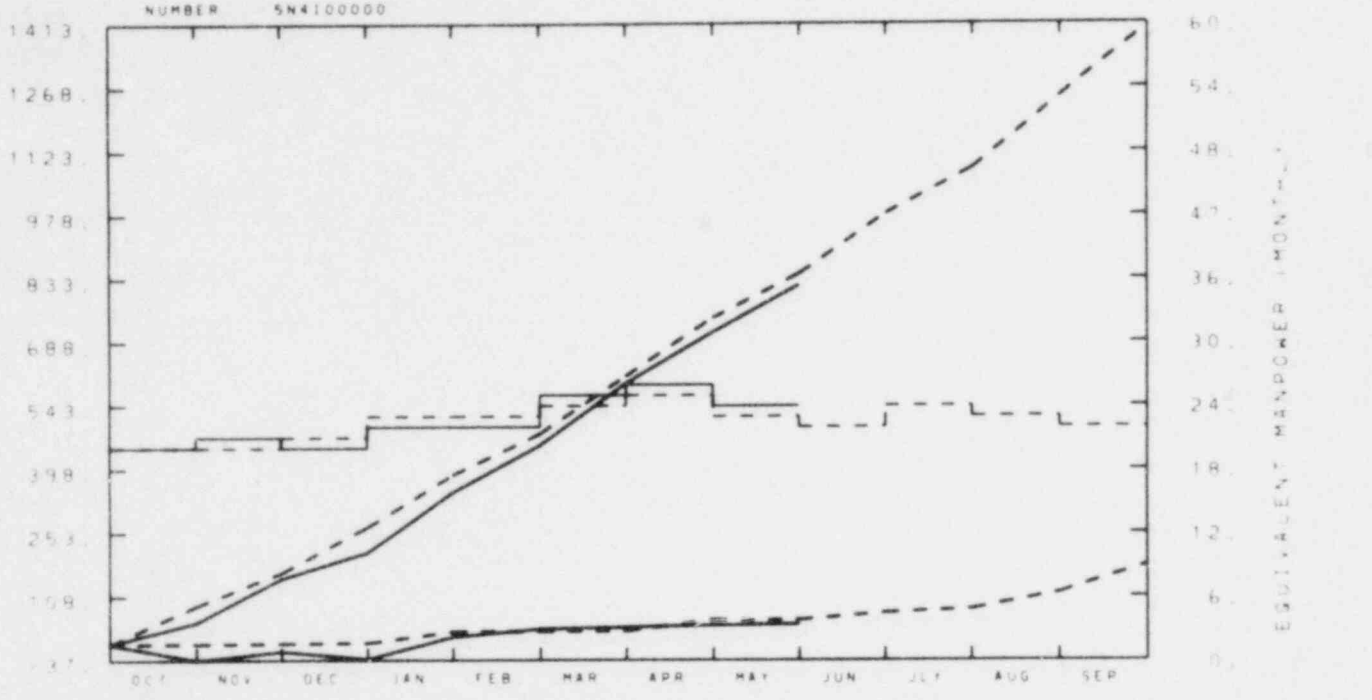
ACTUAL ———

Actual costs reflect configuration modifications and test acceleration caused by schedule adjustments. The summary cost account was prepared to support the L3-4 and L3-5 spool piece design and installation. However, recent endeavors not only include the above, but also include significant instrument support. In addition, the account does not include all the costs incurred to support the L3-7 instrumentation. CCB corrective action has been initiated.

EG&G IDAHO INC.

PLANT SUPPORT - PLANT SYS NO 1

NUMBER SN4100000



TOTAL PROGRAM

BUDGET	87	162	266	385	479	611	744	844	981	1085	1248	1406
ACTUAL	49	149	209	346	453	594	712	819				

MATERIAL

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

MANPOWER

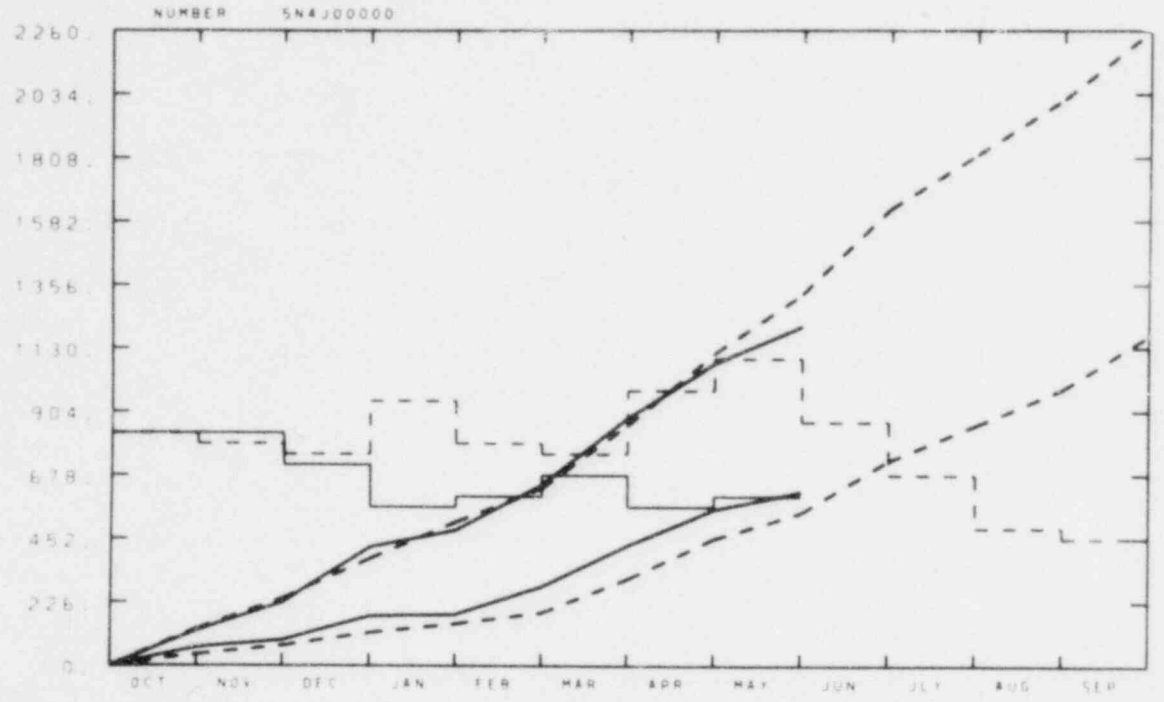
BUDGET	20	20	21	23	23	24	25	23	22	24	23	22
ACTUAL	20	21	20	22	22	25	26	24				

No significant variance.

EG&G IDAHO INC.

PLANT SUPPORT - PLANT SYS NO 2

NUMBER SN4J00000



TOTAL PROGRAM

BUDGET	131	240	381	511	632	857	1112	1324	1627	1820	2016	2258
ACTUAL	126	226	422	483	644	882	1076	1208				

MATERIAL

BUDGET	40	72	117	149	189	309	452	544	729	855	983	1171
ACTUAL	65	92	177	182	282	428	556	619				

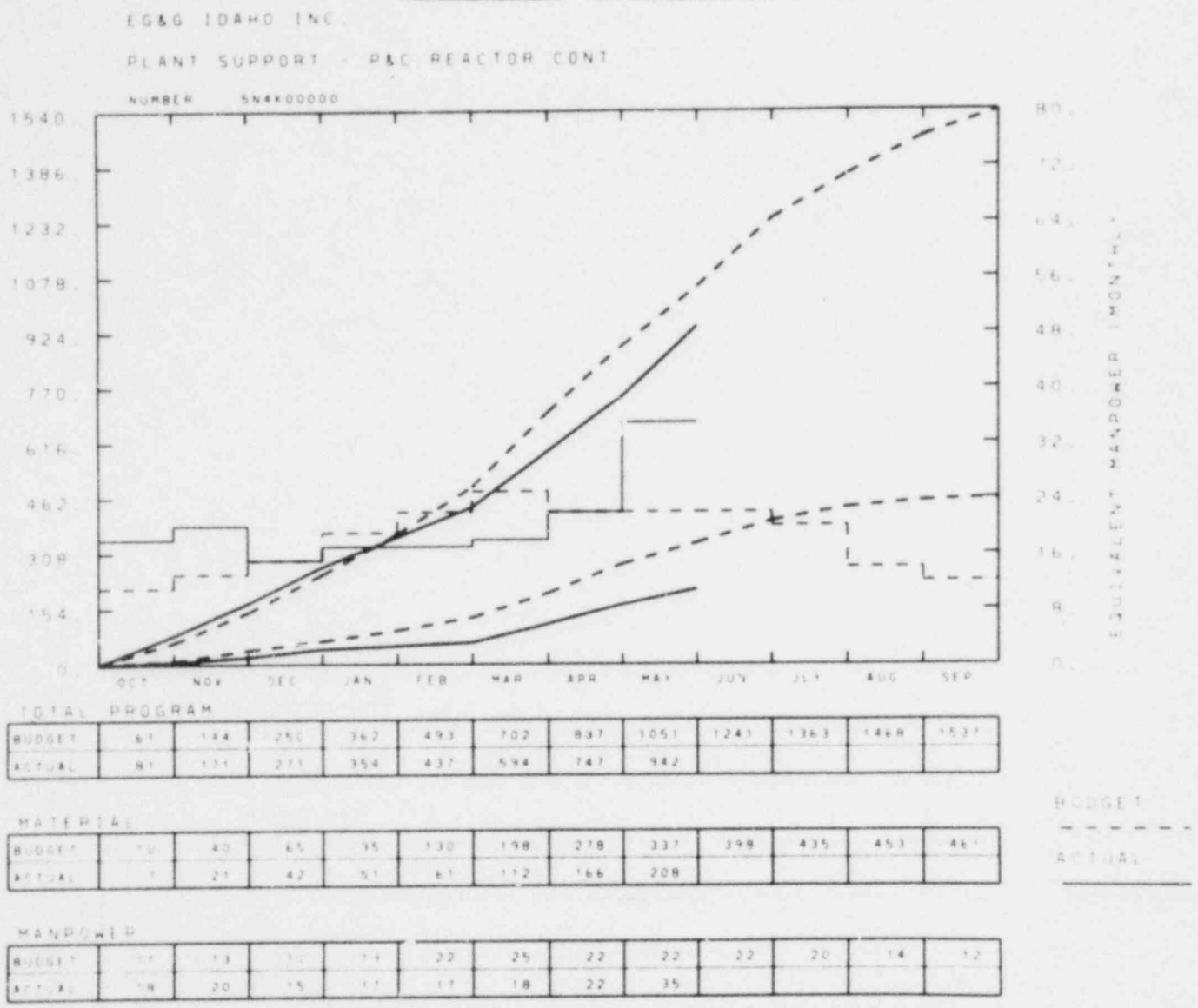
MANPOWER

BUDGET	22	21	10	25	21	20	26	29	23	18	13	12
ACTUAL	22	22	19	15	16	18	15	16				

BUDGET

ACTUAL

No significant variance.

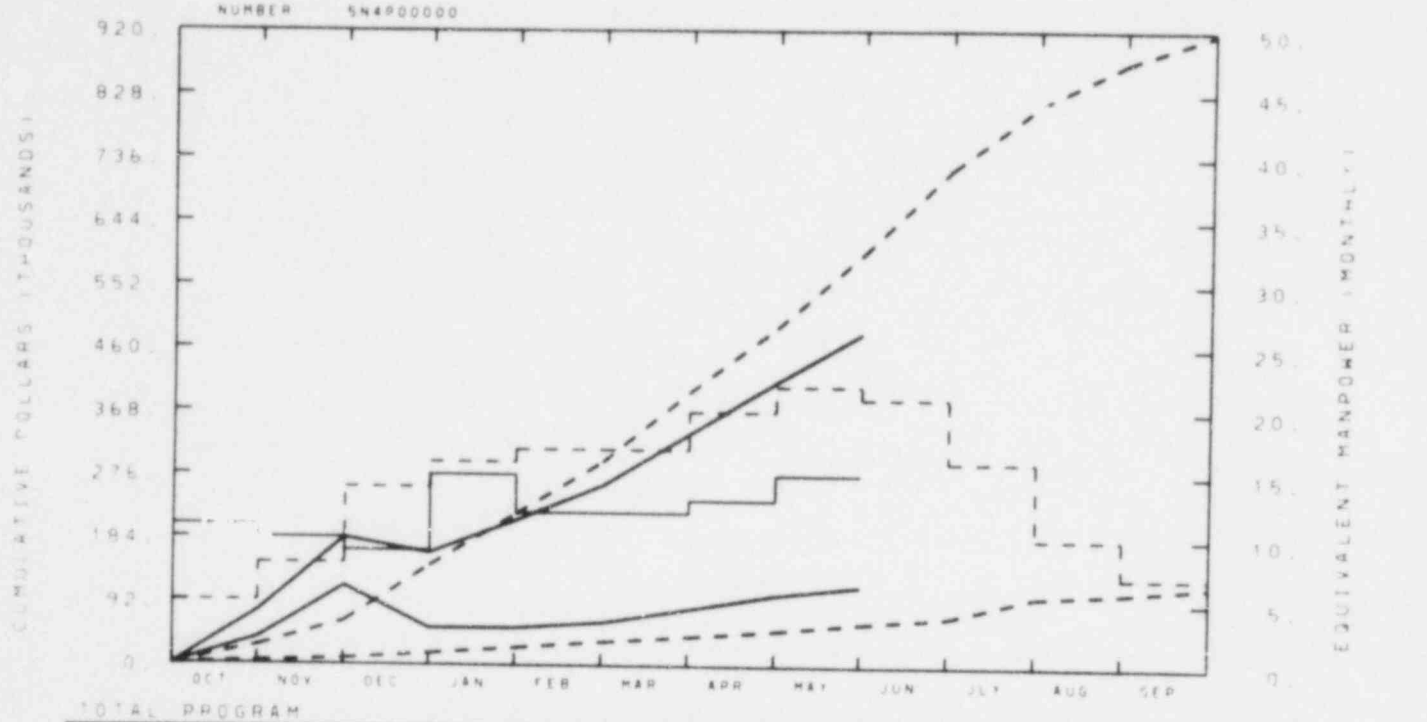


Corrective action has been taken (increased manpower) which will correct this underrun by yearend if the manpower is retained.

EG&G IDAHO INC.

PLANT SUPPORT - P&C I&E SUPPORT

NUMBER SN4P00000



TOTAL PROGRAM

BUDGET	27	63	144	219	295	397	491	598	721	813	874	916
ACTUAL	77	193	162	210	261	336	412	482				

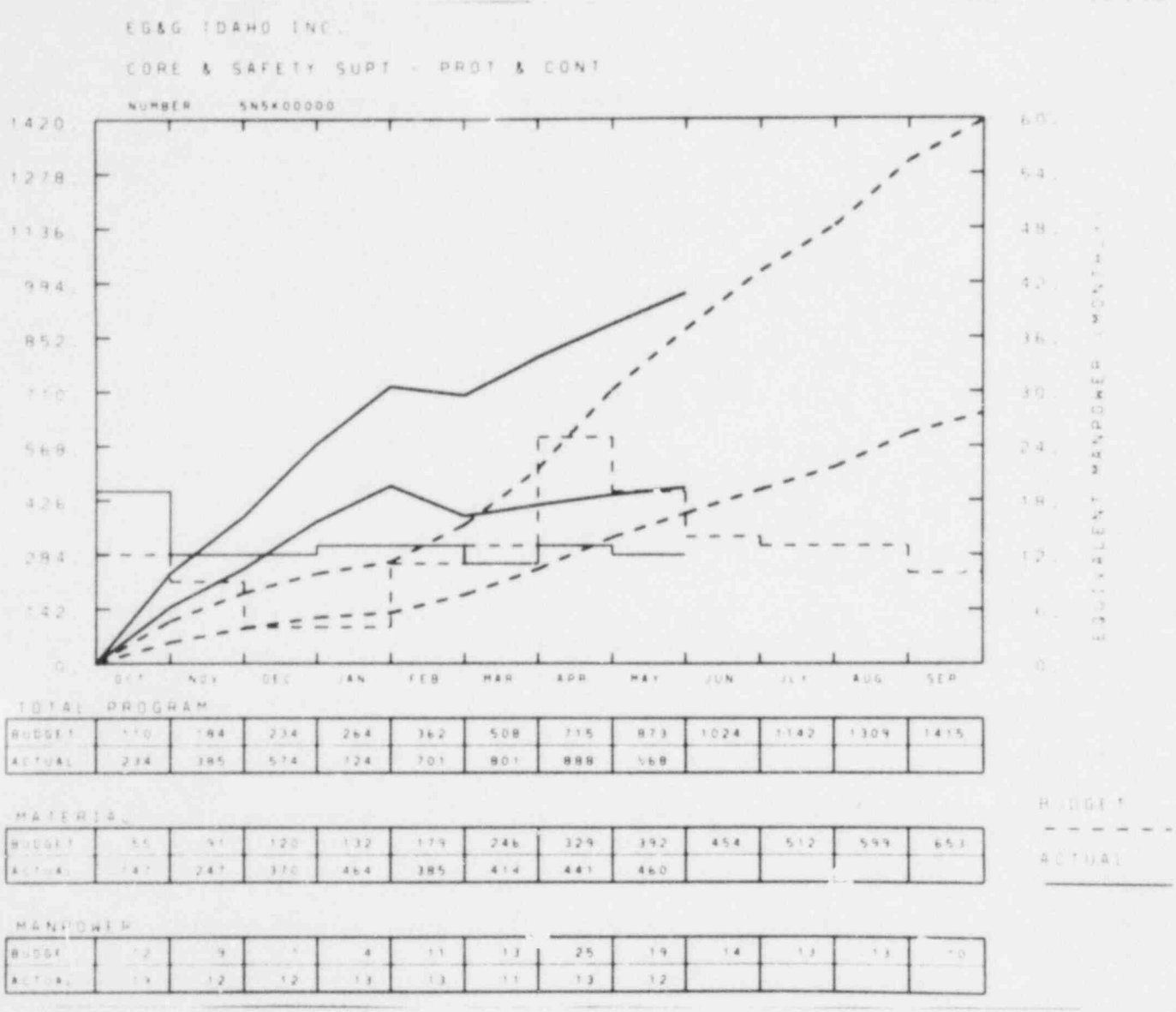
MATERIAL

BUDGET	4	9	17	25	34	42	51	62	71	101	108	118
ACTUAL	38	114	53	54	62	82	103	116				

MANPOWER

BUDGET	5	8	11	16	17	17	20	22	21	16	10	7
ACTUAL	11	10	9	15	12	12	13	15				

Lack of design engineering manpower is still the major cause of the budget underrun. Increased recruiting should help in the next few months. Also, some tasks have been deferred and the money will be returned to management reserve.



TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

BUDGET	12	9	1	4	11	13	25	19	14	13	13	10
ACTUAL	13	12	12	13	13	11	13	12				

BUDGET - - - - -

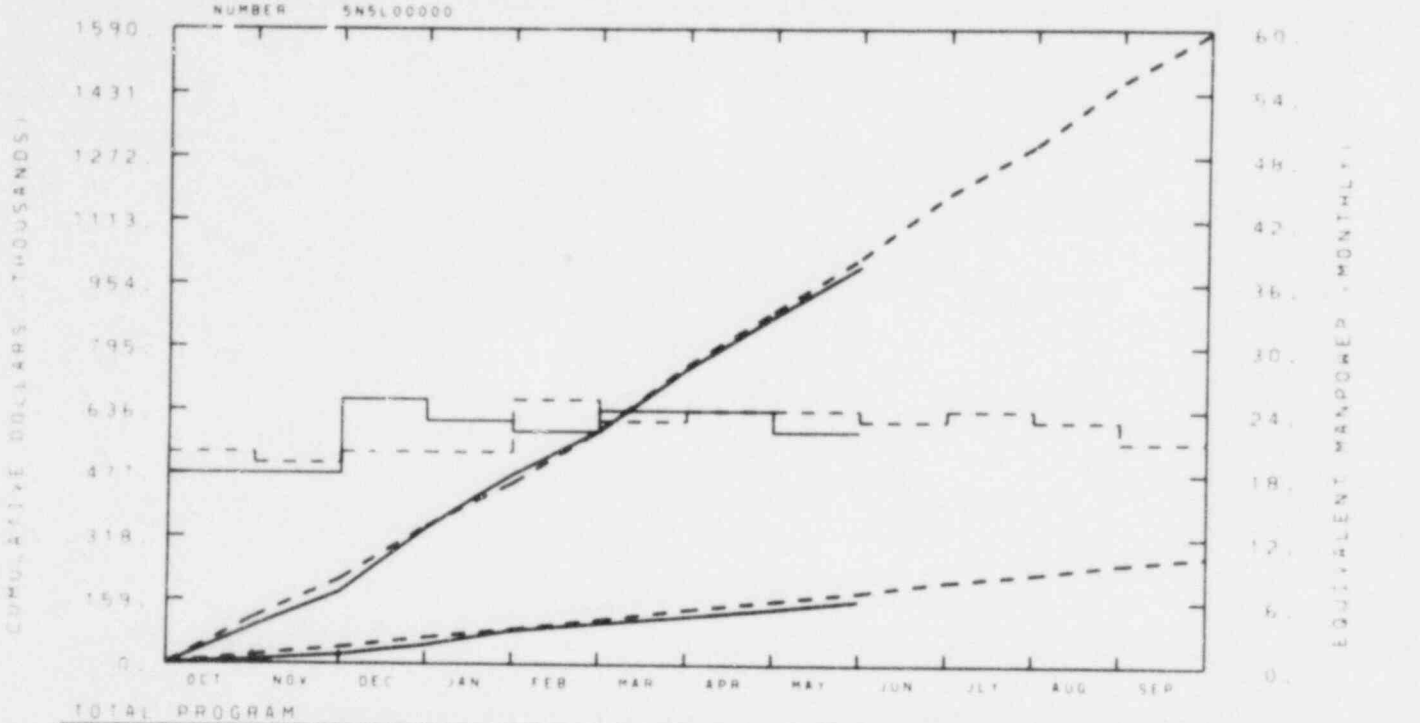
ACTUAL ———

Overall spending as of June 1, 1980 is within 10% of the actual budget. Future projections indicate that yearend actuals will be close to budgeted funds.

EG&G IDAHO INC.

CORE & SAFETY SUBT - REACTOR SYS

NUMBER SNSL00000



TOTAL PROGRAM

BUDGET	115	212	344	453	585	750	885	1019	1181	1302	1461	1583
ACTUAL	93	180	339	415	585	741	872	999				

MATERIAL

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

MANPOWER

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

BUDGET - - - -

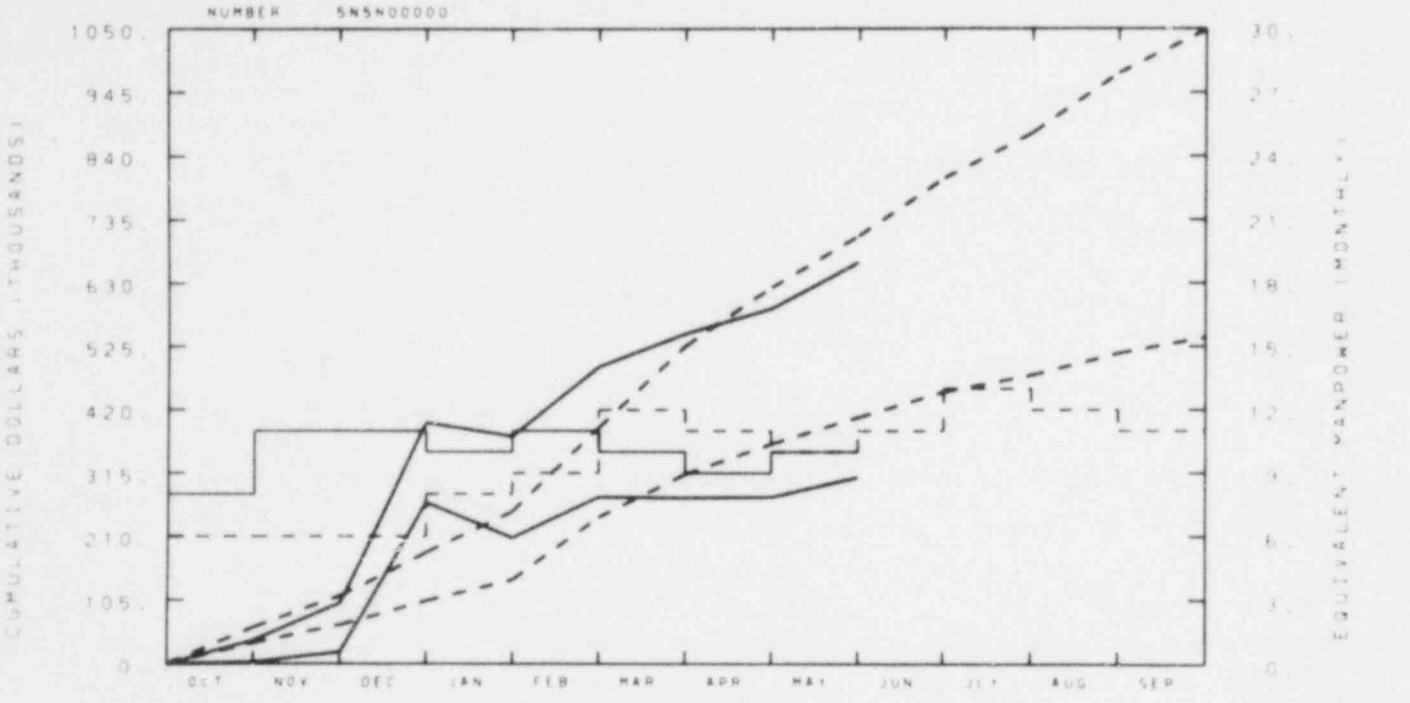
ACTUAL ———

No significant variance.

EG&G IDAHO INC.

CORE & SAFE SUPT - FUEL ENG & OP

NUMBER SNSN00000



TOTAL PROGRAM

BUDGET	60	112	183	251	390	526	624	709	804	879	977	1048
ACTUAL	33	100	398	376	491	546	588	665				

MATERIAL

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

MANPOWER

BUDGET	6	6	6	8	9	12	11	10	11	13	12	11
ACTUAL	9	11	11	10	11	10	9	10				

BUDGET - - - - -

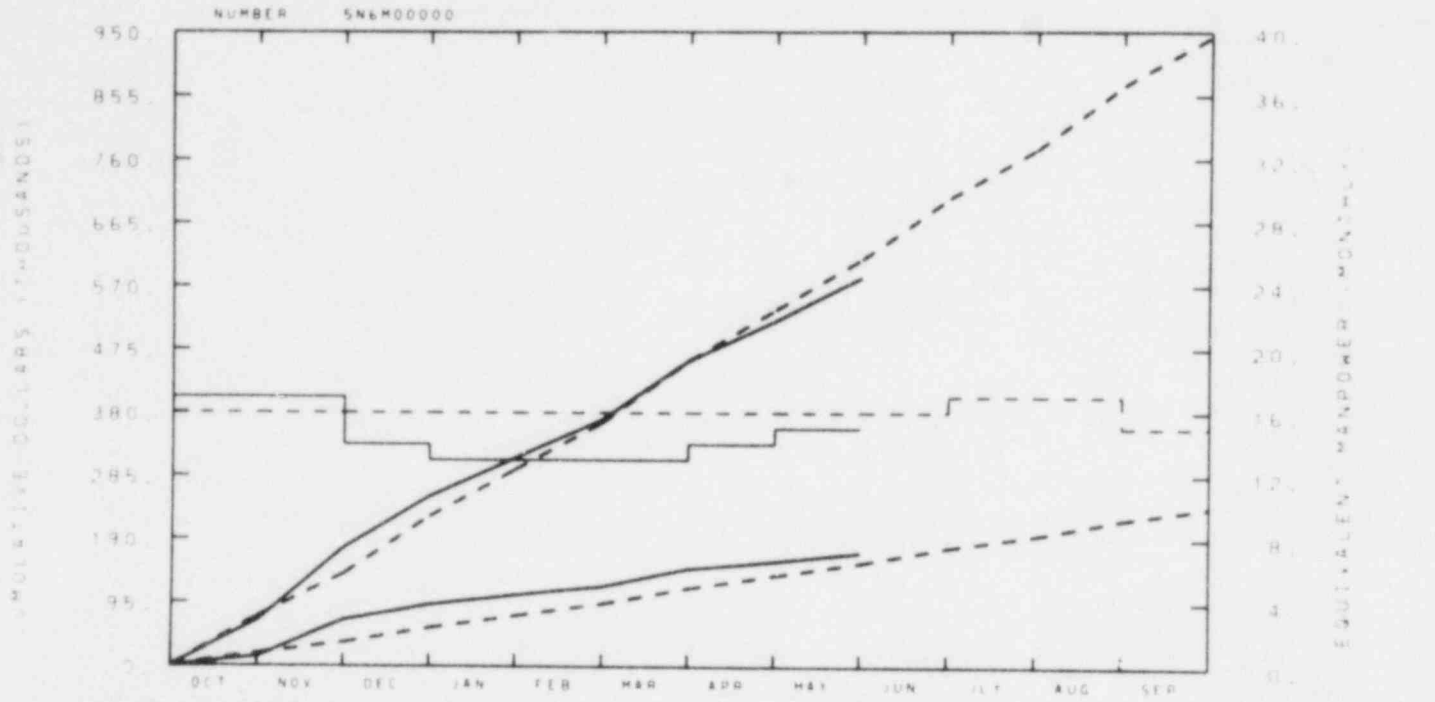
ACTUAL ———

Cost graphs indicate slight underexpenditure basically due to outstanding requisitions. Material requisitions in process/unpaid are presently estimated to be about $50K.

EG&G IDAHO INC.

COMMON SUPT - CDCS/TECH SUPPORT

NUMBER SN6M00000



TOTAL PROGRAM

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

MATERIAL

BUDGET	19	35	57	75	93	117	136	155	178	196	219	238
ACTUAL	14	69	92	106	119	146	157	170				

MANPOWER

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

BUDGET

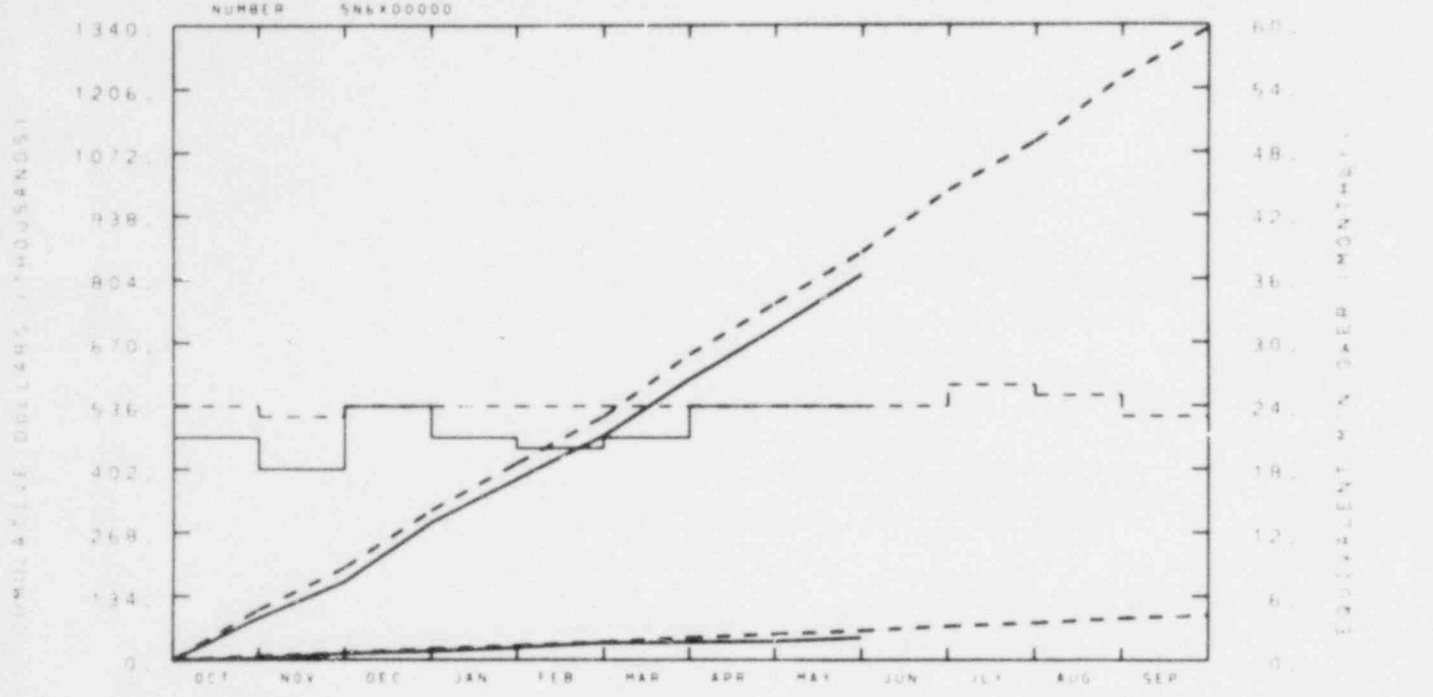
ACTUAL

No significant variance.

EG&G IDAHO INC.

COMMON SUPT - QUALITY

NUMBER SN6X00000



TOTAL PROGRAM

BUDGET	105	194	315	415	514	645	754	862	992	1094	1229	1332
ACTUAL	88	164	289	381	473	593	700	815				

MATERIAL

BUDGET	8	14	21	30	37	47	54	62	71	78	88	95
ACTUAL	3	13	18	26	36	37	39	47				

MANPOWER

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

BUDGET

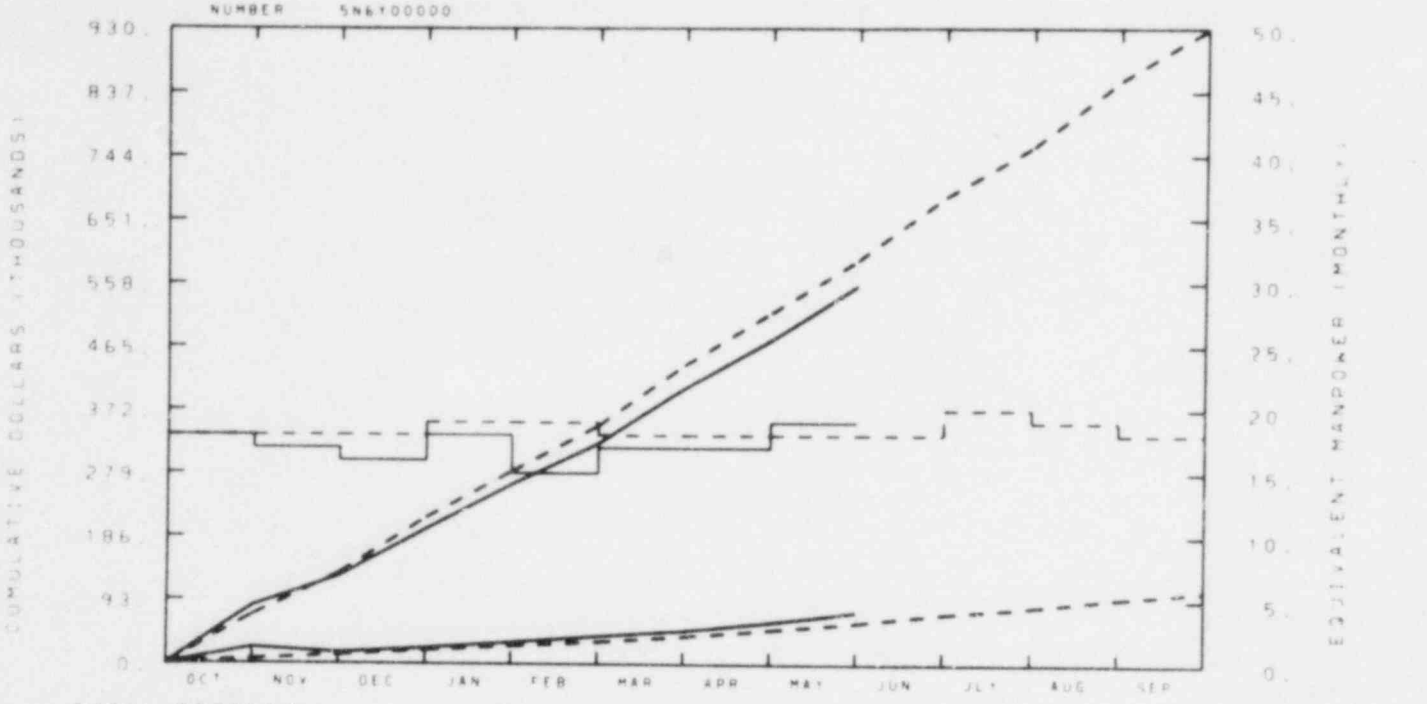
ACTUAL

No significant variance.

EG&G IDAHO INC.

COMMON SUPT - PLANS & BUDGETS

NUMBER SN&Y00000



TOTAL PROGRAM

BUDGET	71	132	214	281	349	438	515	592	685	758	955	928
ACTUAL	84	128	197	262	323	404	475	555				

MATERIAL

BUDGET	1	12	20	26	32	40	51	61	74	84	97	107
ACTUAL	23	16	23	32	40	49	61	77				

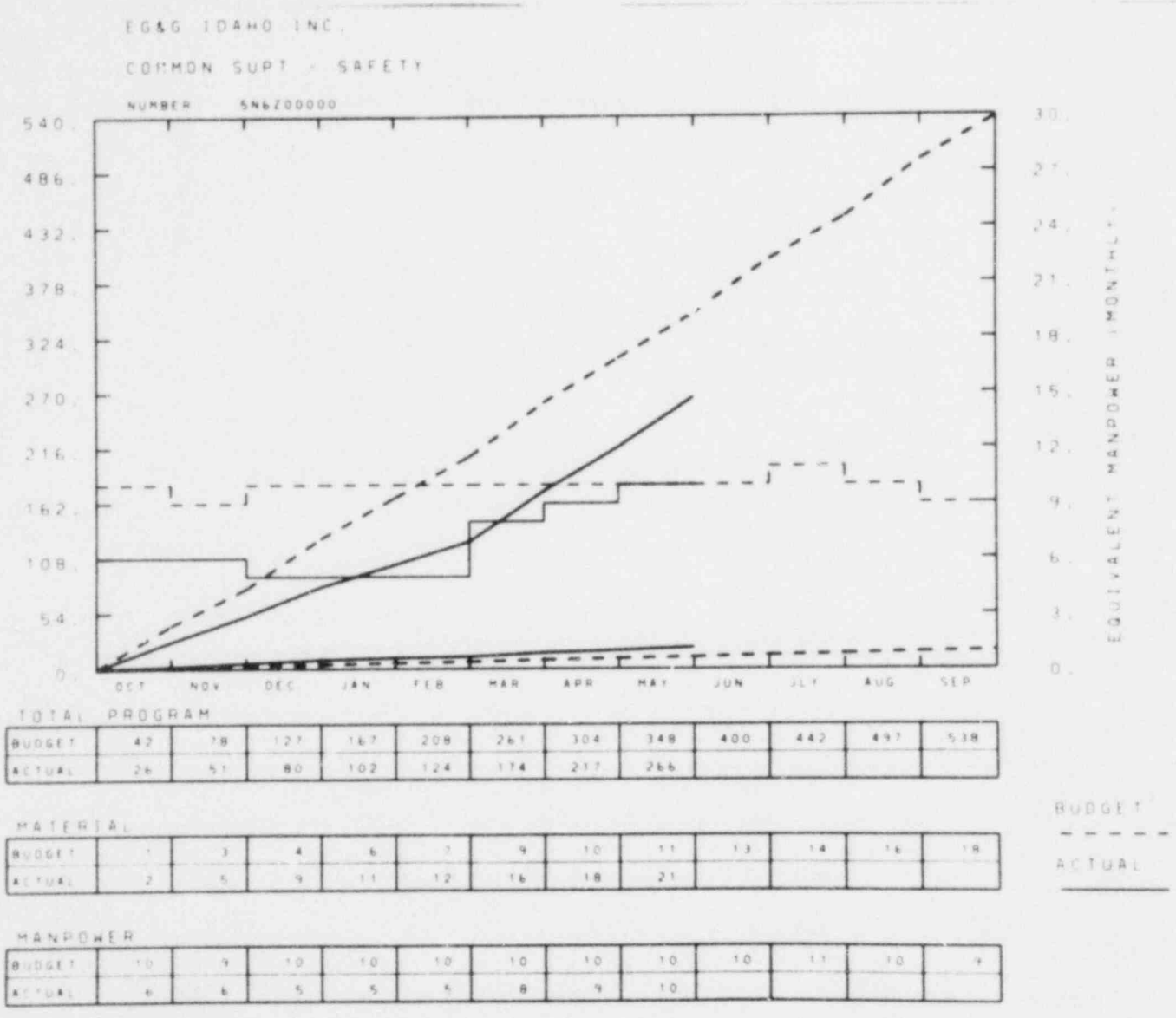
MANPOWER

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

BUDGET - - - - -

ACTUAL ———

No significant variance.



TOTAL PROGRAM

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

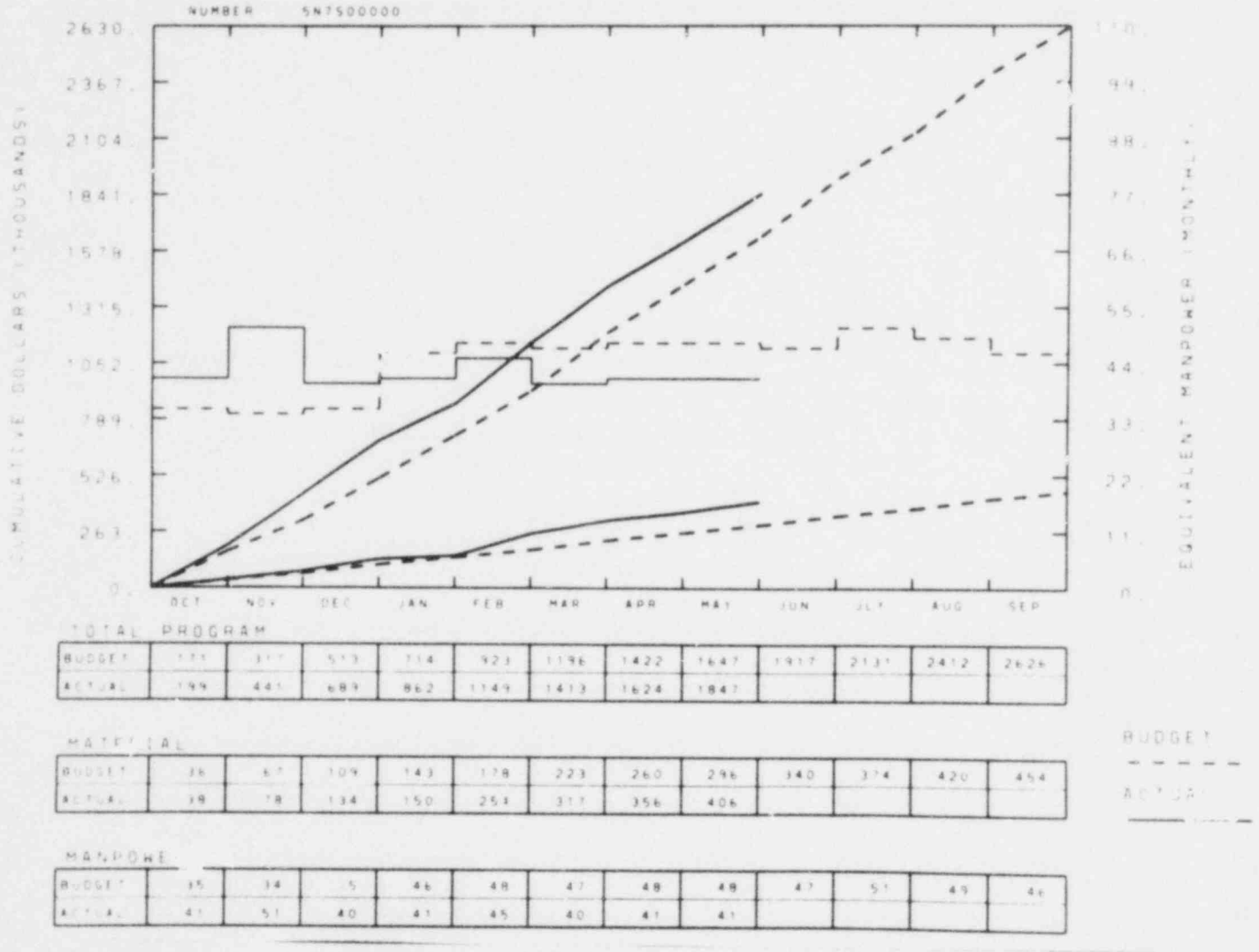
MATERIAL

BUDGET	1	3	4	6	7	9	10	11	13	14	16	18
ACTUAL	2	5	9	11	12	16	18	21				

MANPOWER

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

Staffing is beginning to level out and should be close to projected budget by yearend.



TOTAL PROGRAM

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

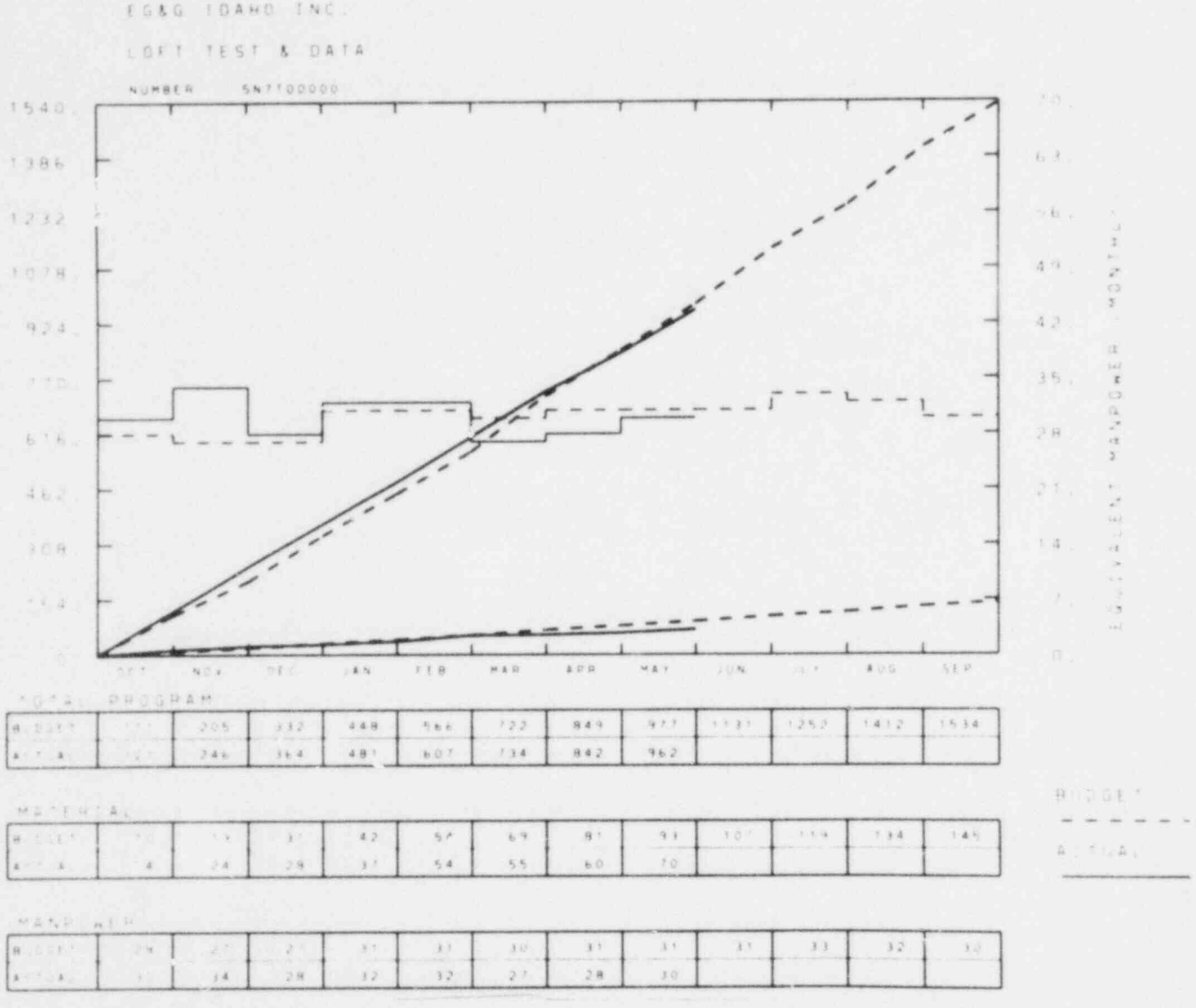
MATERIAL

BUDGET	36	67	109	143	178	223	260	296	340	374	420	454
ACTUAL	39	78	134	150	253	317	356	406				

MANPOWER

BUDGET	35	34	5	46	48	47	48	48	47	51	49	46
ACTUAL	41	51	40	41	45	40	41	41				

The material overrun is a result of LOFT operations being charged for the electric power used by the TAN area. Corrective action will be taken.

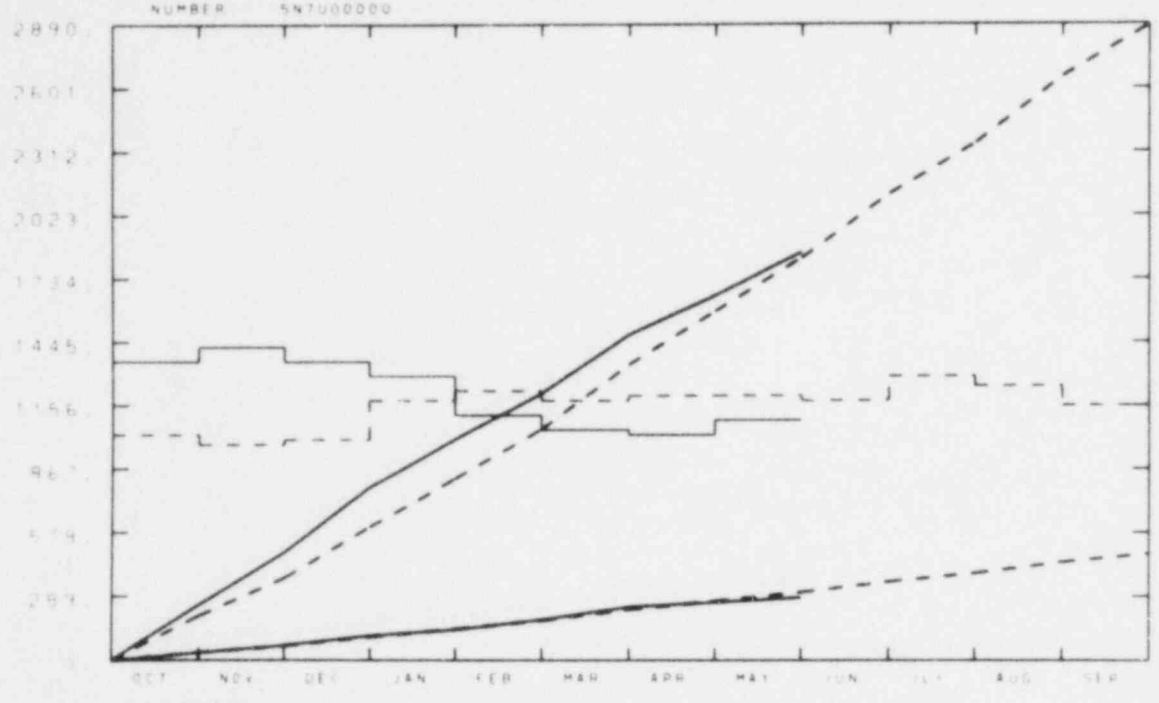


No significant variance.

EG&G IDAHO INC.

LOFT FACILITY SUPPORT

NUMBER SNTU00000



TOTAL PROGRAM

BUDGET	201	312	604	823	1048	1343	1586	1828	2120	2350	2654	2884
ACTUAL	251	489	783	1002	1211	1479	1658	1854				

MATERIAL

BUDGET	35	45	105	142	180	229	269	309	356	394	444	481
ACTUAL	33	67	117	138	184	242	263	284				

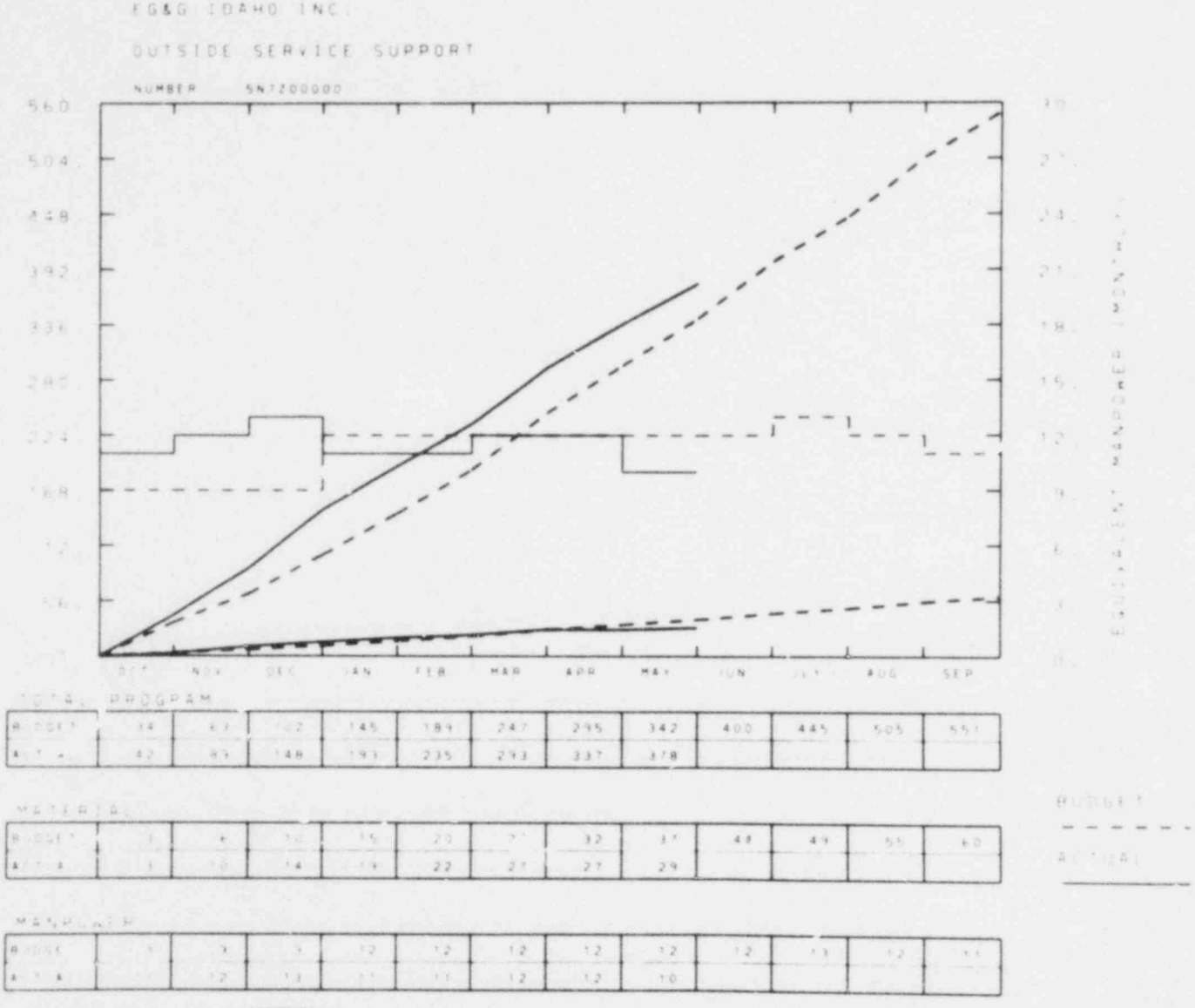
MANPOWER

BUDGET	44	44	45	53	55	51	54	54	53	58	56	57
ACTUAL	41	64	61	58	50	47	46	43				

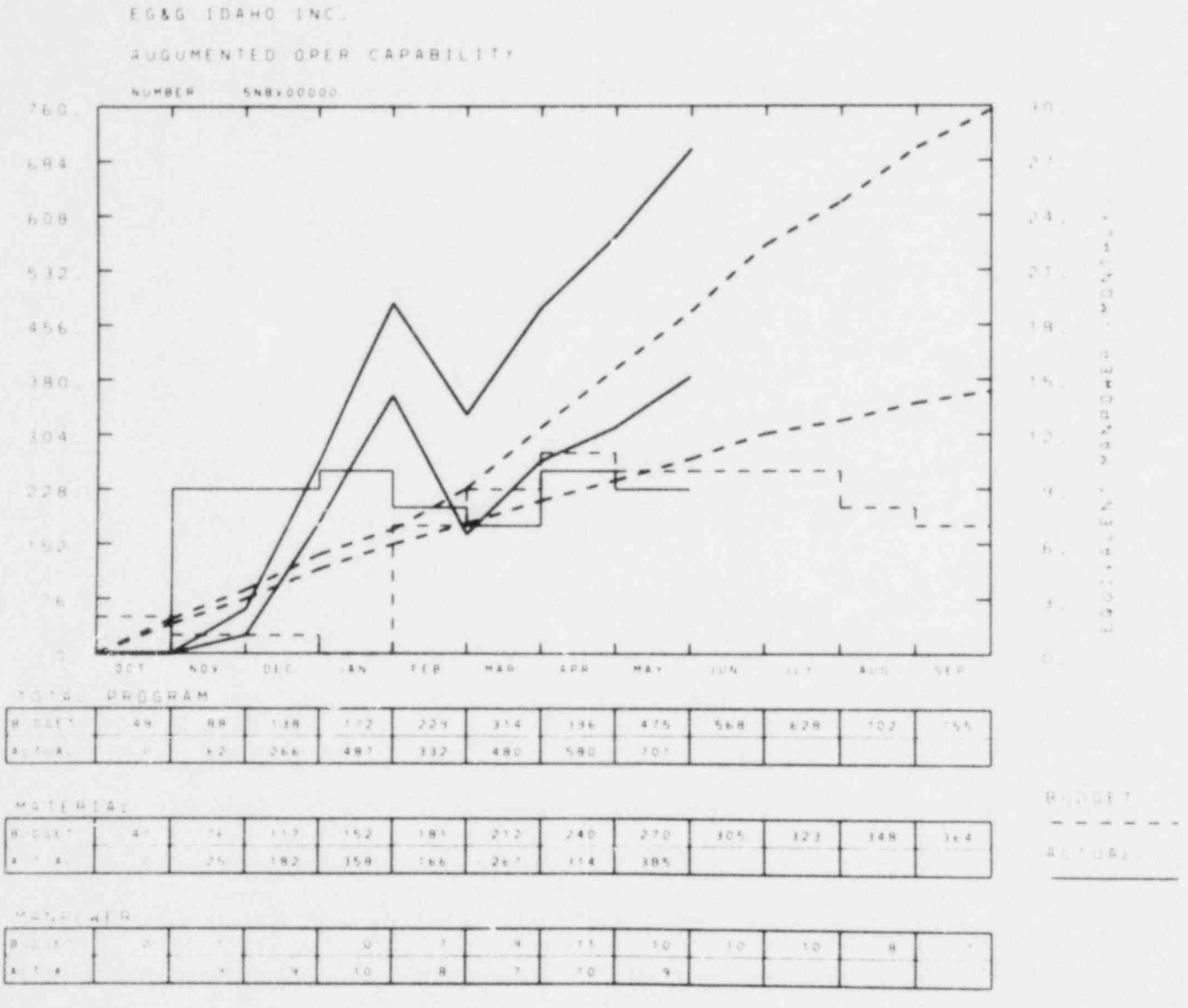
BUDGET

ACTUAL

No significant variance.



Labor overruns occurred during the first quarter of FY-80 to support the test schedule and plant modification. Underruns during the balance of the year are expected to correct the problem.

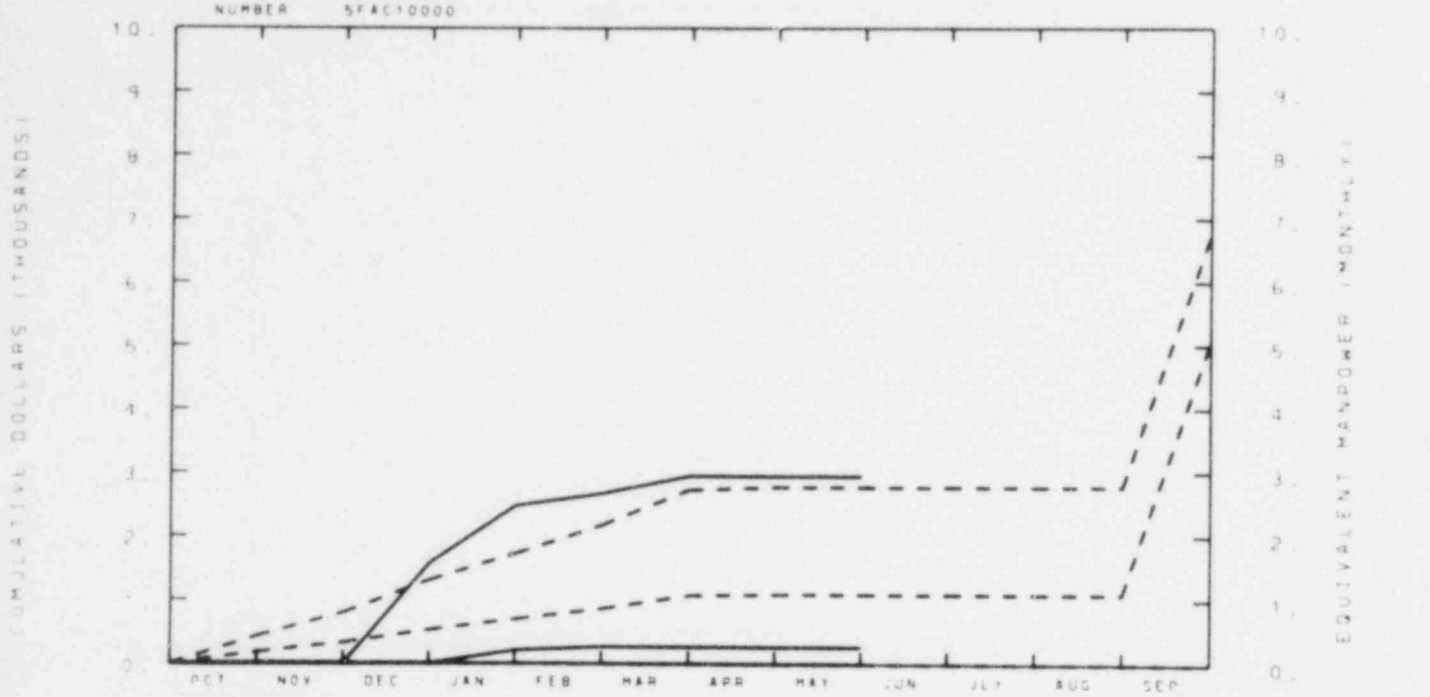


Steps have been taken to limit expenditures to the budget at yearend.

EG&G IDAHO INC.

SGAE MANAGEMENT

NUMBER 5FAC10000



TOTAL PROGRAM

BUDGET	0	1	1	2	2	3	3	3	3	3	3	7
ACTUAL	0	0	2	2	3	3	3	3				

MATERIAL

BUDGET	0	0	1	1	1	1	1	1	1	1	1	5
ACTUAL	0	0	0	0	0	0	0	0				

MANPOWER

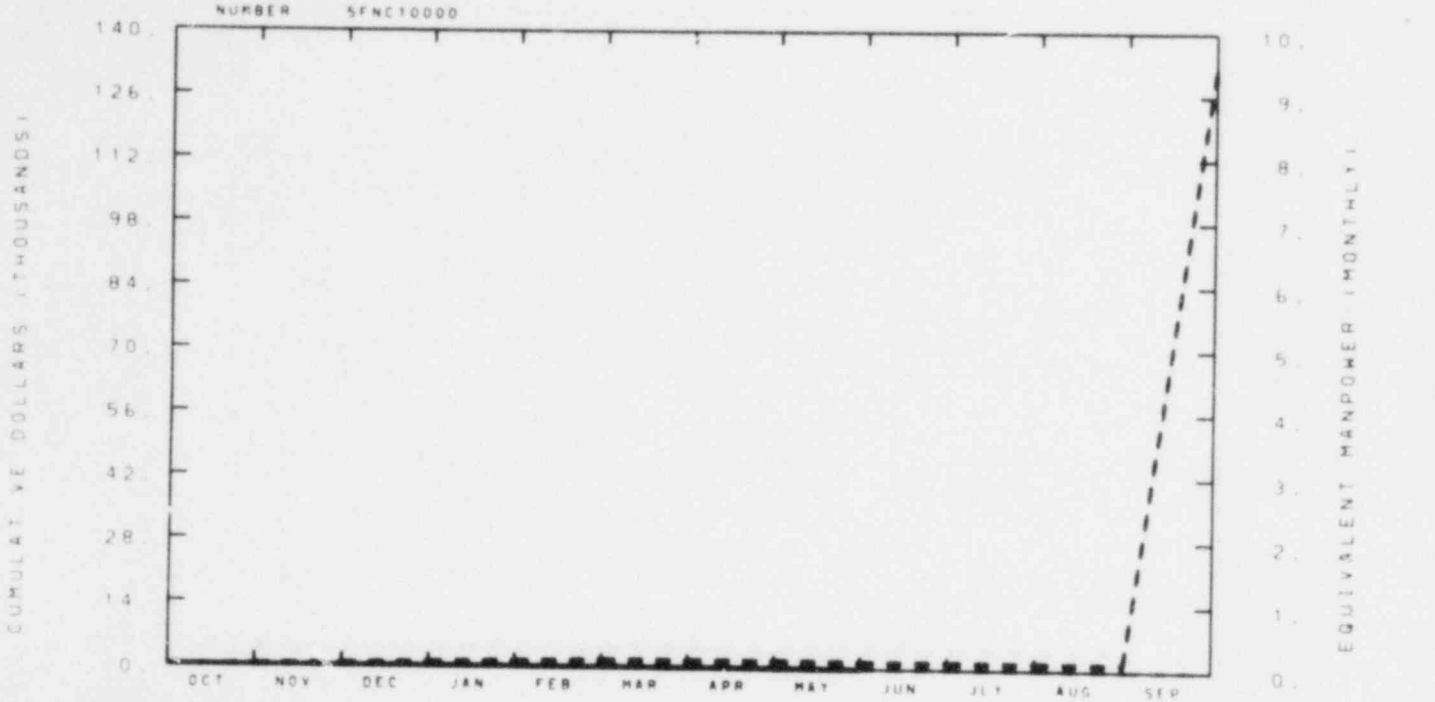
BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0				

No significant variance.

EG&G IDAHO INC.

ECN MANAGEMENT

NUMBER SFNC10000



TOTAL PROGRAM

BUDGET	0	1	1	1	2	2	2	2	2	2	2	132
ACTUAL	0	0	0	0	0	0	0	0				

MATERIAL

BUDGET	0	0	1	1	1	1	1	1	1	1	1	132
ACTUAL	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				

BUDGET - - - - -

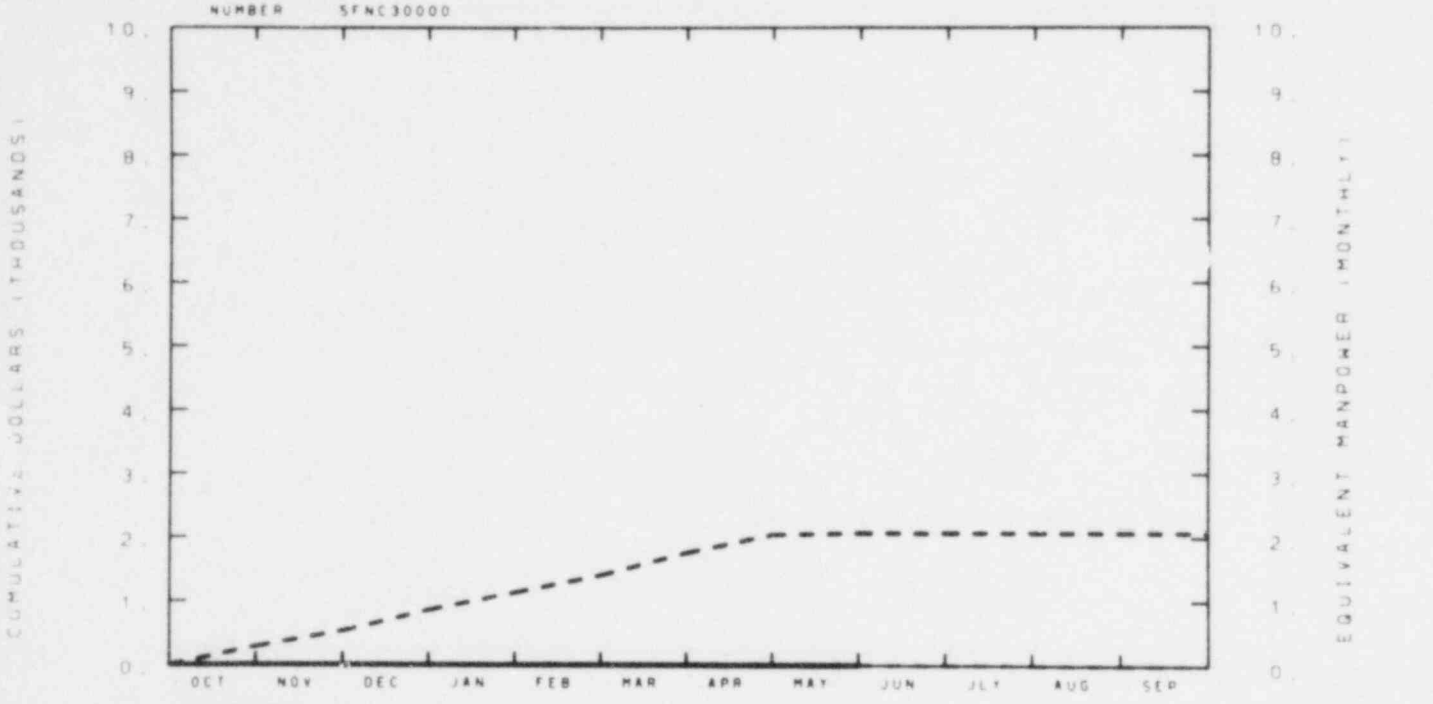
ACTUAL ———

No significant variance.

EG&G IDAHO INC.

RPI SUBCONTRACT

NUMBER SFNC30000



TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

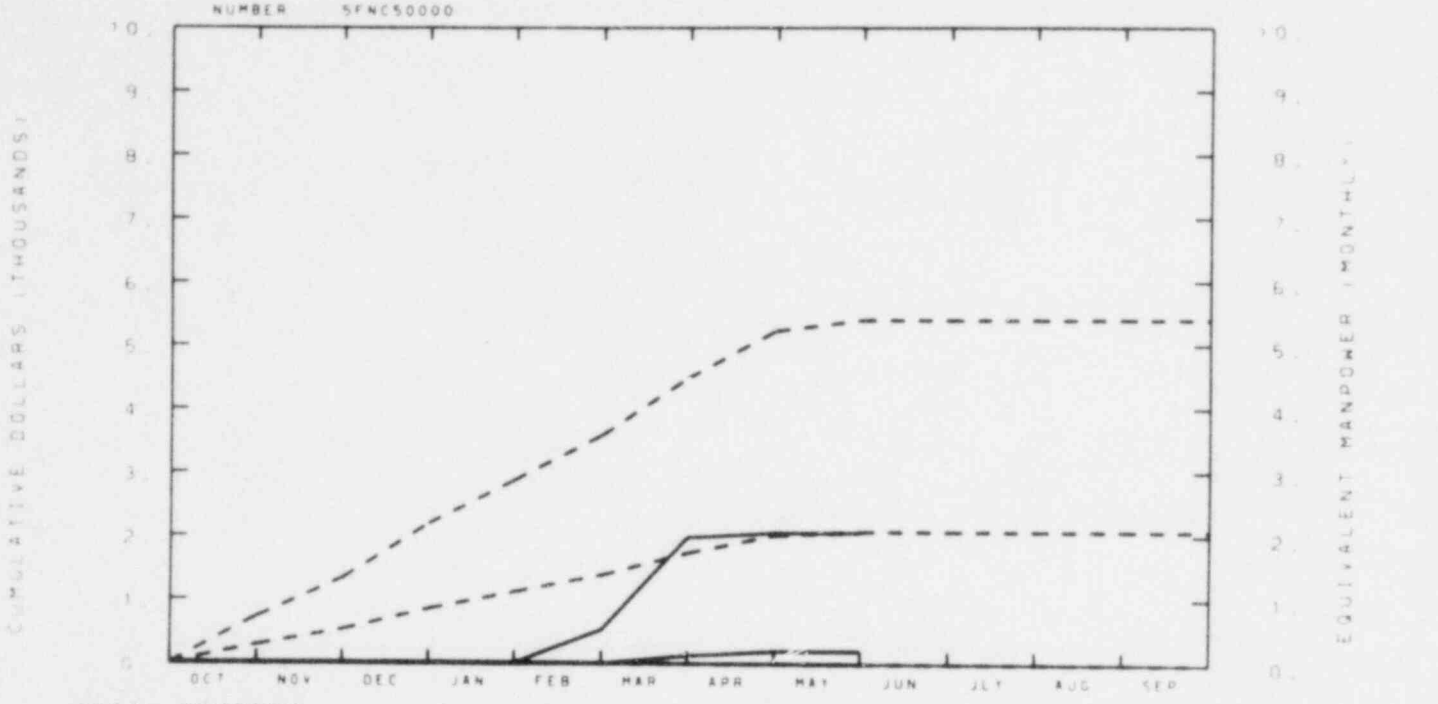
BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0				

No expenditures have been incurred. Assessment of program on June 12 with Dr. R. Gay at RPI, will determine if funds can be returned to reserve.

EG&G IDAHO INC.

INEL SUPPORT

NUMBER SFNC50000



TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

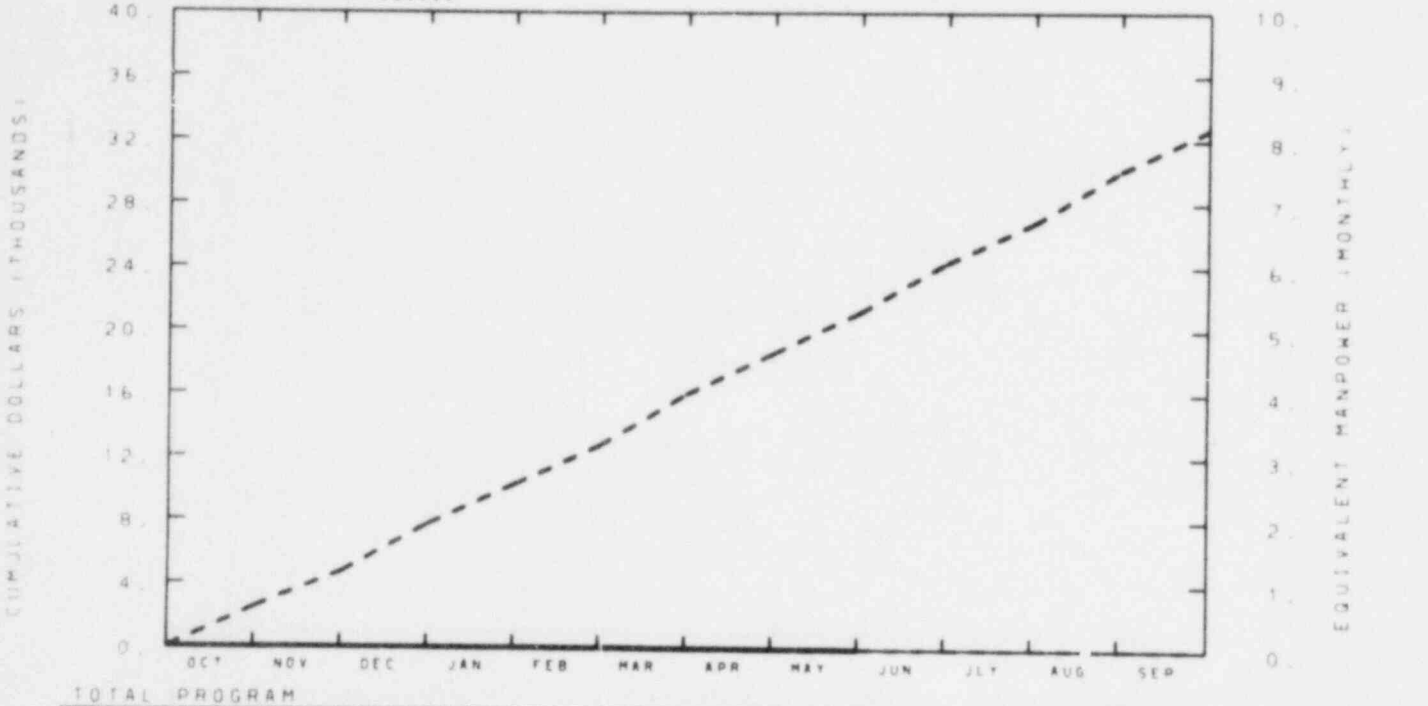
BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0				

Spending is below budget and activities are nearly complete. The status as of July 1 should indicate if funds can be returned to reserve.

EG&G IDAHO INC.

PNA TECHNIQUES

NUMBER SFNC60000



TOTAL PROGRAM

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

MATERIAL

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

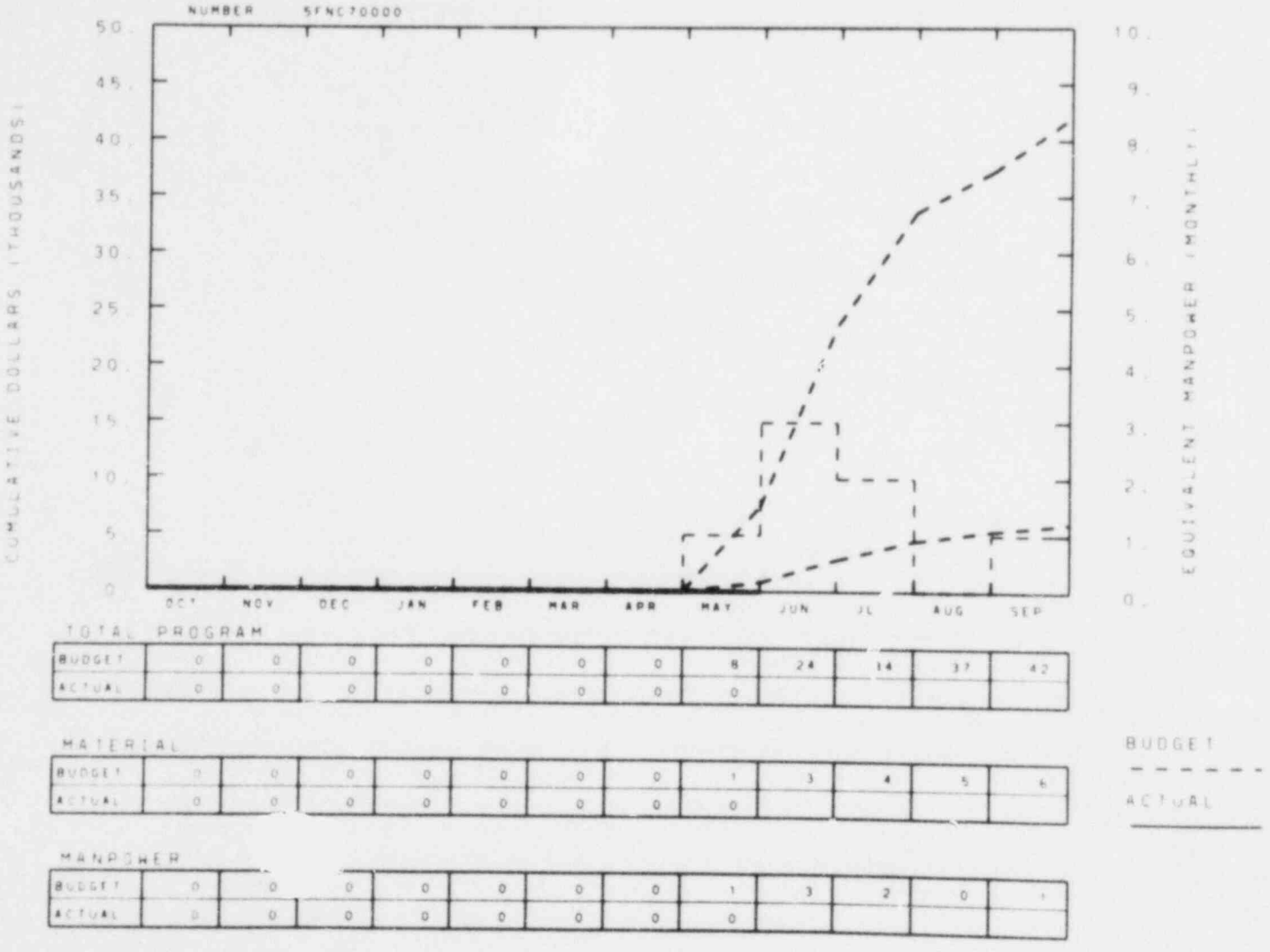
MANPOWER

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

BUDGET - - - - -

ACTUAL ———

No billing has yet been received from the subcontractor, Rensselaer Polytechnic Institute. Work has been proceeding since September, 1979.

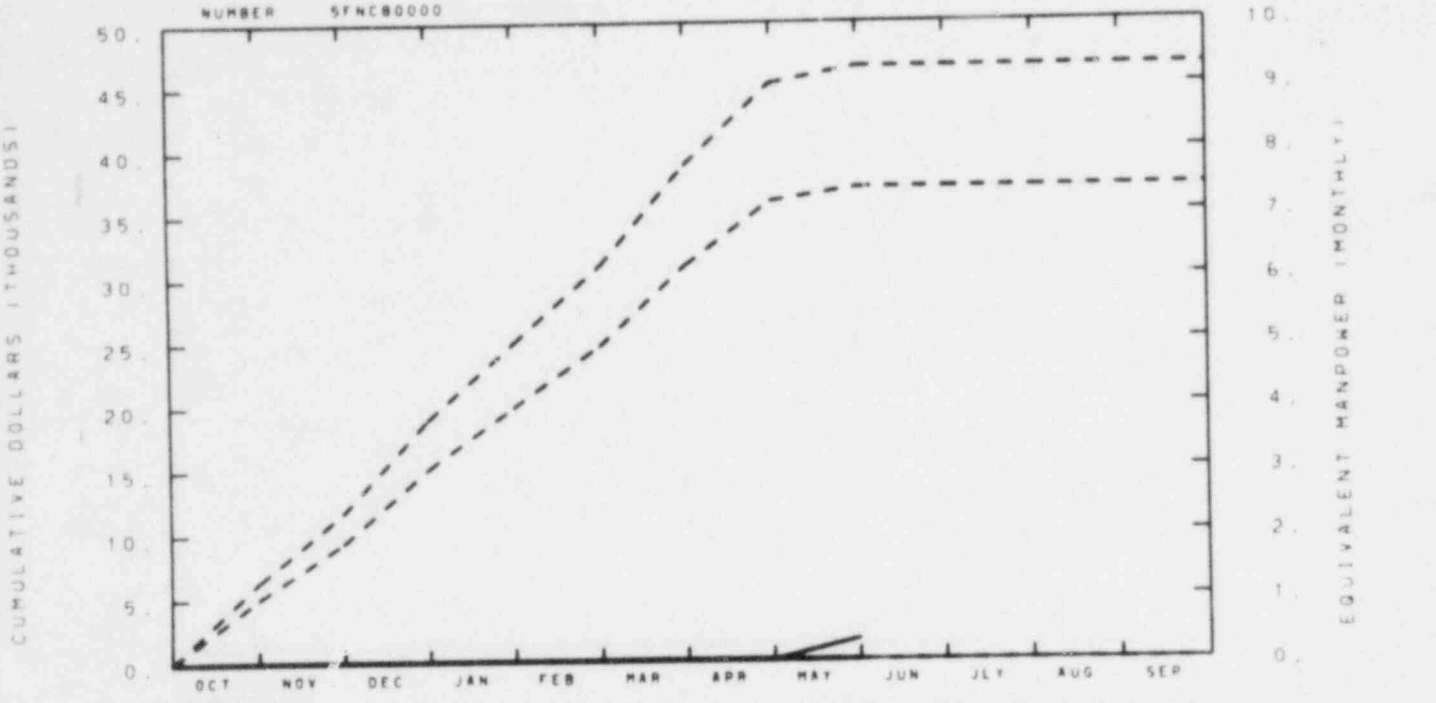


Task has not started because of manpower assignments; however, it will start on July 1, 1980.

EG&G IDAHO INC.

TWO-PHASE LOOP PLATFORM

NUMBER SFNC80000



TOTAL PROGRAM

BUDGET	6	12	19	25	31	39	45	46	46	46	46	46
ACTUAL	0	0	0	0	0	0	0	2				

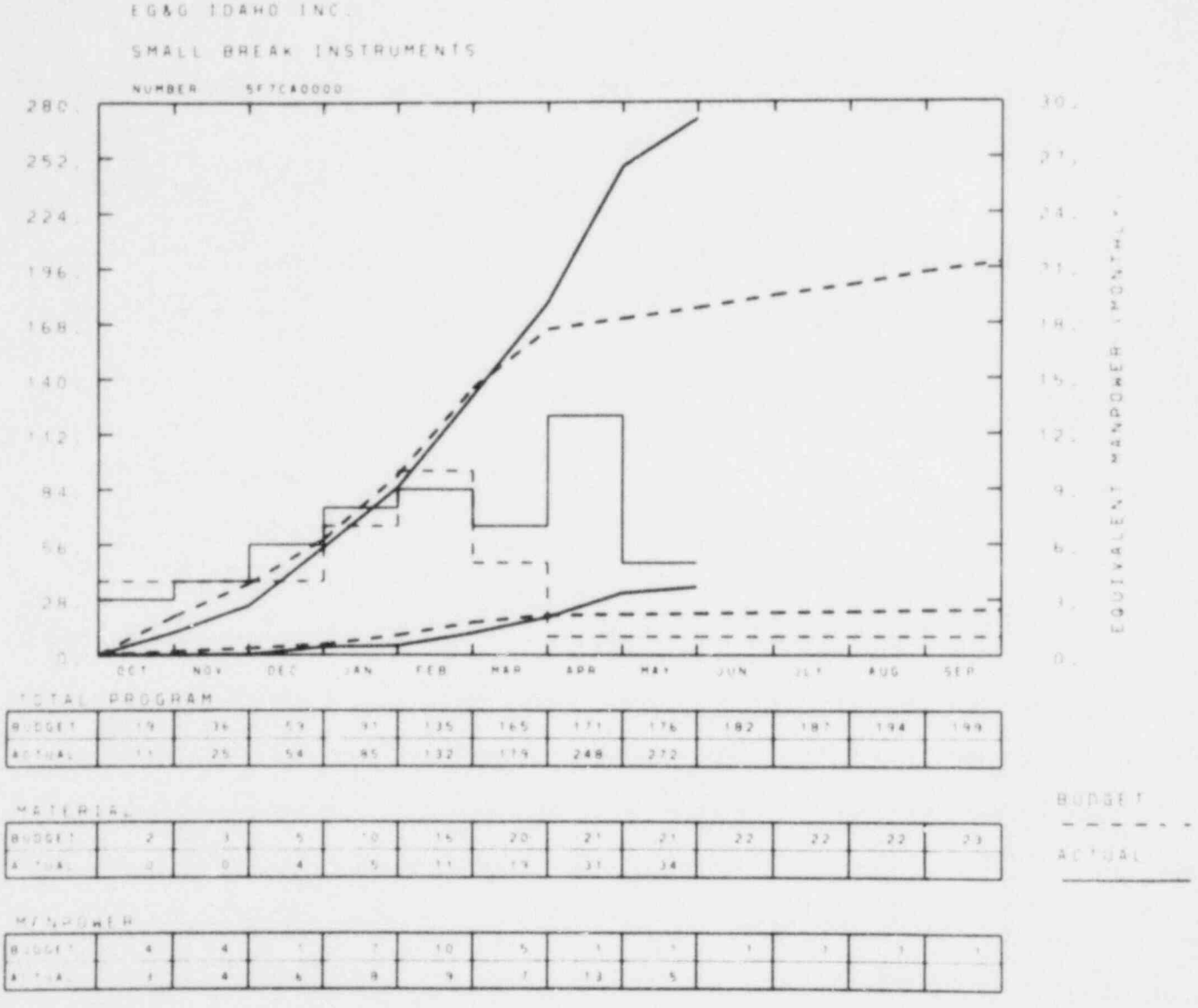
MATERIAL

BUDGET	5	9	15	20	25	31	36	37	37	37	37	37
ACTUAL	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				

Budget is scheduled incorrectly. Work is underway with completion scheduled for August 1980.



TOTAL PROGRAM

BUDGET	19	34	53	91	135	165	171	176	182	187	194	199
ACTUAL	11	25	54	85	132	179	248	272				

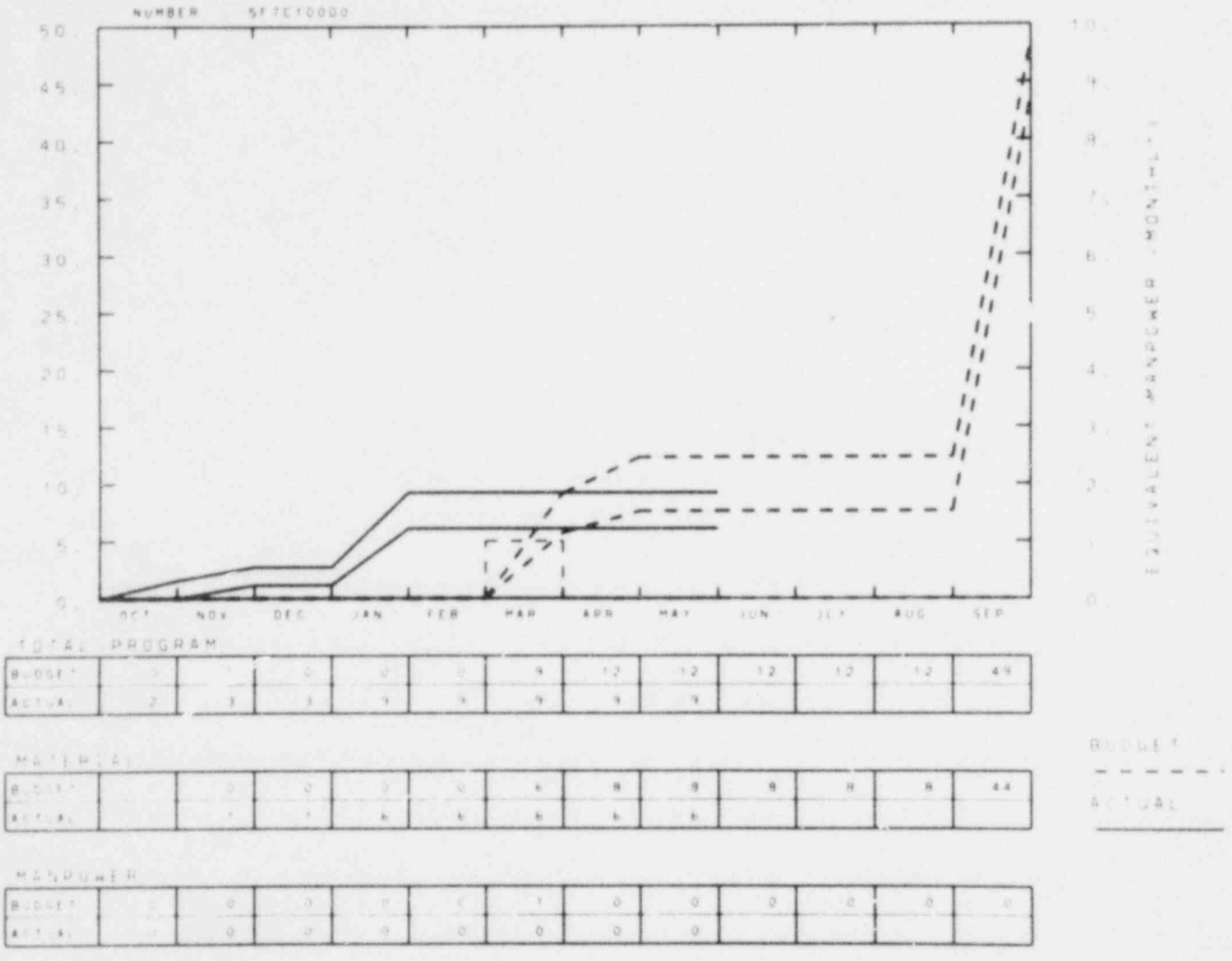
MATERIAL

BUDGET	2	3	5	10	15	20	21	21	22	22	22	23
ACTUAL	0	0	4	5	11	19	31	34				

MANPOWER

BUDGET	4	4	1	7	10	5	1	1	1	1	1	1
ACTUAL	1	4	6	8	9	7	13	5				

This portion of the small break test is completed. Cost overruns will be transferred to the JAERI-funded portion of the task. Corrective action is in progress.



TOTAL PROGRAM

BUDGET	0	1	0	0	0	9	12	12	12	12	12	12	49
ACTUAL	2	3	3	9	9	9	9	9					

MATERIAL

BUDGET		0	0	0	0	6	8	8	8	8	8	8	44
ACTUAL		1	1	6	6	6	6	6					

MANPOWER

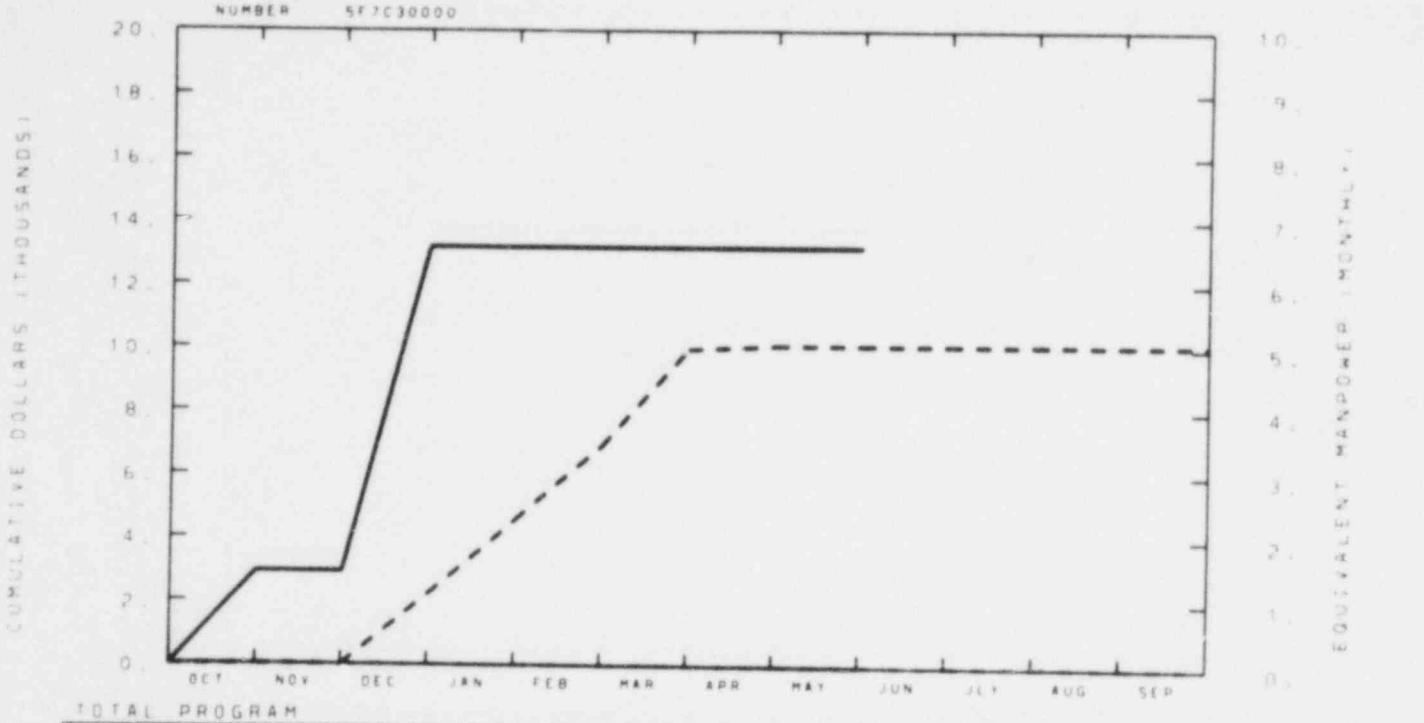
BUDGET	0	0	0	0	0	1	0	0	0	0	0	0	0
ACTUAL		0	0	0	0	0	0	0					

No significant variance.

EG&G IDAHO INC.

FUEL INSTRUMENTS

NUMBER SF?C30000



TOTAL PROGRAM

BUDGET	0	0	2	5	7	10	10	10	10	10	10	10
ACTUAL	3	3	13	13	13	13	13	13				

MATERIAL

BUDGET	0	0	2	5	7	10	10	10	10	10	10	10
ACTUAL	3	3	13	13	13	13	13	13				

MANPOWER

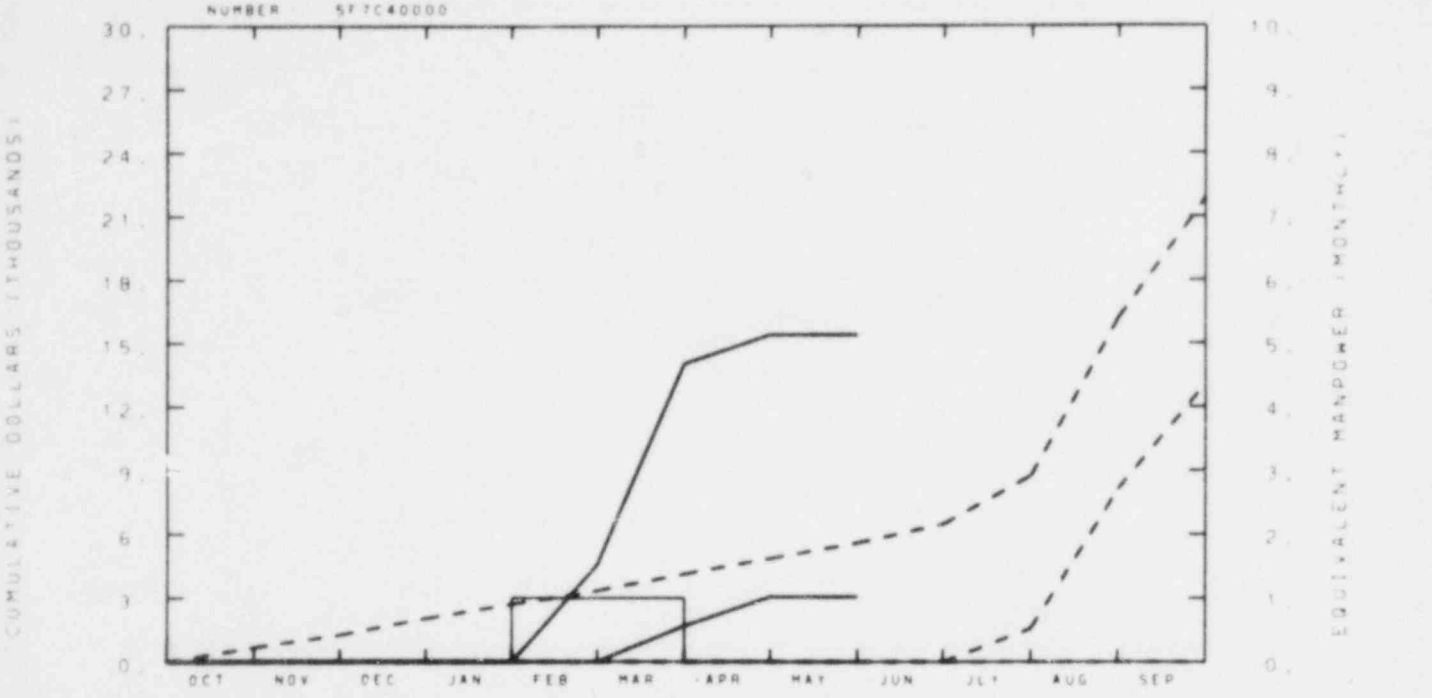
BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	0				

No significant variance.

EG&G IDAHO INC.

MISCELLANEOUS TASKS

NUMBER SF7C40000



TOTAL PROGRAM

BUDGET	1	1	2	3	3	4	5	6	6	9	16	22
ACTUAL	0	0	0	0	5	14	15	15				

MATERIAL

BUDGET	0	0	0	0	0	0	0	0	0	2	8	13
ACTUAL	0	0	0	0	0	2	3	3				

MANPOWER

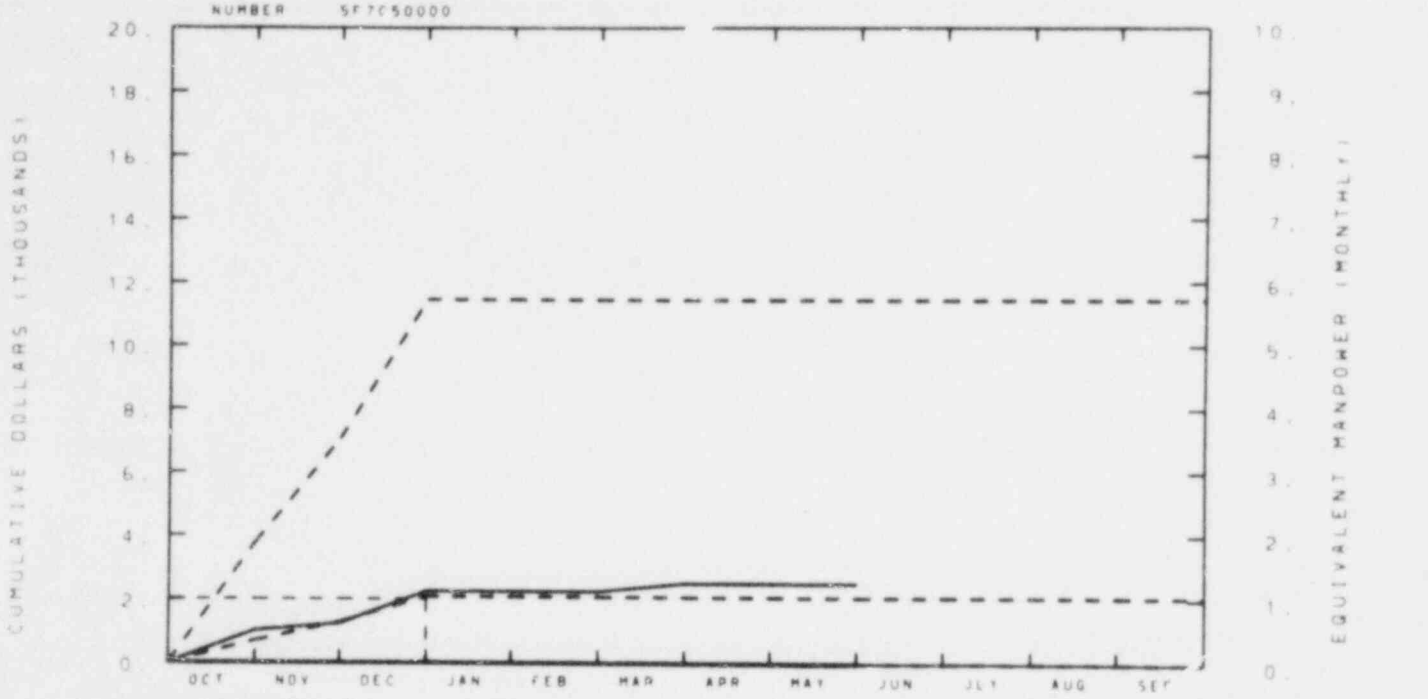
BUDGET	0	0	.	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	1	1	0	0				

Work has been completed ahead of schedule.

EG&G IDAHO INC.

STEAM PROBE

NUMBER SF7050000



TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

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

BUDGET - - - - -

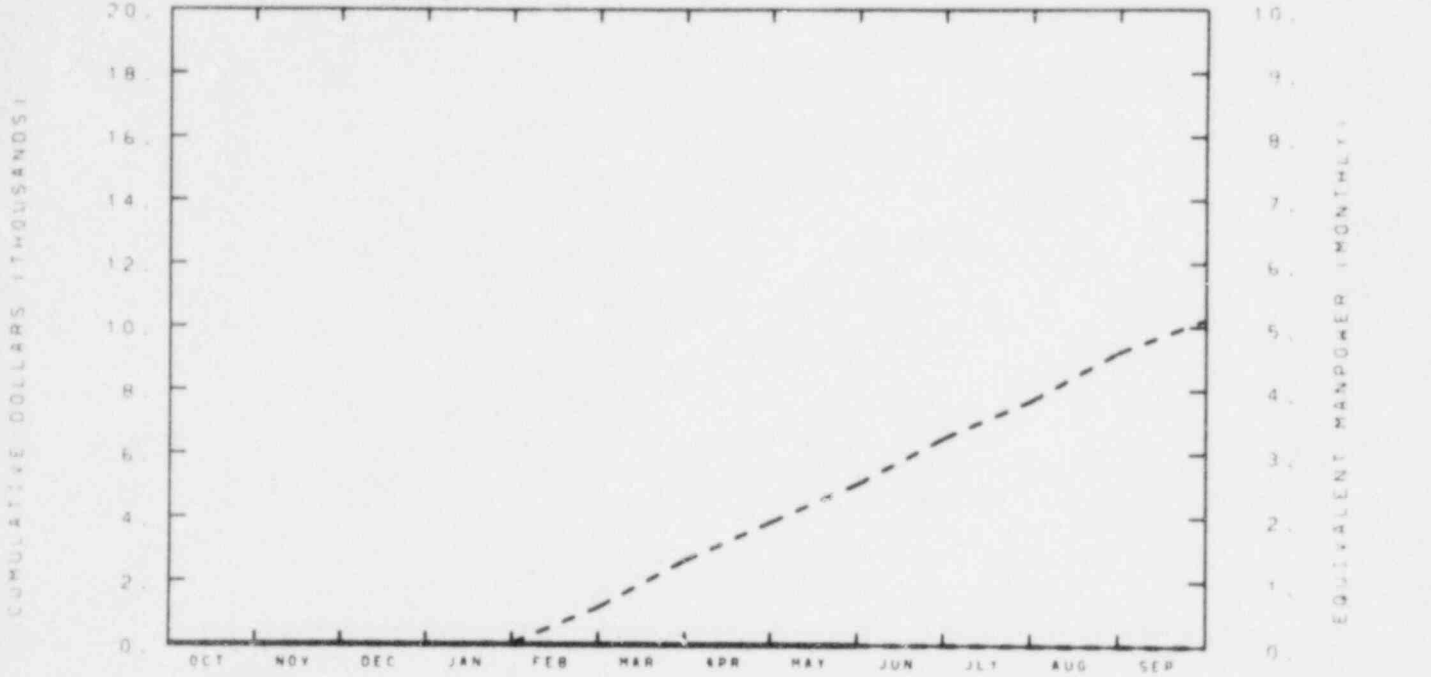
ACTUAL ———

Task inactive due to higher priority activities for performer. Review meeting and "wind-up" will occur during June 1980.

EG&G IDAHO INC.

LOFT STATE VECTOR D&T

NUMBER 5F7CB0000



TOTAL PROGRAM

BUDGET	0	0	0	0	1	3	4	5	7	8	9	10
ACTUAL	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				

MANPOWER

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

BUDGET - - - - - -

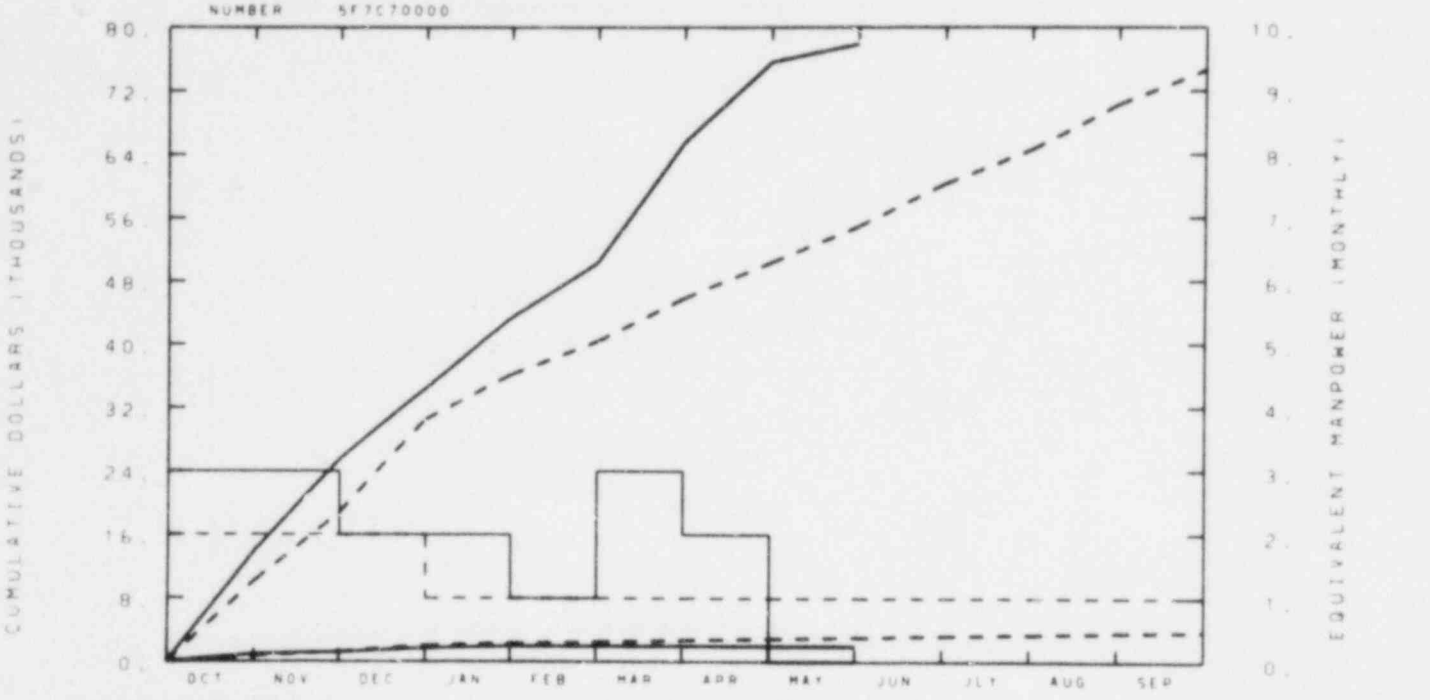
ACTUAL ———

The task has not started due to higher priority work assignments.

EG&G IDAHO INC.

ULTRASONIC DENSITY DETECTOR

NUMBER SF7C70000



TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

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

BUDGET

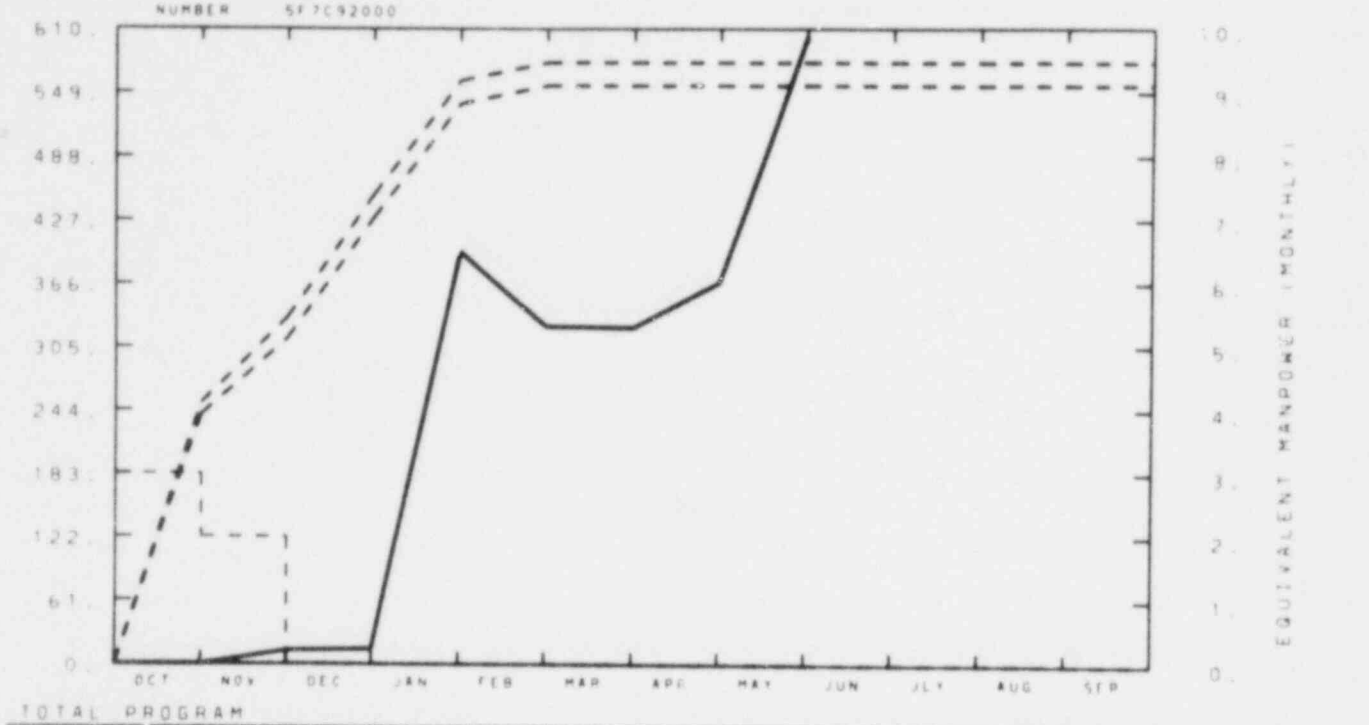
ACTUAL

The variance is due to completion of work ahead of schedule. Corrective action will be taken for realignment of budget.

EG&G IDAHO INC.

SHARED TASKS - STEADY STATE TEST

NUMBER SF 7C92000



TOTAL PROGRAM

BUDGET	251	333	451	561	578	578	578	578	578	578	578	578
ACTUAL	0	13	15	397	325	324	368	603				

MATERIAL

BUDGET	240	313	429	539	556	556	556	556	556	556	556	556
ACTUAL	0	13	15	397	325	324	368	603				

MANPOWER

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

BUDGET - - - - -

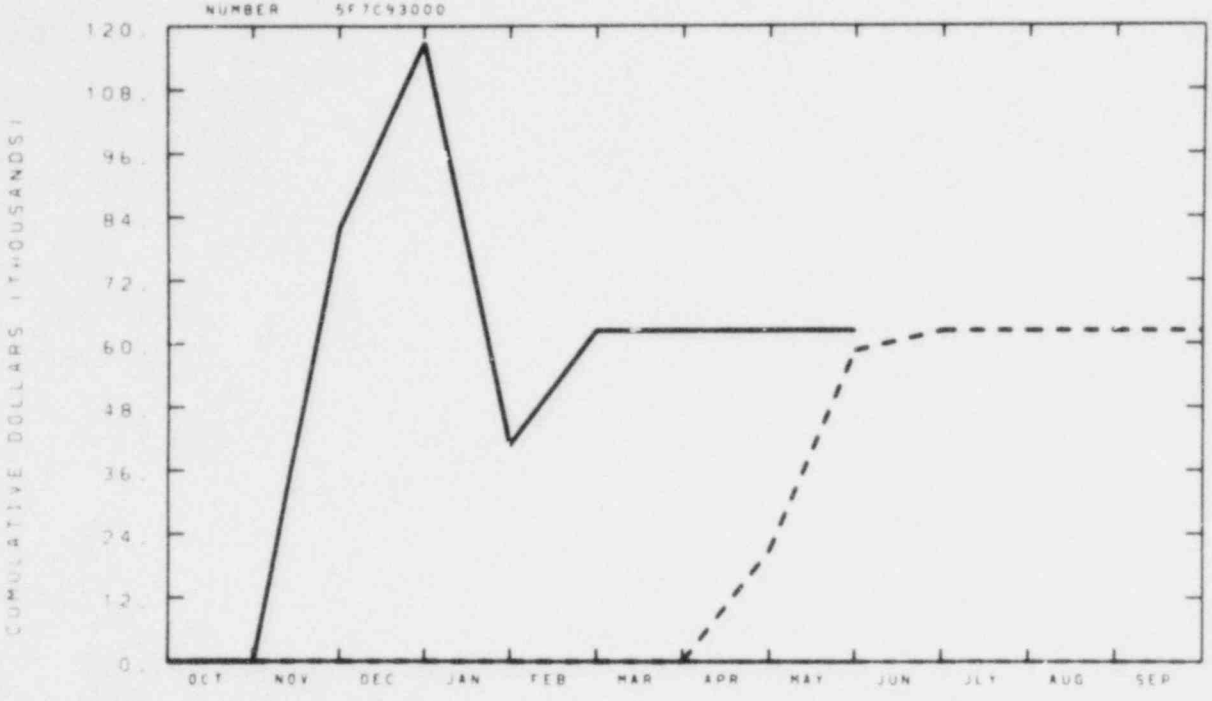
ACTUAL ———

There was an increase in actuals due to cost transfer of $198,465 for work associated with the boiler installation on the Two-phase Flow Loop Task. Previously, this amount was charged incorrectly to an L.T.S.F. account. $57,000 is under investigation.

EG&G IDAHO INC.

SHARED TASK - TRAC CODE STUDIES

NUMBER 5F7C93000



TOTAL PROGRAM

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

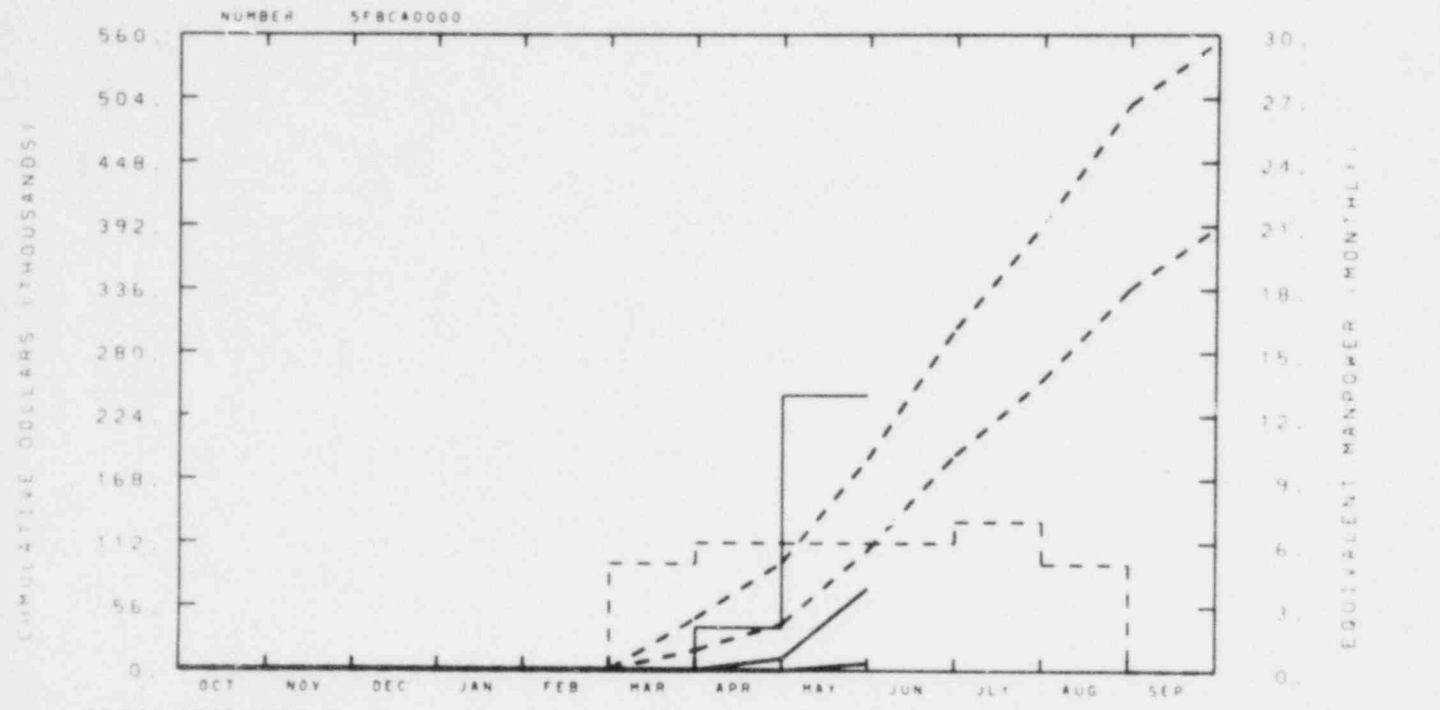
MANPOWER

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

BUDGET

ACTUAL

Work has been completed ahead of schedule.



TOTAL PROGRAM

BUDGET	0	0	0	0	0	45	95	186	302	394	499	554
ACTUAL	0	0	0	0	0	0	10	72				

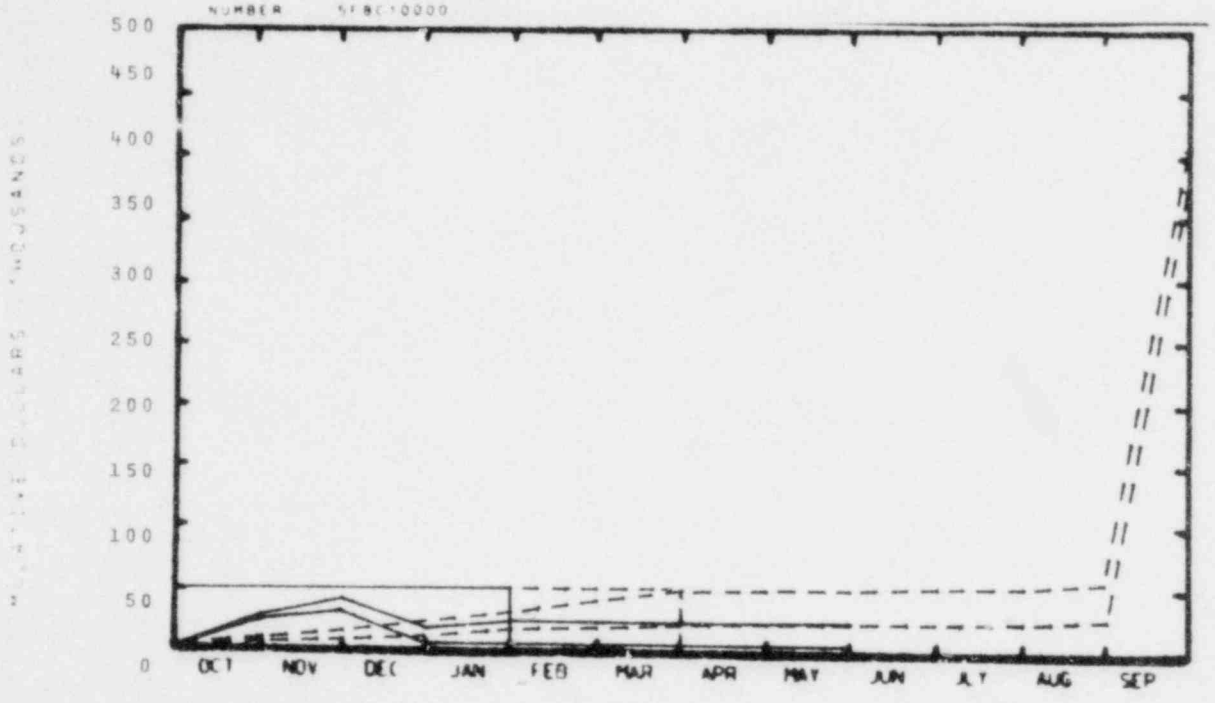
MATERIAL

BUDGET	0	0	0	0	0	18	41	106	190	256	337	391
ACTUAL	0	0	0	0	0	0	0	6				

MANPOWER

BUDGET	0	0	0	0	0	5	6	6	6	7	5	0
ACTUAL	0	0	0	0	0	0	2	13				

Cost underrun will be corrected when appropriate costs are transferred from FRG-funded portion of this task.



TOTAL PROGRAM

BUDGET	8	15	24	32	39	49	50	50	52	53	55	406
ACTUAL	29	43	49	22	22	19	22	22				

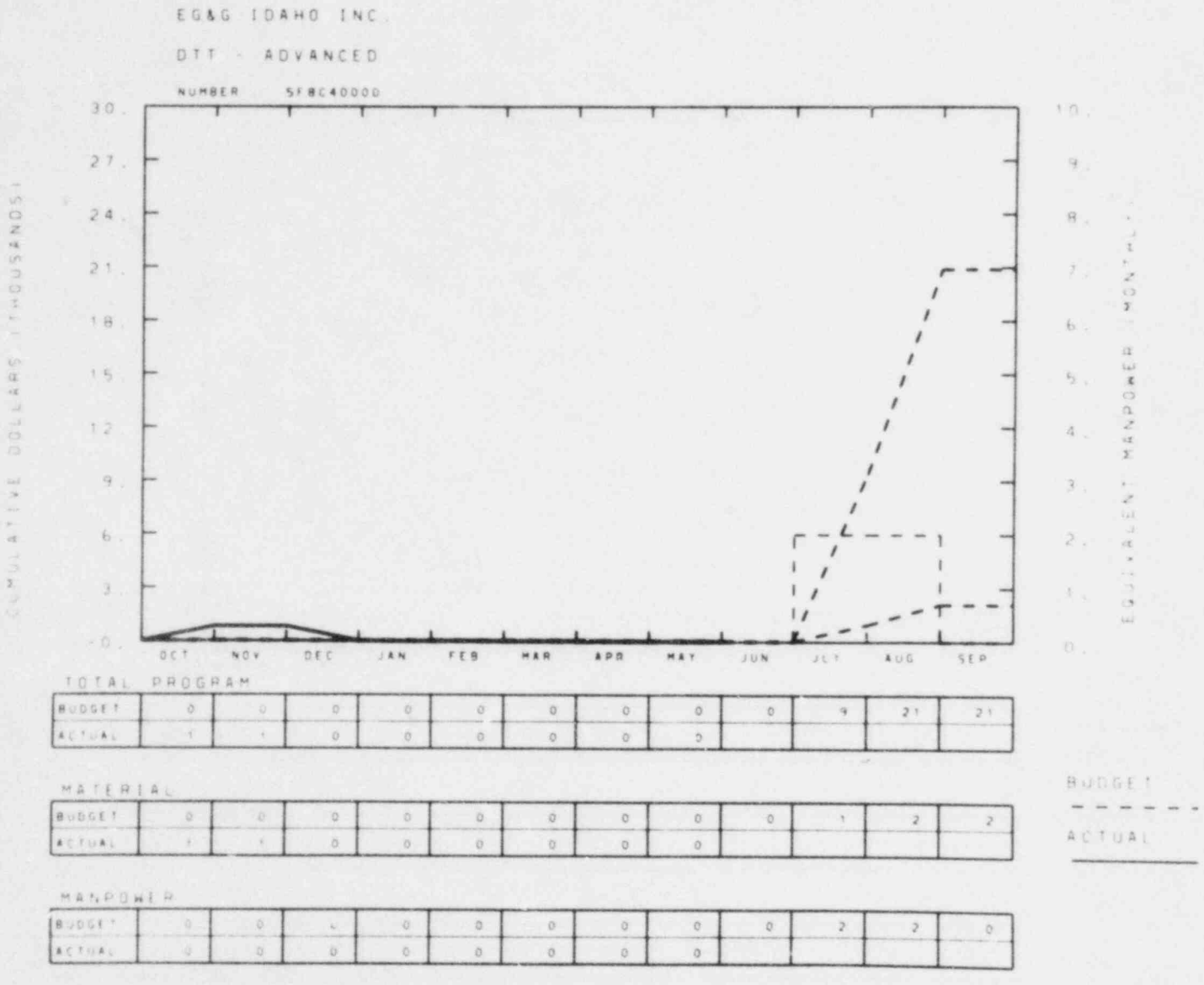
MATERIAL

BUDGET	4			14	17	21	22	22	23	24	25	375
ACTUAL	29	37	5	5	5	1	6	6				

LABOR HR

BUDGET							0	0	0	0	0	
ACTUAL					0	0	0	0				

No significant variance.



TOTAL PROGRAM

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

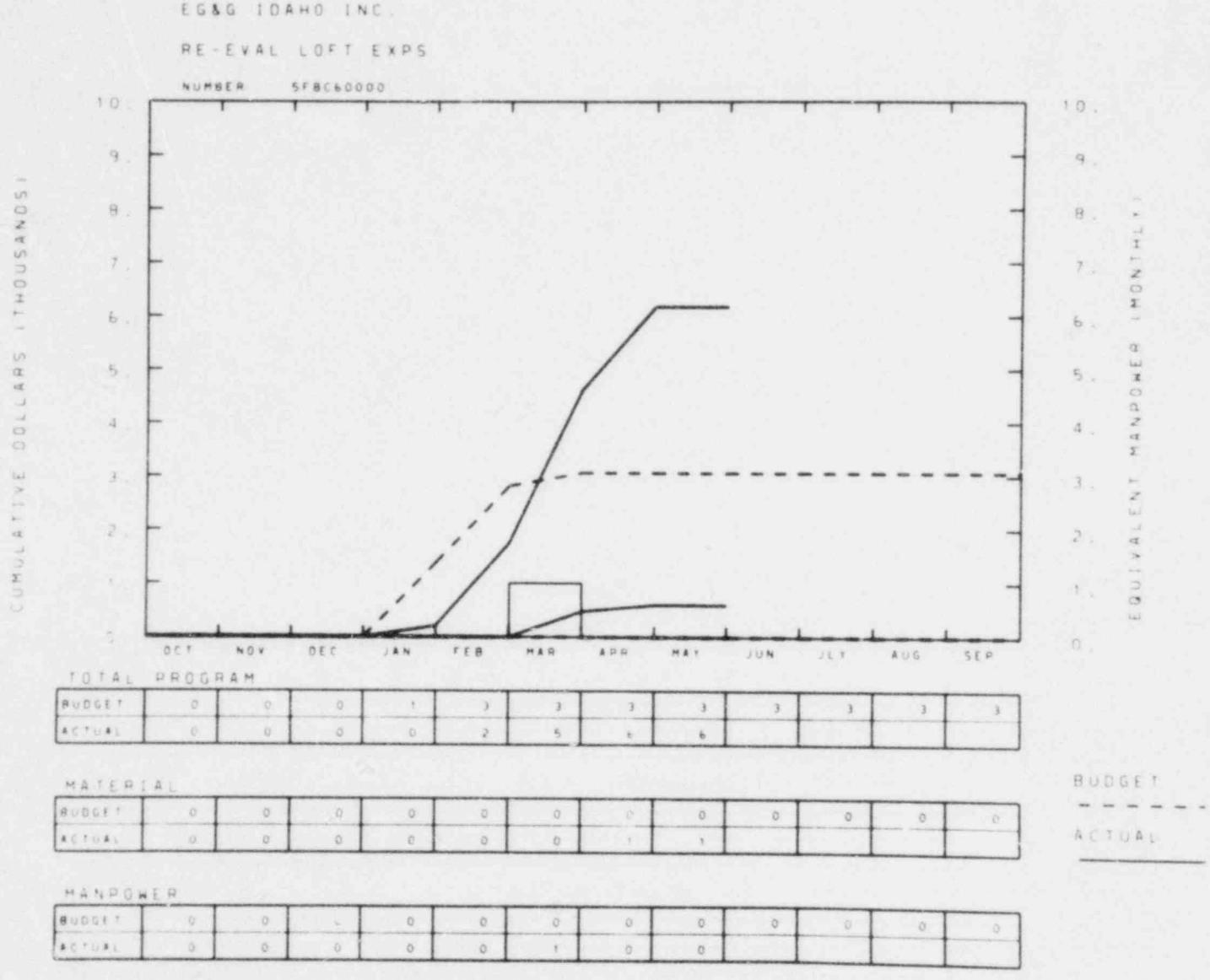
MATERIAL

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

MANPOWER

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

Expenditures to date are consistent with the budget; however, limitations on time for availability of test facility will force testing into FY-81, and associated costs will be delayed correspondingly.



TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

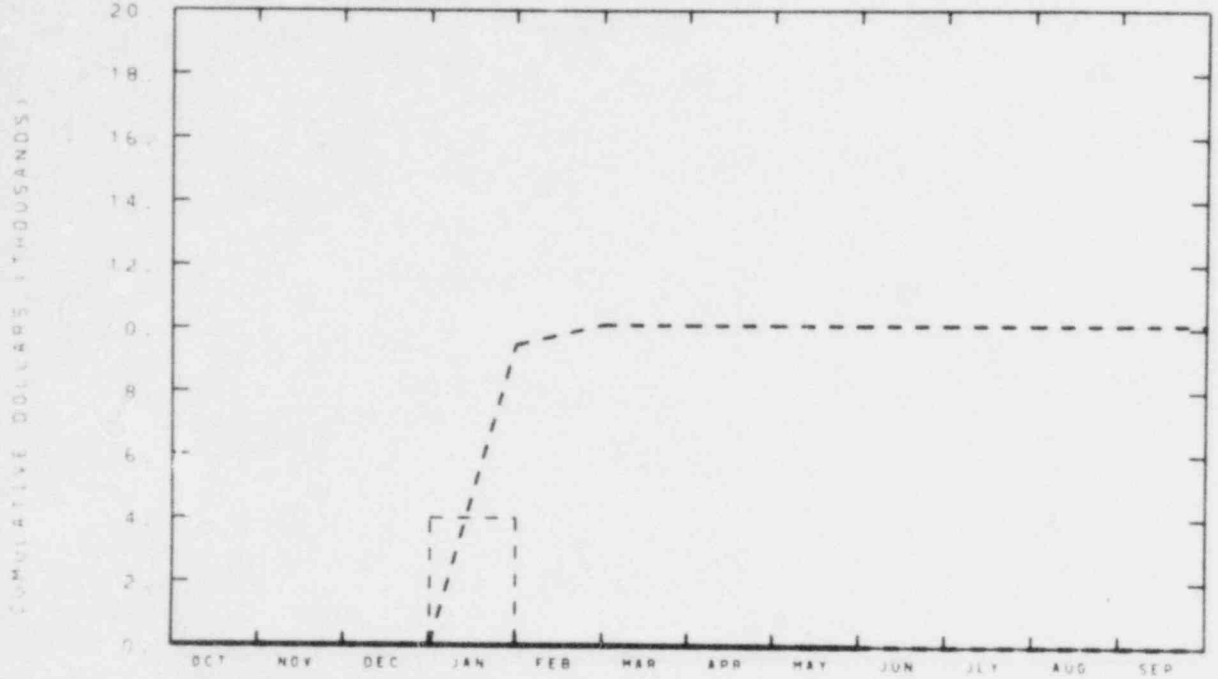
BUDGET	0	0	0	0	0	0	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	1	0	0				

This task is complete. Corrective action is in process to remove the task variance.

EG&G IDAHO INC.

CODE STUDIES

NUMBER SFBC70000



TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

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

BUDGET - - - - -

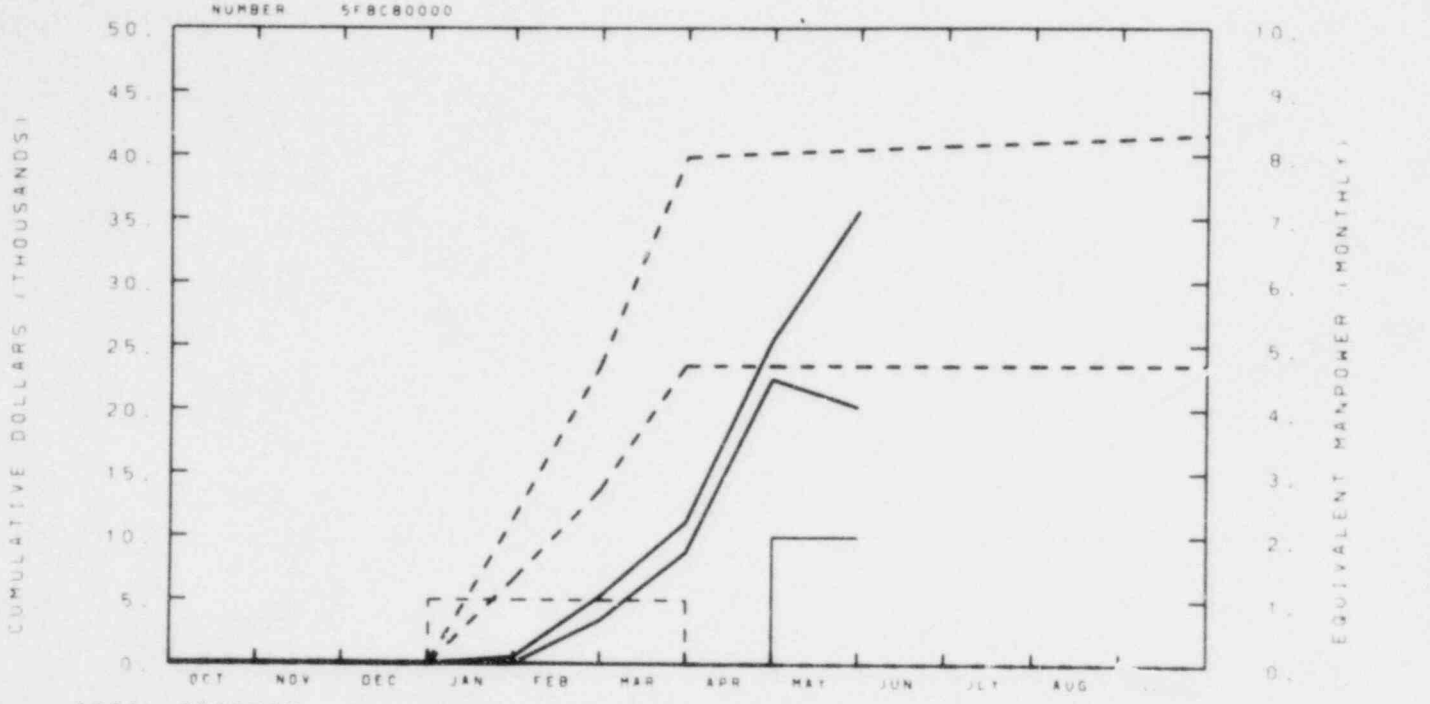
ACTUAL ———

This task has been delayed. Budget realignment is necessary.

EG&G IDAHO INC.

SUPPRESSION CATCH TANK

NUMBER 5FBC80000



TOTAL PROGRAM

BUDGET	0	0	0	11	23	40	40	40	41	41	41	42
ACTUAL	0	0	0	1	5	11	25	36				

MATERIAL

BUDGET	0	0	0	7	14	23	23	23	23	23	23	23
ACTUAL	0	0	0	0	3	9	22	20				

MANPOWER

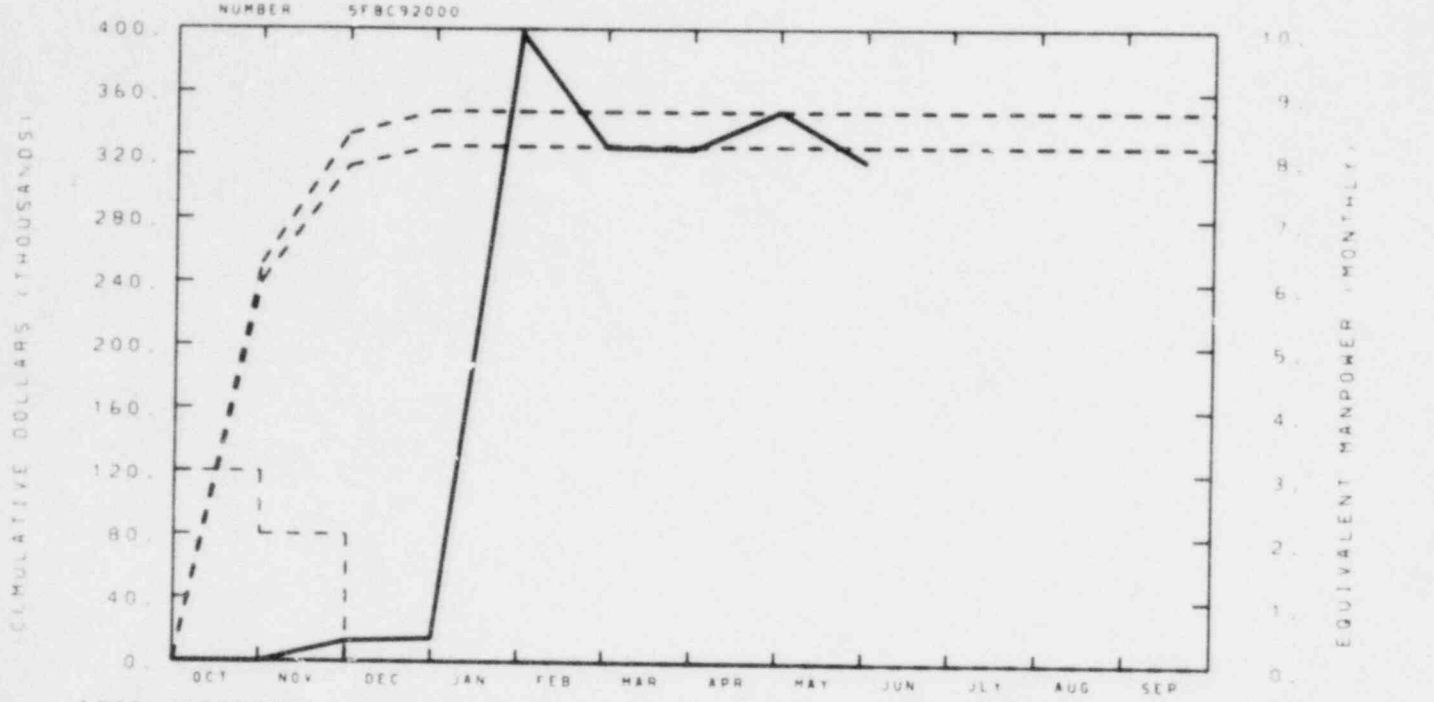
BUDGET	0	0	0	1	1	1	0	0	0	0	0	0
ACTUAL	0	0	0	0	0	0	0	2				

No significant variance.

EG&G IDAHO INC.

SHARED TASKS - STEADY STATE TEST

NUMBER 5F8C92000



TOTAL PROGRAM

BUDGET	251	333	348	348	348	348	348	348	348	348	348	348
ACTUAL	0	13	15	397	325	324	348	316				

MATERIAL

BUDGET	240	313	326	326	326	326	326	326	326	326	326	326
ACTUAL	0	13	15	397	325	324	348	316				

MANPOWER

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

BUDGET - - - - -

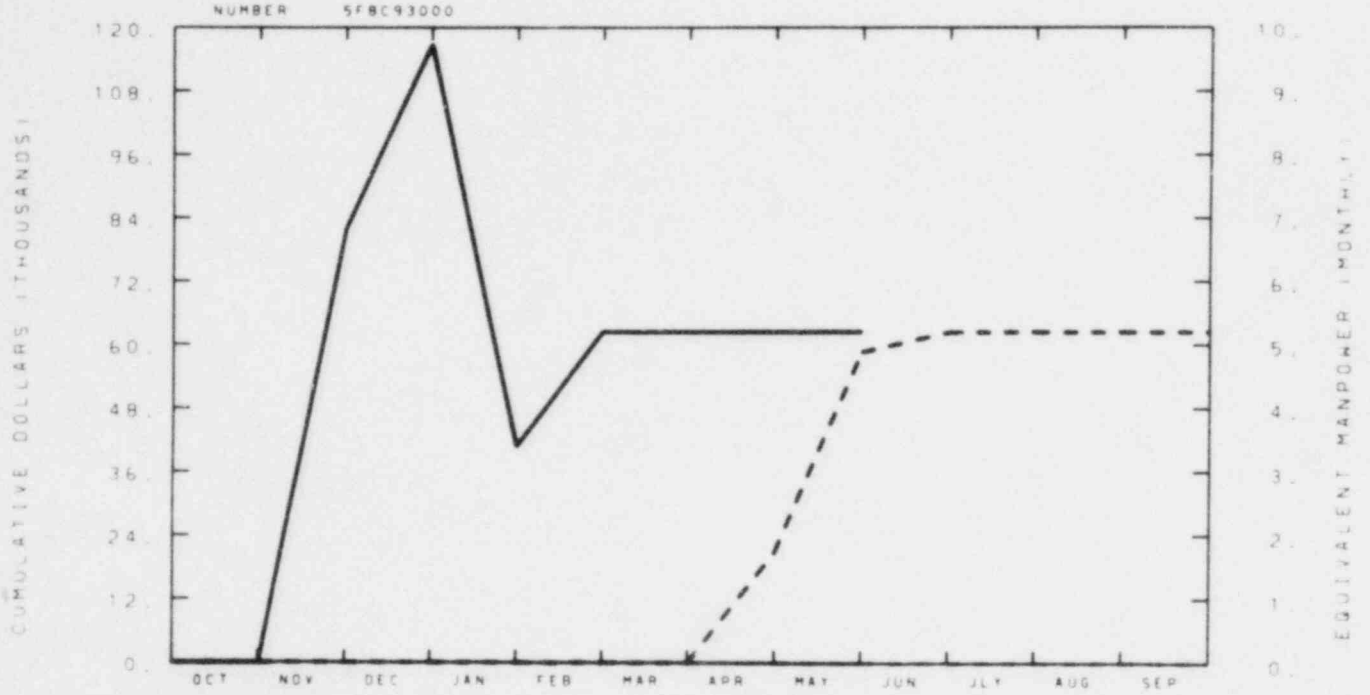
ACTUAL ———

No significant variance.

EG&G IDAHO INC.

SHARED TASKS - TRAC CODE STUDIES

NUMBER SFBC93000



TOTAL PROGRAM

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

MANPOWER

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

BUDGET - - - - - -

ACTUAL ———

Work has been completed ahead of schedule.

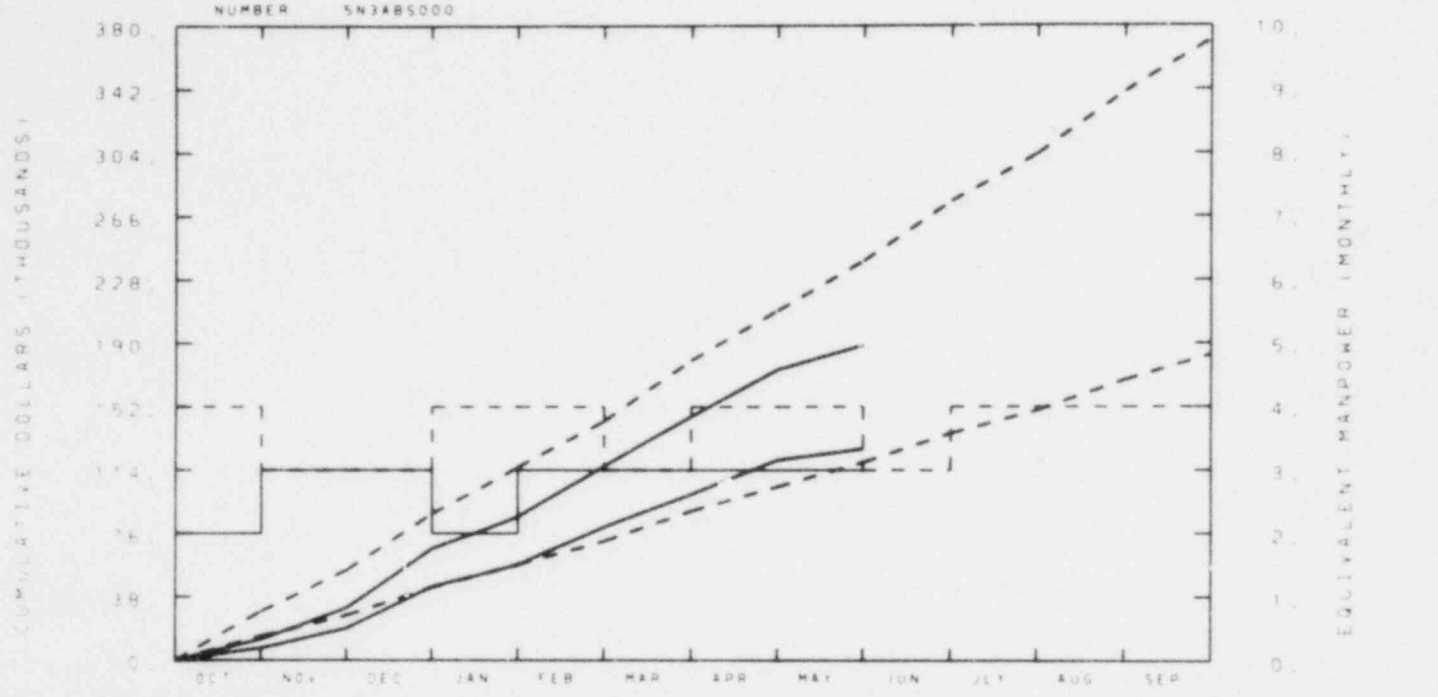
LOFT Cost Accounts

5N3Axx--NRC Cost Accounts

EG&G IDAHO INC.

EXP MEAS - BR SUPPORT

NUMBER SN3ABS000



TOTAL PROGRAM

BUDGET	29	54	88	116	143	180	210	239	275	303	341	372
ACTUAL	13	31	67	86	116	146	174	189				

MATERIAL

BUDGET	15	27	44	57	71	90	104	119	136	150	168	183
ACTUAL	7	19	44	57	80	100	120	127				

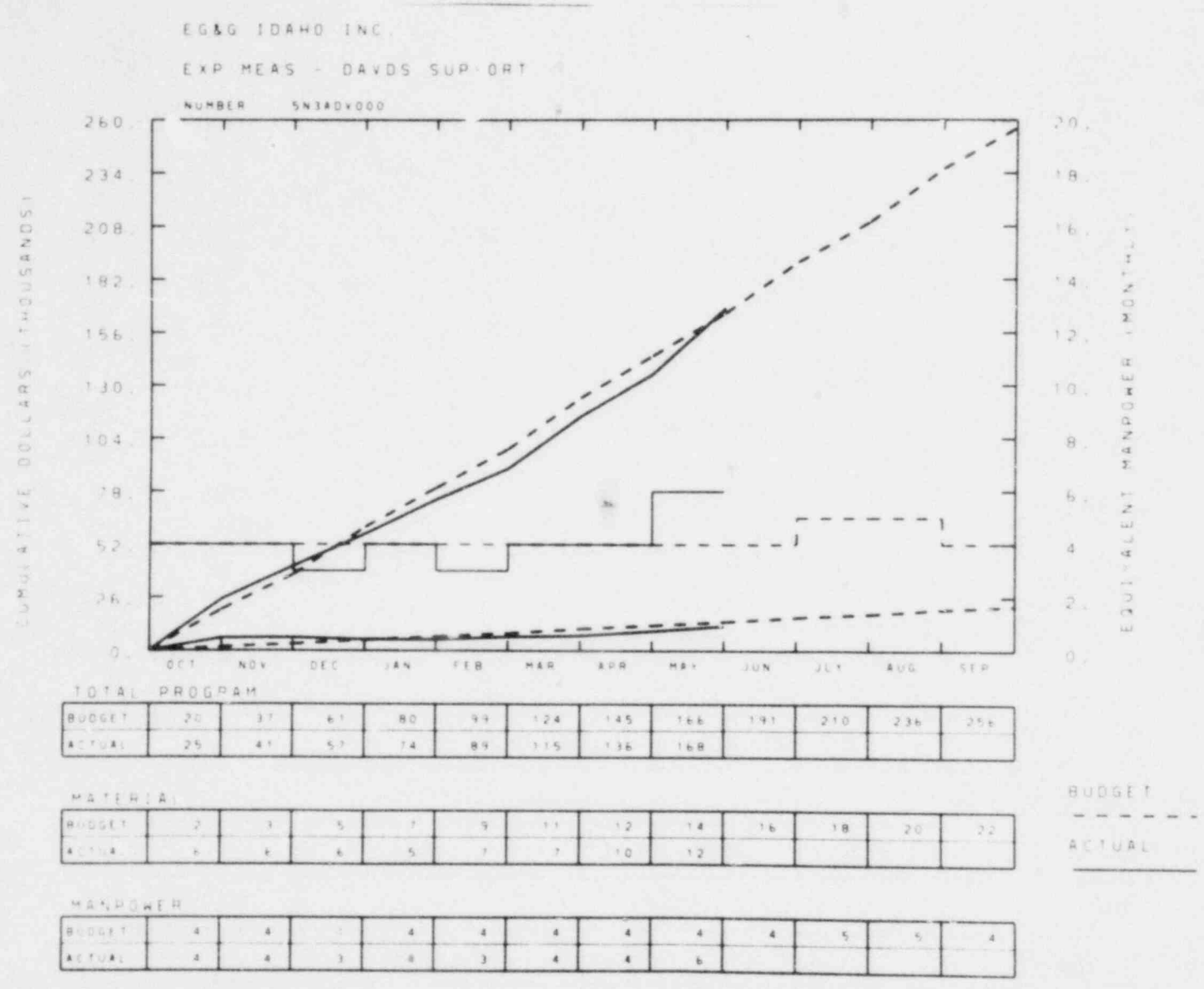
MANPOWER

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

BUDGET

ACTUAL

A CCB adding $69K to the complete budget to compensate for the computer overrun is reflected in the cost graph as underspending at this time. However, as computer charges continue to be high, the variance will become less as FY-80 closes.



TOTAL PROGRAM

BUDGET	20	37	61	80	99	124	145	166	191	210	236	256
ACTUAL	25	41	57	74	89	115	136	168				

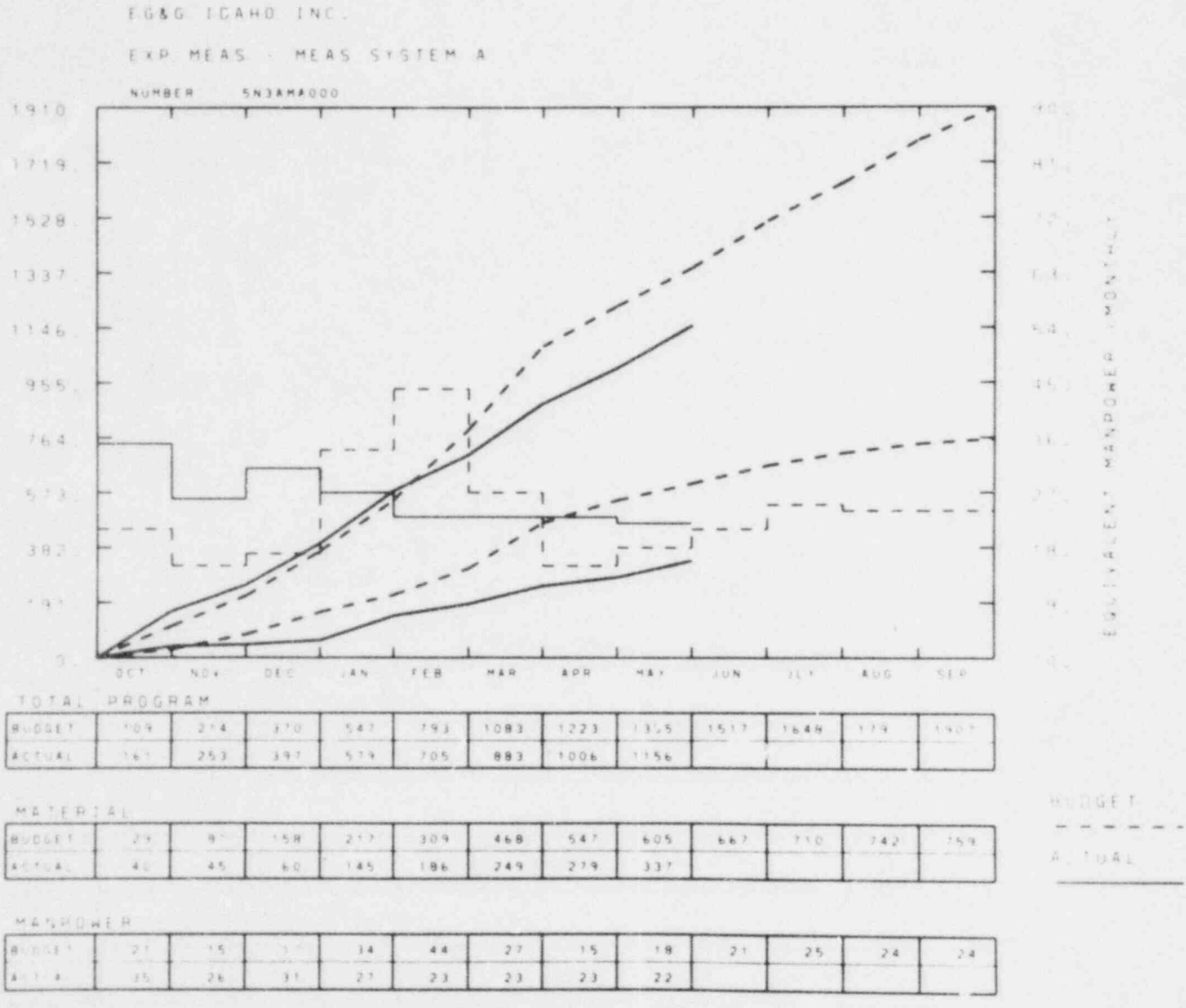
MATERIAL

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

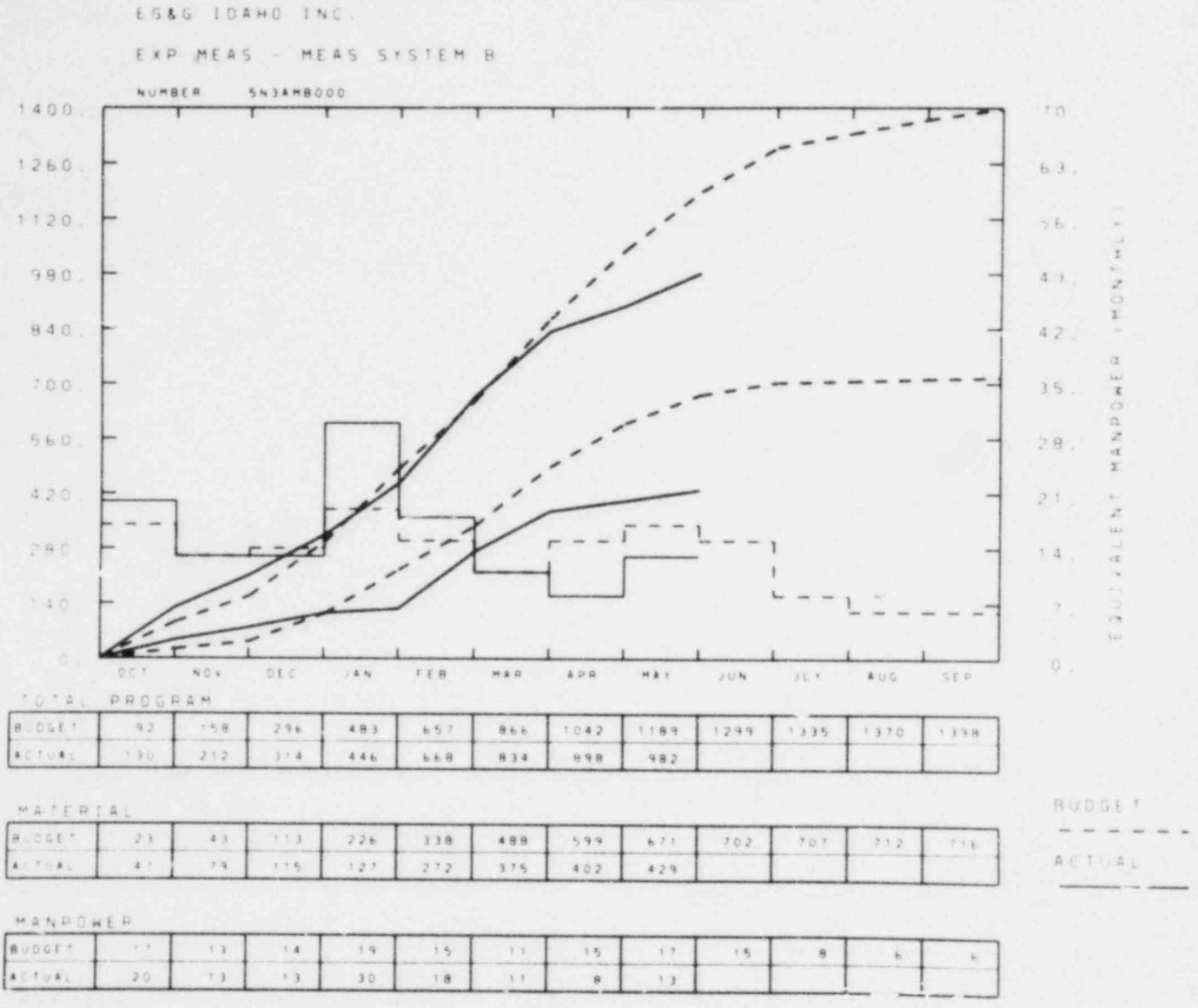
MANPOWER

BUDGET	4	4	3	4	4	4	4	4	4	5	5	4
ACTUAL	4	4	3	8	3	4	4	6				

No significant variance.



Drag disc turbine rakes scheduled to be built for L2-5, have been delayed until later in the year. A CCF has been prepared to reflect this change, but is not shown in cost graph.

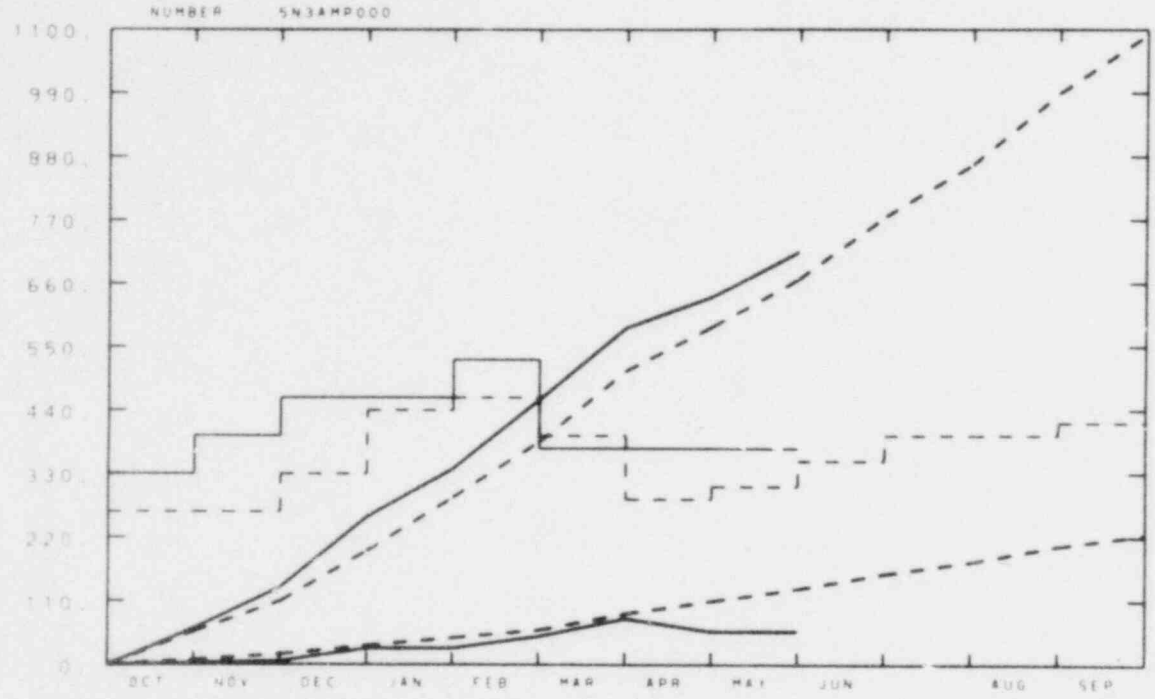


The underspending reflected in the graph is the result of the following items: (1) a CCB to add $57K for the secondary side instrumentation was input incorrectly, starting the task in April, which reflected as under-spending on cost graph. Another CCB is in process to correct this error. (2) A portion of 53AMB09 was inadvertently coded into FY-1980 during the transition from Q80-3-3 to Q80-4-0. This resulted in the transfer of $69,000 from FY-81 into FY-80. A CCF has been approved, but not reflected in the cost graph, to transfer $69K from FY-80 back into FY-1981. (3) $40,000 owed to Sandia Corp. for PNA generators is not reflected in May actuals. (4) A CCB is approved, but not reflected in the cost graph, returning 51K to management reserve from the Fuel Rod Instrument Task (53AMB03).

With the above incorporated, the Experimental Measurement Section "B's" variance is 1%.

EG&G IDAHO INC.

EXP MEAS - MEAS PERFORMANCE-1



TOTAL PROGRAM

BUDGET	57	109	197	289	385	508	585	668	777	867	990	1091
ACTUAL	62	134	256	339	458	584	638	716				

MATERIAL

BUDGET	8	19	33	46	60	88	110	131	157	178	205	224
ACTUAL	1	6	28	29	45	80	57	58				

MANPOWER

BUDGET	2	12	15	20	21	18	13	14	16	18	18	19
ACTUAL	15	18	21	21	24	17	17	17				

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		ACWP	
	Month	Year-To-Date	Month	Year-To-Date	Month	Year-To-Date
5N2D000	245	1912	263	1631	227[1]	1985
5N4K000	163	1051	149	911	195	941
5N4P000	107	598	84	459	71	482

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.

---

1. Excludes costs of $254,000 due to accrual reversal not being accomplished for the month of May 1980. Corrective action in process.

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

Participant	Actual Reserve	Contingency
JAERI	277	71
FRG	24	13
ECN	107	25
SGAE	12	0
Total	420	109

TABLE 2. FOREIGN-FUNDED TASK SUMMARY AT END OF MAY 1980

	Project Description	Total Proposal Est. Inc. Contingency ($K)	Total Spending Auth. by CCB ($K)	Funds Spent to Date ($K)	Expected Task Completion Date
JAERI TASKS					
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	1876	1859	1864	July 80
5F8C6	Reevaluation of LOFT L1 Exper.	25	25	28	June 80
5F8C7	Misc. Code Studies	20	20	10	Sept. 80
5F8C8	LTSF Suppression Catch Tank	43	41	36	July 80
5F8CA	Small Break Densitometers	692	640	114	Sept. 80
5F8C92	Shared Two-Phase Steady-State Loop	800	800	767	May 80
5F8C93	Shared-TRAC Code Studies	83	83	83	June 80
FRG TASKS					
5F7C1	FRG Management	156	156	151	Sept. 80
5F7C2	Completed Tasks	2570	2570	2570	Done
5F7C4	Miscellaneous Tasks	50	50	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	200	206	May 80
5F7C92	Shared Two-Phase Steady-State Loop	1030	1030	1064	May 80
5F7C93	TRAC Code Studies	83	83	83	June 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
ECN TASKS					
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	3	Sept. 80
5FNC6	PNA Techniques	37	32	0	Sept. 80
5FNC7	Critical Flow Studies	53	48	0	Sept. 80
5FNC8	Two-Phase Loop Platform	59	47	2	June 80
SGAE TASKS					
5FAC1	SGAE Management	12	12	11	Sept. 80
5FAC2	Completed Tasks	123	123	123	Done

BUDGET STATUS REPORT

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

WBS#	189 #	Q80-4-1	Approved CL.I CCBs	Current PMB # Q80-4-3	Approved CL.II CCBs	Current BAC
5N1XX	A6048	4,248	(218)	4,030	--	4,030
5N2XX	A6053	3,582	67	3,649	--	3,648
5N3XX	A6043	6,057	(60)	5,997		5,997
5N4XX	A6107	10,492	164	10,656	--	10,656
5N5XX	A6122	4,045	2	4,047		4,046
5N6XX	A6110	3,741	0	3,741	--	3,741
5N7XX	A6054	7,595	0	7,595		7,595
5N8XX	A6108	755	0	755		755
5NXXX		40,515	(45)	40,470	0	40,468
		Supplementary programs				4,015
		NRC discretionary reserves				50
		NRC management reserves				1,256
		Total NRC funding (FY-80)				45,789

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

Funds	Current FIN Plan No. 7	Current Budget File (Q80-4-3)
LOFT Foreign Funds	2,037	2,220
LOFT Lead Rod Tests	170	170
Total	2,207	2,390
NRC Operating Funds	45,176	41,773
Electric Heat Rod Evaluation		328
Computer Code Support		233
TC-2 Tests		234
LTSF		2,370
PWR/BWR Task Group		700
Standard Problem Analysis		150
Total	45,176	45,788
Total LOFT Funding	47,383	48,178

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

LOFT WBS	189 #	Q80-4-1 (CCB 80-140)	Approved CL.I CCBs	Current PBM # Q80-4-1	Approved CL.II CCBs	Current FY-80 Budget	Total Authorized Spending Limit
5FAXX	A6273	12		12	0	12	141
5FNXX	A6271	130		130	0	130	346
5F7XX	A6104	947	33	979	0	980	4198
5F8XX	A6111	1191	76	1,098	0	1,260(1)	4,659(1)
5F9XX	A6104S	0	0	0	0	0	0
5fXXX		2,280	109	2,219	0	2,390	9,341
		Foreign contingency reserves				109	109
		Foreign management reserves				(590)	(590)
		Total FY-80 LOFT foreign funds				1,909	8,860
		Foreign funds spent through FY-79				6,860	
		Foreign funds budgeted in FY-81				91	0
		Total foreign funds received to date				8,860	8,860

(1) Includes LOFT Lead Rod.

TABLE 6. LOFT CAPITAL EQUIPMENT STATUS REPORT THROUGH MAY

Schedule 189a	Title	Prior Year Uncosted	Current Year Funds	Total Available to Cost	Current Year Costs	Outstanding Commitments	Balance Less Costs and Commitments	Estimate to Complete	Balance
4CA101	Integral System Design and Fabrication	111,731	10,000	101,731	31,547	39	70,145	66,653	3,531
4CA102	LOFT Operations	194,419	68,000	126,419	114,858	640	10,921	10,206	1,355
4CA103	UT and Requalification Program	140,034	78,000	218,034	165,587	-0-	52,447	54,013	1,566
	Total DOE	446,184	0	446,184	311,992	679	133,513	130,872	3,320
A-6061	Experimental Measurements*	788,769	800,000	1,588,769	838,658	144,424	605,687	736,793	13,318
A-6084	Integral System Design & Fab.	689,139	1,400,000	2,089,139	474,943	298,363	1,315,833	1,636,686	22,490
A-6088	LOFT Operations	18,091	100,000	118,091	20,883	18,045	79,163	85,489	11,719
	Total NRC	1,495,999	2,300,000	3,795,999	1,334,484	460,832	2,000,683	2,458,968	2,547
	Total LOFT	1,942,183	2,300,000	4,242,183	1,646,476	461,511	2,134,196	2,589,840	5,867

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