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LOFT MONTHLY PROGRESS REPORT
FOR NOVEMBER 1980

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Under DOE Contract No. DE-AC07-76ID01570
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INTERIM REPORT

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for November 1980

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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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INTERIM REPORT

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LOFT MONTHLY PROGRESS REPORT FOR NOVEMBER 1980

MANAGER'S MONTHLY SUMMARY

During November major work efforts were directed towards preparation for Test L3-6/L8-1. These tests, to be run in sequence, will evaluate the system effects of primary coolant pump operation during a small break LOCA (L3-6), and are to obtain a partial core uncover to aid in the planning and conduct of future core uncover experiments (L8-1).

Plant modifications in preparation for the December test included installation of a new PC-3 gamma densitometer to measure the density of fluid coming from the steam generator and the installation of the EPRI Liquid Level Detector system to measure levels of fluid during the core uncover experiment. Other key efforts concerned planning for test conduct and safety analysis.

On November 6 and 7 the LOFT Review Group met in Idaho Falls to evaluate the activities on LOFT since its last meeting in February. Future test plans, budgets, the man-machine (AOC) program, and various other topics presented by LOFT personnel and consultants were discussed. Several suggestions were presented by those in attendance. These comments were directed to the areas of test scheduling and the kinds of tests to be run as well as how LOFT could better communicate with utilities and vendors to transmit information to the general nuclear power industry.

Overall costs are in good agreement with current budgets and authorized funding levels. In the areas of fuel design and analysis, a temporary overrun will be shown for the first few months of the fiscal year. This overrun is due to an Exxon billing received ahead of schedule. A recovery plan has been implemented and actuals are expected to be in agreement with budget by January 1981.

ACCOMPLISHMENTS

LOFT TECHNICAL SUPPORT DIVISION

1. LOFT Safety Parameter Display System (SPDS) has been coded on the Operation Diagnostic and Display System (ODDS) computer and is available for use during loss-of-coolant experiment (LOCE) L3-6.
2. LOFT Standard Practice LTS 3.1.19, "Computer Output Configuration Control", has completed initial review.
3. A test procedure was established to use the traversing in-core probe (TIP) system during Experiment L3-6 to collect vessel water level data.
4. The expected power distribution and TIP triplet data for experimental comparison with fuel power flux profiles obtained prior to Experiment L3-6 were completed.
5. Data were obtained to determine TIP thermal response during heatup for L3-6.
6. A safety analysis for the conduct of Experiment L3-6/L8-1 was completed. Documentation of the results is in progress.
7. A draft of the changes to the LOFT Technical Specification was prepared for the following:
 - A. Waste Gas Processing System Operation
 - B. Conduct of Experiment L3-6/L8-1.
8. A draft of the Experiment Safety Analysis (ESA) for the conduct of Experiment L3-6/L8-1 was prepared.

9. A modification to the containment vessel airlock leak test system was completed. This modification will permit the airlocks to be leak-tested without the time-consuming requirement of exchanging relief valves.
10. Replacement of V-6765 (the 8-inch service water containment isolation valve) was completed. This valve changeout was part of the ongoing Containment Isolation System upgrade.
11. Modifications to the pressure reduction sump were completed in order to isolate any sources of service water to the sump. This is an effort to reduce the potential for contaminating the borated water in the sump with chlorides and other undesirable materials.
12. A more reliable, level monitoring system was installed in the diesel fuel storage tank.
13. Drain piping was installed from the decontamination area to the high-level waste system.
14. A one-ton air conditioner was installed in the room that was adapted for the Prime computer. This installation was made in anticipation of the addition of more heat-producing equipment in the room as well as to provide additional cooling for the disc unit.
15. Component fabrication of the LOFT fuel storage rack is complete and final assembly has been started.
16. Redesign of the resin beds and prefilters for the Irradiated Fuel Storage Facility (IFSF) pool cleanup subsystem was completed.
17. The final design review for the control rod storage rack and handling tools was held. Drafting is revising the drawings.

18. All work in the containment vessel for Experiment L3-6 has been completed.
19. System walk-throughs for Experiment L3-6 have been completed.
20. System reviews for Experiment L3-6 have been completed.
21. Additional instrumentation was requested for primary coolant pump instrumentation to provide real-time observation.
22. A task was initiated to mitigate possible damage to the primary coolant pump during Experiment L3-6.
23. The replacement of emergency core cooling system (ECCS) check valve V-2162 was completed.
24. Installation of new actuator/valve stem clamps on seven ECCS valves was completed. The new clamps provide additional safety margin on ECC valve operation.
25. All instrument valves (20) of the V-5127 type were replaced because one valve blew the stem packing during the performance of Experiment L3-5.
26. Electrical operational checkout of small break blowdown valves CV-P139-57 and -58 was completed.
27. The design concept for Experiments L3-3 and L9-1 was completed. The design is a departure from previously considered designs and will result in considerable cost savings.
28. The Primary Coolant System flow computer software was revised to recognize a single wide-range differential pressure input. This modification reduces error at low flow rates caused by calibration shift in the low-range transducers after extended overrange operation.

29. Wide range primary coolant flow transmitters have been replaced with Rosemount units to increase measurement accuracy.
30. The reactor vessel coolant level display system has been completed for Experiment L3-6.
31. Cabling systems have been installed for the gamma densitometers in the PC-3 locations and the neutron liquid level indicator.
32. The Waste Gas Processing System vault ventilation instrumentation has been system operation (SO) tested.
33. Preliminary design on the relocation of the high pressure injection system (HPIS) charging pump control boxes from Room B-203 to B-201 in Building TAN-630 has been completed. The change is being made to comply with recommendations in LOFT Technical Report (LTR) LO-68-80-305, "Operability of HPIS Pump Motors Upon Low Pressure Steam Pipe Rupture".
34. The installation of strip heaters in the outdoor 13.8 kV power distribution Bus B has been completed. This was done to prevent condensation from forming within the switchgear. Condensation has been identified as the cause of the switchgear failure in January 1980.
35. A paper, entitled "An Operational Silver Zeolite Iodine Adsorption System", was presented at the 16th Annual DOE Nuclear Air Cleaning Conference in San Diego, California.
36. Two poster-board presentations were made at the IEEE Nuclear Science Symposium in Orlando, Florida. The titles of the presentations were: "LOFT Advanced Control Room Operator Diagnostic and Display System (ODDS)" and "Software Design for LOFT On-Line Computer Systems."
37. Nick Maringas has been appointed as a member of the ASME Nuclear Crane Committee. The committee will meet six times a year.

LOFT FACILITY DIVISION

1. All Inservice Inspection (ISI) testing and surveillance testing required for L3-6 Experiment Operating Procedures (EOP) were completed.
2. The new PC-3 gamma densitometer was installed.
3. The reactor vessel liquid level measurement system was installed and checkout of the system was begun.
4. The liquid level neutron detector was installed and checkout was begun.
5. All work items required for the EOP for Experiment L3-5 were completed.
6. Phase I of the EOP for Experiment L3-6 was completed.
7. Phase II of the EOP for Experiment L3-6 was started.

LOFT MEASUREMENTS DIVISION

1. The L3-5 modular drag disc turbine (MDTT) rake was removed from the PC-2 location and decontamination has been started. The initial examination of the rake showed that no gross abnormalities had occurred and that the rake had maintained its structural integrity.

The instruments were removed from the rake and examination was started. The preliminary examination consisted of an electrical and external visual check. No abnormalities in lead wiring were located which indicates that the fix used for the brazing problem in the L3-5 rake was an acceptable and usable technique. The visual check showed that all turbines had remained in place, indicating that no parts were lost except graphite bearing pieces and potentially the bearing keys.

2. The L3-6 rake was installed at the PC-2 location. As in previous rake insertions at this location, some trial and hand-fitting were required. Instrument checkout was completed and all readouts were operational. This rake incorporates design improvements which were recommended following examination of the Auxiliary Reactor Area (ARA) and Exxon test instruments. These improvements include polishing the shaft bearing surfaces, ensuring shaft segment concentricity, and balancing the turbine-shaft assembly which should result in longer bearing life.
3. Checkouts during Experiment L3-6 pre-LOCE instrument checks disclosed two failed preamps, BL-1D and BL-2A, which were replaced. All other preamps and densitometer systems were operational.
4. The source-actuator assembly for the PC-S densitometer was repaired and reinstalled. Spare insulator plates and insulator washers were fabricated.
5. All channels of both PC-S and the large hardened densitometer systems were calibrated and pipe-full/pipe-empty data were taken in preparation for Experiment L3-6.

6. During Experiment L3-5, the megabytes stabilized densitometer (MSD) electronics were installed and used on BL-2A with good results. This type of electronics is being used for the PC-3 channels for Experiment L3-6. These electronics have already been used for pipe-full/pipe-empty calibrations for the newly installed PC-3 system. Use of these electronics will significantly reduce the time and cost to derive density data.
7. Installation and operational checkout of the PC-3 gamma densitometer was completed. Dry pipe and full pipe calibration data were also completed. The entire system appears to be performing satisfactorily.
8. Drawing Change Notices (DCNs) to all applicable drawings for the PC-3 gamma densitometer have been completed.
9. The design, fabrication, and installation of the Electric Power Research Institute (EPRI) liquid level neutron detector were completed. The detector assembly is located above the reactor vessel near the control rod drive motors. Operation of this system will be achieved using the existing pulsed neutron activation electronics and cabling.
10. After Experiment L3-6, the four pulse neutron activation (PNA) generators were returned to Sandia Laboratories for determination of neutron output and expected life. The results from Sandia's calibration show a greatly degraded neutron output and therefore almost no pulses are left.
11. Eight embedded thermocouples and twenty weld samples were completed and sent to Exxon Nuclear for assembly into the TC-4 fuel rods.
12. All fuel cladding thermocouples (TC) have been grounded at the stalk on the present core; noise was reduced by 10% depending upon the TC's.

13. Preliminary design for the steam generator secondary side temperature measurement was completed. Thermal and stress analyses are in progress and a transient analysis has been started. Feedback from a stress analysis on the thermocouple housing and flange has been incorporated into the drawing.

The design for the temperature measurement at the steam generator primary inlet and outlet plenum was completed.

The study on the code requirements on gold brazing for the primary coolant system was completed and documented. The gold braze shear strength analysis for the LOFT steam generator primary coolant system thermocouples has been reviewed and approved. The results of the analysis indicated that the gold brazed joint as it is now designed meets the requirements of ASME, Section III, Class I, and is now acceptable.

14. The measurement capability list (MCL) was updated to reflect the L3-6 measurements and was sent to LOFT CDCS for printing and distribution.
15. Calculations were made with RELAP5 to help size the instruments for Experiment L9-1. A meeting was held in which a new configuration was tentatively decided upon. The configuration will include a power-operated relief valve (PORV) with the correct flow area.

The liquid distribution analysis was completed for the L3-5 movie. The Data Analysis Branch is making two movies: L3-5 liquid level and L3-5 vs L3-5 experiment prediction liquid level for the reactor vessel.

16. A pilot project has been defined to qualify LOFT thermocouple data in a batch program using four instrument quality functions and a single combinational rule.
17. A draft of the Experiment Design Report (EDR) for Experiments L6-1, L6-2, and L6-3 was completed.

18. A LOFT Instrumented Fuel Branch representative presented a description of potential Pressurized Water Reactor (PWR) fuel damage and core migration experiments in LOFT at the LOFT Review Group Meeting in Idaho Falls.
19. A change order was issued to Exxon Nuclear Company for design and fabrication of two fuel rods with embedded cladding thermocouples for Power Burst Facility TC-4 tests and Exxon submitted the preliminary design package for approval.
20. Preliminary burst testing at Exxon Nuclear Company of fuel rod cladding with simulated embedded thermocouple installations indicates that the minimum requirements for fuel rod cladding burst pressure can be satisfied.

LOFT PROGRAM DIVISION

1. A draft of the Experiment Operating Specification (EOS) for Experiment L3-6/L8-1 was prepared, approved, and distributed.
2. The first written draft of the Experiment Definition Document (EDD) for Experiment L9-1 was completed. This EDD has since been distributed for review. Experiment L9-1 is currently scheduled for April 1980.
3. Specific instrumentation requirements for Experiment L5-1 were transmitted to the LOFT Measurement Division. Instrument ranges and the arrangement and location of the proposed flow nozzle for the intermediate break were described in detail. Experiment L5-1 is currently scheduled for August 1981.
4. The results of the preliminary L5-1 scoping calculations performed using RELAP4/MOD7 were documented. From the scoping study, the preferred break flow area and emergency core cooling (ECC) configuration were identified.
5. The application of the LOFT small break L3-7 data to the ZION PWR has shown that the LOFT data can be considered a reference for the same transient initiating event in a four-loop Westinghouse design. This work is part of a general task to define LOFT transients as references for calculations of commercial power plants.
6. A paper, entitled "Response of LOFT SPNDs to Reactor Coolant Density Variations During a LOCA Simulation", was presented at the Winter Meeting of the American Nuclear Society (ANS).
7. A preliminary draft of the Quick Look Report (QLR) for LOFT Experiment L3-6/L8-1 was completed.
8. A paper, entitled "Results and Predictions of Scaled Nuclear Large Break LOCE", was presented at the American Society of Mechanical Engineers (ASME) Annual Winter Meeting.

9. A paper, entitled "Forced Convection Post-Critical Heat Flux (CHF) Heat Transfer and Quenching", was presented at the ASME Annual Winter Meeting.
10. Several presentations were made at LOFT Review Group Meeting in Idaho Falls; the presentations covered the results obtained from the LOFT experiments.

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

FY-81 budgets were input into PMS, bringing the budget in line with the FY-81 total available funds. Future PMS and CAPS reports will agree with the Financial Plan. The FY-81 budgets will be reflected in CAPS for all December month-end reports. Work was continued within Reactor Programs Branch (RPB) for new task selections and the preparation of a two-year master plan for use of foreign funds.

2. Task 5F8C3 -- Component Development

A data report for tests performed on the pressure balanced drag turbine transducer (advanced DTT) at the LOFT Test Support Facility (LTSF) in September 1980 was submitted for final preparation and review.

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

A preliminary conceptual design review for the post-CHF tests was held on November 14, 1980. A number of items were identified to be considered in the final design. Final design work is being performed and a final review will be scheduled for mid-January 1981.

The vapor superheat probe being constructed at Lehigh University for use in the post-CHF test is on schedule. A copy of the preliminary experimental operating specification for the post-CHF test was sent to Lehigh University for review.

4. Task 5F8C5 -- Small Break Instrumentation

The installation of the PC-3 gamma densitometer in LOFT was completed a week ahead of schedule. All operational checkouts have been completed satisfactorily. Calibrations for dry-pipe and full-pipe conditions were completed. Drawing change notices (DCNs) to all applicable drawings have been completed.

SUMMARY OF GERMAN-FUNDED (FRG) TASKS

1. Task 5F7C2 -- Program Development and Analysis

The FRG program FY-81 budgets were input into PMS, bringing the budgets into agreement with the total available funds. Funds were approved by DOE for REBEKA rod-embedded thermocouple installations.

Work was begun to establish requirements for analysis to qualify the two-phase loop steam supply vessel for use at 3000 psia.

2. Task 5F7C3 -- Component Development

Final design work is continuing at Exxon Nuclear for the installation of embedded thermocouples in the cladding of two REBEKA heater rods. Fabrication of the required tooling is also in progress. The rods are to be completed by the end of December 1980.

SUMMARY OF NETHERLANDS-FUNDED (ECN) TASKS

1. Task 5FNC2 -- Program Development and Analysis

Using subcooling as the correlating parameter, an excellent data correlation ($\pm 5\%$) was shown to exist for the mass flow ratio from modified Burnell model runs. HEM and Henry-Fauske also showed a clear relationship between subcooling and mass flow rate, but the data spread was somewhat larger.

Gamma transport calculations have been continued under the task for analysis of pulsed neutron activation (PNA) techniques at Rensselaer Polytechnic Institute. A two-phase stratified flow (one-half liquid and one-half vapor) at 1200 psia and saturation temperature in a 14-inch steel, schedule 160 pipe was analyzed over a one-meter length of pipe. Detector efficiencies per gamma for the vapor region were calculated.

SUMMARY OF FRENCH-FUNDED (CEA) TASKS

1. Task 5FFC2 -- Program Development and Analysis

French funds have not been received. Planning for use of these funds is in progress.

SUMMARY OF AUSTRIAN-FUNDED (FZS) TASKS

1. Task 5FAC2 -- Program Development and Analysis

No significant activity this month.

2. FZS In-Kind Support to LOFT

The FZS staff has commenced work on a task supporting the LOFT augmented operator capability program. Other tasks are in progress, but a current status report has not been received by LOFT.

SUMMARY OF SWITZERLAND IN-KIND (EIR) SUPPORT

1. NEPTUN Reflood Test Program

The NEPTUN program is being reviewed (in light of other reflood tests being conducted throughout the world) to update the NEPTUN test program to include tests which will be of major importance to the LOFT Project. Tests being considered are for instrument evaluation and additional reflood tests with more typical electric fuel rod simulation.

Comments from the EIR staff concerning the original NEPTUN program are being reviewed. A letter was written to EIR specifying LOFT thermocouple placement within the NEPTUN fuel bundle, identifying the priority of core boil-off tests, and recommending that zircaloy clad heater rods be evaluated for future NEPTUN testing.

FOREIGN COOPERATIVE SUPPORT TO LOFT

1. COSIMA Thermocouple Tests at KfK

Dr. Class of KfK recently presented the COSIMA thermocouple results at the Annual Nuclear Safety Meeting held at Karlsruhe, Germany. No further work on LOFT thermocouple testing at KfK is anticipated at this time. Final results will be evaluated by LOFT when they become available.

2. REBEKA Thermocouple Tests at KfK

The REBEKA reflood program has completed a series of low-pressure, forced-feed reflood tests on a 5 x 5 rod bundle. Various clad thermocouple (TC) arrangements were tested, including one rod containing four LOFT clad exterior TCs. Eight tests were performed; then the test bundle sat unused for about two months in the test assembly during the summer vacation period. Recently, six more tests were performed, and then the bundle was disassembled. The LOFT TCs performed well during the initial eight tests, but were erratic during the last six. Assembly examination revealed that the LOFT TCs are badly embrittled and corroded. The TCs are Type S (pt, pt-Rh) with titanium sheaths. Possible reasons for the TC deterioration are being investigated. The other KfK-installed TCs and test rods did not show similar damage.

INEL-A-16-923

Figure 1. LOFT management summary schedule.

LOFT Overall Funding

5xxxxx

LOFT Program Cost/Budget Summary LOFT OVERALL FUNDING

The Nuclear Regulatory Commission (NRC) and foreign-funded budgets reflect the LOFT Q81-0 Rev. 2 baseline approved in November 1980. Refer to the Manager's Monthly Summary for comments.

5N--NRC Operating Funding

5F--Foreign Funding

EG&G IDAHO INC.
LOFT-NRC OPERATING FUNDS

TOTAL PROGRAM

BUDGET	3200	4478	9781	12922	15955	20042	23179	26240	29910	32628	36392	41528
ACTUAL	2775	5844										

MATERIAL

BUDGET	832	1751	2558	3562	4431	5649	6427	7306	8258	8935	9879	12635
ACTUAL	912	1677										

MANPOWER

BUDGET	590	523	522	501	479	499	509	492	461	495	498	513
ACTUAL	471	526										

BUDGET

ACTUAL

Refer to the summary cost accounts for comments.

EG&G IDANO INC.
LOFT-FOREIGN FUNDING

TOTAL PROGRAM

	BUDGET	151	223	289	306	314	322	329	347	368	375	385	416
ACTUAL		105	173										

MATERIAL

	BUDGET	84	109	137	139	142	153	156	160	174	177	181	206
ACTUAL		79	96										

MANPOWER

	BUDGET	19	8	8	3	1	1	1	1	1	1	1	1
ACTUAL		8	11										

BUDGET

ACTUAL

Refer to the summary cost accounts for comments.

LOFT 189a Summary

5NX--NRC 189a

5FXX--Foreign 189a

EG&G IDAHO INC.

A6308-PROBABILISTIC ANALYSIS

NUMBER 5N8000000

TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

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

BUDGET

ACTUAL

Account is currently summing to account number 5N8. Will be corrected for December 1980 business. Refer to account 5N80PAS for comments.

EB&B IDAHO INC.
NRC 109A A604B EXPER PROGRAM

TOTAL PROGRAM

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BUDGET	480	979	1437	1807	2156	2628	2960	3270	3654	3975	4394	4767
ACTUAL	329	678										

MATERIAL

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BUDGET	141	314	477	615	735	900	1010	1117	1258	1372	1519	1680
ACTUAL	120	248										

MANPOWER

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BUDGET	87	75	62	55	50	54	49	44	43	50	48	53
ACTUAL	51	49										

BUDGET

ACTUAL

Refer to the summary cost accounts for comments.

EG&G IDAHO INC.

NRC 189A A6053 FUEL

NUMBER 5N2D00000

The overrun is caused by accruals for work that was projected to be paid in October, November, and December. See explanation in summary cost account 5N2D00000. Recovery is expected by the end of the first quarter of FY-81.

EG&G IDAHO INC.

NRC 189A A6043 EXPER INSTR

NUMBER 5K3000000

TOTAL PROGRAM

BUDGET	364	731	1098	1439	1790	2292	2658	2977	3334	3612	4102	4551
ACTUAL	219	639										

MATERIAL

BUDGET	84	193	300	407	510	695	783	855	959	1028	1115	1189
ACTUAL	20	97										

MANPOWER

BUDGET	70	57	54	55	55	55	60	53	44	50	71	80
ACTUAL	51	77										

BUDGET

ACTUAL

Refer to summary cost accounts for comments.

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

TOTAL PROGRAM

BUDGET	672	1361	2025	2584	3098	3778	4321	4866	5427	6090	6786	7956
ACTUAL	543	1190										

MATERIAL

BUDGET	163	365	505	642	762	955	1095	1234	1504	1617	1838	2667
ACTUAL	179	328										

BUDGET

ACTUAL

MANPOWER

BUDGET	121	102	105	94	82	80	82	85	84	81	81	73
ACTUAL	92	112										

Front end manpower loading is currently being corrected through the various contributing summary cost accounts.

EG&G IDAHO INC.

NRC 189A A6122 CORE & SAFETY SUP

NUMBER SN9000000

TOTAL PROGRAM

BUDGET	312	646	1018	1355	1696	2159	2540	2938	3397	3768	4263	4704
ACTUAL	320	703										

MATERIAL

BUDGET	95	197	312	413	513	642	752	873	1016	1131	1286	1426
ACTUAL	67	203										

MANPOWER

BUDGET	47	45	47	49	47	52	54	51	49	55	53	58
ACTUAL	58	51										

BUDGET

ACTUAL

No significant variance.

EG&G IDAHO INC.

NRC 189A A6110 COMMON SUPPORT

NUMBER 5N6000000

TOTAL PROGRAM

BUDGET	290	593	925	1225	1525	1920	2246	2572	2969	3286	3694	5354
ACTUAL	247	531										

MATERIAL

BUDGET	45	89	136	177	218	272	317	363	422	473	528	1893
ACTUAL	31	72										

HANPOWER

BUDGET	58	64	67	68	64	66	67	67	66	72	69	71
ACTUAL	59	59										

BUDGET

ACTUAL

No significant variance.

EQ&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										

MATERIAL

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

MANPOWER

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

Refer to summary cost accounts 5N7T and 5N7Z for comments.

EG&G IDAHO INC.
A6108 AUGEM OPER CAPABILITY

TOTAL PROGRAM

BUDGET	169	314	455	564	674	820	932	1044	1173	1273	1403	1509
ACTUAL	98	172										

MATERIAL

BUDGET	88	147	190	217	243	277	303	329	360	385	417	443
ACTUAL	6	22										

BUDGET

ACTUAL

MANPOWER

BUDGET	18	17	18	17	17	17	17	17	15	16	15	15
ACTUAL	11	19										

Budget revision is in process to correct manpower and material variance.

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

TOTAL PROGRAM

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

MATERIAL

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

HANPOWER

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

BUDGET

ACTUAL

No significant variance.

EB&G IDAHO INC.

A6273 - AUSTRIAN FUNDS

NUMBER SFAC00000

TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

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

BUDGET

ACTUAL

No significant variance.

EG&G IDAHO INC.

A6271 - HEATHERLAND FUNDS

NUMBER SFHCD0000

TOTAL PROGRAM

BUDGET	10	24	29	36	37	38	38	39	40	41	42	52
ACTUAL	-2	6										

MATERIAL

BUDGET	2	13	14	14	14	14	14	14	14	14	14	24
ACTUAL	-5	-1										

MANPOWER

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

BUDGET

ACTUAL

The underrun is a result of an accrual reversal for charges outstanding from MK (construction contractor). Also costs for work performed by Exxon Nuclear have not been received as expected.

EG&G IDAHO INC.
A6104 - GERMAN FUNDS

NUMBER SF7C00000

TOTAL PROGRAM

BUDGET	4	8	12	16	19	19	19	19	19	19	19	19
ACTUAL	6	5										

MATERIAL

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

HANPOWER

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

BUDGET

ACTUAL

Decrease in actual expenditures due to a MK contract accrual reversal.

ES&G IDAHO INC.
A6111 - JAPANESE FUNDS

NUMBER SP6C00000

TOTAL PROGRAM

BUDGET	148	191	248	253	259	274	280	286	305	310	318	337
ACTUAL	101	162										

MATERIAL

BUDGET	82	95	124	125	127	137	139	141	155	157	160	173
ACTUAL	82	96										

MANPOWER

BUDGET	16	7	6	1	1	1	1	1	1	1	1	1
ACTUAL	5	10										

BUDGET

ACTUAL

The budget is being adjusted for costs incurred for Lehigh University, in FY-80 rather than in FY-81 as budgeted.

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

This budget does not reflect the latest LOFT test schedule (as defined in NCK-278-80). We have been directed to continue the test planning effort even though CCB's have not been approved.

At our current manpower level, we will overspend the above budget by about 20%.

Actuals for November 1980 reduced by \$13,000 due to premature deletion of account number 51LPPXX. Will be corrected for December 1980 Business.

EG&G IDAHO INC.

SWISS REFLOOD

NUMBER 5N1C00000

TOTAL PROGRAM

BUDGET	2	5	8	10	13	16	18	21	24	27	30	32
ACTUAL	2	4										

MATERIAL

BUDGET	1	2	3	4	5	7	8	9	11	12	13	14
ACTUAL	2	2										

MANPOWER

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

BUDGET

ACTUAL

No significant variance.

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

The peak testing activity in October has produced some backlog of effort that will be stretched into the following months.

EG&G IDAHO INC.

DATA ANALYSIS BR - TEST EVAL

TOTAL PROGRAM

BUDGET	71	131	190	230	275	338	389	433	482	527	584	621
ACTUAL	38	75										

MATERIAL

BUDGET	8	17	27	35	44	56	65	74	85	94	105	111
ACTUAL	3	10										

MANPOWER

BUDGET	15	11	10	7	8	9	9	7	6	8	8	6
ACTUAL	9	8										

BUDGET

ACTUAL

Late FY-80 test schedule slippage into FY-81 has caused work load in excess of available manpower. Actuals will approach estimates as we continue to free up men for various work assignments.

EG&G IDAHO INC.
EXPER EVAL BRANCH - 6420

TOTAL PROGRAM

BUDGET	195	324	518	673	825	991	1100	1204	1350	1469	1616	1740
ACTUAL	105	232										

MATERIAL

BUDGET	96	131	213	282	349	415	454	496	554	600	657	704
ACTUAL	37	96										

MANPOWER

BUDGET	23	19	22	19	18	16	14	13	14	16	15	16
ACTUAL	15	13										

BUDGET

ACTUAL

Actuals lower than programmed because of manning, which is about 75% of the average required.

EG&G IDAHO INC.
FUEL INSTRUMENTATION

TOTAL PROGRAM

BUDGET	92	111	176	221	260	313	364	478	598	624	630	632
ACTUAL	8	20										

MATERIAL

BUDGET	37	81	129	152	167	181	193	245	335	340	342	342
ACTUAL	2	9										

HANPOWER

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

BUDGET

ACTUAL

The underrun is caused by unavailability of key personnel to support authorized activities which have also delayed procurement of detectors and detector components. This activity is being reprogrammed to reflect the late start and personnel availability.

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

TOTAL PROGRAM

BUDGET	149	305	415	794	1125	1577	1928	2015	2171	2296	2463	2608
ACTUAL	434	639										

MATERIAL

BUDGET	88	183	229	571	827	1155	1304	1413	1536	1634	1763	1876
ACTUAL	382	541										

MANPOWER

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

BUDGET

ACTUAL

The overrun is caused by the October accrual (200K) which had been originally budgeted for payment uniformly in the first quarter and a November rebudgeting action which rearranged the payment plan in an even more adverse manner. The payment plan will be corrected in December and recovery from the apparent overrun should occur by January 1.

EG&G IDAHO INC.
POST TEST EXAM

NUMBER 5N2F00000

TOTAL PROGRAM

BUDGET	45	70	101	126	148	183	216	242	270	293	329	351
ACTUAL	12	34										

MATERIAL

BUDGET	5	8	12	16	18	23	27	31	34	38	42	45
ACTUAL	0	1										

MANPOWER

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

BUDGET

ACTUAL

The underrun is due to the unavailability of key personnel to commence planned and authorized activities in October. Partial recovery occurred in November and this trend is expected to continue.

EG&G IDAHO INC.

EXP INSTR - EXPER MEAS BR 6110

TOTAL PROGRAM

BUDGET	267	568	862	1144	1436	1838	2124	2369	2640	2840	3224	3575
ACTUAL	160	504										

MATERIAL

BUDGET	79	182	282	384	481	659	741	808	905	968	1048	1116
ACTUAL	19	81										

MANPOWER

BUDGET	47	44	41	43	44	37	44	39	30	33	54	61
ACTUAL	37	64										

BUDGET

ACTUAL

The underrun is the result of the combination of Experimental Measurements Branch support, DAVDS Support Task. See individual work package for comments.

EG&G IDAHO INC.

DATA ANALYSIS BRANCH - 6130

TOTAL PROGRAM

BUDGET	98	163	235	295	354	454	534	608	694	772	878	975
ACTUAL	98	135										

MATERIAL

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

MANPOWER

BUDGET	22	13	14	13	12	16	16	14	14	13	17	19
ACTUAL	14	14										

BUDGET

ACTUAL

Refer to cost account 5N3AMP for comments.

EG&G IDAHO INC.
THREE-MILE ISLAND SUPPORT

TOTAL PROGRAM

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

MATERIAL

BUDGET	10	18	20	20	20	20	20	20	20	20	20	20
ACTUAL	16	30										

MANPOWER

BUDGET	7	7	7	1	0	0	0	0	0	0	0	0
ACTUAL	7	10										

BUDGET

ACTUAL

Additional travel expense incurred for November 1980 due to Prairie Island Reactor studies.

EG&G IDAHO INC.

PLANT SUPPORT - PLANT SYS NO 3

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.

EG&G IDAHO INC.

PLANT SUPPORT - PLANT SYS NO 1

NUMBER SN4100000

TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

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

BUDGET

ACTUAL

No significant variance.

EG&G IDAHO INC.

PLANT SUPPORT - PLANT SYS NO 2

NUMBER SN4J00000

TOTAL PROGRAM

BUDGET	66	137	222	297	366	476	574	702	963	1053	1151	1658
ACTUAL	56	117										

MATERIAL

BUDGET	11	23	40	57	66	79	96	129	273	311	327	787
ACTUAL	7	17										

MANPOWER

BUDGET	12	11	13	12	12	6	19	19	21	12	14	9
ACTUAL	11	11										

BUDGET

ACTUAL

No significant variance.

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

TOTAL PROGRAM

BUDGET	125	240	393	519	641	799	912	1023	1140	1232	1356	1448
ACTUAL	84	232										

MATERIAL

BUDGET	52	88	125	167	184	209	232	250	266	275	285	292
ACTUAL	8	36										

MANPOWER

BUDGET	16	18	19	20	23	21	18	18	16	18	18	16
ACTUAL	19	26										

BUDGET

ACTUAL

No significant variance.

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

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

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

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

BUDGET

ACTUAL

No significant variance.

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

Underruns in budget are due to cost effective management in computer usage. Potential accrued charges may decrease underrun. Also analyst's capability to run models is improving.

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

TOTAL PROGRAM

BUDGET	140	286	447	591	735	925	1081	1237	1420	1560	1745	1901
ACTUAL	143	275										

MATERIAL

BUDGET	27	56	87	115	143	175	208	237	269	293	325	351
ACTUAL	36	53										

MANPOWER

BUDGET	24	23	24	24	23	21	24	24	23	25	24	24
ACTUAL	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. 2. Material charges billed from Hot Shop for October and November support.

CCB action is being prepared to address both overruns.

EG&G IDAHO INC.

COMMON SUPP - COCS/TECH SUPT

No significant variance.

EQ&S IDAHO INC.

COMMON SUPPORT - QUALITY

NUMBER SN6K00000

TOTAL PROGRAM

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BUDGET	102	206	319	420	521	655	764	874	1006	1110	1248	1363
ACTUAL	78	171										

MATERIAL

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BUDGET	13	24	33	40	48	58	66	74	83	91	101	109
ACTUAL	0	2										

HANPOWER

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BUDGET	23	22	23	23	22	23	23	23	23	25	24	24
ACTUAL	19	20										

BUDGET

ACTUAL

No significant variance.

EG&G IDAHO INC.

COMMON SUPPORT - PLANS & BUDGETS

TOTAL PROGRAM

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BUDGET	70	144	225	299	373	470	551	633	736	820	922	1008
ACTUAL	76	154										

MATERIAL

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BUDGET	11	23	35	47	59	74	88	102	123	143	161	176
ACTUAL	15	30										

MANPOWER

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BUDGET	18	17	18	16	17	18	19	18	18	19	18	19
ACTUAL	18	17										

BUDGET

ACTUAL

IBM Computer rates increased. CCB in process to re-align budget and reflect current rates.

EG&G IDAHO INC.
COMMON SUPPORT - SAFETY

TOTAL PROGRAM

BUDGET	42	87	137	181	226	285	334	382	441	487	540	599
ACTUAL	28	64										

MATERIAL

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

MANPOWER

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

BUDGET

ACTUAL

Underrun due to lack of manpower availability.

EG&G IDAHO INC.
DIVISION CONTROL

TOTAL PROGRAM

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0	1317
ACTUAL	0	0											

MATERIAL

BUDGET	0	0	0	0	0	0	0	0	0	0	0	0	1317
ACTUAL	0	0											

MANPOWER

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

BUDGET

ACTUAL

Management reserve.

EG&G IDAHO INC.
LOFT OPERS BRANCH

TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

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

BUDGET

ACTUAL

No significant variance.

EG&G IDAHO INC.
LOFT TEST & DATA

NUMBER SN7700000

TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

BUDGET	24	32	33	34	32	33	34	34	33	36	34	39
ACTUAL	29	27										

BUDGET

ACTUAL

The underrun is due to recent terminations. Requisitions expected to be filled by October 1980, were not costed.

EG&G IDAHO INC.
LOFT FACILITY SUPPORT

TOTAL PROGRAM

BUDGET	218	448	703	933	1163	1456	1715	1964	2263	2499	2810	3071
ACTUAL	218	443										

MATERIAL

BUDGET	36	74	116	158	192	242	282	322	370	408	458	500
ACTUAL	55	54										

MANPOWER

BUDGET	51	47	50	50	47	49	57	50	49	53	51	52
ACTUAL	48	59										

No significant variance.

EG&G IDAHO INC.
OUTSIDE SERVICE SUPPORT

The Safety Division experienced heavier than normal use of vacation time.

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										

MATERIAL

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

MANPOWER

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

BUDGET

ACTUAL

Budget re-alignment is under investigation for corrective action.

EG&G IDAHO INC.

AOC - PAS

TOTAL PROGRAM

	BUDGET	74	122	173	215	257	312	352	393	437	471	516	553
	ACTUAL	18	56										

MATERIAL

	BUDGET	44	57	67	72	76	82	86	91	96	101	106	111
	ACTUAL	0	3										

MANPOWER

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

BUDGET

ACTUAL

Budget re-alignment is under investigation for corrective action.

EQ&G IDAHO INC.
CORE MELT MITIGATION

TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

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

BUDGET

ACTUAL

No significant variance.

EG&G IDAHO INC.
PROGRAM DEVELOPMENT & ANALYSIS

NUMBER 9FAC20000

No significant variance.

EG&G IDAHO INC.
 PROG DEVELOPMENT & ANALYSIS

NUMBER SFNC20000

TOTAL PROGRAM

BUDGET	10	13	18	25	26	27	28	28	29	30	31	42
ACTUAL	4	13										

MATERIAL

BUDGET	2	2	3	3	3	3	3	3	3	3	3	13
ACTUAL	1	4										

MANPOWER

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

BUDGET

ACTUAL

No significant variance.

EQ&B IDANG INC.
COMPONENT DEVELOPMENT

The underrun is a result of an accrual reversal for charges outstanding from MK (construction contractor). Also costs for work performed by Exxon Nuclear have not been received as expected.

EG&G IDAHO INC.
 PROG DEVELOPMENT & ANALYSIS

NUMBER SF7C20000

TOTAL PROGRAM

BUDGET	3	7	10	13	14	14	14	14	14	14	14	14
ACTUAL	2	2										

MATERIAL

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

MANPOWER

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

Higher priority work has delayed start on the storage tank analysis task.

EG&G IDAHO INC.
COMPONENT DEVELOPMENT

NUMBER SF7C30000

There has been no activity on the skam probe task. It is anticipated that the budgeted funds will be returned to FRG reserve.

EG&G IDAHO INC.
PRQG DEVELOPMENT & ANALYSIS

NUMBER SF8C20000

TOTAL PROGRAM

BUDGET	4	11	19	24	28	34	40	45	52	57	65	72
ACTUAL	4	12										

MATERIAL

BUDGET	1	2	4	5	7	9	11	13	15	18	20	23
ACTUAL	3	3										

HANPOWER

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

BUDGET

ACTUAL

No significant variance.

EG&G IDAHO INC.
COMPONENT DEVELOPMENT

Budget adjustment actions are being applied. This task is closed out and no further charges should occur. The budget is approximately \$1K overrun.

EQ&Q IDAHO INC.
POST CHF HEAT TRANSFER

NUMBER SF8C40000

TOTAL PROGRAM

BUDGET	17	41	90	90	91	100	101	102	113	114	115	126
ACTUAL	1	7										

MATERIAL

BUDGET	1	12	38	38	38	47	47	47	58	58	58	68
ACTUAL	0	0										

MANPOWER

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

BUDGET

ACTUAL

The budget is being adjusted for costs incurred for Lehigh University in FY-80 rather than in FY-81. Other minor budget realignments are being applied to reflect future cost schedules.

EG&G IDAHO INC.
SMALL BREAK INSTRUMENTATION

TOTAL PROGRAM

BUDGET	119	133	133	133	133	133	133	133	133	133	133	133
ACTUAL	96	141										

MATERIAL

BUDGET	80	81	81	81	81	81	81	81	81	81	81	81
ACTUAL	79	92										

MANPOWER

BUDGET	10	3	0	0	0	0	0	0	0	0	0	0
ACTUAL	4	7										

BUDGET

ACTUAL

This task is completed. A small amount of outstanding charges remain. A CCB will be initiated to transfer from contingency funds to cover the overrun.

Year	LOFT Cost Accounts (\$M)	5N3Axx--NRC Work Package Accounts (\$M)
1970	10	15
1971	12	17
1972	15	20
1973	18	23
1974	22	27
1975	20	25
1976	25	30
1977	30	35
1978	35	40
1979	40	45
1980	85	65

EG&G IDAHO INC.
EXP MEAS - BRANCH SUPPORT

TOTAL PROGRAM

BUDGET	27	55	86	114	142	179	209	239	275	304	342	373
ACTUAL	16	39										

MATERIAL

BUDGET	13	27	43	57	71	90	105	120	137	152	170	186
ACTUAL	9	19										

MANPOWER

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

BUDGET

ACTUAL

The underrun is the result of low computer charges. The completion of L8-1 and L3-6 will require heavy computer usage thus bringing actuals within budget.

EG&G IDAHO INC.
EXP MEAS -DAVDS SUPPORT

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

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

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

Variance is the result of one engineer working on the L8-1 liquid level task instead of DAVDS. He will be charging to DAVDS next month.

EG&G IDAHO INC.

EXP MEAS - MEAS SYST A

No significant variance.

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

TOTAL PROGRAM

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

MATERIAL

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

MANPOWER

BUDGET	12	12	13	13	13	13	13	13	13	13	13	13
ACTUAL	12	17										

BUDGET

ACTUAL

No significant variance.

EG&G IDAHO INC.
EXP MEAS PERFORMANCE

TOTAL PROGRAM

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BUDGET	98	163	235	295	354	454	534	608	694	772	878	975
ACTUAL	58	135										

MATERIAL

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BUDGET	6	11	17	23	28	35	41	47	54	59	67	73
ACTUAL	1	16										

MANPOWER

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BUDGET	22	13	14	13	12	16	16	14	14	17	17	19
ACTUAL	14	14										

BUDGET

ACTUAL

The underrun is the result of under staffing for the month of October. New people are in the process of being employed which will bring actuals within budget.

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 is also compared with the Actual Cost of Work Performed (ACWP).

	BCWS		BCWP ^a		ACWP	
	<u>Month</u>	<u>Year-to-Date</u>	<u>Month</u>	<u>Year-to-Date</u>	<u>Month</u>	<u>Year-to-Date</u>
5N2D000	156	305			205	639
5N4K000	123	248			148	232
5N4P000	84	182			72	157

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

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

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

a. Figures are not yet available: In the process of rebaselining.

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

<u>Participant</u>	<u>Actual Reserve</u>	<u>Contingency</u>
JAERI	25.5	57
FRG	-80.9 ^a	9
CEA	0	0
ECN	69.7	16.8
FZS	<u>0</u>	<u>0</u>
Total	14.30	82.8

a. Funds approved against money to be received.

TABLE 2. FOREIGN FUNDED TASK SUMMARY AT END OF NOVEMBER 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	195.9	Sept. 81
5F8C22	Analysis and Evaluation	16	16	10.0	Sept. 81
5F8C31	Instrumentation	154	154	154.7	Dec. 80
5F8C32	Hardware Components	43	41	41.6	Dec. 80
5F8C41	Post-CHF Heat Transfer	200	177	70.2	Sept. 81
5F8C51	PC-3 and Small Break Instrumentation	692	660	656.9	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	235.3	Sept. 81
5F7C22	Analysis and Evaluation	58	58	43.8	Sept. 81
5F7C23	Task Development	10	10	3.6	Feb. 81
5F7C31	Instrumentation	120	111	21.8	Sept. 81
5F7C92	Two-phase Loop	1012	1012	1013.7	Done
5F7C94	Boiler Building	18	18	34.8 ^a	Done

TABLE 2. (continued)

Project Description		Total Proposal Est. Inc. Contingency (\$K)	Total Spending Auth. by CCB (\$K)	Funds Spent to Date (\$K)	Expected Task Completion Date
<u>ECN TASKS</u>					
5FNC11	Completed Tasks	91	91	91.6	Done
5FNC21	Management and Delegate Support	27	27	10.6	Sept. 81
5FNC22	Analysis and Evaluation	234	219	186.9	Sept. 81
5FNC31	Instrumentation	11	11	0	Dec. 80
5FNC32	Hardware Components	59	47	39.6	Dec. 80
<u>FZS TASKS</u>					
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)

WBS#	189 #	Q81-0-2	Approved CCBs	Current PMB # Q81-0-3	Current BAC
5N1XX	A6048	4,767	2	4,769	4,769
5N2XX	A6053	3,591	-0-	3,591	3,591
5N3XX	A6043	4,550	62	4,612	4,612
5N4XX	A6107	7,958	111	8,069	8,069
5N5XX	A6122	4,703	-0-	4,703	4,703
5N6XX	A6110	4,037	100	4,137	4,137
5N7XX	A6054	9,031	0	9,031	9,031
5N8XX	A6108	963	0	963	963
5NPXX	A6308	553	0	553	553
5N9XX	A6351	65	0	65	65
5NXXX		40,219	275	40,493	40,493
Supplementary programs					2,836
NRC management reserves					994
Total NRC funding (FY-81)					44,323

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

<u>Funds</u>	<u>Current FIN Plan</u>	<u>Current Budget File (Q81-0-2)</u>
LOFT Foreign Funds	651	587 ^a
Total	651	587
NRC Operating Funds	43,856	39,933
Electric Heat Rod Evaluation		278
LTSF		1,694
Advanced Instrumentation		751
TC-3 Tests		65
Total		42,721
Total LOFT Funding	44,507 ^b	44,324 ^c

a. In process of adjustment.

b. Includes GSO.

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

TABLE 5. LOFT FY-81 SUMMARY BUDGET STATUS REPORT OF LOFT FOREIGN FUNDS
(In Thousands of Dollars)

<u>LOFT WBS</u>	<u>189 #</u>	<u>Q81-0-2</u>	<u>Approved CL.I CCBs</u>	<u>Current PBM # Q81-0-3</u>	<u>Current^a FY-81 Budget</u>	<u>Total Authorized Spending Limit</u>
5FAXX	A6273	8	3	11	11	147
5FNXX	A6271	137	21	158	71	393
5F7XX	A6104	23	33	56	47	4,231
5F8XX	A6111	<u>419</u>	<u>23</u>	<u>442</u>	<u>343</u>	<u>4,917</u>
5FXXX		589	,2.	587	472	9,688
Foreign contingency reserves					74	74
Foreign management reserves					<u>105</u>	<u>105</u>
Total FY-80 LOFT foreign funds					651	9,867
Foreign funds spent through FY-80					9,216	
Foreign funds budgeted in FY-82					<u>0</u>	<u>0</u>
Total foreign funds received to date					9,867	9,867

a. Tentative - not yet approved.