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**PERUSAHAAN UMUM LISTRIK NEGARA
AGENCY OF MINISTRY OF MINES AND ENERGY
GOVERNMENT OF THE REPUBLIC OF INDONESIA**



**RURAL ELECTRIFICATION PROJECT
CONTRACT AID/ASIA-C - 1357
AID LOAN NO. 497 - T - 052**



RURAL ELECTRIFICATION PROJECT - INDONESIA
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
LOAN NO. 497-T-052

MONTHLY REPORT NO. 31

FOR

DECEMBER, 1981

SUBMITTED BY
CHAS. T. MAIN INTERNATIONAL, INC.

1. INTRODUCTION

A. THE CONTRACT

Contract AID/ASIA-C-1357 was executed on September 18, 1978 between the United States Agency for International Development and Chas. T. Main International, Inc. following the completion of a Loan Agreement, AID Loan November 497-T-052, dated May 6, 1978, and a Grant Agreement, dated March 30, 1978, between the Republic of Indonesia and The United States of America for the implementation of a Rural Electrification Project, AID Project Number 497-0267.

Funding for Contract AID/ASIA-C-1357 is contained in the Grant Agreement. No Letter-of-Credit is involved in this contract. The date of implementation of the contract was September 18, 1978.

B. DESCRIPTION OF PROJECT

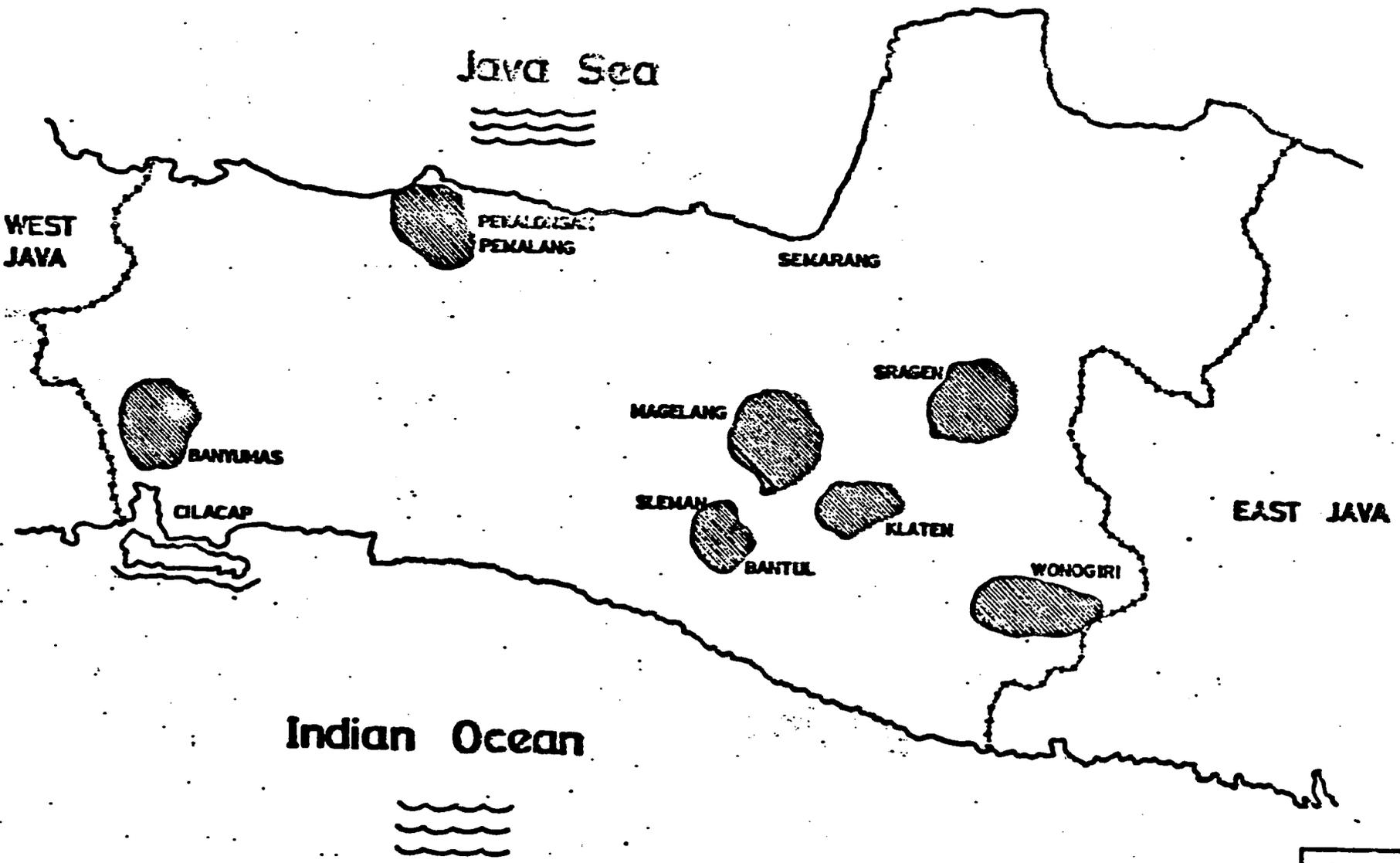
The objective of this project is to assist the Government of Indonesia (GOI) in its plan to provide areawide electric power distribution facilities in ten specified areas.

Seven of the project areas are located in the Province of Central Java, and the distribution systems for these areas will be operated by Perusahaan Umum Listrik Negara (PLN). Information presented in this report applies to the Central Java Project Areas only.

The project will consist of approximately 2,500 kilometers of overhead primary and secondary distribution lines and is planned to encompass at least 440 towns and villages. The completed project will insure the availability of reliable, inexpensive electric service to an estimated 260,000 rural homes. Approximately 130,000 consumers will be connected during the first three years of operation, and the remainder connected during the following twelve years.

CENTRAL JAVA

RURAL ELECTRIFICATION PROJECT SERVICE AREAS



SCALE : NONE
CTN-109

The seven Central Java Project Service Areas are shown on CTM Map No. 109, page 2 of this report. These seven areas will be connected to the existing PLN, Central Java grid for their power requirements. Project Service Areas, number of villages served, approximate number of consumer connections and the estimated total number of power recipients are as follows :

<u>SERVICE AREA</u>	<u>VILLAGES SERVED</u>	<u>APPROXIMATE NO. OF CONNECTIONS</u>	<u>ESTIMATED NO. OF RECIPIENTS</u>
Klaten	95	25,000	225,000
Pem/Pek	103	20,000	180,000
Bantul	21	20,000	180,000
Wonogiri	54	15,000	135,000
Sragen	49	15,000	135,000
Magelang	83	20,000	180,000
Banyumas	<u>35</u>	<u>15,000</u>	<u>135,000</u>
TOTALS	440	130,000	1,170,000

The above tabulations reflect project expectations after the first three years of commercial operation.

II. SCOPE OF SERVICES

The scope of MAIN's services is to assist the PLN staff located at Semarang and Central Java in all phases of the design and construction of seven rural electric distribution systems. The engineering assistance will consist of, among other things, circuit routing and phasing, structure selection, conductor selection, protection and sectionalizing, and estimating of material and equipment requirements. MAIN will prepare material and equipment bid documents and assist PLN in the evaluation of bids, the preparation and administration of material and equipment supply contracts and the receipt and distribution of materials and equipment. MAIN will also assist PLN during the construction phase of the project by inspecting construction for quality and quantities of work, maintenance of construction schedules and the inventory and documentation of completed construction.

III. PROJECT ACTIVITIES & PROGRESS

A. ENGINEERING

1. DISTRIBUTION SYSTEMS

The preparation of distribution system construction maps by PLN staff continued throughout the reporting period. The status of completion of the construction maps and structure data sheets for the various systems are shown in Table 1. During the reporting period, the percentage of completion of the construction drawings for Pekalongan was increased.

During the reporting period, MAIN's staff continued the engineering review of the construction maps for Magelang, Klaten, Pekalongan, Banyumas, Sragen, and Wonogiri.

2. HEADQUARTERS COMPLEXES

There was no engineering activity required during the reporting period.

TABLE NO. 1
STATUS OF MAP AND STRUCTURE DATA SHEETS

As of : December 31, 1981.

<u>Construction Beginning Sequence</u>	<u>PROJECT AREA</u>	<u>No. of Maps</u>	<u>Construction Maps</u>			<u>Structure Data Sheets</u>		<u>M A I N Complete Field Checking & Revisions</u>
			<u>% (1) Complete</u>	<u>No. Complete</u>	<u>P L N Date of Completion</u>	<u>% Complete</u>	<u>Date of Completion</u>	
7	BANYUMAS/CILACAP	311	78.4	87	RE 6/30/82	100	9/30/80	RE 3/31/82
2	KLATEN	352	100	352	A 4/30/81	100	10/31/80	RE 12/31/82
1	MAGELANG	423	100	423	A 12/31/80	100	9/30/80	RE 1/31/81
R 6	PEKALONGAN/PEMALANG	560	90.5	384	RE 4/30/82	100	8/31/80	RE 3/31/82
3	SLEMAN/BANTUL	268	100	268	A 5/31/81	100	8/31/80	A 9/30/81
R 5	SRAGEN	364	100	364	A 7/31/81	100	9/30/80	RE 4/30/82
4	WONOGIRI	530	100	530	A 10/31/80	100	9/31/80	RE 2/28/81

A - ACTUAL

E - ESTIMATED

R - REVISED

(1) INCLUDES FIELD STAKING

B. PROCUREMENT

1. TOOLS AND EQUIPMENT

All material and equipment ordered under this category has been shipped and all has been received except the Stringing Equipment and one shipment of ground rods. Table A-4 does not indicate the date of arrival of the Trucks furnished by Merican Curtis (Contract Pj. 216/PST/80) and the tools furnished by Ohm International (Contracts Pj. 215/PST/80 and Pj. 223/PST/80). Receiving Reports have not been completed for these items. Most shipments have incurred some loss or damage and claims for replacement under insurance coverage have been made as shown on Table A-4. The replacement material for the claim against Maison International, Inc. has arrived but the receiving report is not yet complete.

2. MATERIALS AND EQUIPMENT

Funding with Letters of Commitment and Letters of Credit has not yet been made as shown on Table A-4 for the contract with P.T. Putera Tolhas and the two contracts with Walsin Lihwa Electric Wire & Cable Corp. To date no Performance Bond or valid Bank Quarantee has been received.

Shipments of material have been made by Hyosung Corp., Copperweld Industries, PLP Brazil and Irby Construction Co. The shipments of PLP Brazil, Hyosung and one of the Irby shipments have been received but the receiving documents are not yet completed.

The shipping agent for PLP Brazil apparently consolidated two shipments for this supplier and inadvertently off-loaded a number of crates in Semarang which were marked for another destination in LUWU. The equivalent number of crates of PLN material is missing and it is assumed have gone to the destination

shown on the crates received by PLN in error. The problem is being resolved through contacts with the shipping agent and the supplier's local representative.

3. HOUSEWIRING MATERIAL AND METERS

No bids were received for the Section 9 material of this IFB, and PLN is inviting new bids as stated in Para. 7 of this section of this Monthly Report. A contract for the materials in Sections 1 and 3 is being executed, but is not yet completed. Six contracts have been executed, as shown in Table A-4 for the remainder of this procurement group.

4. CONDUCTORS

On November 18, 1981, PLN signed contract No. Pj. 391/PST/81 with P.T. Kabelindo Murni to supply the conductor for this project. This contract is funded by a loan from The Netherlands Government.

5. POLES

As of this reporting period, the PLN contractor supplying steel poles has delivered and set 12,999 steel RS poles.

As of this reporting period, the PLN contractor supplying concrete poles has delivered and set 316 concrete poles.

6. DISTRIBUTION MATERIALS II

PLN has issued Notices of Award to two (2) bidders and supply contracts are being executed.

7. HOUSEWIRING MATERIALS II

Invitations to Bid have been issued to selected prospective Bidders in Indonesia and the U.S.A., with bids to be opened on February 8, 1982.

8. DISTRIBUTION MATERIALS III

PLN advertised this IFB on November 26, 1981. Bid documents will be issued December 1, 1981 and bids will be received January 26, 1982.

9. FUNDING

The present accumulated value of procurement contracts and funds committed by Letters of Commitment from the USAID loan are shown in Table 2.

A spread sheet showing additional details of contracts, Letter of Commitment and Letters of Credit is contained in the Appendix.

TABLE 2
COMMITTED FUNDS - AID LOAN

As of : December 31, 1981.

NO.	CONTRACT SUPPLIER	AMOUNT	NO.	LETTER OF COMMITMENT	
				BANK	AMOUNT *
Pj. 196/PST/1980	Maison Int'l. Ltd.	\$ 322,267.55	497-T-05207	CitiBank NA	\$ 323,878.89
Pj. 195/PST/1980	New World Research Corp.	821,722.00	497-T-05208	CitiBank NA	825,722.00
Pj. 198/PST/1980	Hyundai Corp.	327,804.00	497-T-05209	CitiBank NA	329,443.02
Pj. 215/PST/1980	Ohm International	169,185.17)			
Pj. 216/PST/1980	Merican Curtis, Inc.	569,473.00)			
Pj. 223/PST/1980	Ohm International	69,149.63)	497-T-05210	Wells Fargo	1,327,298.00
Pj. 265/PST/1980	Cable Handling & Stringing Equip. Inc.	314,714.96)			
Pj. 269/PST/1980	ITT Export Corp.	198,171.76)			
Pj. 029/PST/1981	Irby Const. Co.	455,516.38)	497-T-05214	CitiBank NA	864,991.63 **
Pj. 030/PST/1981	Copperweld Industries	390,177.99)			
Pj. 031/PST/1981	McGraw Edison Co.	87,619.20)	497-T-05215	American Express	233,612.46
Pj. 032/PST/1981	Produtos Para Linhas Preformados Ltda.	144,831.00)			
Present Total		: \$ 3,870,632.64		Present Total	: \$ 3,889,288.47

* Includes Bank Charges.

** As Amended for Irby Amend. No.1

C. CONSTRUCTION

1. DISTRIBUTION SYSTEMS

Line construction continued with pole setting activity at all sites, and framing begun at Klaten, Magelang and Sleman/Bantul. Mobilization of crews, equipment and material have progressed sufficiently to schedule the start of conductor stringing the first week of January 1982.

2. HEADQUARTERS COMPLEXES

Construction proceeded at all sites during the reporting period. Frequent rain hampered construction activity at all sites. Lack of construction material is delaying work progress at Wangon.

The estimated percentages of completion of site facilities are shown in Table 4.

3. PROJECT PROGRESS

Project completion is estimated to be 22.6 % as compared to scheduled completion of 24.37 %.

LEGEND

- 1 - REPORTING PERIOD
- 2 - TOTAL TO DATE
- 3 - % COMPLETE

TABLE 3

SUMMARY OF CONSTRUCTED FACILITIES
DISTRIBUTION SYSTEMS

As of : December 31, 1981.

SITE (1)	POLE (2)	FRAMING (CKT KM)			CONDUCTORS (CKT KM)			TRANSFORMERS APPARATUS (9)
		3Ø (3)	1Ø (4)	SEC (5)	3Ø (6)	1Ø (7)	SEC (8)	
KLATEN	-1	533						
	-2	3218		2.04	11.0			
	-3	30.0	1.97 3.0	2.76 1.1	18.0 6.1	-	-	-
MAGELANG	-1	153		4.73	15.1			
	-2	2801		4.78	15.1			
	-3	40.5		1.7	18.7	-	-	-
PEKALONGAN	-1	167						
	-2	2416						
	-3	17.03	-	-	-	-	-	-
SLEMAN/BANTUL	-1	197		5.2	11.3			
	-2	3627		5.2	11.3			
	-3	52.0		3.0	6.4	-	-	-
SRAGEN	-1	798						
	-2	3190						
	-3	40.0	-	-	-	-	-	-
WANGON	-1	897						
	-2	1254						
	-3	23.0	-	-	-	-	-	-
WONOGIRI	-1	465						
	-2	2707						
	-3	24.0	-	-	-	-	-	-

SUMMARY

HEAD

Estimate

ACTIVITY	KLATEN		MAGELANG		PEKALONGAN
	OFFICE	WHSE	OFFICE	WHSE	OFFICE
EXCAVATION/BACKFILL	65	65	70	70	25
CONCRETE					
BELOW GRADE	80	78	90	90	10
ABOVE GRADE	35	30	75	70	
CARPENTRY	20	20	35	35	
MASONRY	55	45	65	60	
PLUMBING					
ELECTRICAL	5	5	10	10	
FINISHING					
TRIM					
TILES					
PAINT					
CONTRACT AMOUNT - RUPIAH	152,175,000		157,727,000		175,299
% COMPLETE - PERIOD	10		16		9
% COMPLETE - TO DATE	30		35		18

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TABLE - 4

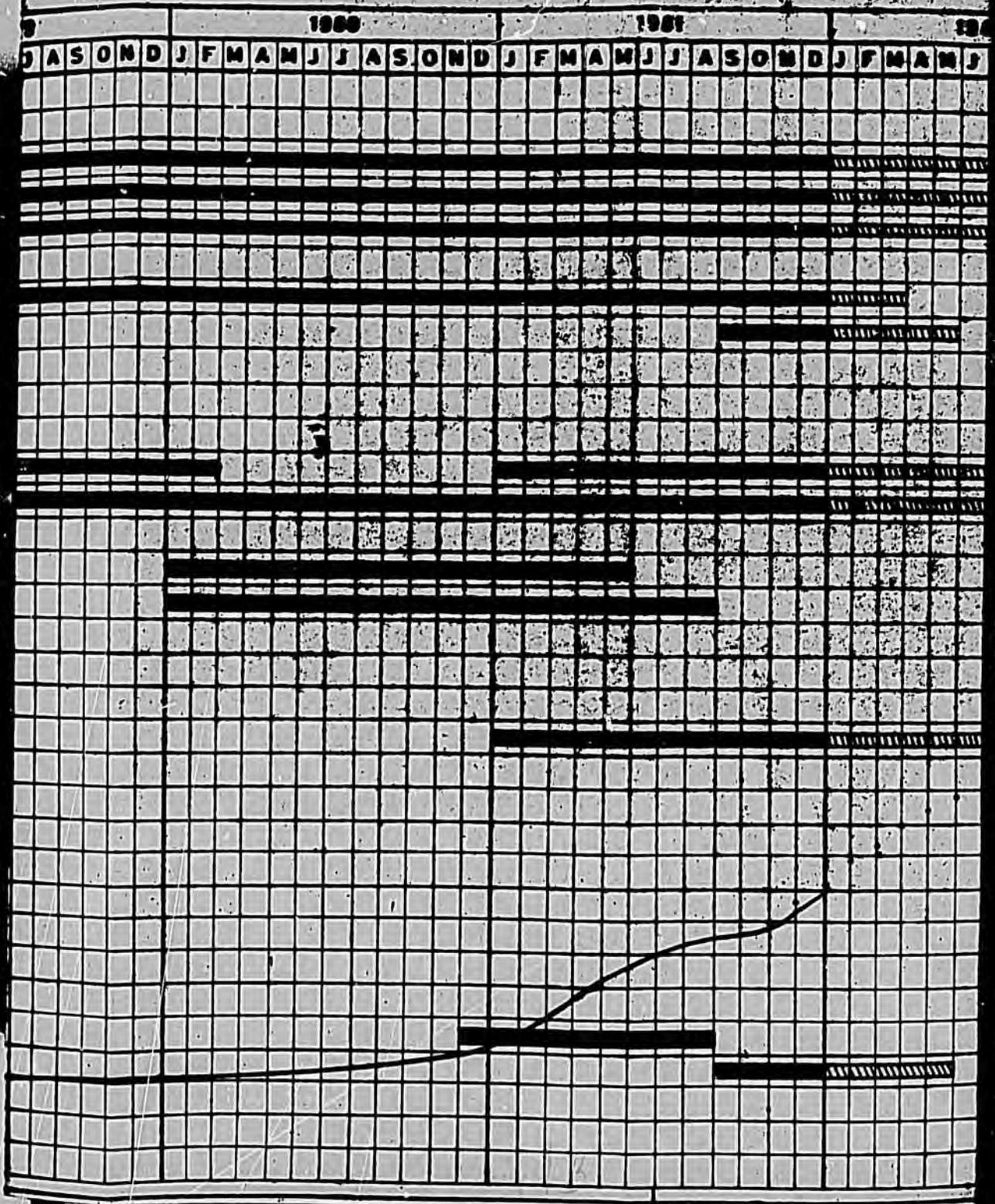
As of : December 31, 1981.

**LIST OF CONSTRUCTED FACILITIES
HEADQUARTERS COMPLEXES**

Estimated Percentage Complete

NO	ALONGAN		SLEMAN BANTUL		SRAGEN		WANGON		WONOGIRI	
	OFFICE	WHSE	OFFICE	WHSE	OFFICE	WHSE	OFFICE	WHSE	OFFICE	WHSE
1	20		75	70	85	80	20	12	45	40
2	8		90	90	96	96	8	8	20	20
3			70	65	80	80			10	10
4			40	40	50	50			8	5
5			70	70	75	75			30	25
6			10	10	15	12				
7	99,000		154,389,000		152,339,000		163,130,000		163,033,000	
8	9		17		13		7		9	
9	18		37		45		17		26	

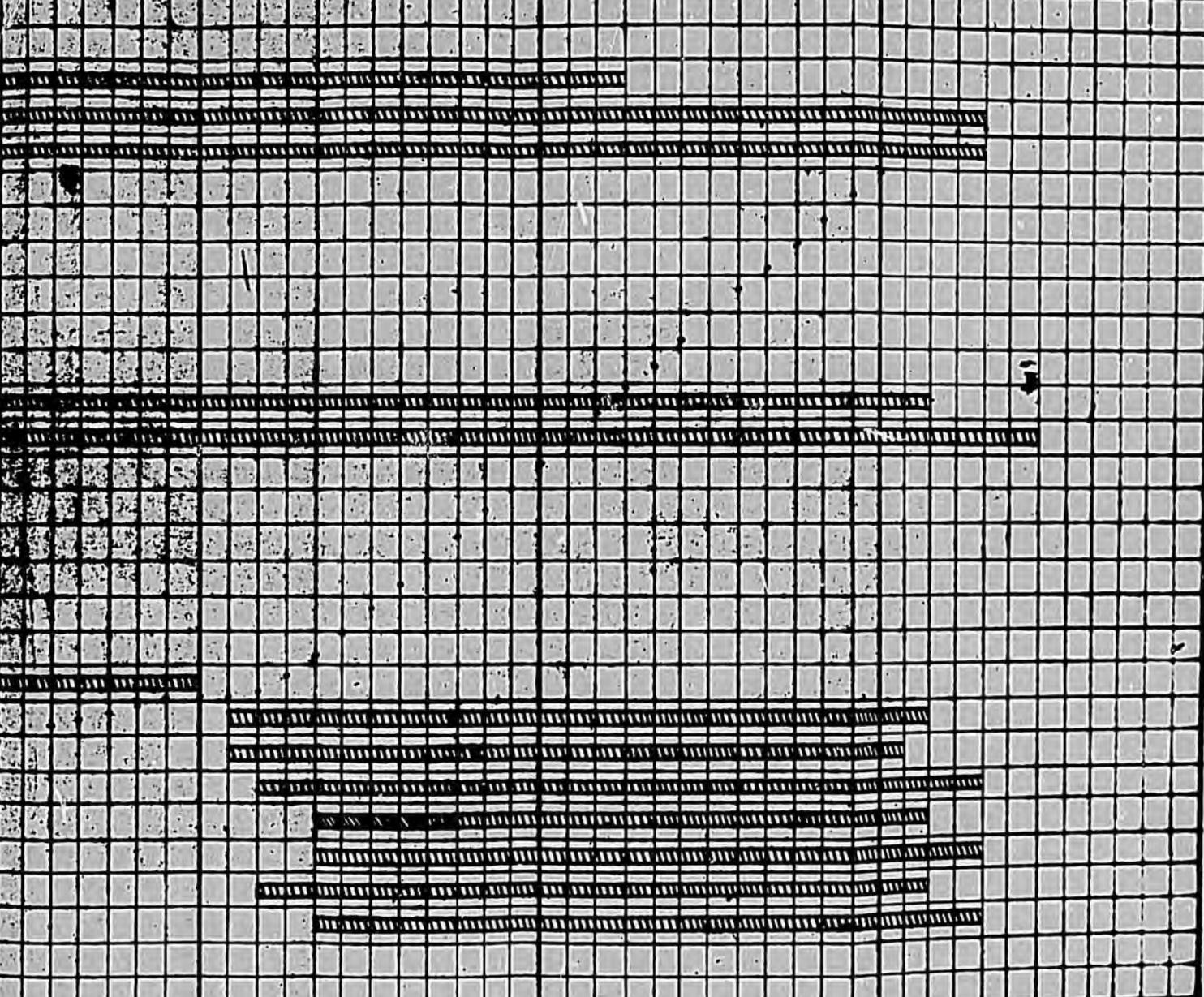
ENGINEERING & CONSTRUCTION OF RURAL DISTRIBUTION SYSTEM CENTRAL



LJAYA

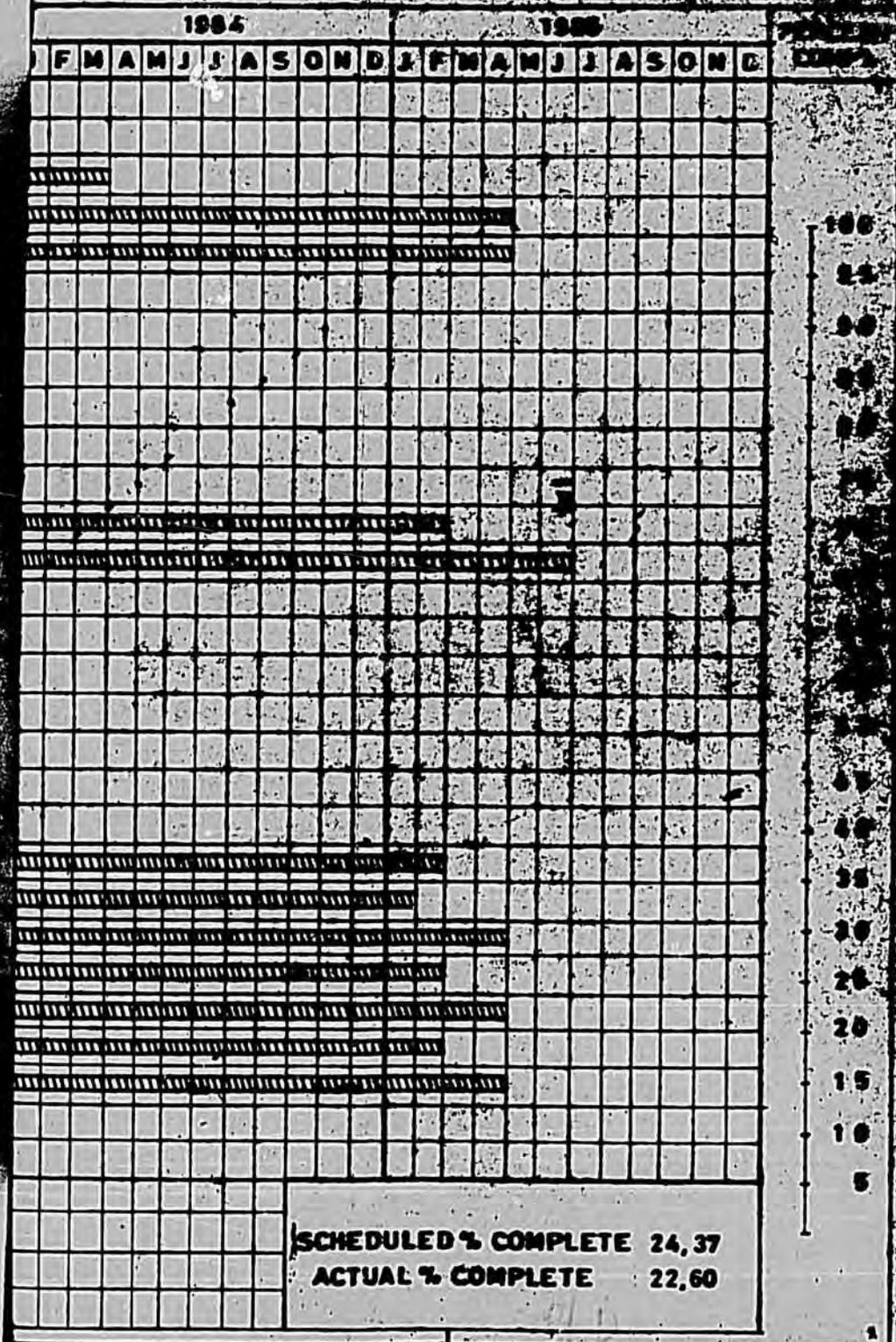
AS OF 30
REV : 1

1983												1984												1985											
J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D					



SCHEDULED % COMPLETE 24.97
ACTUAL % COMPLETE 22.00

REV. 1-1-64



SCHEDULED % COMPLETE 24,37
ACTUAL % COMPLETE 22,60

IV. ADMINISTRATION

A. PERSONNEL

Table 5 lists the job classifications and associated manmonths allocated to MAIN. Also shown are the personnel assigned and manmonths consumed for each job classification. The associated manmonths and the percentages related thereto that are shown are as of November 5, 1981.

Mr. D. A. Dowling and family returned from R & R Leave on December 6, 1981.

Mr. H. E. Johnson departed on December 19, 1981 for R & R Leave in the U.S.A. and plans to return on January 15, 1982.

B. LOGISTICS

Table A-2, Appendix, lists the continuing logistic support furnished by PLN to MAIN.

TABLE 5
JOB CLASSIFICATIONS & MANMONTHS

THROUGH : 5 November 1981

JOB CLASSIFICATIONS	LOCATION	AGENCY		PERSONNEL ASSIGNED	MANMONTH		% CONS.	% REMAIN
		PLN	DGC		ALLOCATED	CONSUMED		
Project Director	Jakarta	X	X	D. A. Dowling	40	36.5	91.3	8.7
Business Manager	Semarang	X	X	R. N. Key	39	33.8	86.7	13.3
Admin. Manager	Jakarta	X	X	C. J. Whitby	-	3.5	-	-
Administrative Ass't.	Jakarta	X	X		24	10.6	44.2	55.8
Area Manager	Semarang	X		H. E. Johnson	24	12.8	53.3	46.7
Lead Elect. Engineer	"	X			38	27.7	72.9	27.1
Civil Engineer	"	X		E. M. Downing	24	22.2	92.5	7.5
Architect	-	X		-	3	-	-	100.0
Field Supervisor	Semarang	X		H. E. Earl	37	32.8	88.6	11.4
Field Supervisor	"	X		J. J. Bennett	34	28.1	82.6	17.4
Field Supervisor	"	X		J. V. Hardman	35	29.2	83.4	16.6
Lead Elect. Engineer	Jakarta		X	E. Leffler	39	34.4	88.2	11.8
Elect. Engineer	"		X	J. Kerr	24	27.3	113.8	(13.8)
Elect. Engineer	"		X	E. V. Borja	24	14.7	61.3	38.7
Elect. Engineer	"		X	G. S. Sanie1	24	16.4	68.3	31.7
Civil Engineer	"		X	T. L. Resabal	24	10.7	44.6	55.4
Senior Draftsman	"		X	V. H. Sydiongco	24	15.2	63.3	36.7
Field Supervisor	Lampung		X	D. K. Hoffer	24	19.2	80.0	20.0
Field Supervisor	Lombok		X	F. P. Cachin	35	33.9	96.9	3.1
Field Supervisor	Luwu		X	C. T. Nuez	35	27.9	79.7	20.3
Materials Supervisor	Jakarta		X	R. M. Garcia	35	34.1	97.4	2.6
			X	P. V. Wilson	12	7.5	62.5	37.5
Boston office				Various	90	59.5	66.1	33.9
					688	538.0	78.2	21.8

* Mr. Whitby has been approved by U.S. AID for work on this project. Provision for this position will be included in a future contract amendment.

FINANCIAL

A. Following is a summary of U.S. AID costs invoiced through 5 November 1981 and PLN costs invoiced through 31 December 1981.

	<u>Budget</u>	<u>Invoiced To Date</u>	<u>Paid To Date</u>
U.S. AID	\$ 5,355,261	\$ 3,471,552	\$ 3,315,025
PLN		Rp. 73.847.922,-	Rp. 72.673.040,-

B. A detailed breakdown by Contract line item of MAIN's invoices to U.S. AID is as follows :

<u>Description</u>	<u>Budget</u>	<u>Costs To Date</u>		
		<u>PLN</u>	<u>DGC</u>	<u>TOTAL</u>
Salaries & Wages	\$ 1,484,257	514,975	567,605	1,082,580
Fringe Benefits	278,636	80,314	79,727	160,041
Allowances	382,355	116,103	139,336	255,439
Travel & Transportation	959,825	263,309	235,939	499,248
Other Direct Costs	450,037	44,399	182,237	226,636
Overhead	1,390,151	483,491	532,440	1,015,931
Fee	410,000	111,471	120,206	231,677
T O T A L . . .	<u>\$ 5,355,261</u> =====	<u>1,614,062</u> =====	<u>1,857,490</u> =====	<u>3,471,552</u> =====

VI. PROBLEM AREAS

The major problem facing the project at this time is the extensive period of delay until basic line construction materials will be available in the field. PLN is attempting to mitigate this problem some what by the temporary use of line materials, where possible, from other PLN projects.

Due to several factors; such as release by Customs officials, a goods survey by insurance adjusters, the physical movement of material and inventories; there is sometimes a considerable lapse of time between the receiving of material at the Port and the issuance of a Receiving Report. This could in some cases pose a problem for the no-cost replacement of lost or damaged material due to the expiration of the supplier's insurance coverage. An additional meeting is planned between CTM and PLN staff to alert the staff involved and explore ways to prevent future problems in this area.

VII. OFFICIAL VISITS AND TRIPS

A. OFFICIAL VISITS

Messrs. J.D. Baird, and Irwan Surjadi arrived in Central Java on December 15, 1981 to visit the headquarters complexes job sites and review construction progress. Mr. Baird returned to Jakarta on December 17 and Mr. Irwan Surjadi returned to Jakarta on December 18, 1981. While in Central Java they visited the job sites at Magelang, Klaten, Bantul, Wonogiri and Sragen.

Mr. N. Popov, MAIN's Manager of International Construction Services, and Mr. D.A. Dowling visited CTM and PLN offices in Semarang November 2 and 3, 1981 for staff consultation and coordination of activities.

B. PROJECT TRIPS

During the period, MAIN field staff members made several lengthy trips to Klaten, Magelang, Pekalongan, Sleman and Wangon to assist PLN pole setting activities and to review construction drawings in the field.

C. PROJECT COORDINATION MEETINGS

No coordination meeting was held during the reporting period.

VIII. PROJECT CORRESPONDENCE

A. The following communications were issued from MAIN's Semarang office during the reporting period :

<u>Addressee</u>	<u>Letter No.</u>	<u>Date</u>	<u>Subject</u>
Soedjono	S - 7970	Dec.1, 1981	- Distribution Material PLP-Brazil.
PLN Pusat Personnel Staff	S - 7972	Dec.2, 1981	- Housewiring II IFB
Boston	S - 7974	Dec.2, 1981	- Housewiring II IFB
Dowling	S - 7976	Dec.4, 1981	- Review of remaining files
P.I. Ring	S - 7978	Dec.4, 1981	- Material control central Java
P.I. Ring	S - 7980	Dec.5, 1981	- Housewiring Materials & Meters
P.I. Ring	S - 7982	Dec.5, 1981	- Tension Stringing Equipment
Maison Int'l, Ltd.	S - 7984	Dec.5, 1981	- R/E Project Central Java, Indonesia Contract No. Pj. 196/PST/80.
New World Research Corp. USA	S - 7986	Dec.7, 1981	- REP Central Java Indonesia Contract No. Pj.195/PST/80.
PT.Dharma Niaga LTD, Jakarta	S - 7988	Dec.7, 1981	- REP Central Java Indonesia Contract No. Pj.195/PST/80.
P.I. Ring	S - 7990	Dec.8, 1981	- R/E Invoice No. 45 for Period Ending December 5, 1981
Boston	S - 7992	Dec.9, 1981	- Catalog for Int'l Harvester Light Truck.
Naryanto	S - 7994	Dec.9, 1981	- Construction of Headquarters Complexes Payment Invoice, PT. Karang Tempel.
Tlx to New World Research Corp.	S - 7996	Dec.9, 1981	- Contract No.195/PST/80
Boston	S - 7998	Dec.9, 1981	- Shipping Documents
CTM Jakarta	S - 8000	Dec.11, 1981	- Names of Firms interested in bidding on Housewiring & Material II.
Bachynski	S - 8002	Dec.11, 1981	- Reconciliation statements of BNI Bank Accounts.
Ir. Doddy	S - 8004	Dec.12, 1981	- Material Supply Contracts

<u>Addressee</u>	<u>Letter No.</u>	<u>Date</u>	<u>Subject</u>
Soedjono	S - 8006	Dec 12, 1981	Material Supply Contracts
USAID	S - 8008	Dec 12, 1981	R/E Project Contract No.AID/ASIA -C-1357 Monthly Report - November 1981.
D.A. Dowling	S - 8010	Dec 14, 1981	Cabinet Secretariate approval
PLN Pusat	S - 8012	Dec 14, 1981	Assignment of Personnel Request for cabinet Secretariate approval.
Thompson/Curran	S - 8014	Dec 14, 1981	Time Charges for P/E 17 Decmeber 1981.
Mr. Popov	S - 8016	Dec 14, 1981	Truck Parts List
P. I. Ring	S - 8018	Dec 16, 1981	Material Distribution
Maison	S - 8020	Dec 18, 1981	Performance Certificate
Ir. Doddy	S - 8022	Dec 18, 1981	R/E Project Contract Pj. 215/PST/80 & Pj. 223/PST/80.
J. Whitby	S - 8024	Dec 19, 1981	Billing for IFB Processing costs
Soedjono	S - 8026	Dec 19, 1981	R/E Project Shipping Documents
Motorola, Singapore	S - 8028	Dec 21, 1981	Material for Motorola
USAID	S - 8030	Dec 22, 1981	Invoice No. AID-97R
MAIN, Boston	S - 8032	Dec 22, 1981	Checking of Vehicles
Naryanto	S - 8034	Dec 23, 1981	Construction of Headquarter's Complexes Payment Invoice, PT Panca Sakti
Ir. Doddy	S - 8036	Dec 23, 1981	Contract for Housewiring Material
Produtos Brazil	S - 8038	Dec 24, 1981	R/E Project Central Java Contract No. Pj. 032/PST/81
Soedjono	S - 8040	Dec 24, 1981	Material received
MAIN, Boston	S - 8046	Dec 28, 1981	Time Charges for P/E 31 Dec. 1981.
Naryanto	S - 8050	Dec 30, 1981	Construction Headquarter Complexes Payment Invoice PT Bumi Handayani.

B. The following communications were issued from MAIN's
Jakarta office during the reporting period :

<u>Addressee</u>	<u>Letter No.</u>	<u>Subject</u>
A.J. Curran	J - 4678	Telex - Personnel
A.J. Curran	J - 4679	Telex - Payroll Charges
A.J. Curran	J - 4680	Telex - Invoices.
Ir. A. Andoyo	J - 4681	Amendment No. 2, Contract No. Pj.029/PST/81, Irby Construction Co.
Ir. A. Andoyo	J - 4682	Amendment No. 5, Contract No. Pj.152/PST/77, Irby Construction Co.
R.P. Thompson	J - 4683	Telex - Invoices
J.D. Baird	J - 4685	Rural Electrification Project Main Field Staff Man Hour Report.

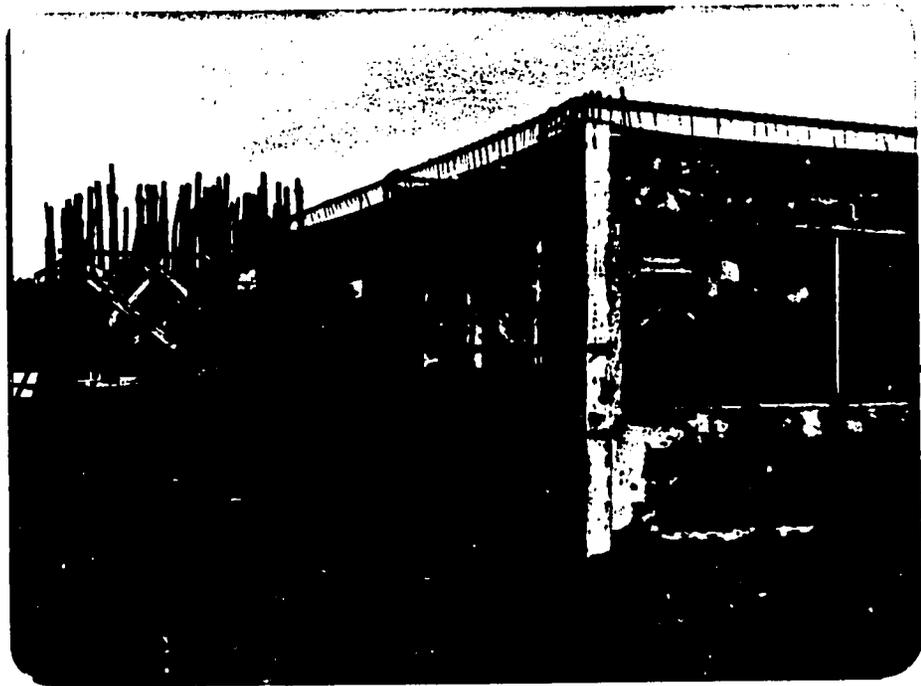
<u>Addressee</u>	<u>Letter No.</u>	<u>Subject</u>
A.J. Curran/ R.P. Thompson	J - 4686	Telex - Downing Air Shipment
Ir. Soedarso	J - 4687	R/E Project Letters of Commitment and Letters of Credit.
R.P. Thompson/ A.J. Curran	J - 4689	Telex - Invoicing
Ir. Wiratmoko Setiadji	J - 4690	R/E Project. Invitation for Bids for Distribution Materials - III.
Ir. A. Andoyo	J - 4691	R/E Project. Letters of Commitment and Letters of Credit.
A.J. Curran	J - 4692	Memo - U.S. Dollar Reconciliation.
J.D. Baird	J - 4693	R/E Project. Personnel Leave Schedules.
Ir. A. Andoyo	J - 4694	R/E Project. Contract No. Pj.265/PST/80.
A.K. Jordan	J - 4695	Telex - Amendment No.1 / Contract 265.
Ir. A. Andoyo	J - 4696	Amendments No.1 Contracts No. Pj. 215/PST/80 & Pj. 223/PST/80 Ohm International, Inc.
USAID	J - 4697	Contract No. AID/ASIA-C-1357 R/E Invoice No. AID-95.
USAID	J - 4698	Contract No. AID/ASIA-C-1357 R/E Invoice No. AID-94
Popov/Thompson/ Curran	J - 4700	Telex - Invoices.
N. G. Popov	J - 4702	Memo - USAID R/E Invoice No. 41
H. E. Johnson	J - 4703	Memo - S-7948, R/E Contract No. AID/ASIA-C-1357 Proposal Training
R.P. Thompson/ A.J. Curran	J - 4707	Memo - Invoice No. 94
R.P. Thompson	J - 4708	Memo - Expense Report - Hill Boston Invoice Number 39.
N.G. Popov/ R.P. Thompson	J - 4711	Telex - Air Travel.
Ir. Wiratmoko Setiadji	J - 4712	R/E Project. Distribution Materials III IFB Addendum No. 1.
Ir. Wiratmoko Setiadji	J - 4713	Bids for Housewiring II Materials Central Java R/E Project.
R.P. Thompson	J - 4714	Telex - Personnel.

<u>Addressee</u>	<u>Letter No.</u>	<u>Subject</u>
Wm. Nutt	J - 4715	Telex - Material Shipment
R.P. Thompson	J - 4716	Memo - Expense Report (Dowling)
R.P. Thompson	J - 4717	Telex - Courier Delivery
A. Kruseski	J - 4718	Telex - Courier Delivery
Ir. Moh. Basoeki	J - 4720	Central Java R/E Project Procurement & Financial Problems.
Ir. A. Andoyo	J - 4721	R/E Project Pj. 195/PST/80. Amendment No. 1.
A.J. Curran	J - 4722	Memo - Cash Reconciliation
Ir. A. Andoyo	J - 4723	R/E Project. Cable Handling Stringing Equipment, Inc. Contract No. Pj. 265/PST/80.
Ir. A. Andoyo	J - 4724	R/E Project. Copperweld Industries Int. Inc. Contract No. Pj.030/PST/81.
Ir. A. Andoyo	J - 4725	R/E Project. Hyosung Corporation Contract No. Pj. 148/PST/81.
R.P. Thompson	J - 4727	Telex - Truck Parts.
Ir. Soedarso	J - 4728	Intra Sapta Contract for Supply of Distribution Material II - Central Java Rural Electrification.
Thompson/Popov	J - 4730	Telex - Miscellaneous
R.P. Thompson	J - 4731	Memo - Addendum No. 1 Distribution Material III - IFB.
R.P. Thompson	J - 4732	Memo - Housewiring Materials II - IFB
Ir. A. Andoyo	J - 4733	R/E Project Central Java Contract No. Pj. 265/PST/80, Stringing Equipment Ref.:M.11018/SUBDITADBANG/81
Ir. Wiratmoko Setiadji	J - 4734	R/E Project Housewiring Materials II - IFB.
USAID	J - 4735	Contract No. AID/ASIA-C-1357 R/E Invoice No. AID-96.
Ir. Wiratmoko Setiadji	J - 4736	Procedure for Bid Requests Housewiring II Materials Central Java R/E.
Ir. Wiratmoko Setiadji	J - 4741	R/E Project Housewiring Materials - II IFB.

<u>Addressee</u>	<u>Letter No.</u>	<u>Subject</u>
R.P. Thompson	J - 4743	Telex - Invoices.
Ir. H. Kullit	J - 4745	R/E Project Central Java - RI: Invoice for Hq Complex Contracts.
R.P. Thompson	J - 4750	Postage Stamps
R.P. Thompson	J - 4751	Telex - Personnel
R.P. Thompson	J - 4753	Telex - Personnel
R.P. Thompson	J - 4754	Telex - Central Java IFB's.
Ir. A. Andoyo	J - 4755	R/E Project Contract No. Pj. 215/PST/80 & Pj. 223/PST/80.
R.P. Thompson	J - 4756	Telex - Courier Delivery
R.P. Thompson	J - 4757	Telex - Credit to USAID for IFB Charge to prospective Bidders.
N.G. Popov	J - 4759	Memo - Material Control Central Java.
R.P. Thompson	J - 4763	Telex - Invoice Payment
A.K. Jordan	J - 4765	Telex - Contract 265.
R.P. Thompson	J - 4767	Telex - Invoices
R.P. Thompson	J - 4769	Memo - Boston Invoice No. 41 (Local No. 92).
R.P. Thompson	J - 4770	Telex - Personnel
R.P. Thompson	J - 4771	Telex - IFB Housewiring II
A. Kruseski	J - 4774	Telex - Courier Delivery
R.P. Thompson	J - 4776	Telex - IFB Charges
R.P. Thompson	J - 4778	Telex - IFB - Distribution Materials III
R.P. Thompson	J - 4781	Telex - Ohm Contracts.
J.D. Baird	J - 4782	Rural Electrification Project MAIN Field Staff Man Hour Report.
Ir. A. Andoyo	J - 4783	R/E Project Amendment No. 1 Contract No. Pj. 148/PST/81 Hyosung Corporation.
R.P. Thompson	J - 4784	Telex - Rural Electrification IFB's
Ir. Soedarso	J - 4785	R/E Project Contract Pj. 409/PST/81.
Ir. Wiratmoko Setiadji	J - 4787	R/E Project Addendum No. 2 IFB for Distribution Materials III.
R.P. Thompson	J - 4788	Telex - Addendum No. 2 Distribution Materials III IFB.
R.P. Thompson	J - 4790	Telex - Boston Invoice 41 (Local 92)



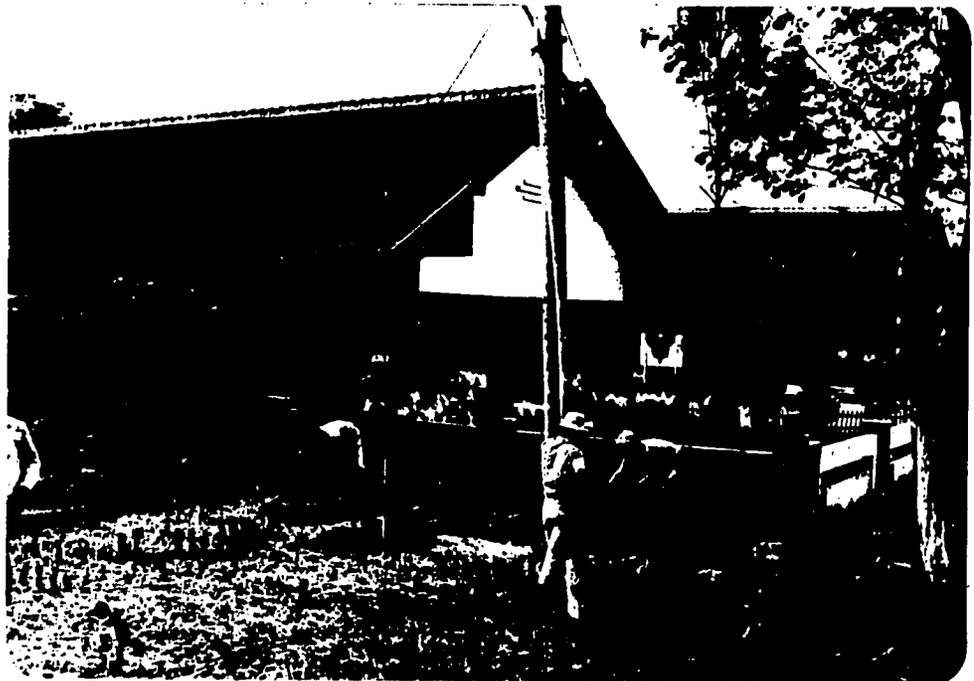
Formwork for concrete roof plate beam at Magelang office building.



Shoring for concrete roof slab at Sleman/Bantul office building.



PLN crew setting concrete pole in the Klaten area.



Backfilling and tamping concrete pole in the Klaten area.



Framing concrete pole in the Klaten area.

TABLE A - 1

PRE DESIGN LINE STAKING

<u>Service Area</u>	<u>No. Villages</u>	<u>Circuit Length - Total KM.</u>			<u>% of Feasibility Study Requirements</u>
		<u>Three Phase</u>	<u>Single Phase</u>	<u>Sec. Only</u>	
Sleman/Bantul	21	30	192.8	172.6	130
Banyumas	35	45.6	135.6	64.6	102
Klaten	102	64.5	246.8	303.8	112
Magelang	83	51.6	277.8	86.1	131
Pemalang/ Pekalongan	136	73.1	226.1	197.7	153
Sragen	55	35.1	217.3	236.4	149
Wonogiri	54	58.7	346.5	255.7	181

TABLE A-2
LOGISTICS SUPPORT

<u>PERSONNEL</u>	<u>HOUSING</u>		<u>TRANSPORT</u>
	<u>LOCATION</u>	<u>BY</u>	
J. J. Bennett & Family	Semarang	PLN	PLN
D. A. Dowling & Family	Jakarta	AID	Vehicle by PLN operation by DGC
E. M. Downing & Family	Semarang	PLN	PLN
H. E. Earl	Semarang	PLN	PLN
J. V. Hardman & Family	Semarang	PLN	PLN
H. E. Johnson	Semarang	PLN	PLN
R. N. Key & Family	Semarang	PLN	PLN

PLN provides offices at Semarang for MAIN and full logistics support consisting of secretarial personnel, drivers and all operational necessiters.

PLN provides office facilities at Jakarta and partial operational support for that office.

TABLE A-3

CONTRACT No	CONTRACTOR	DATE OF CONTRACT	EFFECTIVE DATE OF CONTRACT
Pj. 195/PST/80	New World Research Corp.	30-7-80	
Pj. 196/PST/80	Maison International Ltd.	18-8-80	
Pj. 198/PST/80	Hyundai Corp.	5-8-80	
Pj. 215/PST/80	Ohm International, Inc.	8-9-80	
Pj. 216/PST/80	Mexican Curtis, Inc.	8-9-80	
Pj. 223/PST/80	Ohm International, Inc.	23-9-80	
Pj. 265/PST/80	Cable Handling & Stringing Equipment Inc.	27-10-80	
Pj. 269/PST/80	ITT Export Corp.	10-11-80	
Pj. 029/PST/81	Irby Construction Co.	20-2-81	15-7-81
Pj. 038/PST/81	Copperweld Industries	23-2-81	10-7-81
Pj. 031/PST/81	McGraw Edison Co.	23-2-81	17-6-81
Pj. 032/PST/81	Produtos Para Linhas Preformadas LTDA	23-2-81	15-6-81
Pj. 148/PST/81	Hyosung Corp.	4-5-81	
Pj. 156/PST/81	Walsin Lihwa Electric Wire & Cable Corp.	27-5-81	
Pj. 157/PST/81	P.T. Putera Tolhas	9-5-81	
Pj. 170/PST/81	Walsin Lihwa Electric Wire & Cable Corp.	27-5-81	

Table A-3

SUMMARY OF CONTRACT STATUS CONTRACT FOR MATERIAL & EQUIPMENT

FOR SUPPLY OF	CORRESPONDENT BANK	LETTER OF COMMITMENT No
Lab. & Test Equipment. \$ 197,822.00	CITI BANK N.A.	497-T-05208
Vehicular Equipment 113,900.00		
Ground Rods 510,000.00	T.E.	
Communication Equipment 225,073.71	T.E. CITI BANK N.A.	497-T-05207
Maint. Shop Equipment 97,195.84	T.E.	
Grounding Material 327,804.00	T.E. CITI BANK N.A.	497-T-05209
Distr. Hand Tools 169,185.17	T.W. WELLS FARGO BANK INTERNATIONAL	497-T-05210
Maintenance Trucks 569,473.00	T.E.P. WELLS FARGO BANK INTERNATIONAL	497-T-05210
Compressive Tools 69,149.63	T.W. WELLS FARGO BANK INTERNATIONAL	497-T-05210
Stringing Equipment 314,714.96	T.E. WELLS FARGO BANK INTERNATIONAL	497-T-05210
Distr. Line Tools 198,171.76	T.C. WELLS FARGO BANK INTERNATIONAL	497-T-05210
Service Materials 268,107.50	D.M. CITI BANK N.A.	497-T-05214
Protective devices 187,408.88	DM	
Guy Strand 390,177.99	DM CITI BANK N.A.	497-T-05214
Protective devices 87,619.20	DM AMERICAN EXPRESS BANK	497-T-05215
Conductor Specialties 144,831.00	DM AMERICAN EXPRESS BANK	497-T-05215
Distribution Transformers 1,640,840.00	DM CHASE MANHATTAN	
Tie Wire 24,261.50	DM	
Miscellaneous Materials - 1 24,164.00	DM	
Service Conductor-I 878,750.00	DM	

\$ 3,444,570

TABLE A-3

AS OF : December 31, 1981

SHEET 1 OF 2

ENT DATE	EXPIRE. DATE	LETTER OF CREDIT		CORRESPONDENT No	BANK DATE
		BANK INDONESIA No	EXPIRE. DATE		
2-1-81	1-11-82	0103/17157/PL	31-7-82		
25-11-80	1-11-82	0103/16410/PL	31-12-81		
21-1-81	1-11-82	0103/16903/PL	31-7-81		
2-3-81	30-5-83	0103/17609/PL	31-5-82		
2-3-81	30-5-83	0103/18046/PL	31-12-81	36041	24-6-81
2-3-81	30-5-83	0103/17610/PL	31-5-82		
2-3-81	30-5-83	0103/17611/PL	31-5-82		
2-3-81	30-5-83	0103/17612/PL	31-5-82		
19-6-81	15-9-83	0103/18075/PL	31-12-82	10783079	
19-6-81	15-9-83	0103/18076/PL	31-12-82	10783080	10-7-81
19-6-81	15-9-83	0103/18077/PL	31-12-82		
19-6-81	15-9-83	0103/18078/PL	31-12-82	E 057905	15-6-81
		0103/18906/PL	31-12-82		

TABLE A-3

CONTRACT No	CONTRACTOR	DATE OF CONTRACT	EFFECTIVE DATE OF CONTRACT
Pj. 296/PST/81	P.T. Mataram Indah	12-9-81	
Pj. 297/PST/81	R.T. Elprima Agung Teknik	12-9-81	
Pj. 335/PST/81	New World Research Corp.	5-10-81	
Pj. 354/PST/81	Hiyash Industrial (Taiwan) Ltd.	12-10-81	
Pj. 409/PST/81	New World Research Corp.	2-12-81	
Pj. 422/PST/81	General Electric Co.	10-12-81	

TABLE A-3

SUMMARY OF CONTRACT STATUS CONTRACT FOR MATERIAL & EQUIPMENT

TYPE OF CONTRACT	FOR SUPPLY OF	CORRESPONDENT BANK	LETTER OF COMMITMENT No.
	Housewiring Devices-2 Rp. 84,217.500,- HW		
	Housewiring Devices-1 Rp. 85,072.500,- HW		
	Protective Devices Rp. 155,182.500,- HW		
	Lamps Rp. 65,407.500,- HW		
	Misc. Materials \$ 338,936.00 HW		
	Misc. Materials \$ 490,385.15 HW		
	Housewiring Cable \$ 1,586,065.00 HW		
	Residential - Commercial Meters \$ 2,740,031.40 HW		
	\$ 155,421.50 623,808.00		
	HW \$ 5,779,229.50		

TABLE A-4

CONTRACT No	CONTRACTOR	MATERIAL
Pj. 196/PST/80	Maison International	Communications Equipment Maint. Shop Equipment
Pj. 195/PST/80	New World Research Corp.	Grounding Mat 'I' - Part
	" " " "	" " " "
	" " " "	Watt Hour Test Tables
	" " " "	Headquarters Test Equip
	" " " "	" " " "
	" " " "	Ground Rods
Pj. 269/PST/80	ITT Export Corp.	Distribution Line Tools
Pj. 029/PST/81	Irby Construction Co.	Reclosers & Servicing DE
Pj. 198/PST/80	Hyundai Corp.	Ground Wire Fittings, Se
Pj. 216/PST/80	American-Curtis	Trucks, Spare Parts
Pj. 032/PST/80	Produtas Para Linhas	Conductor Specialties
Pj. 148/PST/81	Hyosung	Transformers
Pj. 030/PST/81	Copperweld	Guy Wire
Pj. 215/PST/80	Ohu	Distribution Hand Tools
Pj. 223/PST/80	Ohu	Compression Tools
Pj. 265/PST/80	Cable Handling & Stringing	Stringing Equipment
Pj. 029/PST/81	Irby Construction Co.	Pole Line Hardware
Pj. 296/PST/81	P.T. Nataraan Indah	Housewiring Material
Pj. 297/PST/81	P.T. Elprime Agung	Housewiring Material
Pj. 297/PST/81	P.T. Biprime Agung	Housewiring Material

Table A-4

SUMMARY OF SHIPPING MATERIALS & EQUIPMENT

RIALS	INVOICE TOTAL	BILL OF LADING No	LADING DATE	DATE OF ARRIVAL PORT	WAREHOUSE
parent	\$ 224,857.57	007	Jan. 23, 1981	March 1981	April 1, 1981
nt	97,193.84	007	Jan. 23, 1981	March 1981	April 1, 1981
artial	150,218.80	1	April 9, 1981	Aug. 14, 1981	Sept 14, 1981
"	189,767.60	1	June 6, 1981		Sept 16, 1981
es	142,450.00		June 5, 1981	Aug. 15, 1981	Sept 23, 1981
quip.	50,392.00	2	June 8, 1981	Aug. 18, 1981	Sept 16, 1981
"	4,980.00	1	April 9, 1981		
	170,000.80		Sept. 9, 1981		
ols	198,171.76	1	July 10, 1981	Sept. 20, 1981	Sept 30, 1981
DE	330,356.81	23	Aug. 22, 1981		
Scaples	327,804.00	PSM-1	July 22, 1981	Aug. 13, 1981	Sept 24, 1981
	569,473.00	1	July 23, 1981		
s	144,831.00	1	Aug. 25, 1981		Dec. 5, 1981
	950,904.00	15 N.I	Nov. 28, 1981		
	390,112.70	1	Oct. 19, 1981		
ols	169,185.17	4	Sept. 9, 1981		
	79,493.63	2	Aug. 24, 1981		
	314,714.96	1	Nov. 14, 1981		
	140,159.59	7	Nov. 25, 1981		
	Rp. 33,687,000,-	Via Truck			Dec. 26, 1981
	Rp. 48,906,000,-	Via Truck			Dec. 26, 1981
	Rp. 34,029,000,-	Via Truck			Dec. 26, 1981

TABLE A-4

AS OF: December 31, 1981

SHEET 1 OF 1

FISCAL YEAR	REMARKS
1, 1981	Complete Shipment - Insurance Claim
1, 1981	Complete Shipment - Insurance Claim
16, 1981	Partial Shipment - Insurance Claim
16, 1981	Partial Shipment - Insurance Claim
23, 1981	Complete
16, 1981	Partial Shipment - Insurance Claim
30, 1981	Complete Shipment - Insurance Claim
	Partial Shipment
14, 1981	Complete Shipment - Insurance Claim
	Complete Shipment
5, 1981	Partial Shipment - Insurance Claim
	Partial
	Partial
	Complete
	Complete
	Complete
	Partial
1, 1981	Partial
1, 1981	Partial
1, 1981	Partial

TABLE A-5
PERCENT COMPLETION
ENGINEERING & CONSTRUCTION PROGRESS

<u>PERIOD</u>	<u>SCHEDULED</u>	<u>ACTUAL</u>	<u>PERIOD</u>	<u>SCHEDULED</u>	<u>ACTUAL</u>
OCT. 78	-	.04	JAN. 82	26.42	
NOV. 78	-	.07	FEB. 82	28.59	
DEC. 78	-	.15	MAR. 82	30.87	
JAN. 79	-	.29	APR. 82	32.6	
FEB. 79	-	.43	MAY 82	33.87	
MAR. 79	-	.60	JUN. 82	34.71	
APR. 79	-	.77	JUL. 82	35.53	
MAY 79	-	.95	AUG. 82	36.34	
JUN. 79	-	1.18	SEPT. 82	37.16	
JUL. 79	-	1.41	OCT. 82	37.86	
AUG. 79	-	1.64	NOV. 82	38.41	
SEPT. 79	-	1.86	DEC. 82	38.56	
OCT. 79	-	2.07	JAN. 83	38.78	
NOV. 79	-	2.27	FEB. 83	39.45	
DEC. 79	-	2.42	MAR. 83	41.2	
JAN. 80	-	2.57	APR. 83	43.36	
FEB. 80	-	2.73	MAY 83	45.76	
MAR. 80	-	2.86	JUN. 83	48.26	
APR. 80	-	2.99	JUL. 83	50.8	
MAY 80	-	3.12	AUG. 83	53.39	
JUN. 80	-	3.25	SEPT. 83	56.0	
JUL. 80	-	3.32	OCT. 83	58.63	
AUG. 80	-	3.51	NOV. 83	61.26	
SEPT. 80	-	3.64	DEC. 83	63.92	
OCT. 80	-	3.77	JAN. 84	66.58	
NOV. 80	-	4.52	FEB. 84	69.24	
DEC. 80	-	5.66	MAR. 84	71.91	
JAN. 81	-	7.31	APR. 84	74.57	
FEB. 81	-	9.11	MAY 84	77.22	
MAR. 81	-	10.95	JUN. 84	79.87	
APR. 81	-	12.86	JUL. 84	82.49	
MAY 81	-	14.68	AUG. 84	85.08	
JUN. 81	-	16.24	SEPT. 84	87.58	
JUL. 81	-	17.24	OCT. 84	90.03	
AUG. 81	-	17.92	NOV. 84	92.43	
SEPT. 81	-	18.45	DEC. 84	94.77	
OCT. 81	20.17	19.34	JAN. 85	97.05	
NOV. 81	22.21	20.85	FEB. 85	98.87	
DEC. 81	24.37	22.60	MAR. 85	99.44	