PD-AAN-811

SEMI-ANNUAL REPORT

June 15, 1983 - December 15, 1983

USAID PROJECT 263-0016

USAID CONTRACT NEB-0016-C-00-2036-00

INSTRUMENTATION TECHNOLOGY

January 17, 1984

Instrumentation Systems Center
University of Wisconsin-Madison
1500 Johnson Dr.
Madison, WI 53706

SEMI-ANNUAL REPORT

June 15, 1983 - December 15, 1983

USAID PROJECT 263-0016

USAID CONTRACT NEB-0016-C-00-2036-00

INSTRUMENTATION TECHNOLOGY

Executive Summary

The attachments, Bimonthly Progress Reports 7, 8 and 9 provide detailed information regarding effort expended, progress, and status during the six month period encompassed by this report. Complete financial data are provided.

Worthy of special attention are the unanticipated delays and costs resulting from the difficulties associated with clearance of the materiel through Egyptian customs. Solution of this problem must be obtained through the combined efforts of the appropriate Egyptian ministry, the Egyptian Academy of Scientific Research and Technology and USAID. The magnitude of this problem is sufficiently great that a cost extension of the program will be required.

N. E. Huston
Principal Investigator

12 January 1984
Date

E. D. Falk
Co-Principal Investigator

17 January 1984
Date

2

The University of Wisconsin

INSTRUMENTATION SYSTEMS CENTER
1500 JOHNSON DRIVE | AREA CODE: 608
MADISON, WISCONSIN 53706 | TELEPHONE: 263-1552

September 8, 1983

Ms. Catherine Y. Cunningham
Contracting Officer
Regional Operations Division
Office of Contract Management-NE
Agency for International Development
Washington, D. C. 20523

Subject: Bi-Monthly Progress Report No. 7, June 16, 1983-August 15, 1983, Contract No. NEB-0016-C00-2036-00 "Egyptian Instrumentation Technology and Equipment Management"

I. Work Performed During Reporting Period

E. D. Falk made a 2-1/2 week trip to Cairo, Egypt. He arrived in Cairo on July 23 and departed on August 9, 1983. The highlights and accomplishments of that trip are as follows:

1. Delivery was made of spare parts for incorporation into the Diano x-ray machine. This delivery completed the spare parts request for the Diano x-ray machine.

2. The visit was made to the Commercial Services Bureau in Cairo. A meeting was held with the manager and director, Mr. Gadalla. This company is the Egyptian agent for the United Van Lines. United Van lines is the contractor handling the transportation of the equipment being purchased by the UW/ISC. Mr. Gadalla indicated that he was aware of the contract and the project but that no detailed information had been sent to him as yet. Mr. Gadalla was briefed on the method and procedures being used on the equipment shipment. He indicated that the Egyptian customs regulations might present some problems. He informed us that the Egyptians have instituted an Import Control Committee to review all imports. The purpose of the committee is to insure that materials being imported could not have been purchased in Egypt. He indicated that the assistance of USAID and possibly ASRT in the form of letters to the Director of Customs would be necessary. Mr. Gadalla indicated that his company has two secure warehouse areas in Cairo. These warehouse areas will be used to store incoming equipment until being shipped to the site for installation. Mr. Gadalla seems to be knowledgeable about procedures, and the company appears to be well run.

The laboratory supplies for the Pharmaceuticals Project will be among the first items to be shipped to Egypt, and because of the existence of plasticware in this shipment, some import problems may be encountered. Thus, the first shipment may demonstrate what, if any, import problems will be encountered.

3. A review was made of the inventory being conducted on the Phase I equipment. This inventory was found to be complete except for the Biogas Project. Some difficulty has been encountered in making contacts with the appropriate people because of trips, holidays, etc. By the end of Mr. Falk's visit, the inventory had been completed and is now ready for computerization.

4. The library facility is ready for the materials to be shipped. The facility is well-planned to accommodate continued growth. The first library materials are expected to be shipped in September.

5. Meetings were held with Egyptian principal investigators and project scientists, to resolve questions associated with the equipment requirements. Feedback information was also provided to the Egyptian project investigators regarding the status of the equipment acquisition.

6. A visit was made to the Egyptian Organization for Standards (EOS) facility to deliver and discuss the pre-installation instructions for the x-ray spectrometer being purchased for the Chemical Composition Project. After receiving a communication from UW/ISC, another visit was made to present an alternate plan regarding some of the items of equipment to be furnished. This alternate plan was offered by the supplier of the equipment, Bausch and Lomb, and replaces the strip chart recorder with a cathode ray tube display with a printer. This substitution would be at no additional cost. It would provide a real-time display of the data being obtained to the scientist and provide the capacity to print it at his option. The original configuration would provide the same real-time display but always providing a hard copy, thus requiring needless consumption of expensive chart paper. The Egyptian project scientist, Dr. Desoukey agreed with this alternate plan.

   The EOS facility is still without major power. Temporary lines have been strung , which are equivalent to a 50 ampere service. Thus, much of the facility is still not in operation. The sub-station has been rebuilt, and the transformers installed. The switch gear is available but has not been installed yet. EOS does not as yet have local funds supplied by USAID to modify the rooms for the incoming equipment. Engineer Ragheb will work with Dr. Desoukey with regard to the pre-installation requirements.

7. A procedure was instituted with the Chase Bank in Cairo for remote transfer of funds between the U. S. dollar account and the Egyptian pound account maintained at that bank by UW/ISC. It was learned that it also takes about three months from the time the UW/ISC quarterly accounting report is submitted to USAID before the money is available for UW/ISC at the bank. Clearance of the U. S. Treasury check apparently takes at least three weeks.

8. USAID/CAIRO delivered to Mr. Falk a letter notifying UW/ISC of a per diem change. The retroactive nature of this change caused some difficulties.

9. USAID/CAIRO delivered to Mr. Falk a letter authorizing modification of a sub-project budget as follows:

Sub-Project	Change	New Budget
Phosphate Ore	Increase 14,000	$ 50,000
NBS	Increase 110,000	740,000
Bentonite	Apportionment 442,000	300,000
Pharmaceuticals	Apportionment 442,000	142,000
More and Better Foods	Reduce 124,000	447,000

10. A recommendation was made to USAID that Engineer Mordy be returned to the U. S. for two additional months of training in the procurement aspects. USAID did not concur with this recommendation because it was felt that the additional training of one individual might jeopardize the program to the extent that if the individual left, there would be no trained alternate. USAID/Cairo would like to see a different individual receive the training.

As of August 15, 1983, three requests for waiver of source and/or origin requirements have been submitted to USAID/WASH. Procurement action awaits issuance of the waivers.

Materiel continues to arrive at the warehouse of the logistics management sub-contractor here in Madison. UW/ISC personnel are checking the materiel to ascertain that the goods received conform to the order. Thus far, several major vendor errors have been discovered, and the equipment is being returned to the vendor. Although

such vendor errors will cause delays, discovery and correction of these errors in the U.S. is comparatively simple compared to the problems which would result if the deliveries were made to Egypt before discovery was made. Thus, although the UW/ISC logistics plan may seem cautious, conservative and time-consuming, the plan is already producing long-range savings and reducing the number of difficult situations to be encountered in Egypt.

II. Procurement Status

The procurement activity is receiving the highest program priority. Shipments to Egypt are planned to commence in September 1983. The Status of the procurement effort as of August 15, 1983 is presented in Annex I.

The use of a borrowed Apple II-E personal computer has been of great benefit to the program. All procurement operations are being tracked utilizing this computer. The material in Annex I provides an indication of the status of the procurement activities. Modifications and improvements to this display are being made and should be available for the next bi-monthly.

Interpretations of the status report requires explanation as follows:

1) Heading: title of the subproject.

2) Item: refers to the itemized priority level in the purchasing plan for each subproject. Copies of the plan are provided to USAID/CAIRO, ASRT, and the subproject principal investigator. If a project has no listing, this indicates that specifications, and consequently, the purchase plan, are still in preparation.

3) Description: name of item.

4) INQ. NO.: a number indicates that the item has been submitted to vendors for bid.

5) PO NO.: A number indicates that bids have been received and evaluated; selection of the vendor has been made; and a purchase order issued.

6) REC'D: a date indicates the item has been received on the date indicated at the subcontractors warehouse for receiving inspection, packing and shipping.

III. Equipment Costs

A summary of committed funds is provided in Annex II. Parenthetical numbers following the costs indicate the number of purchase order.

IV. Financial Status

The costs incurred during the reporting period, the cumulative costs, and estimated expenditures for the subsequent reporting period are presented in Annex III. All costs are in U.S. dollars.

Sincerely,

N. E. Huston

E. D. Falk

ANNEX I

PROCUREMENT STATUS

CHEMICAL COMPOSITION

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	X-RAY FLUOR SPECTROMETER	D3-0883-0	UAC 057Y072	
02	EXPENDABLE X-RAY CELLS			
03	X-RAY MYLAR FILM			
04	MICROPOROUS FILM			
05	XRF SAMPLE CUPS			
06	SIEVE SET			
07	SIEVE SET			
08	CENTRIFUGAL GRINDING MILL			
09	MORTAR & PESTLE			
10	X-RAY MIX			
11	ANTI-CAKING ADDITIVE			
12	PLATINUM CRUCIBLE			
13	AUTOMATIC FUSION DEVICE			
14	FUSION FLUX			
15	MOTORIZED HYDRAULIC PRESS			
16	MECHANICAL BALANCE			
17	VACUUM OVEN			
18	MISCELLANEOUS LAB-WARE			

HYDRAULIC TESTING

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	56MPA WATER PRES TEST STAND	F3-1084-0	UAC 057Y035	
02	11 MPA (WATER)	F3-1084-0	UAC 057Y035	
03	3 MPA (WATER)			
04	4 MPA (AIR)	F3-1084-0	UAC 057Y035	
05A	PLUG FITTING	F3-1084-0	UAC 057Y035	
05B	NPT/ISO FIT	F3-1084-0	UAC 057Y035	
05C	ISO TAP	F3-1084-0	UAC 057Y035	
05D	DRILL BIT	F3-1084-0	UAC 057Y035	
05E	PRESSURE TRANSDUCER			
05F	PRESSURE TRANSDUCER			
05G	PRESSURE TRANSDUCER			
05H	TEE	F3-1084-0	UAC 057Y035	
05I	HOSE	F3-1084-0	UAC 057Y035	
05J	POWER SUPPLY			
05K	STRIP CHART RECORDER			
05L	AIR HOSE	F3-1084-0	UAC 057Y035	
05M	FITTING	F3-1084-0	UAC 057Y035	
05N	AIR COMPRESSOR	F3-1084-0	UAC 057Y035	
05O	TEFLON TAPE	F3-1084-0	UAC 057Y035	

10

MAINTENANCE & REPAIR - EOS

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	O'SCOPE	I4-0268-0		
02	CURVE TRACER	I4-0268-0		
03	PULSE GEN	I3-1675-0		
04	FUNCTION GEN.	I3-1675-0		
05	Z METER	I3-1675-0		
06	O'SCOPE CAL. SYS.	I4-0268-0		
07	SIG. ANALYZER	I3-1675-0		
08	PRECISION P.S.	I4-0268-0		
09	DIG. VOLTMETER	I3-1675-0		
10	POWER SUPPLY	I3-1675-0		
11	DVM (HAND)	I3-1675-0		

11

TIME & FREQUENCY

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	RECEIVER, LORAN C	I3-0860-0	UAC 057Y024	8/03/83
02	EQUIPMENT RACKS	I3-0852-0	UAC 057Y013	
03	DATA LOGGING SYSTEM	I3-1891-0		
04	UNIVERSAL COUNTER	I3-1891-0		
05	FREQUENCY DISTRIB AMPLIFIER	I3-1891-0		
06	VHF SIGNAL SWITCHER	I3-1891-0		
07	PRINTER/PLOTTER SYSTEM	I3-1891-0		
08	MICROWAVE MEASUREMENT SYS.	I3-1891-0		
09	DIRECTIONAL COUPLER *	I3-1891-0		
10	SIGNAL GENERATOR	I3-1891-0		
11	SIGNAL SOURCE, MICROWAVE	I3-1891-0		

FORCE MEASUREMENT

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	CAL. MACHINE	F3-1635-0	UAC 057Y212	
02A	LOAD CELLS	F3-1947-0	UAD 057Y470	
02B	LOAD CELLS	F3-1947-0		
03	INSTRUMENT STANDARDIZER	F3-1245-0	UAC 057Y061	
04	READOUT INSTRUMENT	F3-1245-0	UAC 057Y061	
05	HYDRAULIC POWER SUPPLY	F3-1635-0	UAC 057Y201	8/10/83

DIMENSIONAL METROLOGY - PART A

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	SURF. TEXTURE DEV.	F3-1181-0		
02	COMP. VOLTMETER	F3-1181-0	UAD 057Y385	

14

DIMENSIONAL METROLOGY - PART B

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	HE-NE LASER	D3-1772-0	UAD 057Y374	
02	HG & CD LIGHT SOURCES	D3-1772-0	UAD 057Y363	
03	HE-NE LASERS	D3-1722-0	UAD 057Y374	
04	YAG-MAX LASER	D3-1772-0	UAD 057Y352	8/23/83
05	POWER METER	D3-1772-0	UAC 057Y374	

PHOTOMETRY

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	PYROELECTRIC RADIOMETER	D3-1416-0	UAC 057Y175	8/03/83
02	HELIUM-NEON LASER	D3-1416-0	UAC 057Y164	8/03/83
03	LAMP HOLDER	D3-1416-0	UAC 057Y153	8/03/83
04	ALIGNMENT JIG	D3-1416-0	UAC 057Y153	8/03/83
05	OPTICAL BENCH EQUIPMENT	D3-1416-0	UAC 057Y142	
06	AC/DC POWER SUPPLY	D3-1416-0	UAC 057Y131	8/03/83
07	PRECISION MEAS.ASSY	D3-1416-0	UAC 057Y186	
08	LAMP STANDARDS	D3-1416-0	UAC 057Y186	

LEGAL METROLOGY

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	PROPORTIONSCOPE	D3-1670-0	UAD 057Y466	
02	DIAMONDLITE	D3-1670-0	UAD 057Y466	
03	STEREO OPTICAL SYSTEM	D3-1670-0	UAD 057Y466	
04	DIAMOND MASTER	D3-1670-0	UAD 057Y466	
05	EYE LOUPE & SPECTACLE ATTCH	D3-1670-0	UAD 057Y466	
06	SPECTROSCOPE UNIT	D3-1670-0	UAD 057Y466	
07	BALANCE ASSEMBLY	D3-1670-0	UAD 057Y341	

ELECTRICAL MEASUREMENT

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	DC COMPARATOR POTENTIOMETER	I3-1890-0		
02	STANDARD CELL ENCLOSURE	I3-1890-0		
03	TRANSPORTABLE STANDARD CELL	I3-1890-0		
04	DC COMPARATOR RESIS. BRIDGE	I3-1890-0		
05	TRANSPORTABLE RESIS STD	I3-1890-0	UAD 057Y396	

MAINTENANCE & REPAIR - NIS

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	O'SCOPE	I4-0268-0		
02	CURVE TRACER	I4-0268-0		

CORROSION

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	POTENTIODYNE ANALYZER	I4-0048-0		
02	POTENTIOSTST/GALVANOSTAT	I4-0048-0		
03	COULOMETER	I4-0048-0		
04	PH METER	I4-0048-0		

PHOSPHATE

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	HIGH INTENSITY WET MAG SEP.	F3-1951-0		

21

BENTONITE

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	SOAPY PASTE MIXER			
02	VIBRATING TRAY FEEDER			
03	METERING PUMP			
04	DRYING CABINET			
05	MOLDING MACHINE			
06	SAND TESTING EQUIPMENT			
07	SLURRY PUMP			
08	FILTER PRESS			
09	HIGH TEMP/HIGH PRES FILTER			
10	PLATINUM CRUCIBLE			
11	NITROUS OXIDE SYSTEM			
12	ROLL CRUSHER			
13	FILTER DRUM SYSTEM			

BIOGAS

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	ANTISERA AND CELL MEDIA		UAC 057Y234	8/03/83
02	VIRUS NEUTRALIZING ANTISERA		UAC 057Y223	8/09/83

PHARMACEUTICAL CHEMICALS

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	HIGH VACUUM PUMP	C3-1148-0	UAC 057Y094	
02	VACUUM & PRESSURE PUMP	C3-1148-0	UAC 057Y105	
03	MAGNETIC-DRIVE PUMP	C3-1148-0	UAC 057Y105	
04	POSITIVE DISPLACEMENT PUMP	N/A	UAD 057Y330	
05	FLAMMABLE LIQUID DRUM PUMP	C3-1143-0	UAC 057Y046	
06	VACUUM PRESSURE PUMP	C3-1143-0	UAC 057Y046	8/10/83
07	SIPHONING HAND PUMP	C3-1143-0	UAC 057Y046	8/10/83
08	HAND PUMP	C3-1143-0	UAC 057Y046	8/10/83
09	FILTER PUMP	C3-1143-0	UAC 057Y046	8/10/83
10	VACUUM FILTRATION CENTER	C3-1148-0	UAC 057Y105	
11	FLUIDIZED SAND BATH	C3-1148-0	UAC 057Y105	
12	HEMISPHERICAL HEAT MANTLE	C3-1148-0	UAC 057Y094	
13	POWER CONTROLLER	C3-1148-0	UAC 057Y094	
14	HEATING MANTLE W/MAG STIR	N/A	UAC 057Y120	
15	FLEXIBLE HEATING TAPE	C3-1148-0	UAC 057Y105	
16	STEAM GENERATOR	C3-1148-0	UAC 057Y105	
17	MAGNETIC STIR W/ HOT PLATE	C3-1148-0	UAC 057Y105	
18	MAGNETIC STIR W/ HOT PLATE	C3-1148-0	UAC 057Y105	
19	HOT PLATE	C3-1148-0	UAC 057Y105	
20	REFRIGERATED CHILLER	C3-1148-0	UAC 057Y105	
21	VACUUM OVEN	C3-1148-0	UAC 057Y105	
22	HIGH TORQUE STIRRER	C3-1148-0	UAC 057Y105	
23	HYDROGENATION AUTOCLAVE	C3-1148-0	UAC 057Y083	
24	GENERAL LAB. THERMOMETERS	C3-1143-0	UAC 057Y050	
25	DRY ICE MAKER	C3-1143-0	UAC 057Y046	8/10/83
26	DEWAR, STAINLESS STEEL	C3-1143-0	UAC 057Y046	8/10/83
27	DRYING COLUMN	C3-1143-0	UAC 057Y046	8/10/83
28	GAS WASHER	C3-1143-0	UAC 057Y050	
29	LABORATORY CART	C3-1143-0	UAC 057Y046	8/10/83
30	STIRRER FOR VACUUM WORK	C3-1143-0	UAC 057Y046	8/10/83
31	MAGNETIC STIRRING BARS	C3-1143-0	UAC 057Y046	8/10/83
32	REACTION VESSEL	C3-1148-0	UAC 057Y094	
33	STEP-STOOL	C3-1143-0	UAC 057Y046	8/10/83
34	LABORATORY LIFT SUPPORT	C3-1143-0	UAC 057Y046	8/10/83
35	ALUMINUM ROD SET-UP FRAME	C3-1143-0	UAC 057Y046	8/10/83
36	SAFETY FACE SHIELD	C3-1143-0	UAC 057Y046	8/10/83
37	SAFETY GLASSES & GOGGLES	C3-1143-0	UAC 057Y046	8/10/83
38	DISPOSABLE VINYL GLOVES	C3-1143-0	UAC 057Y046	8/10/83
39	SPATULAS	C3-1143-0	UAC 057Y050	
40	PLASTIC TUBINGS, FITTINGS,	C3-1143-0	UAC 057Y046	8/10/83
41	FLOW INDICATOR	C3-1143-0	UAC 057Y046	
42	STIRRING PADDLE	C3-1143-0	UAC 057Y046	8/10/83
43	HOT AIR BLOWER	C3-1148-0	UAC 057Y105	
44	DIGITAL PH METER	C3-1148-0	UAC 057Y105	
45	DIGITAL THERMOMETER	C3-1143-0	UAC 057Y046	8/10/83
46	GLASS VIALS	C3-1143-0	UAC 057Y046	8/10/83
47	BULB PIPETTE FILLER	C3-1143-0	UAC 057Y046	8/10/83
48	LABORATORY PLASTICWARE	C3-1143-0	UAC 057Y046	
49-A	BULK CHEMICALS	C3-1218-0	UAD 057Y400	
49-B	BULK CHEMICALS	C3-1218-0	UAD 057Y411	
49-C	BULK CHEMICALS	C3-1218-0	UAD 057Y422	
49-D	BULK CHEMICALS	C3-1218-0	UAD 057Y433	
49-E	BULK CHEMICALS	C3-1218-0	UAD 057Y444	
49-F	BULK CHEMICALS	C3-1218-0	UAD 057Y455	
50	BULK CHEMICALS	C4-0112-0		

24

MORE & BETTER FOODS

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	RADIATION MONITORING EQUIP	D3-1894-0	UAD 057Y116	
02A	CHEMICALS	C3-7032-0	UAC 057Y315	8/10/83
02B	CHEMICALS	N/A	UAC 057Y271	8/10/83
02C	CHEMICALS	N/A	UAC 057Y293	8/10/83
02D	CHEMICALS	N/A	UAC 057Y282	8/03/83
02E	DETECTOR TEST SAMPLES	N/A	UAC 057Y260	8/10/83
02F	CHEMICALS	N/A	UAD 057Y304	8/09/83
02G	CHEMICALS	C4-0041-0	UAD 057Y326	

NEW CROPS

ITEM	DESCRIPTION	INQ. NO.	PO NO.	REC'D
01	MOLE PLANT		UAC 057Y245	
02	BUFFALO GOURD			
03	GUAUYLE			
04	WINGED BEANS		UAC 057Y245	
05	AMARANTHUS		UAC 057Y245	
06	COCOYAM		UAC 057Y256	
07	TARWI			
08	TEPARY BEANS		UAC 057Y245	

Annex II

144-S187

Sub-Project Equipment Acquisition
Distribution

Bi-Monthly August 15, 1983

Sub-Project	Funds Committed Current Period	Cumulative Funds
More & Better Foods	-0-	$20,610.75 (9)
Biogas	-0-	2,519.40 (2)
New Crops	-0-	635.30 (2)
Phosphate Ore	-0-	-0-
Red Seas Fisheries	-0-	-0-
Pharmaceuticals	$44,127.41 (7)	118,069.91 (13)
Bentonites	-0-	-0-
Corrosion	64,905.00 (2)	64,905.00 (2)
Standards & Measurements		
1) Chemical Composition	-0-	182,830.00 (1)
2) Hydraulic Test	-0-	24,211.42 (1)
3) EOS Maintenance & Repair	-0-	-0-
4) NIS Time & Frequency	69,441.00 (2)	74,236.24 (4)
5) Force Measurement	13,513.00 (1)	48,220.90 (4)
6) Dimensional Metrology-A	14,936.80 (1)	14,936.80 (1)
Dimensional Metrology-B	26,732.00 (3)	26,732.00 (3)
7) Photometry	-0-	18,381.00 (6)
8) Legal Metrology	13,407.82 (2)	13,407.82 (2)
9) Electrical Measurements	6,560.00 (1)	6,560.00 (1)
10) NIS Maintenance & Repair	-0-	-0-
Spare Parts	386.12 (1)	15,707.13 (9)
	$254,009.15	$631,963.67

ANNEX III

EGYPTIAN INSTRUMENTATION TECHNOLOGY AND EQUIPMENT MANAGEMENT

EXPENDITURE RECORD MONTHLY REPORT NO.

THRU JULY 31, 1983

FRLC ACCOUNT CATEGORY	BUDGET AMT	REPORT PERIOD EXPENDITURES Paid	REPORT PERIOD EXPENDITURES Pending	CUMULATIVE EXPENDITURES Paid	CUMULATIVE EXPENDITURES Pending	BUDGET BALANCE	NEXT 01-MONTHLY EXPENDITURE
SALARIES	$186,314.00	$ 7,191.70	$ -0-	$ 55,409.89	$ -0-	$130,904.11	$8,000.00
FRINGE BENEFITS	9,316.00	928.12	-0-	4,703.47	-0-	4,612.53	1,000.00
OVERHEAD	157,875.00	5,122.13	-0-	29,763.93	-0-	128,111.07	5,000.00
ALLOWANCES	18,520.00	319.20	362.85	3,850.63	362.85	14,306.52	100.00
TRAVEL & TRANS.	9,000.00	-0-	-0-	1,210.00	-0-	7,790.00	-0-
OTHER DIRECT	41,000.00	1,159.68	238.73	4,191.42	238.73	36,569.85	1,000.00
EQUIPMENT	2,685,000.00	6,170.16	473,563.44	8,395.21	473,563.44	2,203,041.35	300,000.00
SUBCONTRACT	300,000.00	-0-	-0-	-0-	-0-	300,000.00	20,000.00
DOLLAR TOTAL	$ 3,407.025.00	$ 20,890.99	$ 474,165.02	$ 107,524.55	$ 474,165.02	$ 2,825.335.43	$ 335,100.00

LOCAL CURRENCY ACCOUNT	BUDGET AMT	REPORT PERIOD EXPENDITURES Paid	REPORT PERIOD EXPENDITURES Pending	CUMULATIVE EXPENDITURES Paid	CUMULATIVE EXPENDITURES Pending	BUDGET BALANCE	NEXT 01-MONTHLY EXPENDITURE
SALARIES	$ 44,488.00	$ 1,803.57	$ 1,803.57	$ 12,625.04	$ 1,803.57	$ 30,059.39	$ 5,400.00
ALLOWANCES	34,545.00	1,428.00	-0-	6,739.62	-0-	27,805.38	-0-
TRAVEL & TRANS.	52,304.00	-0-	1,362.73	5,085.30	1,362.73	45,855.97	-0-
OTHER DIRECT COSTS	1,202.00	23.42	-0-	195.48	-0-	1,006.52	-0-
TOTAL	$132,539.00	$ 3,254.99	$ 3,166.30	$ 24.645.44	$ 3,166.30	$104,727.26	$ 5,400.00

File

University of Wisconsin—Madison

INSTRUMENTATION SYSTEMS CENTER
1500 JOHNSON DRIVE | AREA CODE: 608
MADISON, WISCONSIN 53706 | TELEPHONE: 263-1552

N. E. Huston
Director
Tel. (608) 263-1550

November 4, 1983

Ms. Catherine Y. Cunningham
Contracting Officer
Regional Operations Division
Office of Contract Management-NE
Agency for International Development
Washington, DC 20523

Subject: Bi-Monthly Progress Report No. 8, August 16, 1983 - October 15, 1983, Contract No. NEB-0016-C00-2036-00 "Egyptian Instrumentation Technology and Equipment Management"

I. Work Performed During Reporting Period

Effort has been focused on equipment procurement with special emphasis on the myriad tasks concommitant with shipment of the materiel to Cairo. These tasks include obtaining commodity codes for all items from the vendors. In certain instances, this has proven to be a time consuming effort. Additionally, certain items of high-technology equipment will require special export licenses. Obtaining an export license requires 4-6 weeks, and application for the license cannot be initiated until the vendor has supplied certain vital information. Because of this, shipment of some items of equipment associated with a given sub-project may be delayed. Instances of vendor error continue to be discovered and corrected before shipment. Although the item by item inspection is a time consuming and frustrating process, it is well worth the effort. It prevents the previously experienced situations in which failure of vendors to meet specifications was discovered only after delivery of equipment in Cairo.

Vendor delivery estimates indicate that some equipment on order will not arrive in Madison until mid-April. Thus, there is cause for concern with regard to delivery to Cairo before the expiration of the UW/ISC contract. The subcontract with the logistics management subcontractor expires concurrently with the UW/ISC contract. It is a certainty that the services of the subcontractor will be needed after that date. Thus, negotiation for extension of the UW/ISC contract must be initiated in the very near future so that adequate time may be had for negotiations of a subcontract extension to ensure no delay in delivery of the equipment.

Notifications of approval by USAID/CAIRO have been received to purchase equipment from foreign sources for two of the four requests for waiver submitted to USAID. Two other requests are still awaiting approval of USAID.

Shipment of equipment is expected to commence during the week of October 24. The current plan is to ship 326 boxes packaged in 8 crates. This equipment should arrive in Cairo around November 1st. The shipment will include equipment for Pharmaceuticals, Hydraulic Testing, and Legal Metrology sub-projects as well as materials for the Information Resource Center.

A second shipment is expected to follow in about two weeks. Frequent shipments will then follow as ordered materiel arrives in Madison. The pharmaceutical chemicals will also be shipped. It is expected that sea shipment will be required for some of the chemicals because of their hazardous nature.

Effort is being completed on the specifications for those sub-projects for which approved lists have been submitted.

II. Procurement Status

Annex I provides an indication of status of procurement activities as of October 15, 1983.

III. Equipment Costs

A Summary of funds committed is provided in Annex II. Numbers in parenthesis indicate the number of purchase orders issued.

IV. Financial Status

The costs incurred during the reporting period, the cumulative costs, and estimated expenditures for the subsequent reporting period are supplied in Annex III. All funds are shown in U. S. dollars.

Sincerely,

N. E. Huston

E. D. Falk

ANNEX I

PROCUREMENT STATUS

OCTOBER 15, 183

Notes: Entry under: "INQ. NO." indicates bidding process initiated
"NO" indicates purchase order placed
"REC'D" indicates item received at Madison warehouse

BENTONITE

ITEM	DESCRIPTION	INQ. NO.	NO	REQ'D
01	SOAPY PASTE MIXER	W3-8176-0		
02	VIBRATING TRAY FEEDER	W3-8176-0		
03	METERING PUMP	W3-8176-0		
04	DRYING CABINET	W3-8176-0		
05	MOLDING MACHINE	W3-8176-0		
06	SAND TESTING EQUIPMENT	W3-8176-0		
07	SLURRY PUMP	W3-8176-0		
08	FILTER PRESS	W3-8176-0		
09	HIGH TEMP/HIGH PRES FILTER	W3-8176-0		
10	PLATINUM CRUCIBLE	W3-8176-0		
11	NITROUS OXIDE SYSTEM	W3-8176-0		
12	ROLL CRUSHER	W3-8176-0		
13	FILTER DRUM SYSTEM	W3-8176-0		

32

BIOGAS

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01	ANTISERA AND CELL MEDIA	N/A	UAC 057Y234	8/03/83
02	VIRUS NEUTRALIZING ANTISERA	N/A	UAC 057Y223	8/09/83
03	VEGETATION SHREDDER			
04	RUBBER BIOGAS PLANT			
05	RED MUD PLASTIC METHANE GEN.			
06	BIOGAS ENGINE			
07	PORTABLE SLURRY PUMP			
08	WET TEST GAS METER			
09	DRY GAS METER			
10	PORT. VIDEO RECORDING SYS.			
11	ENGLISH-ARABIC TYPEWRITER			
12	LIQUID CHROMATOGRAPH COL.			
13	CALORIMETER			
14	GAS CALORIMETER SYSTEM			
15	RESEARCH FERMENTOR			
16	BENCH-TOP CHEMOSTAT			
17	COLONY COUNTER			
18	PERISTALTIC PUMP			
19	DISPENSING PUMP			
20	PH METER			
21	COMBUSTION FURNACE			
22	TORSIONAL VISCOMETER			
23	HYDROMETER SET			
24	COMPUTER SYSTEM			
25	RADIATION PYROMETER			
26	CHART RECORDER			
27	FREEZE DRYING APPARATUS			
28	REFRIGERATED CENTRIFUGE			
29	VARIABLE COMPRESSION ENGINE			
30	INSTRUMENTATION SYSTEM			

33

CORROSION

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01A	POTENTIODYNE ANALYZER	I4-0048-0	UAD 057Y492	10/04/83
01B	ELECTRODE SETS	N/A	UAD 057Y643	
02A	POTENTIOSTST/GALVANOSTAT	I4-0048-0	UAD 057Y481	
02B	POTENTIOSTAT/GAL SPARES	I4-0048-0	UAD 057Y481	
03	COULOMETER	I4-0048-0	UAD 057Y481	
04	PH METER	I4-0048-0	UAD 057Y525	10/13/83

34

MORE & BETTER FOODS

IT	DESCRIPTION	INQ NO	PO NO	REC'D
01	RADIATION MONITORING EQUIP	D3-1894-0	UAD 057Y116	8/23/83
02A	CHEMICALS	C3-7032-0	UAC 057Y315	8/10/83
02B	CHEMICALS	N/A	UAC 057Y271	8/10/83
02C	CHEMICALS	N/A	UAC 057Y293	8/10/83
02D	CHEMICALS	N/A	UAC 057Y282	8/03/83
02E	DETECTOR TEST SAMPLES	N/A	UAC 057Y260	8/10/83
02F	CHEMICALS	N/A	UAD 057Y304	8/09/83
02G	CHEMICALS	C4-0041-0	UAD 057Y326	
03	PH CONTROLLER	D3-1905-0	UAD 057Y190	
04	BLUE WOOL STANDARDS			
05	FEED MILL			

NEW CROPS

ITEM	DESCRIPTION	ING. NO.	NO	REC'D
01A	MOLE PLANT	N/A	UAC 057Y245	9/07/83
01B	MOLE PLANT SEED	N/A	UAD 057Y562	
02	BUFFALO GOURD	N/A	N/A	9/01/83
03	GUAUYLE	N/A	N/A	
04	WINGED BEANS	N/A	UAC 057Y245	9/07/83
05	AMARANTHUS	N/A	UAC 057Y245	9/0783
06	COCOYAM	N/A		
07	TARWI			
08	TEPARY BEANS	N/A	UAC 057Y245	9/07/83

BEST AVAILABLE COPY

36

PHARMACEUTICAL CHEMICALS

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01	HIGH VACUUM PUMP	C3-1148-0	UAC 057Y094	
02	VACUUM & PRESSURE PUMP	C3-1148-0	UAC 057Y105	9/21/83
03	MAGNETIC-DRIVE PUMP	C3-1148-0	UAC 057Y105	9/20/83
04	POSITIVE DISPLACEMENT PUMP	N/A	UAD 057Y330	
05	FLAMMABLE LIQUID DRUM PUMP	C3-1143-0	UAC 057Y046	9/13/83
06	VACUUM PRESSURE PUMP	C3-1143-0	UAC 057Y046	8/10/83
07	SIPHONING HAND PUMP	C3-1143-0	UAC 057Y046	8/10/83
08	HAND PUMP	C3-1143-0	UAC 057Y046	8/10/83
09	FILTER PUMP	C3-1143-0	UAC 057Y046	8/10/83
10	VACUUM FILTRATION CENTER	C3-1148-0	UAC 057Y105	9/21/83
11	FLUIDIZED SAND BATH	C3-1148-0	UAC 057Y105	9/21/83
12	HEMISPHERICAL HEAT MANTLE	C3-1148-0	UAC 057Y094	
13	POWER CONTROLLER	C3-1148-0	UAC 057Y094	
14	HEATING MANTLE W/MAG STIR	N/A	UAC 057Y120	
15	FLEXIBLE HEATING TAPE	C3-1148-0	UAC 057Y105	9/21/83
16	STEAM GENERATOR	C3-1148-0	UAC 057Y105	9/21/83
17	MAGNETIC STIR W/ HOT PLATE	C3-1148-0	UAC 057Y105	9/20/83
18	MAGNETIC STIR W/ HOT PLATE	C3-1148-0	UAC 057Y105	9/20/83
19	HOT PLATE	C3-1148-0	UAC 057Y105	9/21/83
20	REFRIGERATED CHILLER	C3-1148-0	UAC 057Y105	9/21/83
21	VACUUM OVEN	C3-1148-0	UAC 057Y105	9/21/83
22	HIGH TORQUE STIRRER	C3-1148-0	UAC 057Y105	9/20/83
23	HYDROGENATION AUTOCLAVE	C3-1148-0	UAC 057Y083	
24	GENERAL LAB. THERMOMETERS	C3-1143-0	UAC 057Y050	
25	DRY ICE MAKER	C3-1143-0	UAC 057Y046	8/10/83
26	DEWAR, STAINLESS STEEL	C3-1143-0	UAC 057Y046	8/10/83
27	DRYING COLUMN	C3-1143-0	UAC 057Y046	8/10/83
28	GAS WASHER	C3-1143-0	UAC 057Y050	9/13/83
29	LABORATORY CART	C3-1143-0	UAC 057Y046	8/10/83
30	STIRRER FOR VACUUM WORK	C3-1143-0	UAC 057Y046	8/10/83
31	MAGNETIC STIRRING BARS	C3-1143-0	UAC 057Y046	8/10/83
32	REACTION VESSEL	C3-1148-0	UAC 057Y094	
33	STEP-STOOL	C3-1143-0	UAC 057Y046	8/10/83
34	LABORATORY LIFT SUPPORT	C3-1143-0	UAC 057Y046	8/10/83
35	ALUMINUM ROD SET-UP FRAME	C3-1143-0	UAC 057Y046	8/10/83
36	SAFETY FACE SHIELD	C3-1143-0	UAC 057Y046	8/10/83
37	SAFETY GLASSES & GOGGLES	C3-1143-0	UAC 057Y046	8/10/83
38	DISPOSABLE VINYL GLOVES	C3-1143-0	UAC 057Y046	8/10/83
39	SPATULAS	C3-1143-0	UAC 057Y050	9/13/83
40	PLASTIC TUBINGS, FITTINGS,	C3-1143-0	UAC 057Y046	8/10/83
41	FLOW INDICATOR	C3-1143-0	UAC 057Y046	9/20/83
42	STIRRING PADDLE	C3-1143-0	UAC 057Y046	8/10/83
43	HOT AIR BLOWER	C3-1148-0	UAC 057Y105	9/21/83
44	DIGITAL PH METER	C3-1148-0	UAC 057Y105	9/20/83
45	DIGITAL THERMOMETER	C3-1143-0	UAC 057Y046	8/10/83
46	GLASS VIALS	C3-1143-0	UAC 057Y046	8/10/83
47	BULB PIPETTE FILLER	C3-1143-0	UAC 057Y046	8/10/83
48	LABORATORY PLASTICWARE	C3-1143-0	UAC 057Y046	9/13/83
49A	BULK CHEMICALS	C3-1218-0	UAD 057Y400	
49B	FURFURYLAMINE	C3-1218-0	UAD 057Y411	
49C	METHYLISOTHIOREA SULPHATE	C3-1218-0	UAD 057Y422	8/31/83
49D	NAPHTHYLACETONITRILE	C3-1218-0	UAD 057Y433	9/20/83
49E	THIOSEMICARBAZIDE	C3-1218-0	UAD 057Y444	9/20/83
49F	BULK CHEMICALS	C3-1218-0	UAD 057Y455	
50A	BULK CHEMICALS	C4-0112-0	UAD 057Y573	

BEST AVAILABLE COPY

37

PHARMACEUTICAL CHEMICALS

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
50B	BULK CHEMICALS	C4-0112-0	UAD 057Y584	
50C	AMINO-BUTANOL	C4-0112-0	UAD 057Y595	
50D	PHOSPHORIC ACID	C4-0112-0	UAD 057Y606	10/13/83
50E	DICHLORO-BENZOIC ACID	C4-0112-0	UAD 057Y610	
50F	CHLOROSULFONIC ACID	C4-0112-0		
50G	ETHYLENE DIAMINE	C4-0112-0	UAD 057Y632	
51A	AMINO-DIETHYLAMINOPENTANE	C4-0466-0		
51B	AMINO-MERCAPTO THIADIAZOLE	C4-0466-0		
51C	DIAMINOBENZOPHENONE	C4-0466-0		
51D	DICHLOROBENZOIC ACID	C4-0466-0		
51E	DICHLOROQUINOLINE	C4-0466-0		
51F	FURFURYLAMINE	C4-0466-0		
51G	S-METHYLISOTHIOUREA SULPHATE	C4-0466-0		
51H	THIOSEMICARBAZIDE	C4-0466-0		
51I	TRIMETHOXYBENZALDEHYDE	C4-0466-0		
51J	AMINO-METHYLISOXAZOLE	C4-0466-0		

BEST AVAILABLE COPY

PHOSPHATE

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01	HIGH INTENSITY WET MAG SEP.	CANCELLED		
02	SPIRAL CLASSIFIER			
03	SIEVE BEND			
04	SPIRAL RAKE THICKENER			
05	DRUM WASHER			
06	CYCLOSIZER			

39

CHEMICAL COMPOSITION

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01	X-RAY FLUOR SPECTROMETER	D3-0883-0	UAC 057Y072	
02	EXPENDABLE X-RAY CELLS	D4-0456-0		
03	X-RAY MYLAR FILM	D4-0456-0		
04	MICROPOROUS FILM	D4-0456-0		
05	XRF SAMPLE CUPS	D4-0456-0		
06	SIEVE SET	D4-0456-0		
07	SIEVE SET	D4-0456-0		
08	CENTRIFUGAL GRINDING MILL	D4-0456-0		
09	MORTAR & PESTLE	D4-0456-0		
10	X-RAY MIX	D4-0456-0		
11	ANTI-CAKING ADDITIVE	N/A		
12	PLATINUM CRUCIBLE	D4-0456-0		
13	AUTOMATIC FUSION DEVICE	D4-0456-0		
14	FUSION FLUX	D4-0456-0		
15	MOTORIZED HYDRAULIC PRESS	D4-0456-0		
16	MECHANICAL BALANCE	N/A		
17	VACUUM OVEN	D4-0445-0		
18	MISCELLANEOUS LAB-WARE	N/A		

BEST AVAILABLE COPY

HYDRAULIC TESTING

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01	56MPA WATER PRES TEST STAND	F3-1084-0	UAC 057Y035	9/26/83
02	11 MPA (WATER)	F3-1084-0	UAC 057Y035	9/26/83
03	3 MPA (WATER)	F4-0494-0		
04	4 MPA (AIR)	F3-1084-0	UAC 057Y035	9/26/83
05A	PLUG FITTING	F3-1084-0	UAC 057Y035	9/26/83
05B	NPT/ISO FIT	F3-1084-0	UAC 057Y035	9/26/83
05C	ISO TAP	F3-1084-0	UAC 057Y035	9/26/83
05D	DRILL BIT	F3-1084-0	UAC 057Y035	9/26/83
05E	PRESSURE TRANSDUCER	F4-0494-0		
05F	PRESSURE TRANSDUCER	F4-0494-0		
05G	PRESSURE TRANSDUCER	F4-0494-0		
05H	TEE	F3-1084-0	UAC 057Y035	9/26/83
05I	HOSE	F3-1084-0	UAC 057Y035	9/26/83
05J	POWER SUPPLY	F4-0494-0		
05K	STRIP CHART RECORDER	F4-0494-0		
05L	AIR HOSE	F3-1084-0	UAC 057Y035	9/26/83
05M	FITTING	F3-1084-0	UAC 057Y035	9/26/83
05N	AIR COMPRESSOR	F3-1084-0	UAC 057Y035	9/26/83
05O	TEFLON TAPE	F3-1084-0	UAC 057Y035	9/26/83
05P	FILTER ELEMENT	F3-1084-0	UAC 057Y035	9/26/83

BEST AVAILABLE COPY

41

MAINTENANCE & REPAIR EQS

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01	O'SCOPE	I4-0457-0		
02	CURVE TRACER	I4-0457-0		
03	PULSE GEN	I3-1675-0		
04	FUNCTION GEN.	I3-1675-0		
05	Z METER	I3-1675-0		
06	O'SCOPE CAL. SYS.	I4-0457-0		
07	SIG. ANALYZER	I3-1675-0		
08	PRECISION P.S.	I4-0268-0		
09	DIG. VOLTMETER	I3-1675-0		
10	POWER SUPPLY	I3-1675-0		
11	DVM (HAND)	I3-1675-0		

TIME & FREQUENCY

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01	RECEIVER, LORAN C	I3-0860-0	UAC 057Y024	8/03/83
02	EQUIPMENT RACKS	I3-0852-0	UAC 057Y013	10/13/83
03A	DATA LOGGING SYSTEM	I3-1891-0	UAD 057Y514	10/24/83
03B	DATA LOGGING SYS. SPARES KIT	I3-1891-0	UAD 057Y514	8/24/83
04A	UNIVERSAL COUNTER	I3-1891-0	UAD 057Y514	8/24/83
04B	UNIVERSAL COUNTER SPARES KIT	I3-1891-0	UAD 057Y514	10/24/83
05A	FREQUENCY DISTRIB AMPLIFIER	I3-1891-0	UAD 057Y514	8/24/83
05B	FREQ. DISTRIB. AMP. SPARE KIT	I3-1891-0	UAD 057Y514	8/24/83
06A	VHF SIGNAL SWITCHER	I3-1891-0	UAD 057Y503	9/20/83
06B	VHF SIGNAL SWITCHER	N/A	UAD 057Y540	
07A	PRINTER SYSTEM	I3-1891-0	UAD 057Y514	8/24/83
07B	PLOTTER SYSTEM	I3-1891-0	UAD 057Y514	8/24/83
07C	PRINTER/PLOTTER SPARES KIT	I3-1891-0	UAD 057Y514	10/24/83
08A	MICROWAVE MEASUREMENT SYS.	I3-1891-0	UAD 057Y514	8/24/83
08B	MICROWAVE MEAS. SYS. SPARE KIT	I3-1891-0	UAD 057Y514	8/24/83
09A	DIRECTIONAL COUPLER	I3-1891-0	UAD 057Y514	8/24/83
10	SIGNAL GENERATOR	I3-1891-0		
11	SIGNAL SOURCE, MICROWAVE	I3-1891-0		

FORCE MEASUREMENT

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01	CAL. MACHINE	F3-1635-0	UAC 057Y212	
02A	LOAD CELLS	F3-1947-0	UAD 057Y470	
02B	LOAD CELLS	F3-1947-0	UAD 057Y536	
03	INSTRUMENT STANDARDIZER	F3-1245-0	UAC 057Y061	8/31/83
04	READOUT INSTRUMENT	F3-1245-0	UAC 057Y061	10/11/83
05	HYDRAULIC POWER SUPPLY	F3-1635-0	UAC 057Y201	8/10/83

49

ELECTRICAL MEASURMENTS

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01A	DC COMPARATOR POTENTIOMETER	I3-1890-0	UAD 057Y654	
01B	DC COMPARATOR ACCESSORIES	I3-1890-0	UAD 057Y654	
02A	STANDARD CELL ENCLOSURE	I3-1890-0	UAD 057Y654	
02B	STD. CELL ENCL. ACCESSORIES	I3-1890-0	UAD 057Y654	
03A	TRANSPORTABLE STANDARD CELL	I3-1890-0	UAD 057Y654	
03B	TRANS. STD. CELL ENCLOSURE	I3-1890-0	UAD 057Y654	
04A	DC COMPARATOR RESIS. BRIDGE	I3-1890-0	UAD 057Y654	
04B	DC RES. BRIDGE ACCESSORIES	I3-1890-0	UAD 057Y654	
05	TRANSPORTABLE RESIS STD	I3-1890-0	UAD 057Y396	10/13/83
06	SYSTEM ACCESSORIES	I3-1890-0	UAD 057Y654	

45

DIMENSIONAL METROLOGY - A

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01	SURFACE TEXTURE DEVICE	F3-1181-0	UAD 057Y665	
02	COMP. VOLTMETER	F3-1181-0	UAD 057Y385	

46

DIMENSIONAL METROLOGY - 3

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01	HE-NE LASER	D3-1772-0	UAD 057Y374	
02	HG & CD LIGHT SOURCES	D3-1772-0	UAD 057Y363	9/20/83
03	HE-NE LASERS	D3-1722-0	UAD 057Y374	
04	YAG-MAX LASER	D3-1772-0	UAD 057Y352	8/23/83
05	POWER METER	D3-1772-0	UAC 057Y374	

47

PHOTOMETRY

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01	PYROELECTRIC RADIOMETER	D3-1416-0	UAC 057Y175	8/03/83
02	HELIUM-NEON LASER	D3-1416-0	UAC 057Y164	8/03/83
03	LAMP HOLDER	D3-1416-0	UAC 057Y153	8/03/83
04	ALIGNMENT JIG	D3-1416-0	UAC 057Y153	8/03/83
05	OPTICAL BENCH EQUIPMENT	D3-1416-0	UAC 057Y142	10/13/83
06	AC/DC POWER SUPPLY	D3-1416-0	UAC 057Y131	8/03/83
07	PRECISION MEAS.ASSY	D3-1416-0	UAC 057Y186	
08A	LAMP STANDARDS	D3-1416-0	UAC 057Y186	
08B	LUM. INTENSITY STD 1000 W	N/A	UAD 057Y551	

48

MAINTENANCE & REPAIR NIS

ITEM	DESCRIPTION	INQ. NO.	NO	REC'D
01	O'SCOPE	I4-0457-0		
02	CURVE TRACER	I4-0457-0		

BEST AVAILABLE COPY

49

LEGAL METROLOGY

ITEM	DESCRIPTION	ING. NO.	NO	REC'D
01	PROPORTIONSCOPE	D3-1670-0	UAD 057Y466	9/26/83
02	DIAMONDLITE	D3-1670-0	UAD 057Y466	9/26/83
03	STEREO OPTICAL SYSTEM	D3-1670-0	UAD 057Y466	9/26/83
04	DIAMOND MASTER	D3-1670-0	UAD 057Y466	9/26/83
05	EYE LOUPE & SPECTACLE ATTCH	D3-1670-0	UAD 057Y466	9/26/83
06	SPECTROSCOPE UNIT	D3-1670-0	UAD 057Y466	9/26/83
07	BALANCE ASSEMBLY	D3-1670-0	UAD 057Y341	

BEST AVAILABLE COPY

ANNEX II

144-S187

Sub-Project Equipment Acquisition
Status of Funds Committed

Bi-Monthly September 30, 1983

Sub-Project	Funds Committed Current Period	Cumulative Funds
More & Better Foods	-0-	$20,610.75 (9)
Biogas	-0-	2,519.40 (2)
New Crops	$13.20 (1)	148.50 (2)
Phosphate Ore	-0-	-0-
Red Seas Fisheries	-0-	-0-
Pharmaceuticals	27,991.82 (7)	146,061.73 (20)
Bentonites	-0-	-0-
Corrosion	4,278.00 (2)	69,183.00 (4)
Standards & Measurements		
1) Chemical Composition	-0-	182,830.00 (1)
2) Hydraulic Test	-0-	24,211.42 (1)
3) EOS Maintenance & Repair	-0-	-0-
4) NIS Time & Frequency	2,127.60 (1)	76,363.84 (15)
5) Force Measurement	12,840.00 (1)	61,060.90 (5)
6) Dimensional Metrology-A	-0-	14,936.80 (1)
Dimensional Metrology-B	-0-	26,732.00 (3)
7) Photometry	845.00 (1)	19,226.00 (7)
8) Legal Metrology	-0-	13,407.82 (2)
9) Electrical Measurements	-0-	6,560.00 (1)
10) NIS Maintenance & Repair	-0-	-0-
Spare Parts	-0-	15,699.13 (8)
	$48,095.62	$679,551.29

ANNEX III

EGYPTIAN INSTRUMENTATION TECHNOLOGY AND EQUIPMENT MANAGEMENT

EXPENDITURE RECORD - BI-MONTHLY REPORT NO.

Through September 30, 1983

FRLC ACCOUNT CATEGORY	BUDGET AMT	REPORT PERIOD EXPENDITURES Paid	REPORT PERIOD EXPENDITURES Pending	CUMULATIVE EXPENDITURES Paid	CUMULATIVE EXPENDITURES Pending	BUDGET BALANCE	NEXT BI-MONTHLY EXPENDITURE
SALARIES	$186,314.00	$16,249.49	-0-	$71,659.38	-0-	$114,654.62	$20,000
FRINGE BENEFITS	9,316.00	2,261.68	-0-	6,965.15	-0-	2,350.85	1,000
OVERHEAD	157,875.00	22,148.00	(11,508.09)*	51,911.93	(11,508.09)*	117,471.16	10,000
ALLOWANCES	18,520.00	98.13	362.85	3,948.76	362.85	14,208.39	300
TRAVEL & TRANS.	9,000.00	-0-	-0-	1,210.00	-0-	7,790.00	400
OTHER DIRECT	41,000.00	477.48	384.74	4,668.90	384.74	35,946.36	500
EQUIPMENT	2,685,000.00	57,693.74	607,236.28	66,088.95	607,236.28	2,011,674.77	200,000
SUBCONTRACT	300,000.00	-0-	-0-	-0-	-0-	300,000.00	20,000
DOLLAR TOTAL	$3,407,025.00	$98,928.52	$596,475.78	$206,453.07	$596,475.78	$2,604,096.15	252,200

*credit on overcharge on equipment

LOCAL CURRENCY ACCOUNT	BUDGET AMT	REPORT PERIOD EXPENDITURES Paid	REPORT PERIOD EXPENDITURES Pending	CUMULATIVE EXPENDITURES Paid	CUMULATIVE EXPENDITURES Pending	BUDGET BALANCE	NEXT BI-MONTHLY EXPENDITURE
SALARIES	44,488.00	1,803.57	3,607.14	14,428.61	3,607.14	26,452.25	3,700
ALLOWANCES	34,545.00	-0-	-0-	6,739.62	-0-	27,805.38	5,500
TRAVEL & TRANS.	52,304.00	-0-	1,362.73	5,085.30	1,362.73	45,855.97	5,000
OTHER DIRECT COSTS	1,202.00	-0-	-0-	195.48	-0-	1,006.52	100
TOTAL	132,539.00	1,803.57	4,969.87	26,449.01	4,969.87	101,120.12	14,300

BEST AVAILABLE COPY

University of Wisconsin—Madison

INSTRUMENTATION SYSTEMS CENTER
1500 JOHNSON DRIVE | AREA CODE: 608
MADISON, WISCONSIN 53706 | TELEPHONE: 263-1552

December 28, 1983

Ms. Catherine Y. Cunningham
Contracting Officer
Regional Operations Division
Office of Contract Management-NE
Agency for International Development
Washington, D. C. 20523

Subject: Bi-Monthly Progress Report No. 9, October 16, 1983 - December 15, 1983, Contract No. NEB-0016-C00-2036-00 "Egyptian Instrumentation Technology and Equipment Management"

I. Work Performed During Reporting Period

Mr. Falk made a three-week trip to Cairo, Egypt, arriving in Cairo on November 15 and departing on December 5, 1983. The highlights and accomplishments of that trip were as follows:

1. Purchasing plans were delivered to:

   a. Dr. Boulos of the Phosphate Project. He was informed that the cost of his equipment would exceed his budget. It was suggested that he either reprioritize the list or try to obtain additional funding. He was also informed that procurement could not proceed until some action had been taken to resolve the funding problem and UW/ISC was officially notified of that action.

   b. Dr. Helwagy of the Biogas Project. He was informed that the equipment costs exceeded his budget, but upon his approval of the plan, UW/ISC could proceed with the purchases within his prioritization until his budget was consumed.

   Delivery of these plans thus completed the UW/ISC effort with regard to preparation of the purchasing plans for all approved equipment lists. Further effort will be required as the result of changes made.

2. A report of the work being conducted by UW/ISC on Project 263-0016 was presented at the Joint Consultative Committee (JCC) meeting on November 20, 1983.

3. The USAID evaluation team met with Mr. Falk regarding the UW/ISC contract on November 19, 1983.

4. A tour of the maintenance, repair and testing facilities located in the basement of the NRC was given to Dr. Hillier of the JCC.

5. The JCC appointed Mr. Falk to meet with a sub-committee to consider the budgetary problems associated with the Phosphate Ore Project. The sub-committee recommended an increase of the equipment budget to $62,500, which would allow the purchase of item #2 on his priority list.

6. Several visits were made to Commercial Services Bureau (United Van Lines agent in Cairo) to verify that procedures were understood for handling equipment following clearance by Egyptian customs.

7. A meeting was held with Dr. Fayez of the Pharmaceutical Project to review the procurement status of his project. Dr. Fayez provided a letter written by the Ministry of Finance which indicated that shipments with valuations less than LE 10,000 could be exempted from customs duties by a letter by Dr. Badran of the ASRT. Shipments exceeding that amount can be exempted by a letter from the Prime Minister following a request from Dr. Badran to do so.

8. A meeting was held with Dr. Nockrashy to ascertain the status of request for customs clearances. Dr. Nockrashy indicated that he had informed the principal investigators (at the request of the ASRT financial officer), that they would have to verify receipt of the equipment on an item-by-item basis, and reconcile the items received with the original requests.

9. Mr. Falk attended the contractor's meeting at which time Dr. Sharif Arif requested financial details to be sent to him on a monthly basis. This will be no problem for UW/ISC. Dr. Nockrashy has indicated that the ASRT is willing to use local supplies and materials funds for the storage charges associated with customs clearance if USAID agrees that it's proper to do so. Dr. Arif indicated that he would investigate propriety of so doing.

10. Mr. Falk was informed by Dr. Fayez that use of wording to describe chemicals which could denote ingestion or application by humans would require the approval of Ministry of Health and more delays.

11. Mr. Falk was informed that the Import Control Committee had approved all items submitted to them on the UW/ISC procurement list which was an annex to the bi-monthly report for the period ending August 15, 1983. However, upon Mr. Falk's departure from Cairo, written approval still had not been obtained from the Import Control Committee offices.

12. Mr. Falk was informed by Dr. Sharif Arif that under no circumstances were the contractors to pay customs duties or taxes on the equipment being sent to Egypt.

13. Mr. Falk provided a letter to Mr. Gadalla of the Commercial Services Bureau which states that UW/ISC, through its logistics management contractor, will pay the storage charge associated with the first shipment of equipment. This offer was to be on a one-time basis only and was verbally approved by Dr. Arif. Mr. Falk indicated that on December 19, he would have to revoke this offer if the materiel had not been cleared by customs.

14. A meeting was held with Dr. Halwagy and his scientists to review the purchase plan delivered by Mr. Falk. This meeting was an excellent one and resulted in re-definition of several items. The Biogas group was able to bring into focus their requirements through the use of this plan, and thereby obtain better definitions of their equipment. Dr. Halwagy will provide some revised requirements to UW/ISC.

During the aforementioned visit to Cairo, a considerable amount of time was spent in trying to expedite the necessary forms and signatures to clear the first batch of equipment through Egyptian customs. The problem is an extremely serious one and is delaying delivery and installation of equipment in Cairo. Upon Mr. Falk's departure, the feeling prevailed that Dr. Badran would personally have to take action to obtain release of the materiel. The UW/ISC Phase II equipment now in customs has been there since October 29, 1983. It should be noted that Phase I equipment shipped by AAPC and NIH equipment have been there since late spring. With the concurrence of Dr. Arif, no more shipments are being made by UW/ISC until the first shipment has cleared, and the procedures and protocol for rapid clearance of future shipments have been established. The Egyptian customs problem is extremely discouraging, and the prognosis is not good for rapid clearance in the future. Engineer Fouad Ragheb, whose services have been contracted by the UW/ISC, has done an outstanding job in trying to expedite clearance, and he is to be commended for his efforts.

Effort continues with regard to procurement in Madison, Wisconsin. Waivers for procurement from foreign sources for four items have been received, and procurement of these items is proceeding.

II. Procurement Status

Annex I provides an indication of the status of procurement activities as of December 15, 1983. Annex I-A provides a separate listing showing expected dates of equipment arrival in Madison, Wisconsin. It is to be emphasized that these are estimated dates and do not reflect anticipated arrival times in Cairo.

III. Equipment Costs

A summary of funds committed through November 30 is provided in Annex II. Numbers in parentheses indicate the number of purchase orders issued.

IV. Financial Status

The cost incurred during the reporting period, the cumulative costs and estimated expenditures for the subsequent reporting period are supplied in Annex III. All funds are shown in U. S. dollars.

Sincerely,

N. E. Huston
Project Director

E. D. Falk
Project Coordinator

ANNEX I

PROCUREMENT STATUS

DECEMBER 15, 1983

Notes: Entry under: "INQ. NO." indicates bidding process initiate
"NO" indicates purchase order placed
"REC'D" indicates item received at Madison warehouse

CHEMICAL COMPOSITION 12/15/83

IT	DESCRIPTION	INQ. NO.	NO	REC'D	SHIPPED
01A	X-RAY FLUOR SPECTROMETER	D3-0883-0	UAC 057Y072		
01B	SPARE PARTS FOR SPECTROMETER	N/A			
02	EXPENDABLE X-RAY CELLS	D4-0456-0	UAD 057Y772		
03	X-RAY MYLAR FILM	D4-0456-0	UAD 057Y772		
04	MICROPOROUS FILM	D4-0456-0	UAD 057Y772		
05	XRF SAMPLE CUPS	D4-0456-0	UAD 057Y772		
06	SIEVE SET, SMALL	D4-0456-0	UAD 057Y772		
07	SIEVE SET, LARGE	D4-0456-0	UAD 057Y772		
08A	CENTRIFUGAL GRINDING MILL	D4-0456-0	UAD 057Y794		
08B	ACCESSORIES FOR GRINDING MILL	D4-0456-0	UAD 057Y794		
08C	SUPPLIES FOR GRINDING MILL	D4-0456-0	UAD 057Y794		
08D	SPARE PARTS FOR GRINDING MILL	D4-0456-0	UAD 057Y794		
09	MORTAR & PESTLE	D4-0456-0	UAD 057Y750		
10	X-RAY MIX	D4-0456-0	UAD 057Y772		
11	ANTI-CAKING ADDITIVE	N/A	UAD 057Y680		
12	PLATINUM CRUCIBLE	D4-0456-0	UAD 057Y783		
13	AUTOMATIC FUSION DEVICE	D4-0456-0	UAD 057Y761		
14	FUSION FLUX	D4-0456-0	UAD 057Y772		
15A	MOTORIZED HYDRAULIC PRESS	D4-0456-0	UAD 057Y750		
15B	HYDRAULIC PRESS ACCESSORIES	D4-0456-0	UAD 057Y772		
16	MECHANICAL BALANCE	N/A	UAD 057Y676		
17	VACUUM OVEN	D4-0445-0	UAD 057Y702		
18	MISCELLANEOUS LAB-WARE	N/A	UAD 057Y691		

58

HYDRAULIC TESTING 12/15/83

IT	DESCRIPTION	INQ. NO.	NO	REC'D	SHIPPED
01	56 MPA (WATER) TEST STAND	F3-1084-0	UAC 057Y035	9/26/83	10/24/83
02	11 MPA (WATER) TEST STAND	F3-1084-0	UAC 057Y035	9/26/83	10/24/83
03	3 MPA (WATER) TEST STAND	F4-0494-0	UAD 057Y735		
04	4 MPA (AIR) TEST STAND	F3-1084-0	UAC 057Y035	9/26/83	10/24/83
05A	PLUG FITTING	F3-1084-0	UAC 057Y035	9/26/83	10/24/83
05B	NPT/ISO FIT	F3-1084-0	UAC 057Y035	9/26/83	10/24/83
05C	ISO TAP	F3-1084-0	UAC 057Y035	9/26/83	10/24/83
05D	DRILL BIT	F3-1084-0	UAC 057Y035	9/26/83	10/24/83
05E	PRESSURE TRANSDUCER	F4-0494-0			
05F	PRESSURE TRANSDUCER	F4-0494-0			
05G	PRESSURE TRANSDUCER	F4-0494-0			
05H	TEE	F3-1084-0	UAC 057Y035	9/26/83	10/24/83
05I	HOSE	F3-1084-0	UAC 057Y035	9/26/83	10/24/83
05J	POWER SUPPLY	F4-0494-0	UAD 057Y746		
05K	STRIP CHART RECORDER	F4-0494-0	UAD 057Y746		
05L	AIR HOSE	F3-1084-0	UAC 057Y035	9/26/83	10/24/83
05M	FITTING	F3-1084-0	UAC 057Y035	9/26/83	10/24/83
05N	AIR COMPRESSOR	F3-1084-0	UAC 057Y035	9/26/83	10/24/83
05O	TEFLON TAPE	F3-1084-0	UAC 057Y035	9/26/83	10/24/83
05P	FILTER ELEMENT	F3-1084-0	UAC 057Y035	9/26/83	10/24/83

MAINTENANCE-REPAIR EOS 12/15/83

IT	DESCRIPTION	INQ. NO.	NO	REC'D	SHIPPED
01	O'SCOPE	I4-0457-0			
02	CURVE TRACER	I4-0457-0			
03	PULSE GEN	I3-1675-0			
04	FUNCTION GEN.	I3-1675-0			
05	Z METER	I3-1675-0			
06	O'SCOPE CAL. SYS.	I4-0457-0			
07	SIG. ANALYZER	I3-1675-0			
08	PRECISION P.S.	I4-0268-0			
09	DIG. VOLTMETER	I3-1675-0			
10A	POWER SUPPLY	I3-1675-0			
10B	POWER SUPPLY	I3-1675-0			
10C	POWER SUPPLY	I3-1675-0			
11	DVM (HAND)	I3-1675-0			

TIME & FREQUENCY 12/15/83

IT	DESCRIPTION	INQ. NO.	NO	REC'D	SHIPPED
01	RECEIVER, LORAN C	I3-0860-0	UAC 057Y024	8/03/83	
02	EQUIPMENT RACKS	I3-0852-0	UAC 057Y013	10/13/83	
03A	DATA LOGGING SYSTEM	I3-1891-0	UAD 057Y514	10/24/83	
03B	DATA LOGGING SYS. SPARES KIT	I3-1891-0	UAD 057Y514	8/24/83	
04A	UNIVERSAL COUNTER	I3-1891-0	UAD 057Y514	8/24/83	
04B	UNIVERSAL COUNTER SPARES KIT	I3-1891-0	UAD 057Y514	10/24/83	
05A	FREQUENCY DISTRIB AMPLIFIER	I3-1891-0	UAD 057Y514	8/24/83	
05B	FREQ. DISTRIB. AMP. SPARE KIT	I3-1891-0	UAD 057Y514	8/24/83	
06A	VHF SIGNAL SWITCHER	I3-1891-0	UAD 057Y503	9/20/83	
06B	VHF SIGNAL SWITCHER SPARES	N/A	UAD 057Y540	12/19/83	
07A	PRINTER SYSTEM	I3-1891-0	UAD 057Y514	8/24/83	
07B	PLOTTER SYSTEM	I3-1891-0	UAD 057Y514	8/24/83	
07C	PRINTER/PLOTTER SPARES KIT	I3-1891-0	UAD 057Y514	10/24/83	
08A	MICROWAVE MEASUREMENT SYS.	I3-1891-0	UAD 057Y514	8/24/83	
08B	MICROWAVE MEAS. SYS. SPARE KIT	I3-1891-0	UAD 057Y514	8/24/83	
09A	DIRECTIONAL COUPLER	I3-1891-0	UAD 057Y514	8/24/83	
10	SIGNAL GENERATOR	I3-1891-0	UAD 057Y724		
11	SIGNAL SOURCE, MICROWAVE	I3-1891-0	UAD 057Y724		

FORCE MEASUREMENT 12/15/83

IT	DESCRIPTION	INQ. NO.	NO	REC'D	SHIPPED
01	CAL. MACHINE	F3-1635-0	UAC 057Y212		
02A	LOAD CELLS	F3-1947-0	UAD 057Y470		
02B	LOAD CELLS	F3-1947-0	UAD 057Y536		
03	INSTRUMENT STANDARDIZER	F3-1245-0	UAC 057Y061	8/31/83	
04	READOUT INSTRUMENT	F3-1245-0	UAC 057Y061	10/11/83	
05	HYDRAULIC POWER SUPPLY	F3-1635-0	UAC 057Y201	8/10/83	

DIMENSION. METROLOGY-A 12/15/83

IT	DESCRIPTION	INQ. NO.	NO	REC'D	SHIPPED
01	SURFACE TEXTURE DEVICE	F3-1181-0	UAD 057Y665		
02	COMP. VOLTMETER	F3-1181-0	UAD 057Y385	12/07/83	

63

DIMENSION. METROLOGY-B 12/15/83

IT	DESCRIPTION	INQ. NO.	NO	REC'D	SHIPPED
01	HE-NE LASER	D3-1772-0	UAD 057Y374		
02	HG & CD LIGHT SOURCES	D3-1772-0	UAD 057Y363	9/20/83	
03	HE-NE LASERS	D3-1722-0	UAD 057Y374		
04	YAG-MAX LASER	D3-1772-0	UAD 057Y352	8/23/83	
05	POWER METER	D3-1772-0	UAC 057Y374		

64

PHOTOMETRY 12/15/83

IT	DESCRIPTION	INQ. NO.	NO	REC'D	SHIPPED
01	PYROELECTRIC RADIOMETER	D3-1416-0	UAC 057Y175	8/03/83	
02	HELIUM-NEON LASER	D3-1416-0	UAC 057Y164	8/03/83	
03	LAMP HOLDER	D3-1416-0	UAC 057Y153	8/03/83	
04	ALIGNMENT JIG	D3-1416-0	UAC 057Y153	8/03/83	
05	OPTICAL BENCH EQUIPMENT	D3-1416-0	UAC 057Y142	10/13/83	
06	AC/DC POWER SUPPLY	D3-1416-0	UAC 057Y131	8/03/83	
07	PRECISION MEAS.ASSY	D3-1416-0	UAC 057Y186		
08A	LAMP STANDARDS	D3-1416-0	UAC 057Y186		
08B	LUM. INTENSITY STD 1000 W	N/A	UAD 057Y551		

LEGAL METROLOGY 12/15/83

IT	DESCRIPTION	INQ. NO.	NO	REC'D	SHIPPED
01	PROPORTIONSCOPE	D3-1670-0	UAD 057Y466	9/26/83	10/24/83
02	DIAMONDLITE	D3-1670-0	UAD 057Y466	9/26/83	10/24/83
03	STEREO OPTICAL SYSTEM	D3-1670-0	UAD 057Y466	9/26/83	10/24/83
04	DIAMOND MASTER	D3-1670-0	UAD 057Y466	9/26/83	10/24/83
05	EYE LOUPE & SPECTACLE ATTCH	D3-1670-0	UAD 057Y466	9/26/83	10/24/83
06	SPECTROSCOPE UNIT	D3-1670-0	UAD 057Y466	9/26/83	10/24/83
07	BALANCE ASSEMBLY	D3-1670-0	UAD 057Y341	11/03/83	

6

ELECTRICAL MEASUREMENT 12/15/83

IT	DESCRIPTION	INQ. NO.	NO	REC'D	SHIPPED
01A	DC COMPARATOR POTENTIOMETER	I3-1890-0	UAD 057Y654		
01B	DC COMPARATOR ACCESSORIES	I3-1890-0	UAD 057Y654		
02A	STANDARD CELL ENCLOSURE	I3-1890-0	UAD 057Y654		
02B	STD. CELL ENCL. ACCESSORIES	I3-1890-0	UAD 057Y654		
03A	TRANSPORTABLE STANDARD CELL	I3-1890-0	UAD 057Y654		
03B	TRANS. STD. CELL ENCLOSURE	I3-1890-0	UAD 057Y654		
04A	DC COMPARATOR RESIS. BRIDGE	I3-1890-0	UAD 057Y654		
04B	DC RES. BRIDGE ACCESSORIES	I3-1890-0	UAD 057Y654		
05	TRANSPORTABLE RESIS STD	I3-1890-0	UAD 057Y396	10/13/83	
06	SYSTEM ACCESSORIES	I3-1890-0	UAD 057Y654		

67

MAINTENANCE-REPAIR NIS 12/15/83

IT	DESCRIPTION	INQ. NO.	NO	REC'D	SHIPPED
01	O'SCOPE	I4-0457-0			
02	CURVE TRACER	I4-0457-0			
03	PULSE GEN	I3-1675-0			
04	FUNCTION GEN.	I3-1675-0			
05	Z METER	I3-1675-0			
06	O'SCOPE CAL. SYS.	I4-0457-0			
07	SIG. ANALYZER	I3-1675-0			
08	PRECISION P.S.	I4-0268-0			
09	DIG. VOLTMETER	I3-1675-0			
10A	POWER SUPPLY	13-1675-0			
10B	POWER SUPPLY	13-1675-0			
10C	POWER SUPPLY	13-1675-0			
11	DVM (HAND)	I3-1675-0			

BENTONITE 12/15/83

IT	DESCRIPTION	INQ NO	PO NO	REC'D	SHIPPED
01	SOAPY PASTE MIXER	CANCELLED			
02	VIBRATING TRAY FEEDER	F4-0582-0			
03	METERING PUMP	F4-0582-0			
04	DRYING CABINET	F4-0582-0			
05	MOLDING MACHINE	F4-0582-0			
06	SAND TESTING EQUIPMENT	F4-0582-0			
07	SLURRY PUMP	F4-0582-0			
08	FILTER PRESS	F4-0582-0			
09	HIGH TEMP/HIGH PRES FILTER	F4-0582-0			
10	PLATINUM CRUCIBLE	F4-0582-0			
11	NITROUS OXIDE SYSTEM	F4-0582-0			
12	ROLL CRUSHER	F4-0582-0			
13	FILTER DRUM SYSTEM	F4-0582-0			
14	EXTRUDER, PILOT PLANT				
15	EXTRUDER, LAB-SCALE				

BIOGAS 12/15/83

IT	DESCRIPTION	INQ NO	PO NO	REC'D	SHIPPED
01	ANTISERA AND CELL MEDIA	N/A	UAC 057Y234	8/03/83	
02	VIRUS NEUTRALIZING ANTISERA	N/A	UAC 057Y223	8/09/83	
03	VEGETATION SHREDDER				
04	RUBBER BIOGAS PLANT				
05	RED MUD PLASTIC METHANE GEN.	N/A	UAD 057Y805		
06	BIOGAS ENGINE				
07	PORTABLE SLURRY PUMP				
08	WET TEST GAS METER				
09	DRY GAS METER				
10	PORT. VIDEO RECORDING SYS.				
11	ENGLISH-ARABIC TYPEWRITER				
12	LIQUID CHROMATOGRAPH COL.				
13	CALORIMETER				
14	GAS CALORIMETER SYSTEM				
15	RESEARCH FERMENTOR				
16	BENCH-TOP CHEMOSTAT				
17	COLONY COUNTER				
18	PERISTALTIC PUMP				
19	DISPENSING PUMP				
20	PH METER				
21	COMBUSTION FURNACE				
22	TORSIONAL VISCOMETER				
23	HYDROMETER SET				
24	COMPUTER SYSTEM				
25	RADIATION PYROMETER				
26	CHART RECORDER				
27	FREEZE DRYING APPARATUS				
28	REFRIGERATED CENTRIFUGE				
29	VARIABLE COMPRESSION ENGINE				
30	INSTRUMENTATION SYSTEM				

10

CORROSION 12/15/83

IT	DESCRIPTION	INQ NO	PO NO	REC'D	SHIPPED
01A	POTENTIODYNE ANALYZER	I4-0048-0	UAD 057Y492	10/04/83	
01B	ELECTRODE SETS	N/A	UAD 057Y643	11/09/83	
02A	POTENTIOSTST/GALVANOSTAT	I4-0048-0	UAD 057Y481	12/07/83	
02B	POTENTIOSTAT/GAL SPARES	I4-0048-0	UAD 057Y481	12/07/83	
03	COULOMETER	I4-0048-0	UAD 057Y481		
04	PH METER	I4-0048-0	UAD 057Y525	10/13/83	

71

PHARMACEUTICAL CHEM. 12/15/83

IT	DESCRIPTION	INQ NO	PO NO	REC'D	SHIPPED
01	HIGH VACUUM PUMP	C3-1148-0	UAC 057Y094	11/08/83	
02	VACUUM & PRESSURE PUMP	C3-1148-0	UAC 057Y105	9/21/83	10/24/83
03	MAGNETIC-DRIVE PUMP	C3-1148-0	UAC 057Y105	9/20/83	10/24/83
04	POSITIVE DISPLACEMENT PUMP	N/A	UAD 057Y330	11/03/83	
05	FLAMMABLE LIQUID DRUM PUMP	C3-1143-0	UAC 057Y046	9/13/83	10/24/83
06	VACUUM PRESSURE PUMP	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
07	SIPHONING HAND PUMP	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
08	HAND PUMP	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
09	FILTER PUMP	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
10	VACUUM FILTRATION CENTER	C3-1148-0	UAC 057Y105	9/21/83	10/24/83
11	FLUIDIZED SAND BATH	C3-1148-0	UAC 057Y105	9/21/83	10/24/83
12	HEMISPHERICAL HEAT MANTLE	C3-1148-0	UAC 057Y094	11/08/83	
13	POWER CONTROLLER	C3-1148-0	UAC 057Y094	11/09/83	
14	HEATING MANTLE W/MAG STIR	N/A	UAC 057Y120		
15	FLEXIBLE HEATING TAPE	C3-1148-0	UAC 057Y105	9/21/83	10/24/83
16	STEAM GENERATOR	C3-1148-0	UAC 057Y105	9/21/83	10/24/83
17	MAGNETIC STIR W/ HOT PLATE	C3-1148-0	UAC 057Y105	9/20/83	10/24/83
18	MAGNETIC STIR W/ HOT PLATE	C3-1148-0	UAC 057Y105	9/20/83	10/24/83
19	HOT PLATE	C3-1148-0	UAC 057Y105	9/21/83	10/24/83
20	REFRIGERATED CHILLER	C3-1148-0	UAC 057Y105	9/21/83	10/24/83
21	VACUUM OVEN	C3-1148-0	UAC 057Y105	9/21/83	10/24/83
22	HIGH TORQUE STIRRER	C3-1148-0	UAC 057Y105	9/20/83	10/24/83
23	HYDROGENATION AUTOCLAVE	C3-1148-0	UAC 057Y083	10/24/83	
24	GENERAL LAB. THERMOMETERS	C3-1143-0	UAC 057Y050	11/03/83	
25	DRY ICE MAKER	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
26	DEWAR, STAINLESS STEEL	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
27	DRYING COLUMN	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
28	GAS WASHER	C3-1143-0	UAC 057Y050	9/13/83	10/24/83
29	LABORATORY CART	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
30	STIRRER FOR VACUUM WORK	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
31	MAGNETIC STIRRING BARS	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
32	REACTION VESSEL	C3-1148-0	UAC 057Y094	11/09/83	
33	STEP-STOOL	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
34	LABORATORY LIFT SUPPORT	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
35	ALUMINUM ROD SET-UP FRAME	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
36	SAFETY FACE SHIELD	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
37	SAFETY GLASSES & GOGGLES	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
38	DISPOSABLE VINYL GLOVES	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
39	SPATULAS	C3-1143-0	UAC 057Y050	9/13/83	10/24/83
40	PLASTIC TUBINGS, FITTINGS,	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
41	FLOW INDICATOR	C3-1143-0	UAC 057Y046	9/20/83	10/24/83
42	STIRRING PADDLE	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
43	HOT AIR BLOWER	C3-1148-0	UAC 057Y105	9/21/83	10/24/83
44	DIGITAL PH METER	C3-1148-0	UAC 057Y105	9/20/83	10/24/83
45	DIGITAL THERMOMETER	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
46	GLASS VIALS	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
47	BULB PIPETTE FILLER	C3-1143-0	UAC 057Y046	8/10/83	10/24/83
48	LABORATORY PLASTICWARE	C3-1143-0	UAC 057Y046	9/13/83	10/24/83
49A1	2-AMINO-5-MERCAPTO-1,3,4-THIADIAZOLE	C3-1218-0	UAD 057Y400	8/19/83	
49A2	2,4-DICHLOROBENZOIC ACID	C3-1218-0	UAD 057Y400		
49B	FURFURYLAMINE	C3-1218-0	UAD 057Y411	8/10/83	
49C	METHYLISOTHIOUREA SULPHATE	C3-1218-0	UAD 057Y422	8/31/83	
49D	NAPHTHYLACETONITRILE	C3-1218-0	UAD 057Y433	9/20/83	
49E	THIOSEMICARBAZIDE	C3-1218-0	UAD 057Y444	9/20/83	
49F1	2-AMINO-5-DIETHY-LAMINOPENTANE	C3-1218-0	UAD 057Y455		

PHARMACEUTICAL CHEM. 12/15/83

IT	DESCRIPTION	INQ NO	PO NO	REC'D	SHIPPED
49F2	3,4-DIAMINOBENZOPHENONE	C3-1218-0	UAD 057Y455		
49F3	4,7-DICHLOROQUINOLINE	C3-1218-0	UAD 057Y455		
49F4	ISONICOTINIC ACID	C3-1218-0	UAD 057Y455		
49F5	3,4,5-TRIMETHOXYBENZALDEHYDE	C3-1218-0	UAD 057Y455		
50A1	N-ACETYLSULPHANILYL CHLORIDE (97%)	C4-0112-0	UAD 057Y573	12/07/83	
50A2	ETHYLENE DICHLORIDE (99%)	C4-0112-0	UAD 057Y573	12/07/83	
50B1	4-CYANOPYRIDINE (98%)	C4-0112-0	UAD 057Y584	12/07/83	
50B2	HYDRAZINE HYDRATE (CA. 90%)	C4-0112-0	UAD 057Y584	12/07/83	
50B3	METHYL CHLOROFORMATE (98%)	C4-0112-0	UAD 057Y584	12/07/83	
50B4	NAPHTHALENE (98%)	C4-0112-0	UAD 057Y584	12/07/83	
50C	D-2-AMINO-1-BUTANOL	C4-0112-0	UAD 057Y595		
50D	PHOSPHORIC ACID	C4-0112-0	UAD 057Y606	10/13/83	
50E	4,6-DICHLORO-3-AMINOSULPHONYLBENZOIC	C4-0112-0	UAD 057Y610	11/11/83	
50F	CHLOROSULFONIC ACID	C4-0112-0	UAD 057Y621		
50G	ETHYLENE DIAMINE	C4-0112-0	UAD 057Y632		
51A	2-AMINO-5-DIETHYLAMINOPENTANE	C4-0466-0			
51B	2-AMINO-5-MERCAPTO-1,3,4,THIADIAZOLE	C4-0466-0			
51C	3,4-DIAMINOBENZOPHENONE	C4-0466-0			
51D	2,4-DICHLOROBENZOIC ACID	C4-0466-0			
51E	4,7-DICHLOROQUINOLINE	C4-0466-0			
51F	FURFURYLAMINE	C4-0466-0			
51G	S-METHYLISOTHIOUREA SULPHATE	C4-0466-0			
51H	THIOSEMICARBAZIDE	C4-0466-0			
51I	3,4,5-TRIMETHOXYBENZALDEHYDE	C4-0466-0			
51J	3-AMINO-5-METHYLISOXAZOLE	C4-0466-0			

73

PHOSPHATE 12/15/83

IT	DESCRIPTION	INQ NO	PO NO	REC'D	SHIPPED
01	HIGH INTENSITY WET MAG SEP.	CANCELLED			
02	SPIRAL CLASSIFIER				
03	SIEVE BEND				
04	SPIRAL RAKE THICKENER				
05	DRUM WASHER				
06	CYCLOSIZER				

74

MORE & BETTER FOODS 12/15/83

IT	DESCRIPTION	INQ NO	PO NO	REC'D	SHIPPED
01	RADIATION MONITORING EQUIP	D3-1894-0	UAD 057Y116	11/03/83	
02A	CHEMICALS	C3-7032-0	UAC 057Y315	8/10/83	
02B	CHEMICALS	N/A	UAC 057Y271	8/10/83	
02C	CHEMICALS	N/A	UAC 057Y293	8/10/83	
02D	CHEMICALS	N/A	UAC 057Y282	8/03/83	
02E	DETECTOR TEST SAMPLES	N/A	UAC 057Y260	8/10/83	
02F	CHEMICALS	N/A	UAD 057Y304	8/09/83	
02G	CHEMICALS	C4-0041-0	UAD 057Y326		
03	PH CONTROLLER	D3-1905-0	UAD 057Y190	11/08/83	
04	BLUE WOOL STANDARDS				
05	FEED MILL				
06	PROTEIN EXTRACTOR				

15

NEW CROPS 12/15/83

IT	DESCRIPTION	INQ NO	PO NO	REC'D	SHIPPED
01A	MOLE PLANT	N/A	UAC 057Y245	9/07/83	
01B	MOLE PLANT	N/A	UAD 057Y562		
02	BUFFALO GOURD	N/A	N/A	9/01/83	
03	GUAUYLE	N/A	N/A		
04	WINGED BEANS	N/A	UAC 057Y245	9/07/83	
05	AMARANTHUS	N/A	UAC 057Y245	9/0783	
06	COCOYAM	N/A			
07	TARWI	N/A			
08	TEPARY BEANS	N/A	UAC 057Y245	9/07/83	

16

ANNEX I-A

ESTIMATED* DELIVERY DATES

*Data derived from vendor information indicating estimated dates of equipment arrival in Madison, WI

CHEMICAL COMPOSITION 12/15/83

IT	DESCRIPTION	NO	EST. DEL. DATE	REC'D
01A	X-RAY FLUOR SPECTROMETER	UAC 057Y072	11/1/83	
01B	SPARE PARTS FOR SPECTROMETER			
02	EXPENDABLE X-RAY CELLS	UAD 057Y772	12/29/83	
03	X-RAY MYLAR FILM	UAD 057Y772	12/29/83	
04	MICROPOROUS FILM	UAD 057Y772	12/29/83	
05	XRF SAMPLE CUPS	UAD 057Y772	12/29/83	
06	SIEVE SET, SMALL	UAD 057Y772	12/29/83	
07	SIEVE SET, LARGE	UAD 057Y772	12/29/83	
08A	CENTRIFUGAL GRINDING MILL	UAD 057Y794	12/29/83	
08B	ACCESSORIES FOR GRINDING MILL	UAD 057Y794	12/29/83	
08C	SUPPLIES FOR GRINDING MILL	UAD 057Y794	12/29/83	
08D	SPARE PARTS FOR GRINDING MILL	UAD 057Y794	12/29/83	
09	MORTAR & PESTLE	UAD 057Y750	12/29/83	
10	X-RAY MIX	UAD 057Y772	12/29/83	
11	ANTI-CAKING ADDITIVE	UAD 057Y680	12/08/83	
12	PLATINUM CRUCIBLE	UAD 057Y783	12/29/83	
13	AUTOMATIC FUSION DEVICE	UAD 057Y761	12/29/83	
14	FUSION FLUX	UAD 057Y772	12/29/83	
15A	MOTORIZED HYDRAULIC PRESS	UAD 057Y750	12/29/83	
15B	HYDRAULIC PRESS ACCESSORIES	UAD 057Y772	12/29/83	
16	MECHANICAL BALANCE	UAD 057Y676	12/14/83	
17	VACUUM OVEN	UAD 057Y702	2/13/84	
18	MISCELLANEOUS LAB-WARE	UAD 057Y691	12/08/83	

HYDRAULIC TESTING 12/15/83

IT	DESCRIPTION	NO	EST. DEL. DATE	REC'D
01	56 MPA (WATER) TEST STAND	UAC 057Y035	7/18/83	9/26/83
02	11 MPA (WATER) TEST STAND	UAC 057Y035	7/18/83	9/26/83
03	3 MPA (WATER) TEST STAND	UAD 057Y735	2/01/84	
04	4 MPA (AIR) TEST STAND	UAC 057Y035	7/18/83	9/26/83
05A	PLUG FITTING	UAC 057Y035	7/18/83	9/26/83
05B	NPT/ISO FIT	UAC 057Y035	7/18/83	9/26/83
05C	ISO TAP	UAC 057Y035	7/18/83	9/26/83
05D	DRILL BIT	UAC 057Y035	7/18/83	9/26/83
05E	PRESSURE TRANSDUCER			
05F	PRESSURE TRANSDUCER			
05G	PRESSURE TRANSDUCER			
05H	TEE	UAC 057Y035	7/18/83	9/26/83
05I	HOSE	UAC 057Y035	7/18/83	9/26/83
05J	POWER SUPPLY	UAD 057Y746	2/01/84	
05K	STRIP CHART RECORDER	UAD 057Y746	2/01/84	
05L	AIR HOSE	UAC 057Y035	7/18/83	9/26/83
05M	FITTING	UAC 057Y035	7/18/83	9/26/83
05N	AIR COMPRESSOR	UAC 057Y035	7/18/83	9/26/83
05O	TEFLON TAPE	UAC 057Y035	7/18/83	9/26/83
05P	FILTER ELEMENT	UAC 057Y035	7/18/83	9/26/83

MAINTENANCE-REPAIR EOS 12/15/83

IT	DESCRIPTION	NO	EST. DEL. DATE	REC'D
01	O'SCOPE			
02	CURVE TRACER			
03	PULSE GEN			
04	FUNCTION GEN.			
05	Z METER			
06	O'SCOPE CAL. SYS.			
07	SIG. ANALYZER			
08	PRECISION P.S.			
09	DIG. VOLTMETER			
10A	POWER SUPPLY			
10B	POWER SUPPLY			
10C	POWER SUPPLY			
11	DVM (HAND)			

90

TIME & FREQUENCY 12/15/83

IT	DESCRIPTION	NO	EST. DEL. DATE	REC'D
01	RECEIVER, LORAN C	UAC 057Y024	6/12/83	8/03/83
02	EQUIPMENT RACKS	UAC 057Y013	8/15/83	10/13/83
03A	DATA LOGGING SYSTEM	UAD 057Y514	8/15/83	10/24/83
03B	DATA LOGGING SYS. SPARES KIT	UAD 057Y514	8/15/83	8/24/83
04A	UNIVERSAL COUNTER	UAD 057Y514	8/15/83	8/24/83
04B	UNIVERSAL COUNTER SPARES KIT	UAD 057Y514	8/15/83	10/24/83
05A	FREQUENCY DISTRIB AMPLIFIER	UAD 057Y514	8/15/83	8/24/83
05B	FREQ. DISTRIB. AMP. SPARE KIT	UAD 057Y514	8/15/83	8/24/83
06A	VHF SIGNAL SWITCHER	UAD 057Y503	8/15/83	9/20/83
06B	VHF SIGNAL SWITCHER SPARES	UAD 057Y540	11/07/83	12/19/83
07A	PRINTER SYSTEM	UAD 057Y514	8/15/83	8/24/83
07B	PLOTTER SYSTEM	UAD 057Y514	8/15/83	8/24/83
07C	PRINTER/PLOTTER SPARES KIT	UAD 057Y514	8/15/83	10/24/83
08A	MICROWAVE MEASUREMENT SYS.	UAD 057Y514	8/15/83	8/24/83
08B	MICROWAVE MEAS. SYS. SPARE KIT	UAD 057Y514	8/15/83	8/24/83
09A	DIRECTIONAL COUPLER	UAD 057Y514	8/15/83	8/24/83
10	SIGNAL GENERATOR	UAD 057Y724	3/01/84	
11	SIGNAL SOURCE, MICROWAVE	UAD 057Y724	3/01/84	

41

FORCE MEASUREMENT 12/15/83

IT	DESCRIPTION	NO	EST. DEL. DATE	REC'D
01	CAL. MACHINE	UAC 057Y212	12/15/83	
02A	LOAD CELLS	UAD 057Y470	12/12/83	
02B	LOAD CELLS	UAD 057Y536	1/10/83	
03	INSTRUMENT STANDARDIZER	UAC 057Y061	6/30/83	8/31/83
04	READOUT INSTRUMENT	UAC 057Y061	6/30/83	10/11/83
05	HYDRAULIC POWER SUPPLY	UAC 057Y201	7/28/83	8/10/83

62

DIMENSION. METROLOGY-A 12/15/83

IT	DESCRIPTION	NO	EST. DEL. DATE	REC'D
01	SURFACE TEXTURE DEVICE	UAD 057Y665	3/12/84	
02	COMP. VOLTMETER	UAD 057Y385	10/15/83	12/07/83

DIMENSION. METROLOGY-B 12/15/83

IT	DESCRIPTION	NO	EST. DEL. DATE	REC'D
01	HE-NE LASER	UAD 057Y374	8/15/83	
02	HG & CD LIGHT SOURCES	UAD 057Y363	8/20/83	9/20/83
03	HE-NE LASERS	UAD 057Y374	8/15/83	
04	YAG-MAX LASER	UAD 057Y352	2/27/84	8/23/83
05	POWER METER	UAC 057Y374	8/15/83	

PHOTOMETRY 12/15/83

IT	DESCRIPTION	NO	EST. DEL. DATE	REC'D
01	PYROELECTRIC RADIOMETER	UAC 057Y175	7/31/83	8/03/83
02	HELIUM-NEON LASER	UAC 057Y164	6/30/83	8/03/83
03	LAMP HOLDER	UAC 057Y153	7/31/83	8/03/83
04	ALIGNMENT JIG	UAC 057Y153	7/31/83	8/03/83
05	OPTICAL BENCH EQUIPMENT	UAC 057Y142	7/15/83	10/13/83
06	AC/DC POWER SUPPLY	UAC 057Y131	10/1/83	8/03/83
07	PRECISION MEAS.ASSY	UAC 057Y186	11/1/83	
08A	LAMP STANDARDS	UAC 057Y186	11/1/83	
08B	LUM. INTENSITY STD 1000 W	UAD 057Y551	11/1/83	

LEGAL METROLOGY 12/15/83

IT	DESCRIPTION	NO	EST. DEL. DATE	REC'D
01	PROPORTIONSCOPE	UAD 057Y466	9/15/83	9/26/83
02	DIAMONDLITE	UAD 057Y466	9/15/83	9/26/83
03	STEREO OPTICAL SYSTEM	UAD 057Y466	9/15/83	9/26/83
04	DIAMOND MASTER	UAD 057Y466	9/15/83	9/26/83
05	EYE LOUPE & SPECTACLE ATTCH	UAD 057Y466	9/15/83	9/26/83
06	SPECTROSCOPE UNIT	UAD 057Y466	9/15/83	9/26/83
07	BALANCE ASSEMBLY	UAD 057Y341	9/7/83	11/03/83

96

ELECTRICAL MEASUREMENT 12/15/83

IT	DESCRIPTION	NO	EST. DEL. DATE	REC'D
01A	DC COMPARATOR POTENTIOMETER	UAD 057Y654	4/10/84	
01B	DC COMPARATOR ACCESSORIES	UAD 057Y654	4/10/84	
02A	STANDARD CELL ENCLOSURE	UAD 057Y654	4/10/84	
02B	STD. CELL ENCL. ACCESSORIES	UAD 057Y654	4/10/84	
03A	TRANSPORTABLE STANDARD CELL	UAD 057Y654	4/10/84	
03B	TRANS. STD. CELL ENCLOSURE	UAD 057Y654	4/10/84	
04A	DC COMPARATOR RESIS. BRIDGE	UAD 057Y654	4/10/84	
04B	DC RES. BRIDGE ACCESSORIES	UAD 057Y654	4/10/84	
05	TRANSPORTABLE RESIS STD	UAD 057Y396	2/28/84	10/13/83
06	SYSTEM ACCESSORIES	UAD 057Y654	4/10/84	

MAINTENANCE-REPAIR NIS 12/15/83

IT	DESCRIPTION	NO	EST. DEL. DATE	REC'D
01	O'SCOPE			
02	CURVE TRACER			
03	PULSE GEN			
04	FUNCTION GEN.			
05	Z METER			
06	O'SCOPE CAL. SYS.			
07	SIG. ANALYZER			
08	PRECISION P.S.			
09	DIG. VOLTMETER			
10A	POWER SUPPLY			
10B	POWER SUPPLY			
10C	POWER SUPPLY			
11	DVM (HAND)			

88

BENTONITE 12/15/83

IT	DESCRIPTION	PO NO	EST DEL	REC'D
01	SOAPY PASTE MIXER			
02	VIBRATING TRAY FEEDER			
03	METERING PUMP			
04	DRYING CABINET			
05	MOLDING MACHINE			
06	SAND TESTING EQUIPMENT			
07	SLURRY PUMP			
08	FILTER PRESS			
09	HIGH TEMP/HIGH PRES FILTER			
10	PLATINUM CRUCIBLE			
11	NITROUS OXIDE SYSTEM			
12	ROLL CRUSHER			
13	FILTER DRUM SYSTEM			
14	EXTRUDER, PILOT PLANT			
15	EXTRUDER, LAB-SCALE			

89

BIOGAS 12/15/83

IT	DESCRIPTION	PO NO	EST DEL	REC'D
01	ANTISERA AND CELL MEDIA	UAC 057Y234	8/01/83	8/03/83
02	VIRUS NEUTRALIZING ANTISERA	UAC 057Y223	8/01/83	8/09/83
03	VEGETATION SHREDDER			
04	RUBBER BIOGAS PLANT			
05	RED MUD PLASTIC METHANE GEN.	UAD 057Y805	3/12/84	
06	BIOGAS ENGINE			
07	PORTABLE SLURRY PUMP			
08	WET TEST GAS METER			
09	DRY GAS METER			
10	PORT. VIDEO RECORDING SYS.			
11	ENGLISH-ARABIC TYPEWRITER			
12	LIQUID CHROMATOGRAPH COL.			
13	CALORIMETER			
14	GAS CALORIMETER SYSTEM			
15	RESEARCH FERMENTOR			
16	BENCH-TOP CHEMOSTAT			
17	COLONY COUNTER			
18	PERISTALTIC PUMP			
19	DISPENSING PUMP			
20	PH METER			
21	COMBUSTION FURNACE			
22	TORSIONAL VISCOMETER			
23	HYDROMETER SET			
24	COMPUTER SYSTEM			
25	RADIATION PYROMETER			
26	CHART RECORDER			
27	FREEZE DRYING APPARATUS			
28	REFRIGERATED CENTRIFUGE			
29	VARIABLE COMPRESSION ENGINE			
30	INSTRUMENTATION SYSTEM			

CORROSION 12/15/83

IT	DESCRIPTION	PO NO	EST DEL	REC'D
01A	POTENTIODYNE ANALYZER	UAD 057Y492	9/22/83	10/04/83
01B	ELECTRODE SETS	UAD 057Y643	11/10/83	11/09/83
02A	POTENTIOSTST/GALVANOSTAT	UAD 057Y481	10/31/83	12/07/83
02B	POTENTIOSTAT/GAL SPARES	UAD 057Y481	10/31/83	12/07/83
03	COULOMETER	UAD 057Y481	10/31/83	
04	PH METER	UAD 057Y525	10/14/83	10/13/83

PHARMACEUTICAL CHEM. 12/15/83

IT	DESCRIPTION	PO NO	EST DEL	REC'D
01	HIGH VACUUM PUMP	UAC 057Y094	8/31/83	11/08/83
02	VACUUM & PRESSURE PUMP	UAC 057Y105	8/31/83	9/21/83
03	MAGNETIC-DRIVE PUMP	UAC 057Y105	8/31/83	9/20/83
04	POSITIVE DISPLACEMENT PUMP	UAD 057Y330	9/30/83	11/03/83
05	FLAMMABLE LIQUID DRUM PUMP	UAC 057Y046	8/30/83	9/13/83
06	VACUUM PRESSURE PUMP	UAC 057Y046	8/01/83	8/10/83
07	SIPHONING HAND PUMP	UAC 057Y046	8/01/83	8/10/83
08	HAND PUMP	UAC 057Y046	8/01/83	8/10/83
09	FILTER PUMP	UAC 057Y046	8/01/83	8/10/83
10	VACUUM FILTRATION CENTER	UAC 057Y105	8/31/83	9/21/83
11	FLUIDIZED SAND BATH	UAC 057Y105	8/31/83	9/21/83
12	HEMISPHERICAL HEAT MANTLE	UAC 057Y094	8/31/83	11/08/83
13	POWER CONTROLLER	UAC 057Y094	8/31/83	11/09/83
14	HEATING MANTLE W/MAG STIR	UAC 057Y120	9/30/83	
15	FLEXIBLE HEATING TAPE	UAC 057Y105	8/31/83	9/21/83
16	STEAM GENERATOR	UAC 057Y105	8/31/83	9/21/83
17	MAGNETIC STIR W/ HOT PLATE	UAC 057Y105	8/31/83	9/20/83
18	MAGNETIC STIR W/ HOT PLATE	UAC 057Y105	8/31/83	9/20/83
19	HOT PLATE	UAC 057Y105	8/31/83	9/21/83
20	REFRIGERATED CHILLER	UAC 057Y105	8/31/83	9/21/83
21	VACUUM OVEN	UAC 057Y105	8/31/83	9/21/83
22	HIGH TORQUE STIRRER	UAC 057Y105	8/31/83	9/20/83
23	HYDROGENATION AUTOCLAVE	UAC 057Y083	10/15/83	10/24/83
24	GENERAL LAB. THERMOMETERS	UAC 057Y050	6/1/83	11/03/83
25	DRY ICE MAKER	UAC 057Y046	8/01/83	8/10/83
26	DEWAR, STAINLESS STEEL	UAC 057Y046	8/01/83	8/10/83
27	DRYING COLUMN	UAC 057Y046	8/01/83	8/10/83
28	GAS WASHER	UAC 057Y050	6/01/83	9/13/83
29	LABORATORY CART	UAC 057Y046	8/01/83	8/10/83
30	STIRRER FOR VACUUM WORK	UAC 057Y046	8/01/83	8/10/83
31	MAGNETIC STIRRING BARS	UAC 057Y046	8/01/83	8/10/83
32	REACTION VESSEL	UAC 057Y094	8/31/83	11/09/83
33	STEP-STOOL	UAC 057Y046	8/01/83	8/10/83
34	LABORATORY LIFT SUPPORT	UAC 057Y046	8/01/83	8/10/83
35	ALUMINUM ROD SET-UP FRAME	UAC 057Y046	8/01/83	8/10/83
36	SAFETY FACE SHIELD	UAC 057Y046	8/01/83	8/10/83
37	SAFETY GLASSES & GOGGLES	UAC 057Y046	8/01/83	8/10/83
38	DISPOSABLE VINYL GLOVES	UAC 057Y046	8/01/83	8/10/83
39	SPATULAS	UAC 057Y050	6/1/83	9/13/83
40	PLASTIC TUBINGS, FITTINGS,	UAC 057Y046	8/01/83	8/10/83
41	FLOW INDICATOR	UAC 057Y046	8/30/83	9/20/83
42	STIRRING PADDLE	UAC 057Y046	8/01/83	8/10/83
43	HOT AIR BLOWER	UAC 057Y105	8/31/83	9/21/83
44	DIGITAL PH METER	UAC 057Y105	8/31/83	9/20/83
45	DIGITAL THERMOMETER	UAC 057Y046	8/15/83	8/10/83
46	GLASS VIALS	UAC 057Y046	8/15/83	8/10/83
47	BULB PIPETTE FILLER	UAC 057Y046	8/15/83	8/10/83
48	LABORATORY PLASTICWARE	UAC 057Y046	8/30/83	9/13/83
49A1	2-AMINO-5-MERCAPTO-1,3,4-THIADIAZOLE	UAD 057Y400	9/15/83	8/19/83
49A2	2,4-DICHLOROBENZOIC ACID	UAD 057Y400	9/15/83	
49B	FURFURYLAMINE	UAD 057Y411	9/15/83	8/10/83
49C	METHYLISOTHIOUREA SULPHATE	UAD 057Y422	8/15/83	8/31/83
49D	NAPHTHYLACETONITRILE	UAD 057Y433	10/28/83	9/20/83
49E	THIOSEMICARBAZIDE	UAD 057Y444	8/18/83	9/20/83
49F1	2-AMINO-5-DIETHY-LAMINOPENTANE	UAD 057Y455	9/15/83	

92

PHARMACEUTICAL CHEM. 12/15/83

IT	DESCRIPTION	PO NO	EST DEL	REC'D
49F2	3,4-DIAMINOBENZOPHENONE	UAD 057Y455	9/15/83	
49F3	4,7-DICHLOROQUINOLINE	UAD 057Y455	9/15/83	
49F4	ISONICOTINIC ACID	UAD 057Y455	9/15/83	
49F5	3,4,5-TRIMETHOXYBENZALDEHYDE	UAD 057Y455	9/15/83	
50A1	N-ACETYLSULPHANILYL CHLORIDE (97%)	UAD 057Y573	11/20/83	12/07/83
50A2	ETHYLENE DICHLORIDE (99%)	UAD 057Y573	11/20/83	12/07/83
50B1	4-CYANOPYRIDINE (98%)	UAD 057Y584	10/10/83	12/07/83
50B2	HYDRAZINE HYDRATE (CA. 90%)	UAD 057Y584	10/10/83	12/07/83
50B3	METHYL CHLOROFORMATE (98%)	UAD 057Y584	10/10/83	12/07/83
50B4	NAPHTHALENE (98%)	UAD 057Y584	10/10/83	12/07/83
50C	D-2-AMINO-1-BUTANOL	UAD 057Y595	11/23/83	
50D	PHOSPHORIC ACID	UAD 057Y606	10/21/83	10/13/83
50E	4,6-DICHLORO-3-AMINOSULPHONYLBENZOIC	UAD 057Y610	11/21/83	11/11/83
50F	CHLOROSULFONIC ACID	UAD 057Y621	12/10/83	
50G	ETHYLENE DIAMINE	UAD 057Y632	9/15/83	
51A	2-AMINO-5-DIETHYLAMINOPENTANE			
51B	2-AMINO-5-MERCAPTO-1,3,4,THIADIAZOLE			
51C	3,4-DIAMINOBENZOPHENONE			
51D	2,4-DICHLOROBENZOIC ACID			
51E	4,7-DICHLOROQUINOLINE			
51F	FURFURYLAMINE			
51G	S-METHYLISOTHIOUREA SULPHATE			
51H	THIOSEMICARBAZIDE			
51I	3,4,5-TRIMETHOXYBENZALDEHYDE			
51J	3-AMINO-5-METHYLISOXAZOLE			

PHOSPHATE 12/15/83

IT	DESCRIPTION	PO NO	EST DEL	REC'D
01	HIGH INTENSITY WET MAG SEP.			
02	SPIRAL CLASSIFIER			
03	SIEVE BEND			
04	SPIRAL RAKE THICKENER			
05	DRUM WASHER			
06	CYCLOSIZER			

MORE & BETTER FOODS 12/15/83

IT	DESCRIPTION	PO NO	EST DEL	REC'D
01	RADIATION MONITORING EQUIP	UAD 057Y116	8/01/83	11/03/83
02A	CHEMICALS	UAC 057Y315	8/01/83	8/10/83
02B	CHEMICALS	UAC 057Y271	8/01/83	8/10/83
02C	CHEMICALS	UAC 057Y293	8/01/83	8/10/83
02D	CHEMICALS	UAC 057Y282	8/01/83	8/03/83
02E	DETECTOR TEST SAMPLES	UAC 057Y260	8/01/83	8/10/83
02F	CHEMICALS	UAD 057Y304	8/01/83	8/09/83
02G	CHEMICALS	UAD 057Y326	8/10/83	
03	PH CONTROLLER	UAD 057Y190	9/15/83	11/08/83
04	BLUE WOOL STANDARDS			
05	FEED MILL			
06	PROTEIN EXTRACTOR			

95

NEW CROPS 12/15/83

IT	DESCRIPTION	PO NO	EST DEL	REC'D
01A	MOLE PLANT	UAC 057Y245	9/15/83	9/07/83
01B	MOLE PLANT	UAD 057Y562	10/19/83	
02	BUFFALO GOURD	N/A	8/15/83	9/01/83
03	GUAUYLE	N/A		
04	WINGED BEANS	UAC 057Y245	9/15/83	9/07/83
05	AMARANTHUS	UAC 057Y245	9/15/83	9/0783
06	COCOYAM			
07	TARWI			
08	TEPARY BEANS	UAC 057Y245	9/15/83	9/07/83

ANNEX II

144-S187

Sub-Project Equipment Acquisition
Status of Funds Committed

Sub-Project	Bi-Monthly Funds Committed Current Period	November 30, 1983 Cumulative Funds
More & Better Foods	-0-	$ 20,610.75 (9)
Biogas	$ 3,902.00 (1)	6,421.40 (3)
New Crops	-0-	148.50 (2)
Phosphate Ore	-0-	-0-
Red Seas Fisheries	-0-	-0-
Pharmaceuticals	-0-	146,061.73 (20)
Bentonites	-0-	-0-
Corrosion	-0-	69,183.00 (4)
Standards & Measurements		
1) Chemical Composition	78,715.81 (10)	261,545.81 (11)
2) Hydraulic Test	17,497.20 (2)	41,708.62 (3)
3) EOS Maintenance & Repair	-0-	-0-
4) NIS Time & Frequency	15,142.67 (1)	91,506.51 (16)
5) Force Measurement	-0-	61,060.90 (5)
6) Dimensional Metrology-A	16,163.75 (1)	31,100.55 (2)
Dimensional Metrology-B	-0-	26,732.00 (3)
7) Photometry	-0-	19,226.00 (7)
8) Legal Metrology	-0-	13,407.82 (2)
9) Electrical Measurement	53,035.00 (1)	59,595.00 (2)
10) NIS Maintenance & Repair	-0-	-0-
Spare Parts	23,936.50 (5)	39,635.63 (13)
	$208,392.93 (21)	$887,944.22 (102)

BEST AVAILABLE COPY

ANNEX III

EGYPTIAN INSTRUMENTATION TECHNOLOGY AND EQUIPMENT MANAGEMENT

EXPENDITURE RECORD - BI-MONTHLY REPORT NO.

Through November 30, 1983

FREE ACCOUNT CATEGORY	BUDGET AMT.	REPORT PERIOD EXPENDITURES Paid	Pending	CUMULATIVE EXPENDITURES Paid	Pending	BUDGET BALANCE	NEXT BI-MONTHLY EXPENDITURE
SALARIES	$ 186,314.00	$ 10,584.14	$ -0-	$ 82,243.52	$ -0-	$ 104,070.48	$ 20,000
FRINGE BENEFITS	9,316.00	1,229.02	-0-	8,194.17	-0-	1,121.83	1,000
OVERHEAD	157,875.00	16,374.32	(21,727.22)*	68,286.25	(21,727.22)	111,315.97	10,000
ALLOWANCES	18,520.00	20.90	362.85	3,969.66	362.85	14,187.49	300
TRAVEL & TRANS.	9,000.00	-0-	-0-	1,210.00	-0-	7,790.00	400
OTHER DIRECT	41,000.00	808.91	19,635.00	5,477.81	19,635.00	15,887.19	500
EQUIPMENT	2,685,000.00	213,437.08	599,288.90	279,526.03	599,288.90	1,806,185.07	200,000
SUBCONTRACT	300,000.00	-0-	-0-	-0-	-0-	300,000.00	20,000
DOLLAR TOTAL	$3,407,025.00	$242,454.37	$597,559.53	$448,907.44	$597,559.53	$2,360,558.03	$252,200

*credit for overhead charged on equipment

LOCAL CURRENCY ACCOUNT	BUDGET AMT.	REPORT PERIOD EXPENDITURES Paid	Pending	CUMULATIVE EXPENDITURES Paid	Pending	BUDGET BALANCE	NEXT BI-MONTHLY EXPENDITURES
SALARIES	44,488.00	1,803.58	3,607.16	18,035.76	3,607.16	22,845.08	5,500
ALLOWANCES	34,545.00	-0-	1,680.00	6,739.62	1,680.00	26,125.38	--
TRAVEL & TRANS.	52,304.00	1,362.73	1,400.80	6,448.03	1,400.80	44,455.17	--
OTHER DIRECT COSTS	1,202.00	-0-	-0-	217.28	-0-	984.72	--
TOTAL	132,539.00	3,166.31	6,687.96	31,440.69	6,687.96	94,410.35	5,500

BEST AVAILABLE COPY