

ACC 316/PWU

10000/150/655
(VOL. I)

10000/150/655
(VOL. I)

VALDARNO
JAN. - AUG. 1945

Telephone 478895

HEADQUARTERS ALLIED COMMISSION
A.P.O. 394
Public Works and Utilities Sub-Commission
Electrical Division

316
Reference; -313/P/U

22 Aug 45

Subject ; -STEEL, Sections and Plate.

To ; -Soc Meridionale di Elettricità, via Paola, E, Imbriani-Naples.
Soc Romana di Elettricità, via Poli, 14-Rome.
TERNI, Soc per l'industria e l'elettricità, via Due Macelli, 66-Rome.
Unione Esercizi Elettrici, via Torino, 117-Rome.
✓ Soc Elettrica Selt Valdarno, via Carretani, 64-Florence.

1. Confirming request by telephone, please forward immediately to this office, your firm demands for steel sections and plate.
2. It cannot be guaranteed that you will be supplied with exact sizes, but nearest possible will be released to you.
3. Please treat this request with urgency.

4368
L.G. Price, Major R.E.
for Lieut Colonel
Chief Elect Division

Telephone 178305

HEADQUARTERS ALLIED COMMISSION
APO 924
Public Works and Utilities Sub-Commission
Electrical Division

Maj. Price 's
V. & U. Elect. Section

Reference: -316/PWU

30 July 45

Subject: - Magnetic sheets- Selt Valdarno.

To: - Ministero dell'Industria e della Commercio.

1. Herewith application from A.D.D.A. on behalf of Selt Valdarno, for your attention and action.
2. It is understood the magnetic sheets indicated are in stock at TAMI works.

L. G. PRICE

L.G. Price, Major R.E.
for Lieut Colonel
Chief Elect Division.

4367

Th. 12641
Ext. 2521

CW/11.

MILAN OFFICE
ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES SUB.COM.
ALLIED COMMISSION
APO 394

Ref. 110/19

26 July 1945

Memorandum

To : Chief Electrical Division, P.W.&U. - A.C. -

1) - Request that the attached orders be given urgent consideration for release of magnetic steel from Terni.

C. S. WILCOX
Major Ord.
Chief Milan Office
Elec.Div.P.W.&U. S/C.

2 Enclosures

*Demand for magnetic sheets
from ADDA via Pavia 3
HODI
on behalf of Selt Valdarno
passed to M.I.C. 30 July 45*

Tel : 478805

HEADQUARTERS ALLIED COMMISSION

Maj. Price's Office
P.W. & U. Elec. Section

LGP/sg

APO 394

Public Works and Utilities Sub-Commission
(Electrical Division)

316/PWU

27 July 45

Subject : Steel Plates for Selt Valdarno.

To : Adv. Sec. Elec. Division
P.W. & U. S/C A.C. - Via Cerretani 6 - Florence.

1. Reference your letter dated 5 July 45 with attachment.
2. Applications for steel should now be made to Ufficio Provinciale del Commercio e Industria for onward transmission to Ministero dell'Industria e del Commercio.

L.G. PRICE

4365

L.G. PRICE, MAJOR RE,
for Lieut-Colonel,
Chief, Elec.Div.

Tel : 478805

HEADQUARTERS ALLIED COMMISSION

APO 394

Public Works and Utilities Sub-Commission

Maj. Price's Office

P.W. & U. Elec. Section

LGP/ug

316/PWU.

27 July 45

Subject : Fuel and Lubricants for Electric Facilities.To : Advanced Section Electrical Division
P.W. & U. S/C A.O. Via Cerretani, 6 - Florence.

1. Reference your letter dated 23 July 45 together with endorsement and attachment.

2. Application for supplies of fuels and lubricants should be made by Selt Valdarno on Form. E.2-1 which forms can be obtained from Ufficio Provinciale del Commercio e Industria, Ufficio Carburanti, - Sezione Ingegneria, when completed the forms should be returned to the same office together with an endorsement by the competent technical official.

L.G. PRICE

4364
L.G. PRICE, MAJOR RE,
for Lieut-Colonel,
Chief, Elec.Div.

Telephone 870805

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works & Utilities Sub Commission
Electrical Division

Major Price's Office
P.W. & U. Elect. Section
ICF/ba
3 June 45

Reference: 316/111U

Subject : Rail Transportation

To : SOCIETA ELETTRICA SALT VALDARNO
Via de Ceretani 6 - Florence

1. Rail transportation for 20 Tons Cement Guidonia - Roma Montero has been arranged for week 11 - 17 June 45.
2. Your rail bid reference number is 11699.

L. G. F4362

L.G. PRICE, MAJOR HE
for Lieut Colonel
Chief, Electr. Division

Telephone 478805

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works & Utilities Sub Commission
Electrical Division

Office P/W. & Util. Section
10 May 1945

Reference: 316/PWU

Subject : Cement

To : CEMENTERIA DI GUIDONIA
Via S. Basilio, 19
Rome

1. Reference release order No. AC 2846 dated 23 April 1945.
2. Please release to Societa Elettrica Salt-Valdarno -Firenze
20 Tons Cement.
3. A representative of above named will call at your office and arrange financial details. You are authorized to use bags from A.C. stocks.
4. Rail transportation Guidonia- Nera Montoro (Terni) will be arranged by this Division for period 23-27 May 1945.

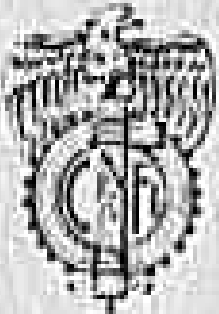
L. G. PRICE

L.G. PRICE, MAJOR RE
for Lieut Colonel
Chief, Electr. Division

4357

Società Elettrica Selt-Valdarno

ANONIMA SEDE IN FIRENZE - CAP. SOCIALE L.500.000.000 INT. VERSATO
VIA DE' CERRETANI, N° 6



DIREZIONE GENERALE

UFFICIO
APPROVVIGIONAMENTO

da citarsi nella risposta

OGGETTO

ASSEGNAZIONE CINGHIE CUOIO
PER CENTRALE DI POLVERIZZAZIONE
C.le A.LODOLO - LIVORNO -

A/ 0817

Firenze (9)
CASELLA POSTALE 463

30/4/1945

MINISTERO INDUSTRIA

COMMERCIO E LAVORO

R O M A

alla cortese attenzione del Sig. Avv. Rossetti

Vi preghiamo volerci assegnare le seguenti cinghie di cuoio occorrenti per rimettere in servizio la Centrale di polverizzazione della ns. Centrale Termoelettrica "A.Lodolo" di Livorno:

- n° 2 cinghie cuoio per compressori lunghezza mt. 10 larghezza mm/280+300 spessore mm. 10+12
- n° 6 cinghie per mulini lunghezza mt. 5 larghezza mm.80; spessore 5+6
- n° 2 cinghie per aspiratori aria calda lunghezza mt.7; larghezza mm.140 spessore mm.7 + 8
- n° 2 cinghie per trasportatori polverizzatori lunghezza mt.8 larghezza mm.120 spessore mm. 7 + 8
- n° 2 cinghie motrici elevatori e nastri trasportatori; lunghezza mt. 12 larghezza mm. 120 spessore mm. 7 + 8
- n° 2 cinghie per elevatori carbone lunghezza mt. 13; larghezza mm.120 spessore 7 + 8
- n° 2 cinghie cuoio per nastri trasportatori in gomma lunghezza mt.11 larghezza mm.100 spessore 6 + 7
- n° 1 cinghia motrice per concasseur e trasportatore a placche lunghezza mt. 13 larghezza mm.180 spessore mm. 7 + 8
- n° 1 cinghia per concasseur lunghezza mt. 14 larghezza mm.180 spessore 7 + 8
- n° 1 cinghia per trasportatore a placche lunghezza mt.10 larghezza mm. 100 spessore 6 + 7

Indirizzo Telegrafico VALDARNO

23-255
23-256
23-257
23-258
23-259

TELEFONI:

FIRENZE 10648
GENOVA 2257
ARLICO 1154
PERUGIA 67919
TERRACINA 6724
PISTOIA 10002
RISA 13403
LIVORNO 22823

SOCIETÀ ELETTRICA SELT-VALDARNO

N. 2

Segue lettera del 30/4/1945

Il suddetto materiale è della massima urgenza essendo assolutamente necessario per poter rimettere in funzione la ns. Centrale suddetta. Sicuri che, data l'importanza che riveste la cosa nel momento attuale, non mancherete di benevolmente accogliere ed evadere con urgenza questa nostra pratica, Vi ringraziamo anticipatamente.

Restiamo in attesa di cortesi urgenti comunicazioni al riguardo.

Con ogni osservanza.

cb/aa

✓
SOCIETÀ ELETTRICA SELT-VALDARNO
Duo Direttori*Teusby*

436

Società Elettrica dell'Elba - Firenze

Domanda 22-3-1945 per:

9^{litri} 3000 olio per motori diesel

" 300 olio per avviamento motori

(fabbisogno Luglio - Dicembre 1945)

Presentato al G. M. Price il 30/3 -

Società Forze Idrauliche Appennino C^{te}

Domanda 12/4 per Kg. 6000 olio
per trasformatori -

Presentato il 3 aprile all'ufficio
del G. M. Price -

Telefonare
Aut. Pinella

4358

W. K. Goldhamer
TRANSLATION

By : C. Tatti/ct

LEATHER BELTS REQUIRED FOR " A. LODOLO " POWER PLANT AT LEGHORN

Quantity	Destination of the belt	Width mm	Thickness mm	Length m
<u>Pulverization plant</u>				
2	Compressors	280-300	10+12	10
6	Mills	80	5-6	5
2	Hot air exhaustors	140	7-8	7
2	Pulverizators conveyors	120	7-8	8
2	Elevators and conveyors	120	7-8	12
2	Coal elevators	120	7-8	13
2	Rubber conveyor belts	100	6-7	11
1	"Casseur" (Crusher) and board- conveyor	180	7-8	13
1	"Casseur" (Crusher)	180	7-8	14
2	Board conveyor	100	6-7	10
<u>Mechanical workshop</u>				
1	Main transmission motor	100	6-7	11
1	Lathe transmission	100	6-7	11
1	" " driven shaft	100	6-7	9
1	Drilling machine, large	60	5	10
1	do do do	60	5	4
1	Iron saw	6	5	5
1	Lathe	60	5	6
1	Wood band saw	60	5	5
1	Drilling machine, small	50	5	10
1	Iron saw transmission	50	5	9
1	Drilling machine, small, transmission	5	-	5
1	Emery grinding wheel	40	5	5
1	Emery grinding wheel transmission	40	5	5

4353

HEADQUARTERS ALLIED COMMISSION
INTER OFFICE MEMO

PMV/ms

20 April 1945

The attached request for materials has been handled as follows:

Coal slags: Are to be obtained from Carbon Company at Rarni Scalo by Ing. Toloni of Valdarno.

Cement type 680 and 500: request for release has been made by Major Price's office. To speed up the work, Capt. Vannoy has arranged for Terni Co. to lend Valdarno this cement from stocks at Spoleto and Villa Valle which have already been released to Terni.

Wood: Arranged by Valdarno.

Steel Pieces for dam gates: Capt. Vannoy has arranged with No. 80 E.B.W. to permit the Terni Steel to make these pieces.

Order has been written, accepted by Terni Steel and approved by No. 80 E.B.W.

Linseed Oil: This item has not yet been located but Capt. Vannoy will ^{try} to obtain it.

Transportation: Sgt. Guthrie of No. 1 District is attempting to obtain truck transportation for the carbon slags and cement.

When the release for the cement is prepared, Capt. Vannoy should be notified so that financial arrangements can be made by Valdarno with actual physical delivery to Terni Electric.

P.M. Vannoy
P.M. VANNYOY
Capt. C.E.

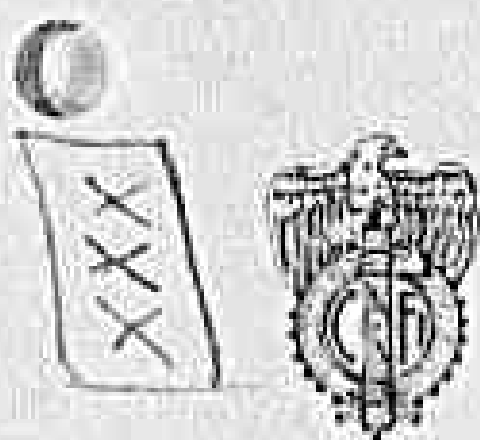
Distribution:

Col. Lapper
Col. Renton
Maj. Barry
Maj. Price - *attachment*
W.O. Weaver
Capt. Vannoy
Prof. Asta.

4357

Società Elettrica Selt-Valdarno

ANONIMA SEDE IN FIRENZE - CAP. SOCIALE L. 500.000.000 INT. VERSATO
VIA DE' CERRETANI N° 6



Firenze Nera Montoro 6 Aprile 1955
CASSELLA POSTALE 463

DIREZIONE GENERALE

Centrale Elettrica di

NERA MONTORO

da citarsi nella risposta

OGGETTO

Fabbisogno di materiale per la manutenzione dell'impianto
Idroelettrico di Nera Montoro.

1°) Per la tenuta della paratoia di scarico della diga di Recentino.

- Mc 5, = (7 Tonn circa) scorie di carbone. (Mancanti)
- Tonn 0,5 stracci juta di rifiuto (Per circa la metà esistenti)
- N° 20 murali di legno di pino o abete di cm 10x10x300 (esistenti)
- N° 10 murali di legno di pino o abete di cm 12x 10x 300. (esistenti)
- N° 5 murali di legno di pino o di abete di cm 11x18x300 (manca legname)

2°) Per la tenuta delle paratoie di scarico della diga di Stifone.

- N° 8 pezzi di lamierino di tenuta lunghi m 2,00 ciascuno
- Kg 10 di olio di lino o altro diluente per vernice antiruggine
(La vernice esiste nel ns magazzino)

(Allegato N° I disegno per la costruzione dei lamierini)

Tonn 4. cemento tipo 500 per la ricostruzione di un tratto di muro di spalla franato a valle della diga in sponda sinistra.

3°) Manutenzione delle opere di scarico nel Nera dei sifoni sfioratori Gregotti.

Tonn 6 cemento tipo 500, = per la saldatura di una frana nel muro di protezione dello sbocco galleria, e per la saldatura di alcune falle nella platea di protezione in sponda destra.

4°) Costruzione di un arco di protezione dello scavo eseguito per i lavori del sifone di scarico futuro 6° gruppo, e vari piccoli rinforzi alle fondazioni della Centrale in corrispondenza del suddetto scavo.

Tonn 20 cemento possibilmente a 620. (Tali opere sono necessarie per la sicurezza del fabbricato della centrale in corrispondenza dell'attuale 4° Gruppo che e' in funzione.)

Società Elettrica Selt-Valdarno
Azienda di Nera Montoro
IL DIRETTORE

Valdarno

Indirizzo Telegrafico VALDARNO

TELEFONI:
FIRENZE 10660
SIENA 3382
AREZZO 1154
PIACENZA 1090
TERRELLI 6734
PISTA 10002
LIVORNO 22023

TELEFONI:

FIRENZE 10660
SIENA 3382
AREZZO 1154
PIACENZA 1090
TERRELLI 6734
PISTA 10002
LIVORNO 22023

COMM. AVV. G. PISTELLI

VIA GUILLERMO SALICRÚ, 5
TEL. 802-025

ROMA

SOCIETÀ ELETTRICA SELT-VALDARNO

N. 2

Segue lettera del 6/4/1945

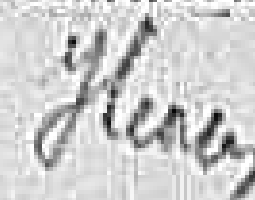
Vi alleghiamo inoltre un elenco degli autoveicoli di ns. proprietà con a fianco segnato il fabbisogno dettagliato per ciascuno autoveicolo.

Con ossequio.

by
n° 1 allegato

Ing. Fr/aa

SOCIETÀ ELETTRICA SELT-VALDARNO
Un Direttore Un Procuratore



N.B. Nei riguardi delle sezioni di gomme alleate abbiamo indicato soltanto quelle di cui noi conosciamo l'esistenza.

4352

Marca e tipo	Targa	Sezione delle gomme italiane	Sezioni adattabili delle gomme alleate	Fabbrico	
				Pneumatici	Camere d'aria
A u t o v e t t u r e					
LANCIA ARTENA	26320 FI	450 x 14		5	5
LANCIA APRILIA	24439 FI	400 x 16,5		2	2
FIAT 1500	6639 LW	550 x 15	600 x 16	4	4
FIAT 1100	26209 FI	500 x 15	600 x 16	4	4
1100	24530 FI	500 x 15	600 x 16	5	5
508	7101 VR	425 x 17		5	5
508	4229 PI	425 x 17		2	2
1500	6189 LI	550 x 15	600 x 16	5	5
508	6314 LW	425 x 17		3	3
508	7145 SI	425 x 17		4	4
508	16676 FI	500 x 16		5	5
A u t o c a r r i					
FIAT 634	26583 FI	42 x 9	1100 x 24	7	7
Rimorchio	305 FI	42 x 9	1100 x 24	9	9
D O D G E	27726 FI	30 x 5		2	2
505	8193 LI	30 x 5		5	5
614	15149 FI	32 x 6		2	2
505	446 FI	30 x 5		3	3
618	8240 LI	600 x 18		6	6
508	4233 LI	425 x 17		5	5
614	4255 LW	30 x 5		4	4

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FIAT	1500	6639	LU	550 x 15	600 x 16	4	4
FIAT	1100	26209	FI	500 x 15	600 x 16	4	4
	1100	24530	FI	500 x 15	600 x 16	5	5
	508	7101	VR	425 x 17		5	5
	508	4229	PI	425 x 17		2	2
	1500	6189	LI	550 x 15	600 x 16	5	5
	508	6314	LU	425 x 17		3	3
	508	7145	SI	425 x 17		4	4
	508	16676	FI	500 x 16		5	5
Autocarr i							
FIAT	634	26583	FI	42 x 9	1100 x 24	7	7
Rimorcinio		305	FI	42 x 9	1100 x 24	9	9
D O D G E		27726	FI	30 x 5		2	2
	505	8193	LI	30 x 5		5	5
	614	15149	FI	32 x 6		2	2
	505	446	FI	30 x 5		3	3
	618	8240	LI	600 x 18		6	6
	508	4233	LI	425 x 17		5	5
	614	4255	LU	30 x 5		4	4
	501	5182	PT	425 x 17		3	3
	508	5725	AR	425 x 17		5	5
FORD		5724	AR	450 x 14		3	3
FIAT	508	7604	SI	425 x 17		5	5
	514	18289	FI	550 x 18		2	2
	503	2200	FI	740 x 14		5	5
						110	110

4353

716 0
SOCIETÀ ELETTRICA SELT-VALDARNO

ANONIMA CAPITALE L. 500.000.000 INT. VERS.

SEDE IN FIRENZE

DIREZIONE GENERALE

Florence. Feb. 27th 1945

To/ HEADQUARTERS ALLIED COMMISSION
A.P.O. 394
PUBLIC WORKS & UTILITIES SUBCOMMISSION
ELECTRICAL DIVISION

Referring to your letter of February 21st, we
thank you for providing tires for our transports and
reconstruction programme.

We have entrusted our lawyer Sig. Giuseppe PISTELLI,
with carrying through the necessary procedure and asked
him to fulfil the necessary payment, according to your
instructions. With best regards

your's sincerely

SOCIETÀ ELETTRICA SELT-VALDARNO
Un Direttore Un Procuratore

[Signature]

[Signature]

h/

4352

URGENT ELECTRICAL

HEADQUARTERS ALLIED COMMISSION
APO 394
COMMERCE SUB-COMMISSION

Form AC-MAT No. 10

Date 8/3/45

G-1129 /aie

1. DEMAND FOR CONTROLLED MATERIALS.
2. AMG/AC FORMATION PUBLIC WORKS & UTILITIES SUB COMMISSION ELECTR. DIV.
3. COMMODITY DEMANDED Stranded Iron Wire
(Give particulars of specification on back of Form)
4. QUANTITY REQUIRED: (In metric tons or other suitable unit)
a) Single lot demand: 2.118 Tons
b) Next Month //
c) Second Month //
d) Third Month see over
5. JUSTIFICATION: (Detail this information on back of Form) Societa Siderurgica Commercial
6. SOURCES OF SUPPLY (If Known). Give particulars: Via Cavour 31 Florence
 - a) Has Material been located?
 - b) If locally - Where?
 - c) If anywhere in Liberated Italy (Including Sicily and Sardinia) - Where?
 - d) If blocked, give names of establishment and Military Unit concerned, quantities available, etc.: A.F.L.R.S. R.A.S.C.

7. ADDRESS FOR DELIVERY:

Consignee: SALT VALPANO ELECTRICAL CO.Address: FLORENCE

8. It is certified that these supplies and stores are required for (URGENT);
(NORMAL), (STOCK PILING) purposes. (Strike out the words not applicable).

48557

a) Single lot demand: 2.118 Tonsb) Next Month //c) Second Month //d) Third Month //5. JUSTIFICATION: (Detail this information on back of Form) see over6. SOURCES OF SUPPLY (If Known). Give particulars: Societa Siderurgica Commerciali
Via Cavour 31
Florence

a) Has Material been located?

b) If locally - Where?

c) If anywhere in Liberated Italy (Including Sicily and Sardinia) - Where?

d) If blocked, give names of establishment and Military Unit concerned, quantities available, etc.:

A.F.L.R.S. R.A.S.C.

7. ADDRESS FOR DELIVERY:

Consignee: SIST VALERIO ELECTRICAL COAddress: FLORENCE

8. It is certified that these supplies and stores are required for (URGENT), (NORMAL), (STOCK PILING) purposes. (Strike out the words not applicable).

Date

Signature

(Rank, Title, Office)

9. REGIONAL APPROVAL

Title

Date

FOR USE OF LOCAL RESOURCES SECTION (Commerce Sub-Commission)

AFRLR(I)B Release Order No: 2550Our Release Order No: 2550

Date

Date

REMARKS:

G-112.9

JPMINIGALSHDI JUSTIFICATION : URGENTLY REQUIRED ON THE REHABILITATION
of electrical plants Florence and Leghorn

Kgs.		Diameter
431	annealed iron wire	7/10
124	" "	3/10
187	" "	9/10
49	" "	14/10
73	" "	15/10
406	" "	16/10
472	galvanised	20/10
208	" "	39/10
168	annealed galvanised iron wire	8/10

Urgent Electrical

HEADQUARTERS, 412ED-COMMISSION
APO 394
COMMERCE SUBCOMMISSION

Notes

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1. DEMAND FOR CONTROLLED MATERIALS.
2. AMG/AC FORMATION Public Works & Utilities Sub-Commission Elect Division
3. COMMODITY DEMANDED Standard Snow Wine
(Give particulars of specification on back of Form)
4. QUANTITY REQUIRED: (In metric tons or other suitable unit)
 - a) Single lot demand: 2,118 Tons
 - b) Next Month _____
 - c) Second Month _____
 - d) Third Month _____
5. JUSTIFICATION: (Detail this information on back of Form) See over
6. SOURCES OF SUPPLY (if known). Give particulars:
 - a) Has Material been located? Sei. Sidungia Commune
 - b) If locally - Where? Via Cavour 31 Florence
 - c) If anywhere in Liberated Italy (including Sicily & Sardinia) - Where?
 - d) If blocked, Give names of establishment and Military Unit concerned, quantities available, etc.: AFLR. RAAC

Consignment: Sgt Valdemar Electrical

Address: _____ Co

Harner

8. It is certified that these supplies and stores are required for (URGENT), (NORMAL), (STOCK PILING) purposes. (Strike out words not applicable).

3. QUANTITY DEMANDED Standard 3mm Dia.
(Give particulars of specification on back of form)

4. QUANTITY REQUIRED: (In metric tons or other suitable unit)

- a) Single lot demand: 2,118 Tons
- b) Next Month _____
- c) Second Month _____
- d) Third Month _____

5. JUSTIFICATION: (Detail this information on back of form) see over

6. SOURCES OF SUPPLY (if known). Give particulars:

- a) Has Material been located? Societa Sidunurgica Commerciale
- b) If locally - Where? Via Carrara 31 Florence
- c) If anywhere in Liberated Italy (including Sicily & Sardinia) - Where?

- d) If blocked, give names of establishment and Military Unit concerned, quantities available, etc.: AFLRB. RAC

7. ADDRESS FOR DELIVERY:

Consignee: Sell Valdarno Electrical
Address: Co. Florence

8. It is certified that these supplies and stores are required for (URGENT), (NORMAL), (STOCK PILING) purposes. (Strike out words not applicable).

Date: _____ Signature 4350
(Rank, Title, Office).

9. REGIONAL APPROVAL _____ Title _____ Date _____

FOR USE OF LOCAL RESOURCES SECTION (Commerce Subcommittee)

AFIR(I)E Release Order No: _____ Our Release Order No: _____

Date _____ Date _____

REMARKS:

Justification:- Urgently required on the rehabilitation
of electrical plants Admence and Leghorn.

Kgs	annealed	iron	wire	diameter
124	"	"	"	8/10
187	"	"	"	9/10
49	"	"	"	14/10
73	"	"	"	15/10
406	"	"	"	16/10
472	galvanised	iron	wire	20/10
208	"	"	"	39/10
168	annealed	galvanised iron	wire	8/10

316
ADVANCED SECTION
ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES SUB-COMM.
ALLIED COMMISSION

FILE

Florence, 6 Via Cerretani
Telephone n° 1153
2nd March 1945

Ref.: S/3 AC/ab

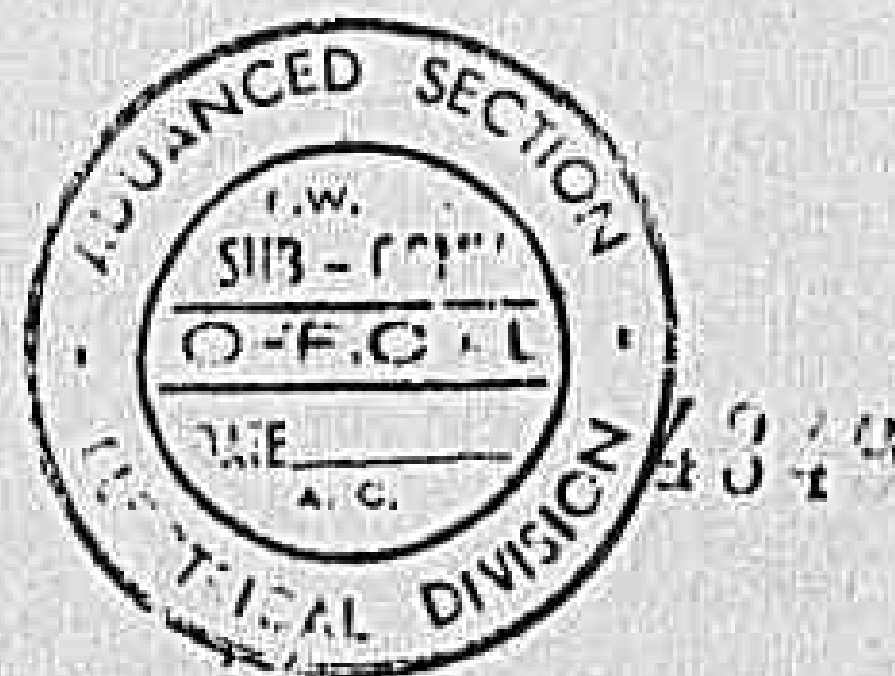
SUBJECT: Supplies for Valdarno Co.

TO : Electrical Division P.W. & U. SC
Allied Commission A.P.O. 394
(Attention Major Price)

1. Enclosed herewith copy of list of insulators urgently required by Selt-Valdarno Co.
2. Have you any other supply than Richard-Ginori?
3. Richard-Ginori have not these specified insulators stock.
4. Should you require the production of these by Richard-Ginori, coal and oil will be required to activate the factory.
5. Your remarks and advice, please.

Alfonso Major.
P.W. & U. SC, KC, El.Div.

1 enclosure.



PORCELLANE OCCORRENTI AL RIPRISTINO DI INTERRUTTORI, SEZIONATORI, TESTE

N°	30	porcellane	colore	bruno	per	parti	inferiori	d'interr.	da	esterno	S.M.	tipo
"	30	"	"	"	"	"	superiori	"	"	"	"	"
"	30	"	"	"	"	"	inferiori	"	"	"	"	"
"	30	"	"	"	"	"	superiori	"	"	"	"	"
"	50	"	"	"	"	"	inferiori	"	"	"	"	"
"	50	"	"	"	"	"	superiori	"	"	"	"	"
"	20	"	"	"	"	"	inferiori	"	"	"	"	"
"	20	"	"	"	"	"	superiori	"	"	"	"	"
"	8	"	"	"	"	"	trasformatori da 20,000 KVA del tipo Brown Bo					
"	8	"	"	"	"	"	"	"	"	"	"	"
"	400	isolatori a colonnino color bruno per sezionatori da esterno a 30-60-120 K										
"	30	passanti color bianco per teste di cavo unipolari a 30 KV. da esterno (tes										
"	30	"	"	"	"	"	"	"	"	"	30 KV.	interno ("
"	30	"	"	"	"	"	"	"	"	"	15 KV.	esterno "
"	30	"	"	"	"	"	"	"	"	"	15 KV.	interno "
"	20	passamuro color bruno per 60 KV. (tipo esterno)										
"	20	"	"	"	"	"	60 KV.	"	interno			
"	20	"	"	"	"	"	40 KV.	"	esterno			
"	20	"	"	"	"	"	40 KV.	"	interno			
"	600	isolatori a colonnino per esterno a 15 KV.										
"	20	isolatori color bruno per riduttori di corrente a 60 KV da esterno										
"	6	"	passanti da trasformatore a 121 KV color bruno da esterno									
"	9	"	"	"	"	"	"	30 KV	"	"	"	"

=====

C o p y

OCCORRENTI AL RIPRISTINO DI INTERRUTTORI, SEZIONATORI, TESTE DI CAVO, PASSANTI, ecc.

colore bruno per parti inferiori d'interr. da esterno S.M. tipo PO. 151	tens. eserc.	165 KV.
" " " superiori " " " " " PO. 151	" "	165 KV?
" " " inferiori " " " " " PO. 141	" "	140 KV.
" " " superiori " " " " " PO. 141	" "	140 KV.
" " " inferiori " " " " " PO. 41	" "	40 KV.
" " " superiori " " " " " PO. 41	" "	40 KV.
" " " inferiori " " " " " PO. 76	" "	70 KV.
" " " superiori " " " " " PO. 76	" "	70 KV.
" " " inferiori " " " " " PO. 76	" "	120 KV.
" " " superiori " " " " " PO. 76	" "	35 KV.
" " " trasformatori da 20,000 KVA del tipo Brown Boveri	" "	
" " " " 20,000 KVA " " " "	" "	

a colonnino color bruno per sezionatori da esterno a 30-60-120 KV.

color bianco per teste di cavo unipolari a 30 KV. da esterno (teste Pirelli)

" " " " " " " 30 KV. " interno (" ")
" " " " " " " 15 KV. " esterno " "
" " " " " " " 15 KV. " interno " "

color bruno per 60 KV. (tipo esterno)

" " " 60 KV. " interno
" " " 40 KV. " esterno
" " " 40 KV. " interno

a colonnino per esterno a 15 KV.

color bruno per riduttori di corrente a 60 KV da esterno
passanti da trasformatore a 121 KV color bruno da esterno

" " " 30 KV " " " "

=====

ADVANCED SECTION
ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES SUB COMMISSION
ALLIED COMMISSION

COPY

Florence 6 Via Cerretani
Telephone 1153

28 Feb. 45

Ref. V/O AC/ab

Subject : Electrical Division
P.W. U. S/C
Atg. Maj. Price

1. Enclosed herewith copy of request from Selt-Valdarno Co to Societa Siderurgica Commerciale, Via Cavour 31 Florence, for stranded iron wire.
2. The release of this wire is controlled by A.F.L.R.S. R.A.A.C. Rome.
3. This material is urgently required, Could you expedite the release, please.
4. Societa Metallurgica Corradini, Corso Vittorio Emanuele 167 Naples, are melting and redrawing 94½ quintals of scrap copper wire for Valdarno In all 200 quintals of scrap is being redrawn.
5. Societa Metallurgica Corradini will be making a request to P.B.S. Naples, for 22 tons high grade coal and 18 tons of casting coke.
6. Please render all possible assistance.

1 Enclosure

Signed A. Crowther Major

434

20/2/1945

27397/MR/Gp

Spett.

Soc. Siderurgica Commerciale

Via Cavour, 31

Filo di ferro

Firenze

Mag. Rifredi

al ns. Mag. Firenze-Rifredi

a 30 giorni data ricevimento fattura
pronta

franco Firenze

Annali

1	kg. 431	Filo di ferro nero cotto ϕ 7/10	a L.	61,10 al kg.
2	" 124	" " " 8/10	"	59,65 "
3	" 187	" " " 9/10	"	58,75 "
4	" 49	" " " 14/10	"	56,15 "
5	" 73	" " " 15/10	"	55,75 "
6	" 406	" " " 16/10	"	55,45 "
7	" 472	Filo di ferro zincato crudo ϕ 20/10	"	62,45 "
8	" 208	" " " 39/10	"	60,15 "
9	" 168	Filo di ferro zincato cotto ϕ 8/10	"	73,25 "

2.118

4348

Il suddetto materiale
risulta bloccato dal Co-
mando V° Armata "Local
Resources Officer"

SOCIETÀ ELETTRICA SELT-VALDARNO

ANONIMA CAPITALE L. 500.000.000 INT. VERS.

SEDE IN FIRENZE

L'AMMINISTRATORE DELEGATO

3/6
Florence. Feb. 26th 1945

To/Maj/E.H. RICHARDSON

Engineering Officer

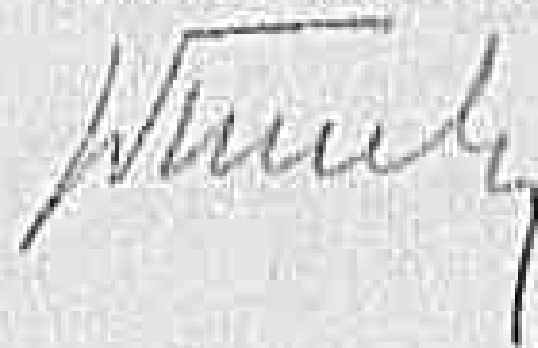
A.M.G. Florence City.FILE
until Valdarno
make up their
minds.

For carrying out the enlargement of the Nera Montoro hydraulic plants, we would require that you recommend to Rome Authorities the permission for the TERZI Firm (Rome, Via di Villa Torlonia I) for loading machinery and materials on six railway cars from Taranto to Nera Montoro. The materials should be forwarded by the ~~Mottura~~ & Zaccheo firm to Terzi in Nera Montoro for the main purpose of repairing war damages.

Your's thankfully

SOCIETÀ ELETTRICA SELT-VALDARNO

L'Amministratore Delegato



4345

Telephone 478805
LGP/be

Maj. Price's Office
P.W. & U-Elect. Section

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works & Utilities Sub Commission
Electrical Division

21/2/45

Reference 316 /PWU

Subject : TYRES AND TUBES

To : SELT- VALINOTTO ELECTRIC CO.
Via Cerretani 6
Florence

1. Reference your application for Tyres and Tubes.

2. We have to inform you that you have been allotted the following tyres and tubes:

No. 8-600x16 Tyres at 2.600 lire each	L. 20.800,-
" 3-600x16 Tubes " 300 " "	" 6.400,-
" 8-750x20 Tyres " 5.500 " "	" 44.000,-
" 8-750x20 Tubes " 900 " "	" 7.200,-
Total	L. 78.400,-

3. Your allotment can be collected in Rome and you are requested to notify this office the date on which you will collect.

4. Payment is by means of a Bank Cheque made out to "A.F.A. No. 1 ACCOUNT" which cheque will be handed to Lieut. Mann A.M.C. Hq. who will give you a receipt and a certificate to circulate with the tyres.

5. You are informed that you can obtain salvage value for your old tyres if they are handed in to Pirelli, Via Assisi-Rome.

L. G. PRICE
L.G. PRICE, MAJOR RE
for Lieut- Colonel
Chief Electr. Division

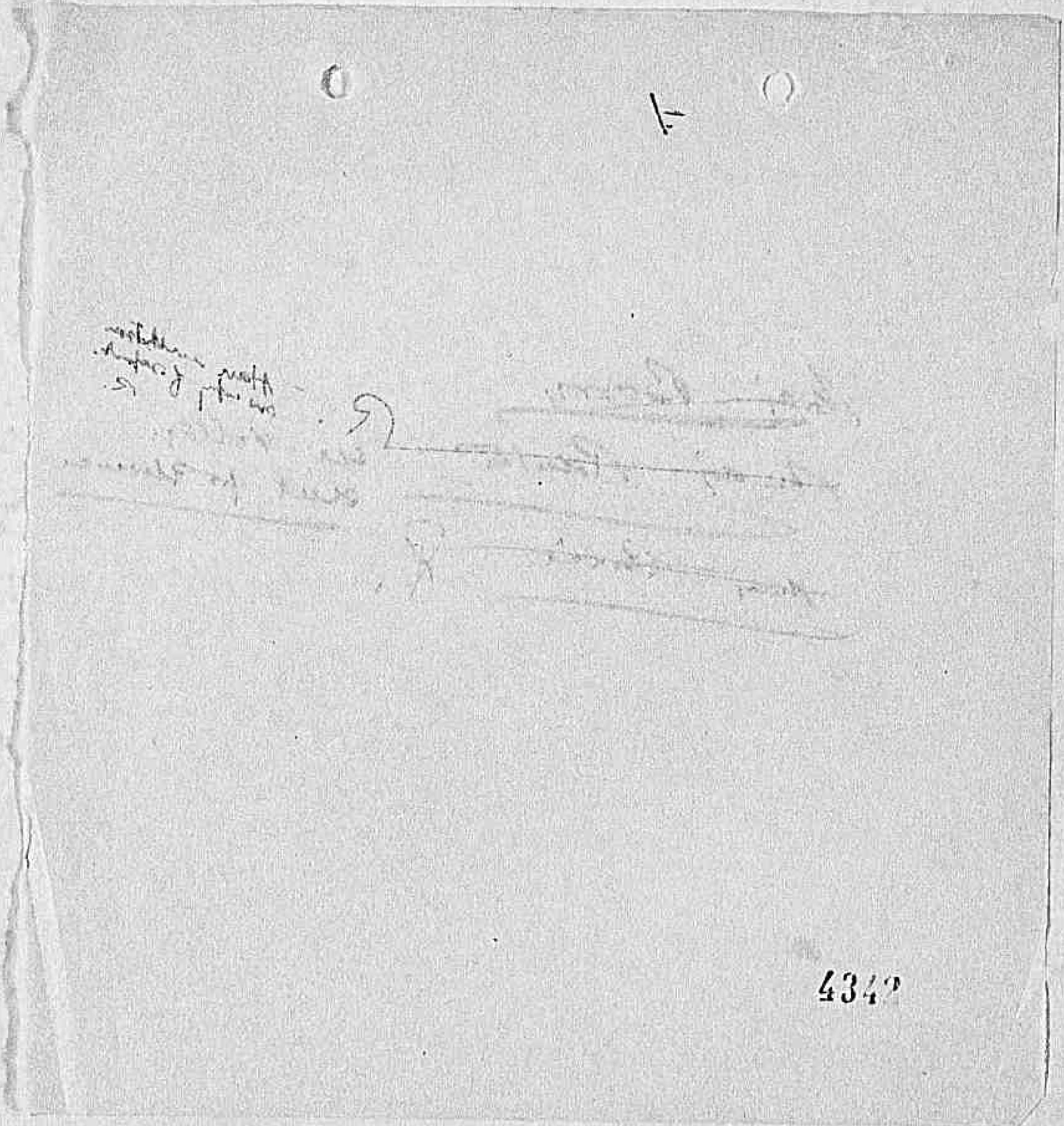
Copy to A.M.C. Hq. LAZIO MILITARY REGION
(Attn. Lieut-Mann)

4344

Valdarno

8-600x16 Tyres	at	2600	lin each	20800
8-600x16 Tubes	"	800	" "	6400
8-750x20 Tyres	"	5500	" "	44000
8-750x20 Tubes	"	900	" "	7200
Total				<u>78400</u> lin.

4343



Maj Barry

Maj Patton

Maj Price

R. - Have ^{with him} on city of report. R.
see Voltaire
Sheet for Florence

R.

RECEIVED
P.W. & U. S. C. A. C.
12 FEB 1945 158

ADVANCED SECTION
ELECTRICAL DIVISION
PUBLIC WORKS & UTILITIES SUB-COMM.
ALLIED COMMISSION

SUBJECT: Weekly Report of
Advanced Section

Florence, 6 Via Cerretani
Telephone 1153 FI
10th February 1945

TO: Hqtrs Allied Commission
Public Works and Utilities Sub-Commission
A.P.O. 394

February 3rd.

Captain Duran was away on trip Febr. 1 and 2 to Leghorn, Campo Tizzoro and Piano della Rocca. Picked up material for Larderello Co., also steel dies for turbine blades from Società Metallurgica Italiana, and delivered to Rome office of Larderello Co. on February 7th by Lt. Sbrolla. (Note, these dies should be delivered to Corodini Co. in Naples, along with specifications for required blades).

Captain Lowdon visited plant of "Galileo" Optical Co. See separate report. This Co. is comparable to the M.A.T.E.R. Co. in Rome.

Major Renton called - wants to know if it is feasible to move 12000 KVA, 120 KV transformer from Castelnuovo to Tavarnuzze. Answer - no; at present there are three 120 KV transfs under repair at Tavarnuzze, one to be ready by end of February. - Can we have Selt-Valdarno Co. enter tunnel and report on Leghorn Steam Plant eqpt? Answer - no; at present both ends of tunnel blocked and ruined. Capt. Duran working on this with M.R.S. representative.

Capt. Stephens called - we have to pick him up Monday morning in Siena.

Major Gaither called regarding Pistoia's electricity. Wants to know why this can't be served from Florence as February allotment of 10,000 KW includes Pistoia. Informed him that this was matter to be settled within the 5th Army.

Called Lt-Col. Spann (Emilia Region HQ, Riccione). Informed him of our location and telephone number, and that a representative of this Office would be in to see him within a week.

*copy of this report to
Mr. [unclear] by [unclear] [unclear]
R13/1*

4347

(2)

Forty five cycles to Florence since 10 AM. Captain Mason-Tolby reports pumps rotating but twenty four hours necessary for test.

Major Elliot (Br.) (Philpot 105), Electrical Officer, 15th AG, paid a visit. Will return early next week with Lt-Col. Page.

February 4th.

Dr. Mannozi of "Larderello Co." called. - Concerned over possible labour difficulty. - Called Col. Cooley and Major Renton. Journey to Larderello. Conference with Director Virgili - Thinks it prudent to station two soldier guards at Castelnuovo and two at Larderello. I agree if soldiers are available. Trouble is not serious and workmen are willing to continue rehabilitation program.

February 5th.

Virgili to Rome for approximately one week. Asked him to confer with Col. Lapper. Dr. Mannozi to return to Florence with me. Ing. Mussi left in charge.

Capt. Duran travel Rome to Larderello. Saw only ^{Cap. Bertini at Antak Machine base} in; turbine reported to be going well; generator almost finished, needing only 10 kg. of varnished combric tape to be completed in due time; forms and reinforcement are in place ready for concrete to mend canal between machine and cooling tower.

^{Cpl} ~~Capt.~~ Moffat has one transformer ready for service; has completed second and just begun to filter oil; and work on a third is starting. Larderello Co. has asked him to filter oil on an auxiliary transformer for the pumps which he says he can do if 300 additional filter papers (small) are made available. Please, have Major Price handle as soon as possible.

Capt. Lowdon to Siena to collect Capt. Stephens. Inspected Siena sub-station. Booster transformer to be connected within 5 days which will improve the very low voltage in Siena.

February 6th

Met Capt. Stephens and assigned him to 8th Army Area. He is to leave tomorrow for Riccione to meet Lt-Col. Spann and return Friday evening.

Called Lt-Col. Cooley. If P.B.S. is to furnish guards at Larderello, put formal request through channels. Do not recommend this at present. Col. Babcock, Labour Sub-Commission, to make inquiry at Larderello - to contact this office first.

(3)

Capt. Mason-Tolby called - He wants more time to reach proper conclusion regarding 45 cycles on pumps. Referred me to Major Tew, R.E.M.E., Staff Officer for Florence Allied Area Command, in charge of army use of local mechanical facilities. There is no objection from 77 C.R.E. or F.A.A.C. if we control Pignone Iron Foundrie, Galileo Plant, etc.

Called Major Rivet, I District Electrical Officer. The only project that he is sponsoring in this area is the 120 KV transmission line (F.S.S.) from Ponte Cino (north of Arezzo) to Riccione. This project will take approximately six months to complete, and he recommends that A.C. take it over. I recommend that A.F.H.Q. be consulted regarding this. He is not entirely satisfied with present relations between Selt-Valdarno, Terni, and U.N.E.S. Companies. This Office is open to suggestions for improvement of this.

Capt. Lowdon visited Selt-Valdarno Co. stores (see separate report). Releases by G.4, 5th Army are depleting their stores fast. This should be curtailed, if possible. Capt. Lowdon to discuss this with 5th Army.

Capt. Duran - Larderello to Leghorn. In Col. Cooley's office called Maj. Bell and passed to Col. Cooley Valdarno's reason for moving unit to Sperando. Claim is that there are 2 units possible to repair at Galliciano, also a spare alternator which will fit a good turbine at Sperando. It is this spare alternator which they wish to move to Sperando and repair.

Col. Cooley gave me verbal story on Sperando - Copy is filed in our office. Also picked up report on Sestaione.

Met Ing. Mocenni of Valdarno Co. in Col. Cooley's office and learned that truck for which arrangements were made on 29th Jan. was still not available. Remained overnight in Leghorn to see Capt. Beatty about this, and learned that Major Saven, Leghorn C.A.O., had denied request. Called on Col. Hensley, new Prov. Commissioner, and was informed that no provincial transport could be made available to Valdarno.

February 7th

Major Crewther ill.

Selt-Valdarno Co. has 15000 kg of scrap copper in warehouse. They have made application to Industry & Commerce S C for permission to transport to Naples for re-drawing. I recommend approval of this.

(4)

Eng. Salmi of F.S.S. was in to report that 120 KV line Rifredi-Tavarnuzze will be ready Saturday. Left diagram of F.S.S. facilities in Florence District.

Capt. Lowdon to conference with Capt. Mason-Tolby, 77C.R.E., 1 Via de'Pucci, where all aspects of the electrical situation in Florence were discussed. He is concerned about the 45 cycles frequency, but requires more data before making an exact statement. The question of who controlled Selt-Valdarno stores arose as he had sent an order for 1000 metres of wire direct to the Co. As the stores are controlled by G.4 5th Army, he had to indent through the usual channels.

Capt. Duran went to E 2 L 76 Eng. Supply Depot to try to find varnished combric tape, 10 kg of which is essential completion of Larderello unit. Last roll has been issued to 543 E & M Co. on the previous day, but found two rolls of 50 yd ea of 36" varnished combric cloth. Prepared requisition, secured approval of Col. Cooley, and returned to Florence with material, approx 20 kg or 44 lb. Requisition and tally-out will be forwarded to Maj. Price for further handling.

Called on Maj. T.C. Marmon, Fwd Ech. 1st Trucking Bn AC with companies at Florence, Lucca, Leghorn and Navacchio in effort to get truck for Valdarno at Leghorn Steam Plant. Was advised that 5th Army A.M.G. had first call on all trucks, mainly for hauling food and it would be necessary to arrange through Col. Carnes, Tsptn Sub-Comm. Telephoned into Maj. Renton who will try to handle in Rome and advise.

February 8th

Major Crowther and Capt. Lowdon ill.

Major Renton called - Desires complete information on static condensers being installed in Florence.

Major Gaither called - Desires information on source of supplies for A.M.G. 5th Army. G.4 5th Army says they are not. Suggested to Gaither that he request answer by letter from 5th Army A.M.G. to A.F.H.Q.

Capt. Duran in Florence office. Major Renton requested information re certain transmission lines. Status reported by Ing. Legnaioli follows:

TAVARNUZZE - SAN ROMANO	120 KV	Due 20 Feb 43
TAVARNUZZE - PRATO	120 KV	Due 28 Feb.
SAN ROMANO - PIANO DELLA R	120 KV	Completed

(5)

SAN ROMANO - PONTEDERA	38 KV	Destroyed
PONTEDERA - LIVORNO	38 KV	} under repair, but compl. date unknown
PONTEDERA - PESCIA	38 KV	

Also under repair - probable completion date 31st March - is 30 KV line TAVARNUZZE - EMPOLI. Heavy destruction on this line between Empoli and San Romano.

Maj. Renton requests 4 - 12 V batteries brought to Rome by Maj. Bell on promise of later delivery of releases to cover.

Eng. Legnaioli received phonogram from Capo Eng. Doveri at Leghorn Steam that Col. Cooley had requisitioned 1 - 70 HP and 1 - 12.5 HP motor from pulverizing and fuel-feed plant of Centrale.

February 9th.

Major Crowther ill.

Conference with Capt. Duran. Reports now on hand from Sestaione, Gallicano, Sperando and Santa Maria are to be checked with Capt. Mc Collum and inspection of these plants begun early next week. Ing. Benetti of Selt-Valdarno has not returned as yet from Gallicano. Trip to tunnel with M.R.S. representative arranged.

Called Col. Cooley. He is about finished with Ragioniere Rositini. I agreed to hire him for this office. He speaks English well, owns a motorcycle, knows Florence well, formerly worked for the Larderello Co. He will be an asset at handling local errands.

Major Rosson called - Arranged meeting in this office 9.2;M; Monday for Major Rosson and representative of Pistoia Electr. Co.

Called Major Renton - requested conference Monday morning in Rome between Col. Lapper, Major Barry, Major Renton, Major Vallero and myself.

Capt. Lowdon to Major Tew R.E.M.E. D.A.D.M.E. Florence Command who is not concerned with rehabilitation of stations or lines, as they have their own small plants. In this district they have only one mobile machine shop and would not be able to help with repairs. Might be able to help with heavy transport. Have only "let out" four small contracts in this area, and do not anticipate having any more.

4337

(6)

Capt. Mason-Tolby is out of town but I should get the desired information to-morrow. Tried to get the report on Gallicano station from Eng. Benetti, but he has not returned from his field trip. Enquired from Ing. Legnaioli about three 120 KVA transformers at Tavarnuzze, but he is in Leghorn and will not be back to-night.

Robert A. Bell
Robert A. Bell
Major; SC U.S.A.
Officer in charge

Col. LAPPER

TRANSLATION

REPORT ON PRESENT CONDITIONS OF MACHINERY AND BUILDINGS OF
THERMO-GENERATING PLANT "A. LODOLO" IN LEGHORN OF
"SELT-VALDARNO" COY.RECEIVED
P.W. & U.S./C.A.C.
12 FEB 1945 1581) - PULVERIZING PLANT

Leather transmission belts are totally missing: slight damage on building and on some of the tubes of one of the mills: for the remainder, general condition is normal, but prudence is needed before starting this department, on account of danger from hidden mines.

2) - SEA-WATER SUPPLY

Pipes entrance in dock are obstructed on account of the docks having been destroyed; the vans and gates are safe. All the canal from the dock to the plant is safe. Discharge canal to the sea is also safe.

3) - INDUSTRIAL WATER

Water reservoirs and filters are intact. Pipes for transformers, turbines and converting units are almost intact. In pumping station, only two pumps are left, which are insufficient for operation. The following pumps have been taken away:

- n.3 "Marelli" 20 HP electric pumps (which appear to be at Leghorn Municipal Aqueduct);
- n.1 "Marelli" 2 HP electric pumps
- n.1 "Marelli" 5 HP " "

Besides, one electric motor, taken from a pump, is also missing.

4) - DIESEL

The Diesel motor, coupled to a 260 Volt 150 KW generator for starting of Plant, is completely destroyed: the generator is seriously damaged.

5) - AUXILIARY SUBSTATION

Three 500 KVA 5000/260 Volt transformers are half-destroyed. High tension and low tension equipment are badly damaged, but can be repaired.

6) - WORKSHOP

N.1 lathe, n.1 saw, n.2 drills, n.2 grinders and transmissions, n.2 motors, all is safe, only leather belts are missing.

4335

(2)

7) - BATTERY AND CHARGING UNITS

No damage; they are in operation.

8) - BOILERS DEPARTMENTIn good condition:

steam pipes
 five feeding pumps
 two ungreasing tanks
 four economisers
 four primary air aspirators
 two evaporators and condensers
 four cylinders and valves
 four chimneys and ventilators
 four..... and four bunkers with their coal distributors
 four combustion rooms, except suspended vaults and fore
 walls some of which are damaged.

All four boilers have been mined in the inferior zone of the boiling tubes, in front.

Overheaters and boiling tubes in the upper parts seem to be intact, but further investigation is needed.

Screens and their collectors for boilers 1, 2 and 4 are safe, whereas Breda screen tubes of boiler 3, between cylinder and collector, on the left side, are damaged from outside.

Half-destroyed:

almost all the foot-bridges
 pulverized coal pipes
 coal burners
 part of primary air pipes
 insulated planking for four front walls of boilers.

9) - CRANES : 25 TONS IN ENGINE DEPARTMENT - 50 TONS IN TRANSFORMERS DEPARTMENT.

No damage, they are in operation.

10) - S.T.A.L. UNITS

Turbine n.2 was shipped at A.N.I.C. factory on 14 railway trucks to be forwarded to Trieste - Miniere dell'Arsa: 4 of these trucks, containing one condenser, two circulation pumps, one extracting pump, and other materials, seem to have been forwarded on Pisa-Lucca-Viareggio line and that after a bombardment north of Viareggio, train has been blown up in the Monte di Quiesa gallery.

(3)

The following parts of the other two turbines are in plant:

- 2 condensers
- 4 stators, damaged but repairable
- 4 rotors
- 2 exciter poles
- 1 exciter rotor
- 2 turbine wheels, damaged
- 1 oil cooler
- 2 turbine bearers
- 1 regulator
- basements, caps and covers for one unit
- water, steam and oil valves
- 1 turbine oil electric pumps
- 1 bearing, regulator side
- 1 shaft extension
- 2 bearings, exciter side
- 2 speed indicators
- 1 turbine manometer board
- 1 void automatic tank (?)
- 1 group of steam auxiliary valves
- 3 steam valves

Manometers, springs, screws, etc. appear to be sufficient for one unit

The following are located at A.N.I.C. factory:

- 2 turbine wheels, with steam chambers, for one turbine
- 1 ejector for one turbine void
- 1 steam filtre
- 1 discharge automatic valve
- 1 exciter rotor
- 2 electric pumps for circulation of condensed water (destroyed)
- 4 turbine bearings
- 1 turbine auxiliary steam valves
- 1 centrifugal regulator
- 1 regulator connection
- 3 turbine main steam valves
- 1 discharge steam diffuser, upper part
- 2 500 mm valves for condenser circulating water
- 2 steam pipes for connection of main valve and steam filtre
- 2 curved pipes for discharge of two condensers
- 1 curved pipe for atmosphere discharge
- 1 straight pipe as above
- 4 curved pipes for condenser circulating pumps (for two units)

(4)

4 curves and 8 bits of 500 mm pipe for connecting condenser pumps for two units
 2 electric substitutions for 5 KV circulation pumps
 23 special screws for turbine fixing
 2 aspirating pumps cages (?)
 2 Ampmeters for extracting pumps
 Inspection doors for turbine and alternator
 Bearings, valves, wheels, gears, and other small pieces
 Circulation pumps (2 of which were destroyed at A.N.I.C. factory) are entirely missing, as well as condensed steam extraction pumps.

One of the latter was in the Plant when the Germans retired, and shall be searched.

11) - ASEA SYNCHRONOUS MOTORS

6000 KVA unit. Stator and rotor windings are damaged on exciter side: bearing destroyed, exciter missing, cap damaged, insertor and basement safe.

4000 KVA unit. Stator and rotor windings damaged, bearing destroyed, exciter missing, insertor and basement safe.

12) - ANSALDO CONVERTING GROUP

Synchronous 50 cycles motor:

Stator damaged (repairable)

Rotor " "

Exciter " "

Bearing destroyed

4000 Volt 16 cycles generator:

Stator damaged (repairable)

Rotor " "

Bearing and exciter destroyed

13) - G.G.E. CONVERTING GROUP

2 rotating rephasers destroyed

1 diasynchronous machine damaged (repairable)

1 scharbius machine " "

1 induction motor 9650 HP, 50 cycles stator, rotor, bearings, caps, repairable

1 alternator 9500 KVA, 16 cycles stator, rotor, bearings and cap repairable, exciter destroyed

1 resistor and controller in good condition 433

Electrical equipment can be recovered

14) - AIR CONDUCTS

Destroyed. Air filters good.

(5)

- 15) - OUTDOOR SUBSTATION (half destroyed)
1 switch PO 76 (60 KV) good
2 switches RO 8,5 (60 KV) good
1 coil 16-50 cycles(60 KV) good
Part of framework, sectionners etc., good
- 16) - C.G.E. 16 CYCLES TRANSFORMER
Tank damaged (repairable)
Coils burnt "
Core - good
Refrigerator broken
Pump "
Motor missing
- 17) - ANSALDO 16-50 CYCLES TRANSFORMER
Tank damaged
Coils burnt and damaged
Core probably good
- 18) - ANSALDO BOOSTER TRANSFORMER for starting converting group
Intact
- 19) - ASEA 18000 KVA TRANSFORMER
Repairable
Tank damaged
Central coil damaged in the lower part, the others burnt
Core probably good
- 20) - 60/30 KV WESTINGHOUSE TRANSFORMER
Tank not repairable
Coils burnt
Core damaged
- 21) - TRANSFORMER REFRIGERATORS
2 ASEA dismantled - good
2 ANSALDO - good
- 22) - SAN GIORGIO 5/30/60 KV - 6500 KVA TRANSFORMER
In operation
- 23) - C.G.E. 6500 KVA TRANSFORMERS WITH REFRIGERATORS
In operation
- 24) - SAN GIORGIO 5/30/60 KV - 6500 KVA TRANSFORMER (Padula
Substation)
Damaged - repairable

433

(6)

25) - B.B. 60/30 KV - 6000 KVA TRANSFORMER (Tombolo substation)
Good

26) - 1/1 (5300/5300 V) 6000 KVA TRANSFORMER (in Plant)
Half destroyed

27) - BUILDINGS

Main structures are good.

The following have to be reconstructed:

Pulverizing plant: external wall at 2nd floor with concrete column.

Boilers: roof, part of glasses, north wall complete

Diesel: south wall

Offices and storehouses: doors and windows

Engines department: all the roof, glass and tiles. Only reinforced concrete frame is good.

Transformers department: sky-light destroyed. On concrete frame the Military Engineers have laid zinc sheets.

28) - SUBSTATION AND SWITCHBOARDS.

About half of north wall, on switchboard floor, has been blown down by mines. Switchboard of C.G.E. group, switches, bars, etc. on 5 KV and 60 KV are damaged.

Outside wall on 30 KV side is damaged. 5 KV Leghorn equipment, and half of bars up to first engine are safe. All 30 KV, and a good part of 60 KV equipment are safe. Only one reduced oil switch for 60/30 transformer has suffered: the others are good.

29) - OIL RESERVOIR

Good, with about 3 tons of oil.

30) - 2 PRESS FILTERS WITH "VERONESI" HEATER

In operation.

31) - IRON AND FIRE-BRICKS STORES

Roof and doors damaged. Materials safe.

32) - PORTER'S STORE

No damage.

33) - PLANT'S STORES

Half empty. Doors and windows damaged.

4330

(7)

34) - PORTER'S HOUSE

Slight damage.

35) - PLANT CHIEF'S HOUSE

Doors and windows missing or damaged. All what was left (furniture, etc.) has been taken away.

36) - MAIN ENTRANCE

Gates from porter's house to Plant Chief's house has been damaged for passing of military trucks.

37) - FENCING WALL

Completely destroyed from cable station to water supply, and for 20 mt. on Moto Fides side.

38) - COAL

In July 1944 approximately 7000 Tons were in stock. It has been almost entirely spread on the open ground from the farmer's house to the dock. This coal is under control of P.B.S. which allocates it.

CONCLUSION

As far as it can be foreseen, under condition that located machinery pieces are in good state or easily repairable, and with no responsibility as to time and success, in consideration of the important and difficult task which has been bestowed upon me, and which is above my ordinary appointment, I state hereby what I think necessary for setting in operation one generating unit and two boilers:

PULVERIZING PLANT:

Revision of electric power equipment, and of 260 Volt cables between auxiliary substation and pulverizing plant.

Provide all the missing leather belts, i.e

- n° 2 for compressors
- n° 6 for pulverizing distribution
- n° 2 for pulverized coal screw transporters
- n° 2 for coal elevators
- n° 1 for coal mill
- n° 2 for coal transporter to mill

Repairs of part of building and of reinforced concrete structures. 4329

Repairs of some of the pipes on mill n.3.

(9)

AUXILIARY SUBSTATION

- A) - Repairs of at least two of the three 500 KVA 5200/260/150 Volt transformers.
- B) - Repairs of all the high and low tension switchboards.
- C) - Construction of a 5 KV transmission line for feeding this station, as the high tension cables have been cut.

LIGHTNING

Reconstruction of the lightning equipment in engine room, substation, offices, etc.

260 VOLT POWER EQUIPMENT

This equipment must be repaired, especially for engine room, substation, etc.

SIGNALS

Equipment must be reconstructed between switchboard and boilers and between boilers and pulverizing plant.

COOLING WATER RESERVOIRS

3 elevating pumps must be installed at the place of the three missing.

Instalment of one pump for elevating distilled water.
Revision of boiler water depurator plant.

Repairs of industrial water pipes from Municipal Aqueduct for feeding Plant.

Repairs 6" double pipes between reservoir and plant, substation stock.

SEA WATER

Repairs on pipe head at dock.
Revision of underground cement pipes to Plant.

ENGINE ROOM

Re-mount engine n° 1 with parts at A.N.I.C. and ⁱⁿ Plant.

Principal missing parts:

- 2 pumps for condenser water
- 1 pump for condensated water
- 1 motor for parallel control

Repairs of two stators.
Other repairs.

4328

(9)

Besides, it is needed to:

Reconstruct roof
 Repair wall towards pulverizing plant
 Repair windows and doors, glass and iron
 Remount alternator resistances in air filter gallery
 Repair or rebuild part of conducts for alternator cooling air
 Repair filters and alternator air galleries
 Change over of 5 KV cables from 2nd unit to 1st unit, or
 make a temporary connection with copper bars (2000 Amp.)

BOILER FEEDING PUMPS

Iron straw for the two ungreasing devices must be changed, therefore 2600 Kg. of such straw are necessary, Kg. 1400 of which are in stock.

Revision of feeding pumps, of two evaporators, and of the condensers.

Setting of one electric pump for the above condenser, instead of the missing one.

Revision of pipes to boiler.

BOILERS

Boiler n° 1 has always worked normally, and is better than boiler n° 2, both manufactured by Tpsi.

Boiler n° 1 needs changing of some of the boiling pipes, and half of the mud reservoir which have to be taken from boiler n° 2. It also needs reconstruction of suspended vault and, partly, of front wall. Probably ash box will have to be repaired too, owing to fall of materials.

In boiler n° 2, besides change of boiling pipes sections, and of half of mud reservoir, only suspended vault has to be reconstructed, and probably ash box has to be repaired, but this boiler during operation has proved not to be very reliable on account of cylinder and some of the boiling pipes on the left side.

Babcock-Wilcox boilers n°3 and 4 have always worked satisfactorily. In N° 3 the side screens in combustion chamber, recently constructed by Breda, have given good results but, in consideration of damage in boiling pipes, in mud reservoir, collectors, screens, etc. it seems preferable to repair boiler n° 4.

Boiler n° 3. Besides the a/m changes and repairs, it is necessary to reconstruct suspended vaults, about half of combustion chamber front wall, and probably ash box will need repairs.

4327

10)

Boiler n°4. As already said, this boiler has to be reconstructed with materials taken from boiler n°3: besides boiling pipes, and half of mud reservoir, reconstruction of suspended vaults, of all the front wall, and of part of the right wall is needed.

It is besides necessary to repair 20 coal burners for 2 boilers. To repair, and partly reconstruct, 20 pipes for transportation of coal from distributors to burners.

Repairs of suspended vault frames.

Repair of foot-bridges and iron stairs in front of boilers.

Repair and partly reconstruct primary air pipes.

Install two combustion control devices.

Repair sky-light and roof.

Reconstruct north wall with bricks and concrete.

FIRE-BRICKS

Materials in stock are estimated to be sufficient for repairs of one combustion chamber. For insulating purpose, it is foreseen to recover broken materials. 3000 Kg. of fire-proof (?) cement are needed.

For repairing another combustion chamber, it is estimated that the following materials are needed:

n. 400	bricks type "A"	-	27%	allum.	-	for suspend vault
" 200	" " "B"	-	27%	"	"	"
" 200	" " "C"	-	27%	"	"	"
" 100	" 22,5x22x5,6		42%	"	"	front wall
" 120	" 28,5x22x6		42%	"	"	"
" 150	" 22 x 6x5,5		42%	"	"	"
" 1000	" 22x11 x 3		42%	"	"	ash box
" 2500	" 22,5 x 1 x 6	-		Diatonite	(many of these may be recovered)	

Considering what is presently in stock, for a second combustion chamber types A,B,C, are necessary for suspended vault, and 3000 Kg of fire-proof cement. For the rest, it depends on amount of materials which can be recovered.

Switchboards

Tension regulators, current limitators, registrators, amp meters, volt meters, frequency meters, relais, boards, etc for one unit need repairs.

(11)

Main switches, voltage and current reducers, sectionners and 5 KV bars must be revised.

Leghorn, January 8th 1945

signed: Ing. DOVERI Giuseppe

NOTE - January 9th 1945

While writing this report, the fire bricks and other materials for repairing one of the combustion chambers have been taken away by American Troops, who will use them for repairs on a road for two new Diesel engines.

I must therefore alter what I have said, and make reserves for other facts of the same kind. I recommend that instruction should be given that all materials presently located in Plant, storehouses, and A.N.I.C. to be respected.

signed: Ing. DOVERI Giuseppe

Copy Col. Kapper.

4325

~~Continuation~~
Col. Lapper - Rome
Rab. 2/4

77 CRE.
7 Feb '45.

Major Bell.
Adv. Section. A.C.

I am sending you the following advance information, which I shall enlarge upon tomorrow) in case you wish to telephone Col. Lapper today to inform him the voltage is rather low. Yesterday 6/2/45, I had approximately 10,000 KW loading taken in Florence, & the following figures were recorded:

HOUR	TERNI VOLTAGE	NERA MONTORO VOLTAGE	CALCULATED		VOLTAGE LEAVING CASTELNUOVO TRANSFORMERS	VOLTAGE ARRIVING AT FLORENCE	KW AT FLORENCE	CYCLES
			APPROX. VOLTAGE IN TO CAST. N'VO					
06	55,000	61,000	49,000		29,000	27,000	8850	45
07	55,000	61,000	47,200		28,000	26,000	9750	44.5
08	54,000	59,000	45,500		27,000	25,000	9100	44.5
09	53,000	54,000	43,800		26,000	23,800	9050	45
10	53,000	54,000	44,600		26,500	24,000	9650	45.25
11	51,000	53,000	42,300		25,000	23,000	8850	44.5
12	52,000	51,000	44,600		26,500	23,600	9150	45
13	55,000	51,000	47,200		28,000	25,000	9050	45.25
14	57,000	54,000	47,000		27,800	25,000	9200	45.25
15	56,000	54,000	45,500		27,000	25,000	9300	45
16	55,000	53,000	45,500		27,000	24,500	9250	44.75
17	54,000	53,000	45,500		27,000	24,400	9280	45

I suggest these figures will
be sent to Col. Lapper. 4328 ds

a. d. v. e. l. l. i. n. f. o. r. m. a. t. i. o. n. (in case you wish to upon tomorrow) in case you wish to inform telephone Col. Lapper today, to inform him the voltage is rather low.

Yesterday 6/2/45, I had approximately 10,000 KW loading taken in Florence, & the following figures were recorded:

HOUR	TERMI VOLTAGE	NERA MONTAGE VOLTAGE	CALCULATED				VOLTAGE ARRIVING AT FLORENCE	KW AT FLORENCE	CYCLES
			APPROX. VOLTAGE IN TO CAST NIVO	VOLTAGE LEAVING CASTELNUOVO TRANSFORMERS					
06	55.000	61.000	49.000	29.000			27.000	8850	45
07	55.000	61.000	47.200	28.000			26.000	9750	44.5
08	54.000	59.000	45.500	27.000			25.000	9100	44.5
09	53.000	54.000	43.800	26.000			23.800	9050	45
10	53.000	54.000	44.600	26.500			24.000	9650	45.25
11	51.000	53.000	42.300	25.000			23.000	8850	44.5
12	52.000	51.000	44.600	26.500			23.600	9150	45
13	55.000	51.000	47.200	28.000			25.000	9050	45.25
14	57.000	54.000	47.000	27.800			25.000	9200	45.25
15	56.000	54.000	45.500	27.000			25.000	9300	45
16	55.000	53.000	45.500	27.000			24.500	9250	44.75
17	54.000	53.000	45.500	27.000			24.400	9280	45

I suggest these figures will be of interest to Col Lapper. #4328 do ask if it is possible to increase the voltage, which is certainly low.

Phoned plant of this to
Maj Barry 2-7
Rab.

R. H. J. Arnold
E. M. O. Capt.

WAR DEPARTMENT
Q.M.C. Form. No. 400
(Revised Apr. 6, 1931)

At Camp Rappah
Major Price
Lat

2554

REQUISITION

TO: *E 276* *E.S.D.* No. of Sheets *1* Sheet No. *1*

Requisition No. *7 feb. 43* Date *7 feb. 43* Period *7 feb. 43*

SHIP TO *Allied Commission, Pub. Wks & Utilities, Elec. Div.*

Requisitioned By (show Signature, Rank, Organization, Destination, If different from requisitioner):
Albert E. Duran
Public works & utilities sub-com.
Electrical Division
Albert E. Duran, Capt. S.C.

Approved By:

STOCK No.	ARTICLES	UNIT	ON HAND AND DUE	CONSUMED	REQUIRED	APPROVED
17-	Cloth, cambric, varnished rail 36"				2	
Basis: for completion of repairs to 15,000 KVA Alternator due in service 1th March at Lardovello <i>Major Price</i> <i>2- 50 yd rolls 36" wide picked up on this</i> <i>One roll given to Lardovello Co</i> <i>One roll in our office for future use</i> <i>Lat</i> <i>Feb 8</i>						
					4323	

TALLY-OUT AND/OR SHIPPING TICKET

NO. E-2106

DEPOT VOUCHER NO. _____
CONSIGNEE REQ. NO. 2574
SHEET NO. 1 of 1

AREA NO. _____

ISSUED TO United Community Self-Help (Birmingham)

SHIPPED BY _____ DATE 2-7-45
(Air, Rail, Truck, (Whose?) etc.) _____

(Air, Rail, Truck, Whose?)					
Stock No.	Item (Serial No. if assigned)	Unit	To be issued Daily S/L	Actual issue	B.O.
	Cloth Cambria Varnished 36"		roll 2	2	
				108 2/6	
	@ PTV				
	Basis: Completion of repairs				

Received the above items in apparently good condition, except as noted

Name Albert J. Duran Grade C-1 Org. W75 Rpt AC

Name _____ Grade _____ Org. _____
(Accountable Officer or authorized representative for items on S/H)

I certify the above items have been issued on tally-out or S/T as shown

Checker _____ Issuing Officer [Signature]

ONSIGNEE'S COPY

TO: Major Bell
Electrical Division
P.W. & U.

SOCIETA' ELETRICA "SELT-VALDARNO" STORES

The stores situated on route 6625, Via Filippo Corridoni 37, are well sited and laid out, and is the central store for the Coy. There are several other small stores at the various plants, but 95% of all stocks are held in this store.

The stock-cards and card index coincide with the enclosed stock-shuts and are kept up to date.

The method of getting supplies by the various engineers is by indenting on Ing. Longhi at head-office, who passes the indent to the store, who issues on his authority only.

Several oil switches and transformers are being repaired at the store.

Should any of the Coy's plant being repaired by another Coy require any material which Valdarno have this is issued on Ing. Longhi's authority.

The system works well and appears to have no snags.

There is about 15,000 kg of scrap copper which the Coy wish to send to Naples to be melted and redrawn. I am pushing this ahead.

All the stores are under the control of G. 4, 5th Army (Major Ware) with ^aMajor Austin interested.

February 6th, 1945

R.F. Lowdon, Capt.

Distribution:

→ 1 copy Rome Office
1 copy Col. Cooley
1 copy file

T R A N S L A T I O N

Jan. 27th 1945

SOCIETA' Elettrica
"SELT-VALDARNO"
Via Cerretani, 6
F l o r e n c e

TO: A.M.G.
Industry & Commerce Department
Piazza dei Giudici
F l o r e n c e

Tabulation of materials.

Enclosed herewith the tabulation concerning the materials stored in our General Warehouse at the date of Jan. 15th 1945.

The materials shown in the attached lists are being used for the needs of the Valdarno Coy. and for the supply of the various Agencies.

Considering the importance and size of our plants, a brief examination of the attached lists is sufficient to show that the supplies are very scarce and, in almost all materials, insufficient to assure the regular functioning of our plants.

Besides that, following the destructions and damages provoked by the Germans to our lines and to our generating plants, we have to provide to start the program of rehabilitation of the said plants with the existing stocks. This program is very big and hard, and we trust the help of Allied Nations for its achievement.

NOTE - In our warehouse are also stored some materials of the "Società Maremmana" which is associated with our Co; these materials are scheduled to go to Piombino and Grosseto, and are awaiting for a possibility to be removed there.

4320

SOCIETA' ELETTRICA "SELT-VALDARNO"

Magazzino Generale - Via Filippo Corridono, 37 - Florence
Esistenza al 15.1.1945

E L E N C O "A"MATERIALI FERROSI

1. Fune acciaio	4 mm diametro	q.li	12
" "	5 " "	"	8,5
" "	8 " "	"	6
" "	9 " "	"	3
Treccia acciaio	25 mm diametro	"	7,5
" "	30 " "	"	12
" "	40 " "	"	26
" "	50 " "	"	2

(2)

MATERIALI FERROSI

6. Rame tubo (misure diverse)	q.li 6
" rottami	" 421
" in barre (misure varie)	" 7
" " " usato	" 5,5
" reggetta	" 2,5
" " usata	" 3
" " per trasformatori	" 2
8. Piombo in pani di seconda fusione	" 162,9
11. Stagno vergine	" 6,5
" composto per saldare	" 1,5
12. Metallo bianco	" 2

4318

(3)

ALTRI MATERIALI DA COSTRUZIONE

16. Vernice a smalto diversa	q.li	1,4
" bakelite	"	1,4
" mimetica	"	9
" bruno viaggio	"	1,5
" antiruggine (verde, grigia)	"	4,4
Minio alluminio grigio	"	1,2
" " rosso	"	14
" " verde	"	5,5

MATERIALE ELETTRICO

19. Filo rame nudo usato 80/10 diametro	"	9
" " nuovo 30/10 "	"	8,5
Treccia rame nuda (resti matasse)	"	2
Alluminio acciaio treccia	"	4

4317

(4)

MATERIALE ELETTRICO

Lampade elettriche per illuminazione pubblica (1)

20.	Lampade 200 W 169 V attacco Edison	n° 560
"	colorate 160 V	" 330
"	da 6,6 A 2000 lumen	" 240
"	da 9,6 " " "	" 680
"	da 9,6 " 10000 "	" 95
"	1/2 W 25-40 W 125 V	" 400
"	" " 60 W 150 "	" 1230
"	" " 100 W " "	" 60
"	" " 25 W 170 "	" 660
"	" " 150 W " "	" 180
"	" " 200 W (att. Golia)	" 6000
"	" " 300 W " "	" 660
"	" " 500 W " "	" 1290
"	" " 1000 W " "	" 340
"	" " 1500 W " "	" 500
"	" " 40 W 200 V (Edison)	270
"	" " 100 W " " "	" 210
"	" " 500 W 30 " "	" 400
"	a proiezione 1500 W 169 V	" 35
"	1/2 W 300 W 30 V	" 1500
"	" " 750 W 170 "	" 330
"	fil. m. fino a 50 c. 20-40 V	" 140

(1) (Lampade a disposizione dei Comuni della Toscana)

(5)

MATERIALE ELETTRICO

21. Portalampe a chiave	n° 124
" da esterno	" 28
" senza chiave	" 100
" stradali	" 600
" " att. Baionetta	" 50
Riflettori smaltati da interno	" 77
" " stradali	" 101
Rosette di legno	" 140
Scatole di derivazione interni	" 87

24. Interruttori bipol. a leva 20 A	" 6
" " " " 50 "	" 6
" tripol. " " 30 "	" 18
" " " " 60 "	" 23
" " " " 120 "	" 6
" " diversi, usati	" 69
" " a leva 240 A	" 3
" " " " 400 "	" 6
" " " " 600 "	" 1
" da palo a 10.000 "	" 4
" unipol. 50 - 60 "	" 15
" " 100 "	" 11
" " 200 "	" 3
" " 240 "	" 4
" " 350 "	" 9
" " 1000 "	" 1

4315

(6)

MATERIALE ELETTRICO

25.	Trasformatori di potenza	5 KVA	n°	12
"	"	10 "	"	9
"	"	30 "	"	5
"	"	50 "	"	1
"	"	100 "	"	1
"	"	150 "	"	1
"	"	300 "	"	4
"	"	600 "	"	2
26.	Elettrodi per saldatura		"	12728
27.	Cavo rame bipolare	2 x 3, 14 mmq	mt.	400
"	"	2 x 8 " "	"	250
"	"	2 x 10 " "	"	460
"	"	unipolare 100 " "	"	230
"	"	tripolare 3 x 10 mmq	700 V	" 110
"	"	armato 3 x 25 " "	" "	" 450
"	"	" 3 x 35 " "	" "	" 100
"	"	" 3 x 75 " "	" "	" 1300
"	"	" 3 x 120 " "	" "	" 750
"	"	" 3 x 16 " "	10000 "	" 160
"	"	" 3 x 35 " "	" "	" 270
"	"	" 3 x 50 " "	" "	" 570
"	"	" 3 x 75 " "	" "	" 780
"	"	" 3 x 120 " "	" "	" 250
"	"	" unipolare 180 mmq		" 170
"	"	" 240 " usato	"	" 850
"	"	" 275 " "	"	" 190
"	"	" 300 " "	"	" 431260

(7)

MATERIALE ELETTRICO

27.	Cavo rame armato unipolare	400 mmq	usato	mt.	450
"	"	"	tripolare 3x25	"	320
"	"	"	" 3x50	"	190
"	"	"	" 3x120	"	150
"	"	sotto piombo	3 x 1	"	200
"	"	"	3 x 6	"	490
	Gordoncino	2 x 0,50 mmq		km.	6,6
"	"	2 x 1	"	"	4,1
"	"	3 x 0,50	"	"	0,3
	Filo rame isolato nero	10/10		"	1,7
"	"	miniato 20/10		"	3,8
"	"	" 25/10		"	2,2
"	"	" 30/10		"	2
	Cavetto rame sotto piombo	2 x 5 mmq		"	0,4
"	"	" 2 x 6	"	"	2,2
"	"	" 3 x 0,75	"	"	1,9
"	"	" 3 x 2	"	"	0,800
"	"	" 3 x 6	"	"	0,2
	Cavo telefonico a 5 coppie			"	0,2
	Cordone sotto gomma	4 x 0,50	"	"	1,1
	Filo alluminio cenere	20/10	300 V	"	7,7
"	"	" 25/10	" "	"	109,4
"	"	" 32/10	" "	"	47
	Treccia alluminio cenere	40 mmq		"	0,9
	Filo alluminio cenere	20/10	600 "	"	3
"	"	" 25/10	" "	"	0,30
"	"	" 32/10	" "	"	3,5
	Treccia alluminio cenere	75 mmq	" "	"	0,8

4313

(8)

MATERIALE ELETTRICO

27. Cavetto alluminio biaccato cenere	2 x 3 mmq	km.	5,5
" " " "	2 x 10 "	"	1,2
" " " "	3 x 16 "	"	0,2
" " " "	3 $\frac{1}{2}$ x 16 1000 V	"	1,5
" sotto gomma (resite)	2 x 3 mmq	" " "	27,6
" " " "	2 x 5 "	" " "	14,2
" " " "	2 x 6 "	" " "	3,6
" " " "	3 x 3 "	" " "	0,3
" " " "	3 x 5 "	" " "	0,8
Cavo bipol. sotto piombo BT	2 x 25/10	"	1,1
" " " "	2 x 6 mmq	"	0,2
" " " "	2 x 8 "	"	0,5
" tripol. " "	3 x 5 "	"	2,8
" " " "	3 x 6 "	"	1,5
" " " "	3 x 8 "	"	0,5
" " " "	3 x 10 "	"	1,5
" " " "	3 x 12 "	"	2,6
" " " "	3 x 16 "	"	3,1
" " " "	3 x 25 "	"	0,7
" " " "	3 x 35 "	"	0,6
" " " "	3 x 50 "	"	0,1
" " " "	3 x 75 "	"	0,7
" " " "	3 x 120 "	"	0,9
" " " "	3 x 150 "	"	0,6
Cavo sotto piombo BT	4 x 10 mmq	"	0,3
" " " 3 $\frac{1}{2}$ x 35 "		"	0,5
" " " 3 $\frac{1}{2}$ x 50 "		"	0,2
" " " 3 $\frac{1}{2}$ x 75 "		"	0,2

4312

(9)

MATERIALE ELETTRICO

27. Cavo armato	BT	3 x 35	mmq	mt.	2400
"	"	3 x 50	"	"	1400
"	"	3 x 75	"	"	1300
"	"	3 x 120	"	"	940
"	"	3 x 180	"	"	2000
"	"	3½ x 16	"	"	1500
"	"	3½ x 10	"	"	3000
"	"	MT	10 KV 3 x 25	mmq.	690
"	"	"	" " 3 x 75	"	950
"	"	"	" " 3 x 180	"	870

GAS INDUSTRIALI E PRODOTTI CHIMICI

31. Carburo di calcio Kg. 63

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4311

SOCIETA' ELETTRICA "SELT-VALDARNO"

Magazzino Generale - Esistenza al 15.1.1945

E L E N C O "B"MATERIALI FERROSI

2. Acciaio da utensili ed arnesi	tonn.	1,4
5. Ferro da cemento armato	"	37,9
Ferro nuovo (piatto ed a squadra)	"	150,9
Ferro usato utilizzabile	"	2,5
6. Lamiere di ferro (misure varie)	"	35,2

MATERIALI DA COSTRUZIONI

17. Embrici	n°	112	
Tegolini	"	140	
Tubo di terra di 8	mt.	97	
" " " " 12	"	265	
" " " " 15	"	79	
18. Tubo eternit per fognature 100 mm.	mt.	406	
" " " " 200 "	"	21	
Canne fumarie 120 - 125 mm.	"	132	

(B2

MATERIALE ELETTRICO

19. Isolatori	CN 59 a 4 gole	n°	1206
"	" 60 " 5 "	"	444
"	" 65 " 8 "	"	254
"	" 201 a colonnino 15 KV	"	4207
"	tipo 394 (manubri) AT	"	103
"	" 401 " "	"	344
"	manicotti pirex 10 KV	"	56
"	CN 562 a campana 15 KV	"	10613
"	" 563 " " larga	"	1500
"	vetro mod. 312	"	118
"	a sospensione 20181	"	8185
"	" " 19067	"	1520
"	CN 761	"	10718
"	" 12	"	11537
"	" 763	"	1571
"	per att. telegrafici	"	1994
"	pipa a nicchia tipo 14598	"	1193
"	nicchia tipo 14599	"	565
"	CN 400 pipa dritta 2 fori	"	24213
"	" 401 " " 3 "	"	1987
"	per illumin. pubblica 14652	"	740
"	pipe doppie	"	1149
"	a tubetto	"	4055
"	" " ex 611 RG	"	879
"	CN 424 a lingua	"	15768
"	" 426 " "	"	1303
"	a base 19747	"	4131
"	" " 19748	"	1179

4309

(B 3

MATERIALE ELETTRICO

19. Isolatori a base 19749	n°	2563
" per tiranti 1391	"	226
" " " 1392	"	802
" CN 145	"	8994
" " 146	"	19703
" " 147	"	48870
" " 148	"	451
" a pressafilo CN 406	"	1178
" " " " 407	"	611
" vetro tipo 6	"	7530
" " " 6 bis	"	7781
" " BT 8	"	1011
" vari per allacciamenti	"	3013

20. Litargiro	kg	312
Mastice Fissit per isolatori	"	199

22. Olio da trasformatori nuovo	"	200
---------------------------------	---	-----

VARIE

27. Carta da imballo	kg	2000
Cartone comune	"	1200

COMBUSTIBILI SOLIDI

34. Carbone Cardiff	kg.	1500
---------------------	-----	------

ROTTAMI DI RAME da inviare a Napoli per trasformazione

kg. 15000

4308

=====

TO: Major Bell
Advanced H.Q.
P.W. & U. A.C.

OFFICINE "GALILEO" - Via Carlo Bini 24 - Florence

This works situated off route 6625 has been partially destroyed by the Germans, but the Electrical & Mechanical sections are intact, with the exception of some machines removed.

The Director, Eng. Martinez, who speaks English, showed me round the plant which employs about 50 workpeople; more employees are available if they can get materials.

They are now repairing 6, 60,000 volt oil switches and have several transformers for repair, but lack of materials is holding up progress, although they have some insulating material on hand. These switches and transformers are for "Valdarno" and State Railway.

They are able to get all insulators and bushings from Richard-Ginori Doccia Sesto, and the Coy make their own small C/2 castings.

The Coy are capable of building 100 KVA auto-transformers 120/150 KV and 220/250 KV, and are prepared to do so if release for material can be had.

The Coy at present is not being controlled by any Allied Authority.

February 3rd 1945

R.F. Lowdon, Capt.

Distribution:

1 copy Col. Cooley, P.B.S.
+- 1 copy Col. Lapper
2 copies file

4307

See 247 *Trans-Lation*

PROGRAM OF REHABILITATION WORKS OF LIVORNO GENERATING PLANT

A) - Clearing ruins - lowering dangerous parts of building and of machinery - dismantling damaged parts and collecting them in special enclosure.

B) - Works to be committed to a firm managed by a specialized industrial engineer:

Repairs on coal pulverizing plant and on powder transport plant.

Reconstruction of two combustion chambers, for one "Tosi" boiler and one "Babcock-Wilcox" boiler.

Revision and repair of water refrigerating plant, of water feeding plant, of smoke conducts, etc.

Reconstruction of water supply from canal for cooling the turbine condenser.

C) - Works to be committed to "Cantiere Orlando" (shipyard) in Leghorn:

Repairs of two boilers (one "Tosi" one "Babcock-Wilcox").

Reconstruction of thermic isolation of the a/m boilers. Revision and repairs of steam pipes for the a/m boilers, including valves, separators, etc. up to admission (inlet) valve on turbine.

Thermic isolation of steam plant.

D) - Works to be committed directly to Chief of Plant: Collecting pieces of machinery belonging to a STAL-ASEA turbo-alternator.

Repairs on various elements.

Studies on possibility of assembling one unit with materials available.

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Collecting pieces of machinery belonging to a STAL-ASEA turbo-alternator.

Repairs on various elements.

Studies on possibility of assembling one unit with materials available.

E) - To be committed to a building firm:

Reconstruction of roof over engines boilers and transformers departments.

Reconstruction of blown down walls in coal pulverising department, in boilers engines departments, in electrical department.

Repairs in Offices: pavements, walls, stairs, etc.

430K

- 2 -

Repairs and reconstruction of doors and windows.

F) - To be committed to a dependant of Plant Chief: Repairs and reconstruction of high tension electrical equipment for the generating unit, for three 6000 KVA transformers, and 60 KV, 30 KV and 5 KV lines.

WORKMEN

For the a/m works, local workmen have been employed in addition to Plant personnel. It is very difficult to enlist workmen, also if not specialized, for clearing mines and for preparatory work.

Enquiries have been extended to neighbouring villages, and some workmen have been found at Torre del Lago, at about 20 km. from Pisa.

These workmen must be lodged in Plant, and need to go home at least once a week to see their families, to change their clothing, etc. To lodge these people (total 33) in Plant, materials are needed such as timber, glass for shutting openings; lighting; also straw is needed for the people to lie on.

Finally transport means are necessary from Torre del Lago to Leghorn.

When all these materials (straw and timber) will be available, 75 workmen will be ready besides the Plant personnel.

It must be noted that nowadays people come to work only if they are sure to get food: it is therefore necessary to provide 33 daily rations for the Torre del Lago workmen, and a midday ration for these resident in Leghorn and for the Plant personnel. On the whole, 59 rations for one meal and 33 rations for two meals are needed.

It must be pointed out that to work in the area of Leghorn Harbour a special permit is necessary which is not easy to get. This is another difficulty to start working in the Plant.

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TRANSPORT.

For transportation of workmen, of materials, of pieces of engines shattered here and there, of pieces of machinery which must be worked in Cantiere Orlando and in other Factories, two 30 quintals trucks will be necessary; for transport of heavy pieces, larger trucks might be needed.

These trucks are necessary at once for collecting all the parts of a STAL-ASEA unit which has been shattered not only in Leghorn Plant, but also in A.N.I.C. Factory, and

- 3 -

also, it is supposed, in a railway gallery near Quiesa on the Viareggio-Lucca line. It is known as a matter of fact that the Germans removed all machinery of one unit loading it on railway trucks, which after an air bombing remained blocked in the a/m gallery. It must now be found out if this information is true, and in the affirmative provide to recover the machinery and transport it to Leghorn. A special permit is required for people having to go to Quiesa.

MATERIALS REQUIRED.

Timber, boards, cut and lapped fir, girders, thin boards for shutting premises for lodging and for stores.

Poles and barbed wire to make an enclosure for collecting dismantled and damaged materials.

Glass or flexible glass for windows.

Straw for workman dormitory.

Block and ropes for heighting pieces.

Carbine and oxygen for soldering and cutting.

Electrodes for electric welding.

Leather belts for pulverizing plant and implements: dimensions will be given later.

Pumps for industrial water, which are missing; it is supposed that two of them are at the Comune Pumping Station in Leghorn.

Electrical insulating materials for repairs on alternators (which must be completely re-wound) and transformers.

Fire-bricks for combustion chambers, on which a note follows hereafter.

Non-conducting materials for thermic isolation.

Building materials, as follows:

650.000 bricks
7.000 air-bricks
20.000 tiles "marsigliesi"
9.000 covering tiles (?)
500 quintals of cement

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sand

gravel

iron bars Ø 16-18 m/m

" " Ø 6-8 " "

" " Ø 7-8 " "

total 5 tons

glasses for sky-light: 2

Engines dept. 350 m² 7-8 m/m thick

Boilers " 300 " " " " "

- 4 -

Transformers Dept. 200 m² 7-8 m/m thick
Windows 1000 "

NOTE ON NON-CONDUCTING MATERIALS

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9.000 covering tiles (?)

500 quintals of cement

sand

gravel

iron bars Ø 16-18 m/m

" " Ø 6-8 " "

" " Ø 7-8 " "

total 5 tons

430

glasses for sky-light:

Engines dept. 350 m²

Boilers " 300 " 7-8 m/m thick

" " " " "

- 4 -

Transformers Dept. 200 m² 7-8 m/m thick
Windows 1000 "

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TRANSLATIONBy : CT/ct FILESELT - VALDARNO Electric Co.

- Supply Office -

(To : HQ. ALLIED COMMISSION
P.W. & U. Sub-Commission
Electrical Division

Subject : Supply of lubricating and insulating oil for
Electric Plants.

Reference your 6/1 - 189/PWU of Jan. 8 1945 -
Forwarded herewith list of our plants for which we need
supply of oil and lubricating grease and insulating oil.
The quantities requested cover the estimated demand for
the period from March to September 1945, excluding the
lubricants for motor vehicles
Awaiting to receive the notification of allocation, we
thank you

SELT - VALDARNO El.Co.

1 Enclosure

Lubricating Oil	<u>Tons</u> 305.	1.63.
Grease	129	594.
Transformer Oil.	72.5.	280.5.
	Monthly March to September	Total

SEMESTRE MARZO - SETTEMBRE 1945

2677

I M P I A N T O	F A B B I S O G N O						N O T E
	Semestrale			Mensile			
	Lubrificanti per turbine		Olio per trasformatori Kg.	Lubrificanti per turbine		Olio per trasformatori Kg.	
	olio Kg.	grasso Kg.		olio Kg.	grasso Kg.		
Centrale Pian d.Rocca	340.-	120.-	30.000.-	57.-	20.-	5.000.-	
" " Lima	120.-	30.-	20.000.-	20.-	5.-	3.300.-	
" " Nera Montoro	680.-	180.-	3.000.-	113.-	60.-	500.-	
" " Livorno	80.-	24.-	20.000.-	13.-	4.-	3.300.-	
Centralina di Ponte a Serraglio	120.-	-	500.-	20.-	-	85.-	
" " Buccia	30.-	-	500.-	5.-	-	85.-	
" " Ania	60.-	12.-	500.-	10.-	2.-	85.-	
" " Casteldelpiano	30.-	-	500.-	5.-	-	85.-	
" " Marradi	60.-	-	500.-	10.-	-	85.-	
" " Cavarzano	60.-	-	500.-	10.-	-	85.-	
" " Ferriera	36.-	12.-	500.-	6.-	2.-	85.-	
" " Pratovecchio	120.-	30.-	500.-	20.-	5.-	85.-	
" " Molini Riuniti	30.-	-	500.-	5.-	-	85.-	
" " Rufina	36.-	18.-	500.-	6.-	3.-	85.-	
" " Stia	40.-	-	500.-	7.-	-	85.-	
" " Rovico	75.-	-	500.-	12,5	-	85.-	
" " Rignano	120.-	40.-	500.-	20.-	7.-	85.-	
" " Pizzorne	36.-	-	500.-	6.-	-	85.-	
" " Rovezzano	60.-	36.-	500.-	10.-	6.-	85.-	
Sottostazione Tavarnuzze	42.-	12.-	60.000.-	7.-	2.-	30.000.-	olio p. trasformatori consegna in 2 mesi
" " Prato	36.-	12.-	15.000.-	6.-	2.-	5.000.-	" " 3 mesi
" " Rifredi	120.-	18.-	10.000.-	20.-	3.-	3.300.-	" " 3 mesi
" " Lucca	-	-	15.000.-	-	-	2.500.-	
Cabina di Arezzo	-	-	500.-	-	-	85.-	
" " Foiano	-	-	10.000.-	-	-	2.000.-	consegna in 5 mesi
" " Bibbiena	-	-	1.000.-	-	-	200.-	" "
" " Monteverchi	-	-	1.000.-	-	-	200.-	" "
			5.000.-			850.-	

Rignano	120.-	40.-	500.-	20.-	7.-	85.-	olio p. trasformatori consegna in 2 mesi
Pizzorne	36.-	-	500.-	6.-	-	85.-	" " 3 mesi
Rovezzano	60.-	36.-	500.-	10.-	6.-	85.-	" " 3 mesi
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" Bibbiena	-	-	1.000.-	-	-	200.-	" "
" Monteverdichi	-	-	1.000.-	-	-	200.-	
" Empoli	-	-	5.000.-	-	-	850.-	
" Monte alle Croci	-	-	10.000.-	-	-	1.700.-	
" Varlungo	-	-	10.000.-	-	-	1.700.-	
" Peretola	-	-	10.000.-	-	-	1.700.-	
" Borgo S. Lorenzo	-	-	5.000.-	-	-	850.-	
" Ema	-	-	500.-	-	-	85.-	
" Colle V. Elsa	-	-	3.000.-	-	-	600.-	consegna in 5 mesi
" Siena	-	-	3.000.-	-	-	600.-	" "
" Abbazia S. Sal- vatore	-	-	1.000.-	-	-	170.-	
" Pescia	-	-	8.000.-	-	-	1.350.-	
" S. Croce	-	-	5.000.-	-	-	850.-	
" Casteln. Sabb.	100.-	50.-	5.000.-	16,5	8,5	850.-	
" Visignano	-	-	2.000.-	-	-	350.-	
" Fiolettole	-	-	2.000.-	-	-	350.-	
" Pisa	-	-	8.000.-	-	-	1.350.-	
" Guardistallo	-	-	1.000.-	-	-	170.-	
" Rosignano	-	-	1.000.-	-	-	170.-	
" Fornoli	-	-	3.000.-	-	-	500.-	
" Montecatini	-	-	4.000.-	-	-	670.-	
	1631.0	594.0	280500.0	3050	129.5	72525.0	

Col Rappin

Francis Translate please
This is copy of MATER engineer that I have to Pion del Rio
Col Rappin has a copy of this

Label = Piano della Rocca II / I / 1945 =
1/15/45

Valderrama

FILE

N. 2 trasformatori trifasi di costruzione B.B., in olio, per esterno, a raffreddamento naturale.

Primario 6000 Volt (intermedio)

Secondario 67000 $\pm$ 5 % (interno)

2° " 125000 $\pm$ 5 % Volt (esterno)

Potenza massima complessiva 14000 KVA, frequenza 50

Collegamenti $\Delta / \Delta \Delta$

1° Trasformatore (N° T 32580)

Danni visibili

Guardando il trasformatore dal lato opposto delle uscite del 125000 (e del 6000) si nota una scarica fra la prima bobina (di testa, superiore) della colonna centrale e la corrispondente bobina della colonna di destra. Questa scarica ha in parte perforato gli anelli di isolamento verso il giogo e poi si è propagata lungo la superficie delle flangie isolanti che partendo superiormente dalle bobine di testa si congiungono nel diaframma separatore delle colonne di avvolgimento. La scarica ha quindi seguito prevalentemente superfici orizzontali ed è scoccata tra due punti di massima differenza di potenziale (125.000 Volt).

Guardando invece il trasformatore dalla parte delle uscite del 125.000 Volt si notano le tracce di una scarica tra le uscite delle stesse due colonne di avvolgimento. Anche questa scarica ha seguito un cammino prevalentemente orizzontale attraverso una massa metallica (probabilmente il cassone). Leggere tracce di scarica si notano lungo la superficie dell'involucro di bachelite di una delle uscite dell'avvolgimento a 67.000 Volt che probabilmente ha avuto inizio dal passante e si è riversata sul coperchio del trasformatore.

Questi sono i guasti visibili. Ritengo molto probabile

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che non ve ne siano altri. Però non si può del tutto escludere che allo smontaggio degli avvolgimenti si incontrino segni di altre scariche in altre parti degli avvolgimenti.

Cause

Quanti come quelli riscontrati nel trasformatore sono dovuti a scarso livello di olio oppure ad olio molto umido (il che è praticamente la stessa cosa, se non peggio) Il capo centrale (Sig. Dallan) asserisce che il livello di olio era sufficiente e che anzi i militari Inglesi addetti ai lavori, cui sembrava che il livello d'olio fosse scarso, ne aggiunsero dell'altro prelevato dalla vasca di deposito e che era molto ricco d'acqua. Questo riempimento è stato eseguito circa quattro ore prima che il trasformatore fosse messo sotto tensione. Osservando quindi che l'acqua contenuta in forte quantità nell'olio aggiunto ha imbevuto, prima di raggiungere il fondo, le parti superiori del trasformatore, in preferenza sulle superfici orizzontali e osservando che la scarica ha appunto seguito essenzialmente queste vie, ed è avvenuta dopo circa 90 minuti da che il trasformatore era sotto tensione (se il livello d'olio fosse stato scarso la scarica sarebbe avvenuta molto prima) si può concludere che la causa del guasto è la forte umidità dell'olio

Responsabilità

Il trasformatore che era stato fuori servizio diversi mesi ed a cui era stato aggiunto dell'olio che, quanto meno, non si sapeva se era umido o asciutto, non doveva essere messo sotto tensione senza prima aver provato con lo spinterometro (esistente in centrale) un campione di olio prelevato dal fondo (operazione che dura complessivamente pochi minuti). Certamente una persona del mestiere avrebbe seguita questa elementare precauzione. Quindi per definire la responsabilità del danno bisogna prima individuare chi ha messo sotto tensione il trasformatore o ne ha ordinata la manovra. Se questa persona è competente c'è da pensare a dolo o quanto meno a deprecabile negligenza. Se è persona non competente c'è da attribuire il fatto ad incompatibile

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leggerezza.

Riparazione del guasto

Per la riparazione occorrono:

- 1°) Smontare il coperchio
- 2°) Smontare il giogo superiore
- 3°) Dissaldare il centro stella degli avvolgimenti
- 4°) Estrarre le nove colonne di avvolgimento
- 5°) Procedere alla riparazione con aggiunta di rame delle due bobine di testa
- 6°) Sostituire le parti isolanti carbonizzate. Se i pezzi erano a settori, si sostituiscono solo i settori danneggiati, altrimenti sarà opportuno sostituire l'intero pezzo.
- 7°) Esaminare attentamente le nove colonne di avvolgimento ed i cilindri bachelite interposti.
- 8°) Rimontare gli avvolgimenti, il giogo, il coperchio ed eseguire le connessioni usando preferibilmente materiale della stessa natura di quello impiegato dalla Casa costruttrice.
- 9°) Essiccare l'olio a parte e procedere come indicato appresso per l'altro trasformatore.

Mano d'opera

Il lavoro può essere eseguito sul posto sotto la sorveglianza di un tecnico specializzato. L'avvolgimento esterno a 125.000 Volt è del tipo senza saldatura e perciò il distacco delle due bobine di testa ed il successivo loro montaggio, che richiede l'esecuzione di saldature prima non esistenti, abbisognano di particolare cura e delicatezza. Lo stesso dicasi per la sostituzione dell'isolante deteriorato soprattutto di quello verso Massa (gioghi) delle colonne esterne. Una squadra di cinque persone (un capotecnico, due operai e due aiuti) può eseguire il lavoro in circa quarantacinque giorni (salvo, beninteso, altri lavori che risultassero necessari dopo l'esame degli avvolgimenti interni).

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Materiali

I materiali necessari saranno esattamente determinati dopo lo smontaggio completo del trasformatore ed a solo titolo di orientamento si possono indicare i seguenti quantitativi (salvo il materiale necessario per eventuali guasti alle colonne interne):

- 1°) Nastro sterling Kg. 30
- 2°) Nastro cotone larghezza 25 mm. metri 1000
- 3°) Cartone prespalm di vari spessori e lastra di bachelite sottile Kg. 50
- 4°) Vernice sterling Kg. 5
- 5°) Stagno composto al 50 % Kg. 2

2° Trasformatore (N° T 32581)

Il trasformatore si presenta visibilmente sano. L'olio che in esso era contenuto è molto ricco di acqua ed in centrale si sta procedendo alla separazione dell'acqua dall'olio mediante centrifuga. Per la perfetta riuscita del lavoro è necessario seguire le seguenti norme, in parte già verbalmente date al personale di centrale:

- 1°) Oltre alla centrifugazione è consigliabile riscaldare l'olio nell'apposita vasca contenente le resistenze, a 105° (non limitarsi a 90°)
- 2°) Proverare a freddo separatamente le singole quantità di olio trattate prima di versarle nel cassone del trasformatore
- 3°) Lavare gli avvolgimenti, le connessioni, i gioghi del trasformatore con olio caldo a spruzzo.
- 4°) Pulire accuratamente il cassone eliminando ogni residuo d'acqua e di morchia
- 5°) Riscaldare per diversi giorni l'olio contenuto nel cassone (con le resistenze già montate nel fondo del cassone) con la parte estraibile del trasformatore (nucleo ed avvolgimenti,) immersa nell'olio e tenuta sollevata circa 20 cm. dal fondo per dare libero sfogo al vapore acqueo uscente. La temperatura dell'olio deve essere mantenuta molto prossima a 105°. L'operazione può essere terminata dopo che sarà sparita la schiuma che ricopre la superficie libera dell'olio.

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- 6°) Se la Società Valdarno possiede un filtro pressa di dimensioni maggiori (almeno il doppio) di quello che ho visto in centrale sarà consigliabile eseguire un filtraggio a freddo per eliminare le sostanze estranee sospese nell'olio e per le quali non è stata sufficiente l'azione della centrifuga.
- 7°) Chiuderà il trasformatore e completare il riempimento, attraverso il conservatore, con olio perfettamente distillato fino a raggiungere il livello. Attendere che l'olio abbia pressoché la temperatura ambiente e provare allo spinterometro ~~prelevando tre campioni~~ tre campioni di olio prelevati dal fondo e quindi se le tre prove hanno avuto esito positivo, mettere gradatamente il trasformatore sotto tensione.

Prof. Ing. Enrico Gibieno
Loc. An. MATER

TRANSLATION

FB/bb

Plan della Rocca II/I/1945.

No.2 three-phase oil transformers (Brown Boveri) for out of door substation, natural cooling.

Primary 6000 V (intermediate)
 Secondary 67000 V (5%) (inside)
 2nd. " 125000 V (5%) (outside)
 Maximum capacity 14000 KVA, 50 cycles
 Connection

Ist Transformer (no. T 32580)

Apparent damages

Looking^{at} the transformer from the side opposite to 125 KV terminals (and also 6 KV) a flash over may be observed between 1st coil (upper coil, central winding) and the corresponding coil of right side winding. The electric discharge has pierced the insulating rings near the horizontal laminations, then, following the surface of insulating flanges between the upper coils and the separating diaphragm; the path of this discharge was mostly horizontal and took place between two points at the maximum voltage (125 KV).

Looking at the transformer from the 125 KV side a flash over may be observed, between the ends of the same two windings. In this case too the path was horizontal and took place through a metal mass (probably the casing). Small traces may be detected along the bakelite case of the 67 KV output; this flash over probably started on the insulator, then going to the transformer cover.

All this can be directly observed; no other damages may be expected but same flash could probably be found when disassembling the windings.

Causes.

Damages similar to those observed are due to low level or moisture of the oil (this is practically the same thing and even worse). The headman of the station (Mr. Dallan) stated that oil level was sufficient and that the english military personnel, considering the level as pretty low, added some more oil, taken from the depositing basin and containing some water. The filling was made about 4 hrs before the transformer was

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put under voltage.

Following points should now be considered:

- a) The water contained in ^{unremarkable} considerable amount in the oil, has impregnated the upper horizontal parts of the transformer before dripping to the bottom.
- b) The electric discharge took actually place 90 minutes after the transformer was put under voltage and followed an horizontal path in the upper side.
- c) Insufficient oil would have produced a flash over in a shorter time.

As a conclusion we ^{can} state that this breakdown was caused by moisture contained in the oil.

Responsibilities.

The transformer had not been operating for several months and the condition of additional oil with regard to moisture was unknown. A specimen of the oil, taken from the bottom should have been tested before the transformers were put under voltage by means of a spark-gap instrument (actually existing in the plant); this operation ordinarily requires a few minutes. A skilled technician would certainly have followed this elementary rule, so that in order to state the responsibility of damages an investigation should be made as to the man who ordered the whole operation and put the transformer under voltage. Were this person a technician, both fraud or deprecable carelessness may be considered, otherwise the damage can be described to incompetence.

Repairs

Following operations are needed:

- 1) Disassembling of cover
- 2) Disassembling of upper laminations.
- 3) Unsoldering of star-connection center
- 4) Extract all 9 windings
- 5) Repair upper coils by addition of copper.
- 6) Substitute burned out insulating parts, (in case of sectoral parts only the damaged sectors will be replaced)
- 7) Inspect carefully all nine windings as well as insulating cylinders.

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- 8) Replace windings, laminations, cover and make all connections by means of materials similar to those employed by Manufacturers.
- 9) Oil should be dried and all operations carried out as indicated below.

Manpower.

This work may be done on the spot, and controlled by an expert. The winding at 125 KV is of the welders type so that particular care is needed in disconnecting and reassembling both upper coils because no soldering has ever been made before.

The same is true for damaged insulating parts especially on the ground side of outer columns. A gang of men (1 headman, 2 workers, 2 assistants) may carry out this work in some 45 days, not considering other repairs whose necessity could arise after the inspection of inner windings.

Materials.

A complete list will only be obtained after the complete disassembling of the transformer. As a rough approximation following amount may be considered (apart from inner windings repairs):

- 1 - Insulating tape (sterling) 30 Kilos.
- 2 - Cotton tape (25 mm. width) 100 meters.
- 3 - Frespann pasteboard (various thicknesses) and thin bakelite sheet Kg.5
- 4 - Sterling varnish 5 5
- 5 - Soldering paste (tin 50%) 2 Kg.

2nd Transformer. (No.T 32851)

The transformer looks safe; the oil previously contained had some water which is now being taken away by centrifugal process in the plant itself. Following rules should be observed in order to provide efficient work:

- 1) Besides centrifugation the oil should also be heated in the suitable basin containing resistors - required temperature 105 C° (and not only 90°)
- 2) Make cold testing of each portion of oil processed before pouring it into the transformer casing.
- 3) Clean the windings, connection, and upper and lower laminations with hot oil-jets. 429
- 4) Clean accurately the casing by eliminating any trace of moisture

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or oil-dregs.

- 5) Heat the oil in the casing for several days (with resistors already settled on the bottom) the removable part of transformer (core and windings) immerzed in oil at same 20 cm from the bottom in order to provide safe way to outgoing steam. The temperature of oil must be kept very close to 105°C. Operation will be finished as soon as all foam on the surface of oil will have disappeared.
- 6) If Valdarno Co. has a press-filter of larger size (at least twice as much) than the one I observed in the plant, a cold filtering should be advisable in order to eliminate all substances suspended in the oil and not taken away from centrifugal action.
- 7) Close the transformer and completely fill up to normal level, though the oil cock, using dehydrated oil. After this has reached the ambient temperature, test with the spark-gap instrument 3 specimens taken from the bottom. If these 3 tests are satisfactory the transformer may gradually be put under voltage.

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