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Aug. 1944

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NOT TO BE CIRCULATED

APPENDIX "K"

ALLIED CONTROL COMMISSION
TRANSFORMATION SUB-COMMISSION

S E C R E T

A

S U R V E Y

OF THE

ITALIAN STATE RAILWAYS

and

PRIVATE RAILWAYS

in

S A R D I N I A

---o---

COMPILED in AUGUST

1944.

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SARDINIAN OFFICE of
Transportation Sub-Commission
Allied Control Commission.

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Declassified E.O. 12356 Section 3.3/NND No. 785046

OF THE

ITALIAN STATE RAILWAYS

and

PRIVATE RAILWAYS

in

S A R D I N I A

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COMPILED in AUGUST

1944.

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SARDINIAN OFFICE of

Transportation Sub-Commission

Allied Control Commission.

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Not to be CIRCULATED

ALLIED CONTROL COMMISSION
TRANSPORTATION SUB-COMMISSION

SECRET

Survey of

Italian State Railways and Private Railways,

SARDINIAN DIVISION

21st August 1944

Sardinian Office of
Transportation Sub-Commission
Allied Control Commission.

Introduction

1. The Railways of SARDINIA are at present being supervised by the Allied Military Authorities.

The Transportation Officer is Lt-Col CONLINE (A) and Captain W.A. ROHEL (A) represents the D.G.M.R.S.

2. Special appreciation is due to the following for their assistance in making available much detailed information which has been embodied in this Survey.
Lt-Col CONLINE, Transportation Officer, Allied Garrison Sardinia Tn.Section,
Captain ROHEL, D.G.M.R.S. Representative.
Dott. ING. SOLLANO, Capo della Delegazione Ferrovie Stato,
also, useful information was extracted from a Report made by Major SPANN, CMP, who was Transportation Officer, dated November 1943.

THE SARDINIAN RAILWAYS

1. General Description
The Railways in SARDINIA consist of two general types of lines, viz :-

(a) Standard Gauge Track (4' - 8 1/2") - 429 Kilometers

(b) Narrow " " (3' - 3 3/8") - 890 "

(a) The Standard Gauge lines are owned and operated by the Italian Government, and are called "FERROVIE dello STATO".
There are no double track lines in the Island,
The main line runs from CAGLIARI to OLBIA, and there are branch lines to IGLESIAS from DECIMO, and to PORTO TORRES from CHILIVANI.

Connections are made with narrow gauge lines at: CHILIVANI, MACOMER, SANLURI, IGLESIAS, SILIQUE and CAGLIARI.

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Sardinian Office of
Transportation Sub-Commission
Allied Control Commission.

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There are no double track lines in the Island,
The main line runs from CAGLIARI to OLBIA, and there are branch lines to IGLESIAS from DECIMO, and to PORTO TORRES from CHILIVANI.

Connections are made with narrow gauge lines at:
SASSARI, MONTI, CHILIVANI, MACOMER, CAPLONI, IGLESIAS, SILIQUE and CAGLIARI.

(b) The Narrow Gauge lines are operated and owned by three private Companies, and were co-ordinated by the State Railways Supt. (Dr.SOLLANO) up to February 1944. 3814

(1)	SOC.STRADE FERRATE SARDE (Northern District),	161 Km.
(2)	FERROVIE COMPLEMENTARI	615 Km.
	(a) MACOMER DIVISION	
	(b) CAGLIARI "	
(3)	FERROVIE MERIDIONALI SARDE (Sulcis Coal District) (Coal traffic only, Mine to Ports)	114Km.

/ Continued .....

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In March 1944 the narrow gauge lines passed to the Control of ISPETTORATO MOTORIZZAZIONE, an organisation of the Ministry of Transportation supervising all private narrow gauge lines, tramways, road Transport and inland water transport.

Hereafter, this Survey will only deal with Standard gauge lines, except where specially specified.

There is an excellent telephone and telegraph system on all sections.
All lines are open for traffic.

2. Damage by Air Raids etc.

The Sardinian Railways were only very slightly damaged by Air Raids and Shell Fire.
No bridges and no tunnels were destroyed nor even damaged.
The only buildings to suffer were the Station buildings in Cagliari, CHILIVANI and OLBIA.
As regard damage to rolling stock, only two locomotives were disabled by machine gun fire, 61 rail cars were totally destroyed and 527 were damaged, but these are repairable and some have already been repaired.
The Locomotive workshops at CAGLIARI were destroyed.

3. Railway Employees
The total number of Employees now working on the Standard Gauge lines is 1,674 made up as under :-

Officials and Clerks	236
Traffic and Commercial Department	614
Locomotive and Engineering Departments	664
Labourers	360
Total	1,874

Compared with 1939 the figures are about the same.

4. Financial Position
The Sardinian Railways are in a good financial position and are making money.
The nett profits for May and June 1939 were between 4 and 5 millionlire.
The nett profits for May and June 1944 were 21,785,808 lire. Cash in hand at Bank 7,587,205 lire, August 1944.

The reasons for the bigger earnings in 1944 were on account of more people travelling by rail, and more freight diverted to rail on account of shortage of Road Transport facilities, and very little petrol.

5. Tariffs
In January 1944, the passenger fares were increased by 100%, and the freight tariffs were also increased by 70% as from 1st November 1943.

6. Wages
On 1st November 1943 the wages of all grades of railwaymen were increased by 70% and this also applied to t

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5. Tariffs
In January 1944, the passenger fares were increased by 100%, and the freight tariffs were also increased by 70% as from 1st November 1943.

6. Wages
On 1st November 1943 the wages of all grades of railwaymen were increased by 70% and this also applied to the narrow gauge lines.
The wage bill in July and August 1943 was 4,492,000 lir.
The wage bill in March and April 1944 was 8,008.850 lire.

7. Locomotives and Rolling Stock (Standard Gauge)
The figures in August 1944 are as under:-

	Imported Coal	Converted to burn Sulcis Coal	Total
Locomotives, steam in use	41	12	53
Under repair or waiting normal repairs	13	9	22
In shops for conversion to Sardinian Coal	1	-	1
Shunting Engines	6	-	6
Total	61	21	82

/Continued 3a

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7. (Contd)

The types are:

Class of Engines
The classification of the locomotives is as follows:-

Class.	Imported Coal	Peninsular Coal	Total	Used for
744	7	1	8	Passenger and Freight
740	33	12	45	Freight
625	18	5	23	Pass and Freight
651	6	-	6	Shunting
	64	18	82	

The majority of the locomotives are 2 - 6 - 0, 2 - 4 - 4.

(b) Diesel Coaches

In use	18
In depot for re-fitting	2
To be re-fitted	21
In depot, spare	11
Un-repairable	2

Diesel Shunting Engines

In use	2

Note. One Diesel Coach has been specially fitted up for the use of Allied Military Authorities.

(c) Coaching Stock	Good	Repairable	Un-repairable
Passenger Coaches in use (bogie)	13	49	-
" " " (6 wheeled)	29	66	2
Mail Coaches	7	5	-
Special Prison Coach	1	-	-
Baggage Coaches	22	29	-
Total	72	149	2

(d) Freight Cars	In use	Repairable	Un-repairable
Box Waggons	362	179	18
Open, High-sided	553	180	36
" Low-sided (gondolas)	186	63	4
Long Bogie Waggons (to carry rails or long timber))	14	9	-
Water Tank Waggons	19	12	-
Waggons fitted with hand crane	3	-	-
Mobile Work-shop Waggons	4	1	1
Total	1135	378	59

Most of the freight cars are of 20 tons capacity.

(e) Locomotives and Rolling Stock (Narrow Gauge)

	Locos.	Coaches etc.	Freight Cars
(a) Ferrovie Complimentari	75	70	498
(b) Strade Ferrate Sarde	19	30	122
(c) Ferrovie Meridionali	99	-	270 (Coal)
	193		

Fuel used by (a) 37 burn 2/3rd imported coal and 1/3rd local anthracite

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In depot for re-fitting	2
To be re-fitted	21
In depot, spare	11
Un-repairable	2

Note. One Diesel Coach has been specially fitted up for the use of Allied Military Authorities.

(c) Coaching Stock	Stock	Repairable	Un-repairable
Passenger Coaches in use (bogie)	13	49	-
" " " (6 wheeled)	29	66	2
Mail Coaches	7	5	-
Special Prison Coach	1	-	-
Baggage Coaches	22	28	-
Total	72	149	2

(d) Freight Cars	In use	Repairable	Un-repairable
Box Wagons	362	179	18
Open, High-sided	559	120	36
" Low-sided (gondolas)	186	63	4
Long Bogie Waggons (to carry rails or long timber))	14	3	-
Water Tank Waggons	19	12	-
Waggons fitted with hand crane	3	-	-
Mobile Work-shop Waggons	4	1	1
Total	1135	378	59

Most of the freight cars are of 20 tons capacity.

(e) Locomotives and Rolling Stock (Narrow Gauge)

	Locos.	Coaches etc.	Freight Cars
(a) Ferrovie Complimentari	75	70	498
(b) Strade Ferrate Sarde	19	30	122
(c) Ferrovie Meridionali	39	-	270 (Coal)
	133		

Fuel used by (a) 37 burn 2/3rd imported coal and 1/3rd local anthracite.
16 " Wood - or coal (imported)
22 " imported coal
(b) All burn imported coal.
(c) 8 burn local coal
31 " imported coal.

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The freight cars are of various types of 6 to 8 ton capacity.

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6. FUEL and LUBRICANTS

(a) Coal. The Sardinian (Sulcis) Coal, which is produced in the CARBONIA area is not suitable for the locomotives as a fuel, used alone, as it contains a high sulphur content. This has a corrosive action on the tubes and fire-boxes, unless the locomotives have been converted for its use.
The Railways therefore have to depend on a certain amount of imported coal.

About 50% of the locomotives have been converted but shortage of material is now limiting further conversion.

In a report, submitted by Supt. Sollazzo last October, to the C...O. it was stated that in order to run a satisfactory service on all lines, the Railways would require 2500 tons of imported coal and 1000 tons of Sardinian coal per month.

It would appear that no reserve of coal, either imported or Sardinian, has been built up, and the Railways are running on a hand-to-mouth basis.

The fuel consumption figures hereunder were taken from Railway Returns:

Average consumption of Coal per month:-

	Imported	Sardinian	Total
Pre-War (1938)	2100	600	2700
War Years	4000	800	4800
September (1943)	1700	1600	3300
July (1944)	1650	1200	2850

The imported coal is supplied by Coal Section, A.F.H.Q. About 1600 tons a month for Standard Gauge and 1050 tons for narrow gauge, total 3,000 tons a month.

(b) Diesel Oil used in Rail Cars per Month:-

Pre-War	72 tons
September (1943)	40 "
July (1944)	45 "

Standard Gauge

It is drawn from Petroleum Division in Cagliari. No payment has been made by the Italian Railways.

(c) Lubricants used per month : -

Pre-War	5000 litres
September (1943)	1650 "
July (1944)	5000 "

It is drawn in the same way as Diesel Oil.

The coal position at the end of July 1944 was as under : -

(Standard Gauge) Broad.	Imported	Sardinian	Total
Tonnage consumed in July 1944	1650	1000	2650
Tonnage on hand	900	800	1700
Prospective Receipts	1600	1000	2600

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Average consumption of Coal per month:-

	Imported	Sardinian	Total
Pre-War (1938)	2100	600	2700
War Years	4000	600	4600
September (1943)	1700	1600	3300
July (1944)	1650	1200	2850

The imported coal is supplied by Coal Section, A.F.H.Q. About 1600 tons a month for Standard Gauge and 1100 tons for narrow gauge, total 2,600 tons a month.

(b) Diesel Oil used in Rail Cars per Month:-

Pre-War	72 tons
September (1943)	46 "
July (1944)	45 "

Standard Gauge

It is drawn from Petroleum Division in Cagliari. No payment has been made by the M.T.O.S. Railways.

(c) Lubricants used per month :-

Pre-War	4000 litres
September (1943)	1450 "
July (1944)	3000 "

It is drawn in the same way as Diesel Oil.

The coal position at the end of July 1944 was as under :-

(Standard Gauge)	Imported	Sardinian	Total
Broad.			
Tonnage consumed in July 1944	1650	1000	2650
Tonnage on hand	900	800	1700
Prospective Receipts	1600	1000	2600

In addition another 800 tons of imported coal was consumed on the Narrow Gauge.

9. Capacity Loading of Trains

Owing to heavy gradients, train loads in certain sections are limited to a gross load of 175 tons, or 325 tons actual-hooked.

On the Cagliari to Oristano line however, the gradients are not severe and a gross load of 600 tons can be hauled.

Sidings and passing points do not exceed 35 rail car Clearances.

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10. Material.

There is a small stock of spare parts of all kinds in the Island, including locomotive parts for Standard and Narrow Gauge Engines. A supply of good sleepers is scattered at various places. The Loco. repair shops were destroyed and no other shops are available except one or the adjacent narrow Gauge line, so repair facilities are slow, likewise the conversion of Locos to burn Sardinian coal. There is however, a small round house and Repair Shop at Sassari, where, in a small way, repairs can be effected.

As regards materials asked for by the Railway Management a complete list was sent to the Transportation Sub-Commission a few months ago.

There is however a scarcity of certain supplies and materials and the Military Railways representative informs me that this is becoming serious. I refer to machine tools, engine gaskets, acetylene welding apparatus and air brake pipes, also brake shoes are getting worn out.

As regards the air brake pipes, it is suggested that a number could be cannabilised from the hundreds of damaged rail cars now standing idle all round Sicily. Some of these would be invaluable in Sardinia and would place more vehicles in traffic at once.

11. Export Trade Dependent on Railways.

The main industry of Sardinia is coal mining. Lead is also produced, and there are extensive chrome properties, red and yellow, also zinc mines. Nearly all of this is exported to Italy. Wine is also produced for export. Hard wheat for pasta is grown and 70% of this was exported. Sheep and wool are also exported.

Soft wheat is imported, also coal, and machinery.
All these commodities can only be moved by Railway.

12. Present Schedule of Trains

Cagliari and ICLESIAS 2 mixed trains a day, each direction, for military and civilians. (Steam)

Cagliari and Sassari 2 military trains a day (steam) each way.

These trips are made in 10 hours running time.

Local Civilian and Military trains.

Cagliari and Sassari. 2 each way daily. Civilians pay fares, Allied Military personnel travel on Railway Warrants. If on duty, passes are issued by M.R.S. Representative.

Chilivani to CIELA. One local train runs each way daily. (Civ & Mil)

A number of diesel cars are run for civilians over various sections of the line.

One Italian Military Steam and Civilian Passenger train between Cagliari and Sassari is run tri-weekly. Each direction.

The Steam train between Cagliari and Macomer is run daily for civilians.

It will be noticed that the service at present given is liberal.

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13. Tonnage Moved During July 1944 the net tons of traffic moved was as under:

Civil Total

0016

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11. Export Trade Dependant on Railways.

The main industry of Sardinia is coal mining. Lead is also produced, and there are extensive chrome properties, red and yellow, also zinc mines. Nearly all of this is exported to Italy. Wine is also produced for export. Hard wheat for paste is grown and 70% of this was exported. Sheep and wool are also exported.

Soft wheat is imported, also coal, and machinery.
All these commodities can only be moved by Railway.

12. Present Schedule of Trains

Cagliari and IGLESIAS 2 mixed trains a day, each direction, for military and civilians. (Steam)

Cagliari and Sassari 2 military trains a day (steam) each way.

These trips are made in 10 hours running time.

Local Civilian and Military trains.

Cagliari and Sassari. 2 each way daily. Civilians pay fares, Allied Military personnel travel on Railway Warrants. If on duty, passes are issued by M.R.S. Representative.

Chilivani to OLBIA. One local train runs each way daily. (Civ & Mil)

A number of diesel cars are run for civilians over various sections of the line.

One Italian Military Steam and Civilian Passenger train between Cagliari and Sassari is run tri-weekly. Each direction.

The Steam train between Cagliari and Macomer is run daily for civilians.

It will be noticed that the service at present given is liberal. 3012

13. Tonnage Moved During July 1944 the net tons of traffic moved was as under:

	Allied Forces.	A.C.C.	Italian Forces	Civil.	Total
(a)	11,265 tons	2945 tons	7762 tons (chiefly Ammo)	13466	35.438

The Allied Military Traffic is increasing at present.

(b) Personnel. Large numbers of Italian Troops continue to be moved to Mainland, 58,000 were moved previous to July and 39,500 during July.

It is expected another 30,000 Italian Troops have been or will be moved in August

/Continued ..... 13 (c)

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19. (c) Narrow Gauge

The tonnage moved in July, over the narrow gauge lines amounted to : -

Military	5,189	tons
Civil	32,070	"
Total	37,259	tons

The Civilian traffic was chiefly Coal.

14. Guards on Trains etc.

On all Military trains, the U.S. Army provide armed Military Guards, also for all rail cars standing loaded with military traffics.

On Civilian trains, guards are supplied by the local Carabinieri, and the Italian Army provide armed guards for bridges, tunnels etc.

There is a very inadequate Railway Police Force with the result that civilian freight gets pilfered, and standing Rail Coaches are stripped etc.

15. Importance of Railways to Economic Life

The people of Sardinia are entirely dependent on the Railways. In pre-war days they had a very good train service, and also road and tramway services.

Now, there is practically no road service. The Schooners are not allowed to move unless authorised by the Navy. Before the war, much civilian traffic was water-borne. Since ACC commenced importing flour and grain the distribution has all been effected by rail and this will continue.

16. Conclusion.

The Railways are in a fortunate position, having suffered only trivial damage. The civilians are enjoying a generous train service,(probably too generous) and the financial position is good.

There are plenty of Locomotives, rolling stock, and Diesel Coaches,but nearly all these require overhaul and it should be mentioned that the Locomotives are old. Cannibilisation is being carried out as far as possible. It might be possible to take out some of the Engines from the diesel coaches and send them to Palermo to be fitted in good diesel coaches standing idle there,and then transfer them to the Mainland, or use them in Sicily and save coal.

The Army traffics are now at their peak,viz, gasoline,food and ammunition. The gasoline arrives by tanker and then goes forward by rail in drums. About 2c car loads a day are now being forwarded.

It is considered that a coal reserve should be built up at once,in case of any emergency and that,if necessary, the civilian train service should be reduced until a satisfactory coal reserve has been accumulated.

The Railroad is in good condition and is being well maintained.
During the next few days yours Representative hopes to travel over the line and also keep in touch with the Military

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5

REQUIREMENTS OF RAW MATERIALS FOR "ACCIAIERIE E FERRIERE FORLIVESI-GIOVANNOZZO'S STEEL WORKS

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.
Iron & Ferrous Alloys:											
Heavy scrap	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Light scrap	600	600	600	600	600	600	600	600	600	600	600
Iron ore	40	40	40	40	40	40	40	40	40	40	40
Flue dust (pure)	5	5	5	5	5	5	5	5	5	5	5
Manganese (as MnO_2)	16	16	16	16	16	16	16	16	16	16	16
quartz (as SiO_2)	80	80	80	80	80	80	80	80	80	80	80
Fire clay or Sepiolite	22	22	22	22	22	22	22	22	22	22	22
Dolomite (as $MgO.CaO_2$)	44	44	44	44	44	44	44	44	44	44	44
Spar	1	1	1	1	1	1	1	1	1	1	1
Mn-Si 65%	15	15	15	15	15	15	15	15	15	15	15
Si-Cl 75%	15	15	15	15	15	15	15	15	15	15	15
Fe-Si-Mn	5	5	5	5	5	5	5	5	5	5	5
High manganese Spiegel	20	20	20	20	20	20	20	20	20	20	20
Silico spiegel	-	30	-	-	-	30	-	-	-	80	-
Clay brick	-	100	-	-	-	100	-	-	-	100	-
Dolomite	-	30	-	-	-	30	-	-	-	30	-
Magnesite brick	-	5	-	-	-	5	-	-	-	5	-

(x) reported till August 1943 when Magnoli will start working.

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OF RAW MATERIALS FOR "ACCIAIERIE E FERRIERE LOMBARDE-GIOVENZO'S STEEL WORKS - IN TONS (Contd)

eb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Totals
000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000
600	600	600	600	600	600	600	600	600	600	600	7200
40	40	40	40	40	40	40	40	40	40	40	480
5	5	5	5	5	5	5	5	5	5	5	60
16	16	16	16	16	16	16	16	16	16	16	192
80	80	80	80	80	80	80	80	80	80	80	960
22	22	22	22	22	22	22	22	22	22	22	264
44	44	44	44	44	44	44	44	44	44	44	528
1	1	1	1	1	1	1	1	1	1	1	12
15	15	15	15	15	15	15	15	15	15	15	180
15	15	15	15	15	15	15	15	15	15	15	180
5	5	5	5	5	5	5	5	5	5	5	60
20	20	20	20	20	20	20	20	20	20	20	240
80	-	-	-	80	-	-	-	80	-	-	240
100	-	-	-	100	-	-	-	100	-	-	300
30	-	-	-	30	-	-	-	30	-	-	90
5	-	-	-	5	-	-	-	5	-	-	15

(x) Imported till August 1945 when joinels will start working.

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REQUIREMENTS OF RAW MATERIALS FOR MACHATERIE E FERRIERE FUGLESE-CICVIIA270

These requirements are referred to a plant working in conjunction with the fo
1 S.M. Furnace 25 tons capacity
2 Rolling Mills working alternatively
1 Forging Shop

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Production:										
Ingots	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Section	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Forging pieces	100	100	100	100	100	100	100	100	100	100
Electric power	2200 x24x31	2200 x24x28	2200 x24x31	2200 x24x30	2200 x24x31	2200 x24x30	2200 x24x31	2200 x24x31	2200 x24x30	2200 x24x31
Importation:										
Pig Iron (x)	650	650	650	650	650	650	650	650	650	650
Coke Coal	4	4	4	4	4	4	4	4	4	4
Coal for Steel Works (Splint)	550	550	550	550	550	550	550	550	550	550
Coal for reheating Furnace	450	450	450	450	450	450	450	450	450	450

(x) Imported till August 1945 when Bagnoli will start working

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AMOUNTS OF RAW MATERIALS FOR MACHINERY & MUNITIONS ENGLISH-GOVERNMENTS STEEL WORKS (in tons)

Requirements are referred to a plant working in conjunction with the following shops:
1 S.M. Furnace 25 tons capacity
2 Rolling Mills working alternatively
1 Forging Shop

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	26400
1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	21600
100	100	100	100	100	100	100	100	100	100	100	100	1200
2200 x23	2200 x21	2200 x21	2200 x21	2200 x21	2200 x21	2200 x21	2200 x21	2200 x21	2200 x21	2200 x21	2200 x21	26400
650	650	650	650	650	650	650	650	650	650	650	650	7800
4	4	4	4	4	4	4	4	4	4	4	4	48
550	550	550	550	550	550	550	550	550	550	550	550	6600
450	450	450	450	450	450	450	450	450	450	450	450	5400

(x) Reported till August 1915 when Bagnall will start working.

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4. Objective is suitable performance test facility to be
operated by [illegible]. It is centrally situated to [illegible]
[illegible] plants. Site is owned by [illegible] and is [illegible]
[illegible] Special [illegible] plant [illegible] acres total. [illegible]
[illegible] Site is [illegible] from [illegible] and is [illegible]
[illegible] Site is [illegible] from [illegible] and is [illegible]
[illegible] Site is [illegible] from [illegible] and is

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Of the above equipment the only damaged items are driving motors to the pumps and the electric heat treatment furnaces. This plant was installed for the production of 105 m/m and 76 m/m shells and should have a minimum production of 200 per hour and 450 per hour of each size concurrently. Large quantities of small forgings are stored around the plant.

This department could be easily repaired and put to work again if so desired.

VIII. Engineers and Roll Turning Shop. This is a small shop with an assorted variety of plant to cover the firm's own maintenance needs. Workable machines are at present fully employed.

General information.

1. The firm's power station has been heavily damaged, but three transformers of 2500 KVA each have escaped damage and will serve the factory's needs.

2. The following sizes of products can be rolled:

a) Rounds 200 m/m max. b) Angles 120 m/m max.
c) Channels 120 m/m max. d) Rounds 50 m/m max.
e) Flats 150 m/m x 40 m/m f) Squares 100 m/m sq.
g) Taps 36 m/m h) Rails 27 kg. per metre.

3. The maximum output of the rolling mills was given at 6,250 metric tons per month.

4. Present re-construction work now proceeding should give an output of approximately 2,500 tons per month of assorted products.

Conclusions and Recommendations:

1. A good deal of energy is being used to get portions of this plant working, and in view of the relatively light damage to some items of the plant, should be encouraged.

2. Given the necessary materials in the form of roof-sheeting, replaced motors and certain castings, the plant could be put back to its former condition in a period of 12 months.

3. As a short-term policy much can and is being done, and the re-habilitation of this plant is much less of a problem than at ILVA-BAGNOLI.

4. The output of the steel plant is approximately 1/3 that of the rolling capacity, and it is pointed out that re-habilitation of [illegible] of little use unless rolling [illegible]

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with an assorted variety of plant to cover the firm's own maintenance needs. Portable machines are at present fully employed.

General Information.

1. The firm's power station has been heavily damaged, but three transformers of 250 KVA each, have escaped damage and will serve the factory's needs.

2. The following types of products can be rolled:

a) Joists 200 m/m max.
b) Angles 120 m/m max.
c) Channels 120 m/m max.
d) Rounds 80 m/m max.
e) Flats 150 m/m x 12 m/m
f) Squares 100 m/m sq.
g) Tees 50 m/m
h) Rails 27 Kgs. per metre.

3. The maximum output of the rolling mills was given at 6,200 metric tons per month.

4. Present re-construction work now proceeding should give an output of approximately 2,000 tons per month of assorted products.

Conclusions and Recommendations:

1. A good deal of energy is being used to get portions of this plant working, and in view of the relatively light damage to some items of the plant, should be encouraged.

2. Given the necessary materials in the form of roof-sheeting, replaced motors and certain castings, the plant could be put back to its former condition in a period of 12 months.

3. As a short-term policy much can and is being done, and the re-habilitation of this plant is much less of a problem than at ILVA-BAGNOLI.

4. The output of the steel plant is approximately 2/3 that of the rolling capacity, and it is pointed out that re-habilitation of all the mill equipment is of little use unless supplies of steel in the block form can be made available from other sources.

5. The importation of coal for gas producers and re-heating furnaces will be necessary.

6. The following stocks of raw and semi-finished materials were observed:

a) Approx. 2,500 tons of steel ingots.
b) Approx. 2,000 tons of steel wire and bars in coils and random lengths.
c) Large quantities of 76 m/m and 102 m/m shell forgings.

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Germans, but the mechanical damage to the plant is not nearly. [illegible]
prospect of running this plant unless new driving motors can be obtained.
This would take considerable time and can be ruled out as short-term policy.

(b) One modern Kocyan mill for wire rods and small flats.
This is of modern construction with repeat rolls, rolling mill stands, rolling bank and all necessary ancillary equipment. The driving motors have been thoroughly demolished and until these are replaced the plant is unable to operate. The rated output was approximately 10 tons per hour. Of all the rolling mills, these described under (a) and (b) only can be considered for any work in the near future.

iii. Wire Drawing Plant. This department has 12 drawing benches. [illegible] end of these 72s are in production, producing wire of various sizes. It was understood that the bulk of the production go to the firm's own nail producing plant. In a short time the firm expects to have the whole of this equipment working. They can draw wire down to 0.20 m/m diameter. The plant appeared to be of fairly modern design and construction.

iv. Nail manufacturing shop. This is a medium-size plant consisting of some 72 machines producing an assorted variety of nails from 1/2" in length to a maximum of 7" in length. The plant is at present operating at 300 tons of nails per month, but they expect to boost this output to 450 tons per month in about 2 weeks time by the introduction of further machines which are at present under [illegible]. This department gives the impression of being well organised.

v. Iron foundry. Adjacent to the steel plant there is a small iron foundry with two cupolas, 1-3cwt Ha. capacity, and 1-15cwt Ha. capacity. This is used chiefly on the firm's own requirements and considered to be only useful for repairs and replacement parts to the steelworks.

vi. Shell Forging Shop. Situated at the extreme end of the steel plant with the following equipment:

a) 300 ton Tweeling and drawing Press
b) 150 ton Tweeling and Drawing Press
c) Two continuous billet furnaces fired by coal
d) Two sets of three stage hydraulic pumps together with 9 air bottles with a total capacity of 10 cu.metres. Water pressure is 1 200 Kg/cm.
e) Two electric furnaces for the heat treatment of shell bodies.
f) Two semi-automatic shell turning lathes.

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APPENDIX 3

REPORT ON "ILVA" STEEL WORKS - TORRE ANNUNZIATA

General

This plant is a fairly large steelworks and rolling mills, part of the works of old design and construction, but an effort has been made to install modern plant in the form of two new rolling mills. The pre-war number of hands was in the region of 1,000. The plant consumed in 1942 12,700,000 kw. h. of electric power.

The following are the principal departments,

1) Siemens Martin open hearth Steel plant
2) Rolling Mills
3) Wire Drawing Plant
4) Nail Manufacturing Shop
5) Iron Foundry
6) Shell Forging Shop
7) Engineer and Roll Turning Shop

Plant: General.

These works have expanded round the original rolling mills and the steelworks and new mills were constructed about 1925-26. They are a mixture of old and modern. Damage to the plant was sustained both by bombing and by German demolitions, but is in no way so thorough as at ILVA, BAGNOLI, and given a reasonable chance, it is considered that this plant can be rehabilitated throughout in a comparatively short period of time (say 12 months). Parts of the equipment, notably one furnace and two trains of rolls can be got to work in a much shorter period of time (say 2 months) and work on the reconstruction of these items is being pushed ahead with energy.

Plant Details.

I. Siemens Martin open hearth plant. This is a relatively small plant with 3-thirty furnaces fired by producer gas. The charging machine has been damaged, but is now under repair. One furnace is being reconstructed and re-bricked and they firm hope to be producing steel from this furnace in one month's time. All overhead cranes are intact and the two ladle cars are workable. The gas producers also escaped serious damage. The structure of the building is good but roof and side sheeting is missing. Maximum output of this plant would be in the order of 21 1200/1300 tons per week. The usual ingot size is 1/2 ton metric.

II. Rolling Mills. The original old rolling mills are as follows:

The following are the principal departments;

1) Siemens Martin Open Hearth Steel Plant
2) Rolling Mills
3) Wire Drawing Plant
4) Nail Manufacturing Shop
5) Iron Foundry
6) Shell Forging Shop
7) Engineer and Roll Turning Shop

Plant: General.

These works have expanded round the original rolling mills and the steelworks and new mills were constructed about 1925-26. They are a mixture of old and modern. Damage to the plant was sustained both by bombing and by German demolitions, but is in no way so thorough as at ILVA, PIOMBINO, and given a reasonable chance, it is considered that this plant can be rehabilitated throughout in a comparatively short period of time (say 12 months). Parts of the equipment, notably one furnace and two trains of rolls can be got to work in a much shorter period of time (say 2 months) and work on the reconstruction of these items is being pushed ahead with energy.

Plant Details.

I. Siemens Martin Open Hearth Plant. This is a relatively small plant with 3-thirty furnaces fired by producer gas. The charging machine has been damaged, but is now under repair. One furnace is being reconstructed and re-bricked and the firm hope to be producing steel from this furnace in one months time. All overhead cranes are intact and the two ladle cars are workable. The gas producers also escaped serious damage. The structure of the building is good but roof and side sheeting is missing. Maximum output of this plant would be in the order of 21 1200/1300 tons per week. The usual ingot size is 1/2 ton metric.

II. Rolling Mills. The original old rolling mills are as follows;

a) 1-3 High 3 stand 600 m/m Cogging Mill
1-3 High 2 stand 450 m/m Intermediate & Finishing Mill

This plant is under reconstruction. Furnaces are being re-built and the driving motors are intact. These units could roll small beams, angles, channels, rounds, billets, flats and squares. At present progress the plant should be in production in two months. No roof covering for the shop is in existence, and work will be done under difficulties unless this can be provided.

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3. Forge

The original forge consisted of a number of very old tilt hammers. (This type of shemmer has been obsolete throughout the world for many years). These hammers had been installed for the production of agricultural implements and tools, and were hardly suitable for any other purpose, in fact, the D.W. are at present setting up a modern forge in an adjacent building and when this is completed they intend to vacate the old forge.

This plant has been the subject of correspondence with the Italian Government regarding its use by the plant owners for the production of agricultural implements. This question was raised with the D.W. but they were quite definite that owing to the uncooperative attitude of the plant owners, they were not prepared to allow them access to the plant. When, however, the new forge is complete, it may be possible to remove the old plant to some other site to continue operations.

4. Machine & Fabricating Shops.

A shop has been laid out for the fabrication of steel bridge sections and the machining of associated parts, pulley blocks, shackles and other parts being fabricated, all the necessary steel being produced within the works.

GENERAL INFORMATION.

1. The uncooperative attitude of the Italian owners has forced the D.W. to forbid them access to the plant, and to take over the running of the works completely. It was understood from Lt. Morley that no proper records, drawings or maintenance arrangements existed and they found it necessary to bring in some 30 R.E. Sappers to do this work.

Previously the owners had operated a hit and miss basis waiting for something to break down before endeavouring to rectify this state of affairs. In consequence little or no stocks of spares existed.

2. The improvements being made to this plant by D.W. should leave it in a better condition than when it was taken over. A modern smithy is being installed and the plant is being kept in operation instead of being allowed to deteriorate.

3. The D.W. are willing to release certain of the fabricated stocks of agricultural implements now lying in the works. They have no use for these parts.

CONCLUSIONS & RECOMMENDATIONS.

1. This is a small unit, but is doing very useful work under the direction of D.W. All departments are working to capacity on army requirements.

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then, however, the new forge is complete, it may be possible ... old plant to some other site to continue operations.

4. Machine & Fabricating Shops.

A shop has been laid out for the fabrication of steel bridge sections and the assembling of associated parts, pulley blocks, shackles and other parts being fabricated, all the necessary steel being produced within the works.

GENERAL INFORMATION.

1. The uncooperative attitude of the Italian owners has forced the D.W. to forcid them access to the plant, and to take over the running of the works completely. It was understood from Lt. Worthen that no proper records, drawings or maintenance arrangements existed and they found it necessary to bring in some 20 D.W. Sappers to do this work.

Previously the owners ran operation a bit and miss basis waiting for something to break down before endeavouring to rectify this state of affairs. In consequence little or no stocks of spares existed.

2. The improvements being made to this plant by D.W. should leave it in a better condition than when it was taken over. A modern smithy is being installed and the plant is being kept in operation instead of being allowed to deteriorate.

3. The D.W. are willing to release certain of the fabricated stocks of agricultural implements now lying in the works. They have no use for these parts.

CONCLUSIONS & RECOMMENDATIONS.

1. This is a small unit, but is doing very useful work under the direction of D.W. All Departments are working to expedite army requirements.

2. It is obvious that the works plant and they layout is being improved; the workers are being taught to do work which they previously considered impossible, and the plant is better maintained than before.

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APPENDIX C

REPORT ON S.A. ACCIAIERIE E FERRIERE JUGLIESI-GIOVINAZZO

GENERAL.

This plant is a small steelworks and rolling mills situated in Giovinazzo north of Bari. It is at present being controlled and operated by D.T. the O/C being Lt. Cortier of No. 2 District SC E.P.W. A good job of work has been done by these engineers who have now got the plant working to full capacity. Judged by any standard this plant is very small and consists of 1-25-Ton Siemens Martin O.H. Furnace, two rolling mills; an 18" mill and a 12" mill, complete with electric and a standby steam drive; furnace equipment and all necessary auxilleries.

In addition there is an old forge with several tilt hammers which was originally used for the production of agricultural implements. A new forge with power driven hammers is being installed by D.T. and the machine shops have also been strengthened by the installation of additional machine tools. The section welding and fabricating department is working to capacity on the fabrication of bridge members for the Army. The works are divided into four main departments, i.e. (a) open hearth Siemens Martin Steel Plant (b) The Rolling Mills, (c) The forging Plant, (d) The Machine Shop and Fabricating Plant. In addition the usual ancillary units such as roll turning shop, teeming house, oxygen plant are situated within the works.

PLANT DETAILS

1. Siemens Martin Steel Plant.

This consists of 1-25 Ton O.H. furnace served with two gas producers. Three heats of steel giving an approximate tonnage of 60 tons of good material are produced daily. The majority of the casts are structural steel of an analysis 20/25% Carbon 6/8% Manganese S & P up to 06%. A few casts of a lower carbon quality have been produced. The analysis records show a fairly close control over the material produced. The gas producers are working on Indian coal with a high ash content and much time is taken up in cleaning out the ash from producers and flues. A good foreman has been obtained from Ilva Bagnoli who is supervising the steel production. The size of the ingots is small the biggest being approximately 500 lbs. in weight. There was no evidence of mechanical charging or stripping, and this part of the work was carried out under difficulties.

2. Rolling Mills

These consisted of 1-4 Stand 3 high 18" Mill and 1-6 Stand 3 high 12" Mill. These mills were driven by one central electric drive connected with a rope drive (this was a special square rope and pa

two rolling mills, and [illegible]
and a standby steam drive; further equipment and all access by overhead.

In addition there is an old forge with several oil hammers which was originally used for the production of agricultural implements. A new forge with power driven hammers is being installed by D.T. and the machine shops have also been strengthened by the installation of additional machine tools. The section welding and fabricating department is working to capacity on the fabrication of bridge members for the Army. The works are divided into four main departments, i.e. (a) Open hearth Siemens Martin Steel Plant (b) The Rolling Mills, (c) The Forging Plant, (d) The Machine Shop and Fabricating Plant. In addition the usual ancillary units such as roll turning shop, testing house, oxygen plant are situated within the works.

PLANT DETAILS

1. Siemens Martin Steel Plant.

This consists of 1-25 ton O.H. furnace served with two gas producers. Three heats of steel giving an approximate tonnage of 60 tons of good material are produced daily. The majority of the heats are structural steel of an analysis 30/35% carbon 0/8% Manganese S & P 0/ to 06%. A few casts of a lower carbon quality have been produced. The analysis records show a fairly close control over the material produced. The gas producers are working on Indian coal with a high ash content and much time is taken up in clearing out the ash from producers and flues. A Welsh foreman has been obtained from Tata's Jamshedpur who is supervising the steel production. The size of the ingots is small the biggest being approximately 500 lbs. in weight. There was an evidence of mechanical charging or stripping, and this part of the work was carried out under difficulties.

2. Rolling Mills

These consisted of 1-4 Stand 3 High 18" Mill and 1-6 Stand 3 High 12" Mill. These mills were driven by one central electric drive connected with a rope drive (this was a special square rope and no spares existed). As a standby to the electric drive there was a steam engine, but the lack of rope drive precluded this being used. The mills were fed by the usual billet furnaces, producers fired, and are capable of rolling a variety of small sections, rounds, flats, etc. The biggest size is a 6" x 3" channel beam. All production from these mills is now going for military requirements. The standard of workmanship was fairly high; and the plant was working to capacity 24 hours per day.

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REQUIREMENTS OF RAW MATERIALS FOR "ACCIAIERIE E FERRIERE LOMBARDE" - BARI'S STEEL WORKS IN TONS

All requirements are referred to a plant working in conjunction with the following shops: 1 electric fu
1 tube rolling mill and 1 mechanical shop.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.
Production:										
Ingots	550	550	550	550	550	550	550	550	550	550
Tube	400	400	400	400	400	400	400	400	400	400
Electric power	2000x 24x31	2000x 24x28	2000x 24x31	2000x 24x30	2000x 24x31	2000x 24x30	2000x 24x31	2000x 24x31	2000x 24x30	2000x 24x31
Importation:										
Pig Iron (1)	100	100	100	100	100	100	100	100	100	100
Coke Coal	6	6	6	6	6	6	6	6	6	6
Coal (Split) for reheating furnaces	250	250	250	250	250	250	250	250	250	250
From liberated Italy:										
Coal of Sardinia	900	900	900	900	900	900	900	900	900	900
1 terna-electric stat.	350	350	350	350	350	350	350	350	350	350
Heavy scrap	150	150	150	150	150	150	150	150	150	150
Light scrap	2	2	2	2	2	2	2	2	2	2
Fluor Spar (CaF_2)	5	5	5	5	5	5	5	5	5	5
Magnesite ($MgCO_3$)	20	20	20	20	20	20	20	20	20	20
Quartz (SiO_2)	5	5	5	5	5	5	5	5	5	5
Fire clay of Sardinia	10	10	10	10	10	10	10	10	10	10
Dolomite ($CaMg(CO_3)_2$)	10	10	10	10	10	10	10	10	10	10
Iron Ore	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Tar	-	20	-	-	-	20	-	-	-	20
Silica brick	-	10	-	-	-	10	-	-	-	10
Magnesite brick	-	10	-	-	-	10	-	-	-	10
Dolomite	-	25	-	-	-	25	-	-	-	25
Clay brick	8	8	8	8	8	8	8	8	8	8
Ferro Manganese 55%	5	5	5	5	5	5	5	5	5	5
Ferro Silicon 75%	2	2	2	2	2	2	2	2	2	2
Fe.Si.Mn.										

(1) reported till August 1945, when Piombi will start working.

0037

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OF TUBE FACILITIES FOR "MECHANITE & FERRITIC TUBULESS" - PART'S STEEL "CORE"
TO BOMB

to a plant working in conjunction with the following shops: 1 electric furnace (5 tons capacity)
1 tube rolling mill and 1 mechanical shop.

Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Totals
550	550	550	550	550	550	550	550	550	550	550	6.600
400	400	400	400	400	400	400	400	400	400	400	4.800
2000x 24x29	2000x 24x31	2000x 24x30	2000x 24x31	2000x 24x30	2000x 24x31	2000x 24x31	2000x 24x30	2000x 24x31	2000x 24x30	2000x 24x31	
100	100	100	100	100	100	100	100	100	100	100	1.200
6	6	6	6	6	6	6	6	6	6	6	72
250	250	250	250	250	250	250	250	250	250	250	3.000
900	900	900	900	900	900	900	900	900	900	900	10.800
350	350	350	350	350	350	350	350	350	350	350	4.200
150	150	150	150	150	150	150	150	150	150	150	1.800
2	2	2	2	2	2	2	2	2	2	2	24
5	5	5	5	5	5	5	5	5	5	5	60
20	20	20	20	20	20	20	20	20	20	20	240
5	5	5	5	5	5	5	5	5	5	5	60
10	10	10	10	10	10	10	10	10	10	10	120
10	10	10	10	10	10	10	10	10	10	10	120
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6
20	–	–	–	20	–	–	–	20	–	–	60
10	–	–	–	10	–	–	–	10	–	–	30
10	–	–	–	10	–	–	–	10	–	–	30
25	–	–	–	25	–	–	–	25	–	–	75
8	8	8	8	8	8	8	8	8	8	8	96
5	5	5	5	5	5	5	5	5	5	5	60
2	2	2	2	2	2	2	2	2	2	2	24

(1) Exporting till August 1945, when Bogneli will start working.

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APPENDIX F

REPORT ON S.A. ACCIAIERIE E FERRIERE DUBLIESI
DARI

GENERAL

This plant is part of the main steelworks at Giovinazzo and consists of modern buildings housing a medium sized hot tube rolling plant; in addition there is one modern 5-ton Electric Arc Furnace for melting steel, a small power station containing two turbo-generators together with the necessary boilers and coal handling plant. The buildings have been taken over by a company of R.E.'s under Major Burton who have converted them into a workshop for repairs to bulldozers, scrapers, roadrollers and other heavy equipment.

Some of the tube making plant has been moved aside to make floor space, but this has been done in a careful and orderly manner. All bays are equipped with modern overhead cranes, furnaces are in position and in sound condition. The electric driving motors for the mills are intact and carefully sheeted to protect them from dust. It is impossible to operate the plant under present conditions, but as the buildings and equipment are undamaged and being carefully preserved, a start could be made shortly after the military have moved out.

PLANT DETAILS.

1. Electric Steel Plant.

This unit consist of one modern 5-ton Electric Arc Furnace of the tilting type. There is a good overhead ladle crane and a casting pit. Ingot moulds and hot metal ladles are in existence. Switch gear and control gear appears to be in good condition. This is a potentially useful unit given supplies of raw materials in the form of refractory materials, dolomite, steel scrap, manganese, etc.

2. Tube Rolling Plant

This plant consists of one Rotary Billet piercing machine, one two-stand pilger mill for the subsequent tube rolling, one reeling and mandrel extracting machine, all the necessary cooling banks and furnace equipment, in addition there are a number of cold drew benches, and annealing furnaces. The cold drew benches have been removed from their original positions; the remainder of the plant, however, is still left on site. The maximum size of tube which can be handled by this plant is in the region of 4" diameter, tubes as small as 1" diameter could be drawn by the cold drew benches.

3. Engineers & Maintenance Shop

The plant in this shop has been strengthened by the acquisition of several machine tools by the

Some of the tube making plant has been moved aside to make floor space, but this has been done in a careful and orderly manner. All bays are equipped with modern overhead cranes, furnaces are in position and in sound condition. The electric driving motors for the mills are intact and carefully covered to protect them from dust. It is impossible to operate the plant under present conditions, but as the buildings and equipment are undamaged and being carefully preserved, a start could be made shortly after the military have moved out.

PLANT DETAILS.

1. Electric Steel Plant.

This unit consist of one modern 5-ton electric Arc Furnace of the tilting type. There is a good overhead handling crane and a casting pit. Ingot moulds and hot metal ladles are in existence. Switch gear and control gear appears to be in good condition. This is a potentially useful unit given supplies of raw materials in the form of refractory materials, dolomite, steel scrap, manganese, etc.

2. Tube Rolling Plant.

This plant consists of one Rotary Billet piercing machine, one two-stand Pilger Mill for the subsequent tube rolling, one reeling and mandrel extracting machine, all the necessary cooling banks and furnace equipment, in addition there are a number of cold draw benches, and annealing furnaces. The cold draw benches have been removed from their original positions; the remainder of the plant, however, is still left on site. The maximum size of tube which can be handled by this plant is in the region of 4" diameter, tubes as small as 1" diameter could be drawn by the cold draw benches.

3. Engineers & Maintenance Shop.

The plant in this shop has been strengthened by the acquisition of several machine tools by the R.E.'s, this together with the existing machinery, has resulted in a small but useful plant. General repairs are done on this machinery, i.e. production of spline shafts, grinding of roller races, etc.

4. Power Station.

Situated within the works and laid down and designed as a standby unit, is a small but complete thermal unit for the production of power. This unit is not operating, but could probably and with advantage

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Cables the yards. The plans consists of:

a) One 700 x 7' and one 500 x 7' Drum Rewind Gears Turnless
b) Two Babcock & Wilcox Semi Water Tube Boilers
c) The necessary Coal handling plant and Ash Removal

Machinery Design Branch, Bureau of Ships, Navy Department, Washington, D.C.

Chargeable this vessel to be laid down Fiscal Year 1944 under present appropriations.

CONSIDERATIONS AFFECTING DESIGN

1. This vessel is a small anti-submarine type having a speed of 18 knots and considerable endurance.

2. The construction of this vessel is to be carried out in accordance with the Rules and Regulations of the American Bureau of Shipping for the Classification of Vessels.

3. The vessel is to be designed to use Navy Standard Fuel Oil, Specification 14-F-1a, dated 1 July 1942.

4. The vessel is to be designed to use Navy Standard Diesel Oil, Specification 14-D-1, dated 1 July 1942.

5. The vessel is to be designed to use Navy Standard Lubricating Oil, Specification 14-L-1, dated 1 July 1942.

6. The vessel is to be designed to use Navy Standard Gasoline, Specification 14-G-1, dated 1 July 1942.

7. The vessel is to be designed to use Navy Standard Boiler Feed Water, Specification 14-W-1, dated 1 July 1942.

8. The vessel is to be designed to use Navy Standard Distillate, Specification 14-D-2, dated 1 July 1942.

9. The vessel is to be designed to use Navy Standard Steam Turbine Lubricating Oil, Specification 14-L-2, dated 1 July 1942.

10. The vessel is to be designed to use Navy Standard Gear Lubricating Oil, Specification 14-L-3, dated 1 July 1942.

11. The vessel is to be designed to use Navy Standard Diesel Engine Lubricating Oil, Specification 14-L-4, dated 1 July 1942.

12. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-2, dated 1 July 1942.

13. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-3, dated 1 July 1942.

14. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-4, dated 1 July 1942.

15. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-5, dated 1 July 1942.

16. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-6, dated 1 July 1942.

17. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-7, dated 1 July 1942.

18. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-8, dated 1 July 1942.

19. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-9, dated 1 July 1942.

20. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-10, dated 1 July 1942.

21. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-11, dated 1 July 1942.

22. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-12, dated 1 July 1942.

23. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-13, dated 1 July 1942.

24. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-14, dated 1 July 1942.

25. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-15, dated 1 July 1942.

26. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-16, dated 1 July 1942.

27. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-17, dated 1 July 1942.

28. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-18, dated 1 July 1942.

29. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-19, dated 1 July 1942.

30. The vessel is to be designed to use Navy Standard Grease, Specification 14-G-20, dated 1 July 1942.

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REQUIREMENTS OR RAW MATERIALS FOR "ILVA" TONS ANNUIATA STEEL WORKS (Continued)
IN TONS

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.
Italy:											
Tar	1	1	1	1	1	1	1	1	1	1	1
Dolomite	50	50	50	50	50	50	50	50	50	50	50
Iron ore	50	50	50	50	50	50	50	50	50	50	50
Fire Clay	25	25	25	25	25	25	25	25	25	25	25
Quartz (SiO_2)	100	100	100	100	100	100	100	100	100	100	100
Magnesite ($MgCO_3$)	20	20	20	20	20	20	20	20	20	20	20
Fluor Spar. CaF_2	7	7	7	7	7	7	7	7	7	7	7
Fe-Si-Mn	10	10	10	10	10	10	10	10	10	10	10
Fe-Si 75%	20	20	20	30	20	20	20	20	20	20	20
Fe-Mn 55%	30	30	30	30	30	30	30	30	30	30	30
Silica brick		100				100				100	
Clay brick		120				120				120	
Dolomite		40				40				40	
Magnesite brick		20				20				20	

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ELEMENTS OR RAW MATERIALS FOR "IVA" KIRE ASSUNZIATA STEEL TOOLS (Continued)

III TOOLS

Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Totals
1	1	1	1	1	1	1	1	1	1	1	12
50	50	50	50	50	50	50	50	50	50	50	600
50	50	50	50	50	50	50	50	50	50	50	600
25	25	25	25	25	25	25	25	25	25	25	300
100	100	100	100	100	100	100	100	100	100	100	1200
20	20	20	20	20	20	20	20	20	20	20	240
7	7	7	7	7	7	7	7	7	7	7	84
10	10	10	10	10	10	10	10	10	10	10	1200
20	20	20	20	20	20	20	20	20	20	20	2400
30	30	30	30	30	30	30	30	30	30	30	3600
100							100				300
120							120				360
40							40				120
20							20				60

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REQUIREMENTS OF RAW MATERIALS FOR "ILVA" TORRE ANNUNZIATA STEEL WORKS

All requirements of raw materials are referred to a plant in conjunction with the following:

1 S.M. furnace 30 tons capacity
2 rolling mills
1 Wire Drawing Plant
1 Nail manufacturing Shop
1 Iron foundry

(x) only until August 1915 when panelli will start working.

DIAGRAM OF PRODUCTION (IN TONS)

Description:	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.
Ingots	2700	2700	2700	2700	2700	2700	2700	2700	2700	2700
Round Channels Thin Angles Plain Iron Bonds	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
Castings	50	50	50	50	50	50	50	50	50	50
Rails:										
Bimetallic Bonds	3000 x2½x31	3000 x2½x28	3000 x2½x31	3000 x2½x30	3000 x2½x31	3000 x2½x30	3000 x2½x31	3000 x2½x31	3000 x2½x30	3000 x2½x31
Heavy Beams	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
Light Beams	750	750	750	750	750	750	750	750	750	750
Imported:										
Pig Iron (x)	300	300	300	300	300	300	300	300	300	300
Coke Coal	10	10	10	10	10	10	10	10	10	10
Coal Steel Works	750	750	750	750	750	750	750	750	750	750
Coal for Heating	750	750	750	750	750	750	750	750	750	750

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REQUIREMENTS OF MAT MATERIALS FOR "ELVA" TORPEDOES ATTENUATA STEEL WORKS

Requirements of raw materials are referred to a plant in connection with the following shops:

1 S.M. Furnace 35 tons capacity
2 Rolling mills
1 Wire Drawing Plant
1 Steel Manufacturing Shop
1 Iron Foundry

(*) Only until August 1945 when Nr.11 will start working.

PROGRAM OF ENTRANCES (in tons)

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Results
2700	2700	2700	2700	2700	2700	2700	2700	2700	2700	2700	2700	32400
2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	27000
50	50	50	50	50	50	50	50	50	50	50	50	600
3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	
x21x31	x21x28	x21x31	x21x30	x21x31	x21x30	x21x31	x21x31	x21x30	x21x31	x21x30	x21x31	
1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	15000
750	750	750	750	750	750	750	750	750	750	750	750	9000
800	800	800	800	800	800	800	800	800	800	800	800	9600
10	10	10	10	10	10	10	10	10	10	10	10	120
750	750	750	750	750	750	750	750	750	750	750	750	9000
750	750	750	750	750	750	750	750	750	750	750	750	9000

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PROGRAM OF THE PRODUCTION & CONSUMPTION OF RAW MATERIALS PER MONTH IN TONS

PLANTS	PRODUCTS	Period 1945 Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.
Production of Plant:											
Coke oven plant	Coke	–	–	–	–	–	–	–	7500	7500	7500
	Pitch-Tar	–	–	–	–	–	–	–	300	300	300
	Sulphate of Ammonia	–	–	–	–	–	–	–	120	120	120
Plant Furnace	Pig Iron	–	–	–	–	–	–	–	–	7500	7500
	Granulated Slag	–	–	–	–	–	–	–	–	3000	3000
Open hearth steelworks	Ingots	–	–	–	–	–	–	–	9000	9000	9000
Rolling Mills	Rolled beams, rails, channels, etc.	–	–	–	–	–	–	7000	7000	7000	7000
Factory for Cement	Cement	3000	3000	3000	3000	3000	3000	3000	3000	6000	6000
	Criolim Earths	450	450	450	450	450	450	450	450	450	450
Electric Furnace	Ferro Alloys	–	–	–	–	–	–	–	–	–	600
Dolomite Kiln	Dolomite	250	250	250	250	250	250	250	250	400	400
Factory for Fire bricks	Lime	–	–	–	–	500	500	500	500	500	500
	Fire bricks	400	400	400	400	400	400	400	400	400	400
Power Station	KW-hours	2000x 24x31	2000x 24x28	2000x 24x31	2000x 24x30	3000x 24x31	3000x 24x30	5000x 24x31	5000x 24x31	7000x 24x30	7000x 24x31
Lime Kilns	Lime	–	–	–	–	500	500	500	500	500	500
Consumption of raw materials:											
From liberated Italy:											
Iron Ore from Elba		–	–	–	–	–	–	–	–	5000	5000
Limestone		2600	2600	2600	2600	3300	3300	3300	3300	3300	9000
Scrap		–	–	–	–	–	–	–	1500	2000	2000
Electr. Limestone		150	150	150	150	150	150	150	150	300	300
Fireclay from Sardinia		500	500	500	500	500	500	500	500	800	800
Coke of the Gas Producers		500	500	500	500	500	500	500	500	500	500
Coal from Sardinia		200	200	200	200	2800	2800	2800	2800	3000	3000
Electrical Energy (height)		– 1000x 24x31	– 1000x 24x28	– 1000x 24x31	– 1000x 24x31	200 1000x 24x31	200 1000x 24x30	200 1000x 24x31	300 1000x 24x31	300 1000x –	400 – –
Importations:											
Coal for Coke ovens		–	–	–	–	–	–	–	10000	10000	10000
Coal (Splint) for Steel works		–	–	–	–	–	–	700	1800	3000	3000
Grits		–	–	–	–	–	–	700	700	1200	1200
Coal(long-flame) for L.F.fire br.		250	250	250	250	250	250	250	250	250	250

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ROGRAM OF THE PRODUCTION & DISTRIBUTION OF RAW MATERIALS PER MONTH IN TONS

"ELVA" RAGNOLI

F O R T O D 1 9 4 5

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Totals
	–	–	–	–	–	–	–	7500	7500	7500	7500	7500	37500
	–	–	–	–	–	–	–	300	300	300	300	300	1500
	–	–	–	–	–	–	–	120	120	120	120	120	6000
	–	–	–	–	–	–	–	–	7500	7500	7500	7500	30000
	–	–	–	–	–	–	–	–	3000	3000	3000	3000	12000
	–	–	–	–	–	–	–	9000	9000	9000	9000	9000	45000
	–	–	–	–	–	–	7000	7000	7000	7000	7000	7000	42000
	3000	3000	3000	3000	3000	3000	3000	3000	6000	6000	6000	6000	43000
	450	450	450	450	450	450	450	450	450	450	450	450	5400
	–	–	–	–	–	–	–	–	600	600	600	600	1800
	250	250	250	250	250	250	250	250	400	400	400	400	3600
	–	–	–	–	500	500	500	500	500	500	500	500	4000
	400	400	400	400	400	400	400	400	400	400	400	400	4800
	2000x	2000x	2000x	2000x	3000x	3000x	5000x	5000x	7000x	7000x	7000x	7000x	
	24x31	24x28	24x31	24x30	24x31	24x30	24x31	24x31	24x30	24x31	24x30	24x31	
	–	–	–	–	500	500	500	500	500	500	500	500	4000
	–	–	–	–	–	–	–	–	5000	5000	5000	5000	20000
	2600	2600	2600	2600	3300	3300	3300	3300	3800	9000	9000	9000	54900
	–	–	–	–	–	–	–	1500	2000	2000	2000	2000	9500
	150	150	150	150	150	150	150	150	300	300	300	300	2400
	500	500	500	500	500	500	500	500	800	800	800	800	7200
	500	500	500	500	500	500	500	500	500	500	500	500	6000
	200	200	200	200	2300	2300	2300	2300	3000	3000	3000	3000	24000
	–	–	–	–	200	200	200	300	300	400	400	400	2400
	1000x	1000x	1000x	1000x	1000x	1000x	1000x	1000x	1000x	–	–	–	
	24x31	24x28	24x31	24x30	24x31	24x30	24x31	24x31	–	–	–	–	
	–	–	–	–	–	–	–	10000	10000	10000	10000	10000	50000
	–	–	–	–	–	–	700	1800	3000	3000	3000	3000	14500
	–	–	–	–	–	–	700	700	1200	1200	1200	1200	6500
	250	250	250	250	250	250	250	250	250	250	250	250	3000

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REQUIREMENTS OF RAW MATERIALS FOR "ILVA" TORRE ANNUNZIATA STEEL WORKS

All requirements of raw materials are referred to a plant in conjunction with the followi

1 S.M. Furnace 30 t/cm capacity
2 Rolling Mills
1 Wire Drawing Plant
1 Nail Manufacturing Shop
1 Iron Foundry

(x) only until August 1945 when Ingoli will start working.

PROGRAM OF PRODUCTION (IN TONS)

Production:	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Ingots	2700	2700	2700	2700	2700	2700	2700	2700	2700	2700
Round Channels Flats Angles Flats Bars Round	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
Castings	50	50	50	50	50	50	50	50	50	50
Rails:										
Electric Tower	3000 x24x31	3000 x24x28	3000 x24x31	3000 x24x30	3000 x24x31	3000 x24x30	3000 x24x31	3000 x24x31	3000 x24x30	3000 x24x31
Heavy Scrap	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
Light Scrap	750	750	750	750	750	750	750	750	750	750
Imported:										
Fig Tree (x)	300	300	300	300	300	300	300	300	300	300
Coke Coal	10	10	10	10	10	10	10	10	10	10
Coal Steel Works	750	750	750	750	750	750	750	750	750	750
Coal for Heating	750	750	750	750	750	750	750	750	750	750

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PROPOSED OF RAW MATERIALS FOR "ELVA" IRON KOSHUTKA STEEL WORKS

Quantities of raw materials are referred to a plant in connection with the following steps:

1 S.M. Furnace 30 tons capacity
2 Rolling Mills
1 Wire Drawing Plant
1 Nail Manufacturing Shop
1 Iron Foundry

(x) only until August 1942 when Project will start working.

PROGRAM OF PRODUCTION (IN TONS)

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
2700	2700	2700	2700	2700	2700	2700	2700	2700	2700	2700	2700	32000
2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	27000
50	50	50	50	50	50	50	50	50	50	50	50	600
3000 x24x31	3000 x24x28	3000 x24x31	3000 x24x30	3000 x24x31	3000 x24x30	3000 x24x31	3000 x24x31	3000 x24x30	3000 x24x31	3000 x24x30	3000 x24x31	
1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	15000
750	750	750	750	750	750	750	750	750	750	750	750	9000
300	300	300	300	300	300	300	300	300	300	300	300	3600
10	10	10	10	10	10	10	10	10	10	10	10	120
750	750	750	750	750	750	750	750	750	750	750	750	9000
750	750	750	750	750	750	750	750	750	750	750	750	9000

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[illegible] ... [illegible] ... [illegible] ... [

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[illegible] been done to the other mills/are interconnected and each a part of the total process, the putting to work of one or any part would not be a solution. A complete re-building of this part of the plant is necessary and would take a considerable period of time (at least 12 months).

It should also be mentioned that the steel rolling plant, power house and blowing engines were heavily damaged and would require a long term programme to rehabilitate.

The only shop capable of any immediate work is the firm's engineer or maintenance shop and this is at present fully employed on bridge work for the Army Authorities. A large proportion of the plant in this department is old and out of date.

REMARKS.

1. Any kind of roof covering is virtually non-existent - enormous quantities of galvanised sheeting would be required to cover the plant.

2. We were informed that the complete plant cost 500,000,000 lire or approximately £. 6,300,000 (pre-war) to construct.

3. The plant in its present form was only completed immediately pre-war and never really got into full production.

4. Available throughout the works are approximately 20,000 tons of blooms and ingots. This material is of little use in its present form, but could be made use of by reprocessing down to rails or sections either in other plants in liberated Italy (if available) or in U.K. or U.S.A. In its present state it is contributing virtually nothing to the Allied War Effort.

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ATTACHMENT D

REPORT ON H.W. STEEL WORKS - BARCELI

GENERAL.

This concern is a large steelworks of the most modern lay-out and construction. It is the largest and most modern plant in Italy and compares favourably in size and design with any plant in Great Britain or the United States. The main items of plant and equipment are as follows:

1. Two large batteries of Coke Ovens.
2. Three Blast Furnaces.
3. Sintering Plant of the Dwes.
4. Siemens Martin Open Hearth Steel plant.
5. Thomas Steel Plant.
6. Electric Furnace Steel plant.
7. 1450 M/M Blooming Mill.
8. 920 M/M Rail and Section Mill.
9. 700 M/M Rolling Mill.
10. Two smaller mills 450 M/M and 350 M/M for small sections, rounds and strip rolling.
11. All ancillary plant necessary to make an integrated and balanced steelworks.

The whole of the plant and design with the exception of the three blast furnaces are G rman origin.

A most thorough job of demolition has been done by the Germans, and there can be no such thing as a short term reconstruction programme. The following items of plant are the least damaged; (1) Coke Ovens, (2) Thomas Steel Plant, (3) The Blooming Mill; but to get these items working would take at least 9 months, and they would be of little value except for breaking down ingots to blooms. Partly finished steel would have to go to other plants for re-processing, adding the considerable transport and extra handling.

Given supplies of roofing material, replacements to demolished plant and the importation of coal, it would take 2 years and the expenditure of considerable sums of money to put this plant into anything approaching its former condition, (this, assuming replacement items are available on the world market.)

PLANT DETAILS.

1. Coke ovens. A modern plant only comparatively lightly damaged designed to use Welsh and Durham coal. A considerable number of the large gas pipes have been removed by the U.S. Engineers for bridge building. Could probably be on part production in six months.

2. Blast furnaces. Three blast furnaces, stalin design and construction. All elevating gear has been damaged. The firm's representatives consider one complete unit can be solved by a process of

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1921 CONSUMPTION OF RAW MATERIALS (Continued)

REQUIREMENT IN TONS - continued

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Importation										
Coal	1,900	1,900	2,750	3,600	3,600	3,600	3,600	3,600	3,600	3,600
Chromite	29	29	37	45	45	45	45	45	45	45
Magnesite	27	27	31	35	35	35	35	35	35	35
Chamotte	40	40	40	40	40	40	40	40	40	40
Ceylon Silvery Graphite	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Tin	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Copper	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Antimony	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Heavy Scraps	4,300	4,300	6,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Light Scraps	2,150	2,150	3,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000

Notes:

a. This shop produces usually the requirements of the works.

b. The production of this shop depends upon the type of the products. We have foreseen a production of roof girders, camp stoves, etc., for the use of our works.

c. In these shops which have usually at disposal 280 machine tools, following pieces can be produced:

Pieces for ships (propeller holding axles, propeller holding arms pieces for turbines and reducers, collectors, sternposts)

Pieces for railways (crank shafts, straight shafts, wheel trains, bushings, buffers, etc.)

Pieces of cast steel and pig iron, forged pieces, etc.

(1) We need phosphoric pig iron to produce pig iron pipes.

(2) In big pieces to be used in the cupola furnace (comprising 180 tons per month to call the dolomite).

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CONSUMPTION OF RAW MATERIALS (Continued)

REQUIREMENT IN TONS - continued

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1,900	1,900	2,750	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	38,450
29	29	37	45	45	45	45	45	45	45	45	45	500
27	27	31	35	35	35	35	35	35	35	35	35	400
40	40	40	40	40	40	40	40	40	40	40	40	450
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6
0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	7.2
1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18
0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	1.8
4,300	4,300	6,200	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	84,300
2,150	2,150	3,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	43,300

s shop produces usually the requirements of the works.

production of this shop depends upon the type of the products. We have foreseen production of roof girders, camp staves, etc., for the use of our works.

these shops which have usually at disposal 280 machine tools, following pieces can produced:

Pieces for ships (propeller holding axles, propeller holding arms pieces for turbines and reducers, collectors, sternposts)
Pieces for railways (crank shafts, straight shafts, wheel trains, bushings, buffers, etc.)
Pieces of cast steel and pig iron, forged pieces, etc.

need phospheric pig iron to produce pig iron pipes.

big pieces to be used in the cupola furnace (comprising 130 tons per month to calcine e dolomite).

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TOTAL CONSUMPTION OF RAW MATERIALS

REQUIREMENT IN TONS

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
From Company's Plants										
Lime and Limestone	565	565	800	1,030	1,040	1,080	1,100	1,100	1,100	1,1
Lignite	11,000	11,000	15,700	20,400	20,500	20,600	20,600	20,600	20,600	20,6
Gas Coke	50	50	80	80	100	100	100	100	100	1
Calcium Carbide	20	20	20	20	20	20	20	20	20	
From Liberated Italy										
Pig Iron	2,900	2,900	2,900	4,200	5,500	5,500	5,500	5,500	5,500	5,5
Hematite Pig Iron	360	360	360	360	360	360	360	360	360	
Phosphoric Pig Iron (1)	-	-	-	-	120	240	450	450	450	4
Iron Ore	190	190	270	350	350	350	350	350	350	
Dolomite	215	215	300	400	400	400	400	400	400	4
Clay	60	60	60	60	60	60	60	60	60	
China Clay	15	15	15	15	15	15	15	15	15	
Silica (Quartz)	90	90	90	90	90	90	90	90	90	
Sillimanite	6	6	6	6	6	6	6	6	6	
Lead	1	1	1	1	1	1	1	1	1	
Pig Iron Moulding Sand	250	250	250	250	285	325	380	380	380	
Cylinder Oil	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
From Occupied Italy										
Manganese-Iron 55%	112	112	173	200	200	200	200	200	200	
Silicon-Iron 75%	44	44	57	72	72	75	75	75	75	
Oven Coke (2)	410	410	480	530	550	580	630	630	630	
Wood e.m.	30	40	45	45	45	50	55	65	65	
Steel Moulding Sand	150	150	150	150	150	150	150	150	150	
Graphite	3	3	3	3	4	5	6.5	6.5	6.5	
Welding-Helectrodes	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,
Engine Oil	4	4	4	4	4	4	4	4	4	
Hard Grease	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	
Cold Cylinder Neck Grease	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	
Hot Cylinder Neck Grease	10	13	13	18	18	18	18	18	18	
Copper Wire for Windings of Various Diameters	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	
Bare Copper - Bars and Wire	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
Insulated Copper for Low Tension Lines	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Fluorspar	32	32	46	60	60	60	60	60	60	

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TOTAL CONSUMPTION OF RAW MATERIALS

REQUIREMENT IN TONS

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
565	565	800	1,030	1,040	1,080	1,100	1,100	1,100	1,100	1,100	1,100	11,680
1,000	11,000	15,700	20,400	20,500	20,600	20,600	20,600	20,600	20,600	20,600	20,600	227,800
50	50	80	80	100	100	100	100	100	100	100	100	1,060
20	20	20	20	20	20	20	20	20	20	20	20	240
2,900	2,900	2,900	4,200	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	56,900
360	360	360	360	360	360	360	360	360	360	360	360	4,320
–	–	–	–	120	240	450	450	450	450	450	450	3,060
190	190	270	350	350	350	350	350	350	350	350	350	3,80
215	215	300	400	400	400	400	400	400	400	400	400	4,330
60	60	60	60	60	60	60	60	60	60	60	60	720
15	15	15	15	15	15	15	15	15	15	15	15	130
90	90	90	90	90	90	90	90	90	90	90	90	1,080
6	6	6	6	6	6	6	6	6	6	6	6	72
1	1	1	1	1	1	1	1	1	1	1	1	12
250	250	250	250	285	325	380	380	380	380	380	380	3,890
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6
												2,197
												814
112	112	173	200	200	200	200	200	200	200	200	200	6,740
44	44	57	72	72	75	75	75	75	75	75	75	635
430	430	480	530	550	580	630	630	630	630	630	630	1,800
40	40	45	45	45	50	55	65	65	65	65	65	67
150	150	150	150	150	150	150	150	150	150	150	150	1,000
3	3	3	3	4	5	6.5	6.5	6.5	6.5	6.5	6.5	48
90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	7.1
4	4	4	4	4	4	4	4	4	4	4	4	7.1
0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	198
0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	7.2
10	13	13	18	18	18	18	18	13	18	18	18	5.6
0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.2
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	650
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
32	32	46	60	60	60	60	60	60	60	60	60	

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MONTHLY PROGRAM OF PRODUCTION AT THE STEELWORKS AT TERNI

PLANTS	PRODUCTS	QUANTITY IN TONS									
		JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
Open Hearth steel works	Ingots	8000	8000	11500	11500	15000	15000	15000	15000	15000	15000
Steel foundry	various castings	120	120	120	120	120	120	120	120	120	120
Pig iron foundry	various special castings, pipes & special parts for pipes, ingot moulds	600	600	600	600	900	1000	1350	1350	1350	1350
Sheets rolling mill	Sheets	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Thin sheets rolling mill	Normal, magnetic & special thin sheets	800	1200	1200	1600	1600	1600	1600	1600	1600	1600
Tin plates shop	Tin and black sheets	500	500	600	750	750	750	750	750	750	750
Section irons rolling mill	Beams, angles, billets, round irons	3000	3000	3000	3000	6000	6000	6500	6500	6500	6500
Forging Shop	Forged irons	200	200	200	300	300	300	300	300	300	300
Tyres rolling mill	Tyres for locomotives, vehicles and tramways	250	500	700	700	700	700	700	700	700	700
Bolts shops	Rivets, bolts, stay-bolts, splices	300	450	450	450	450	450	450	450	450	450
Pattern makers and joiners	(a)										
Metallic carpentry	(b) roof girders, tanks, stoves & other works	150	150	150	150	150	150	150	150	150	150
Fire bricks shop	Fire bricks	300	300	300	300	300	300	300	300	300	300
Tools shop	(c) Tools	2	3	3	3	3	3	3	3	3	3

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MONTHLY PROGRAM OF PRODUCTION AT THE STEELWORKS AT TERNI

	QUANTITY IN TONS												
	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
	4.00	3000	11500	11500	15000	15000	15000	15000	15000	15000	15000	15000	159.000
	120	120	120	120	120	120	120	120	120	120	120	120	1.440
	500	600	900	800	800	1000	1350	1350	1350	1350	1350	1350	12.300
	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	14.000
	800	1200	1200	1600	1600	1600	1600	1600	1600	1600	1600	1600	17.600
	500	500	650	750	750	750	750	750	750	750	750	750	8.250
	3000	3000	3000	3000	6000	6000	6500	6500	6500	6500	6500	6500	62.000
	200	200	300	300	300	300	300	300	300	300	300	300	3.300
	450	500	700	700	700	700	700	700	700	700	700	700	7.750
	300	450	450	450	450	450	450	450	450	450	450	450	5.250
	150	150	150	150	150	150	150	150	150	150	150	150	1.800
	300	300	300	300	300	300	300	300	300	300	300	300	3.600
	2	3	3	3	3	3	3	3	3	3	3	3	35

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CONCLUSIONS AND RECOMMENDATIONS:

(1) The range and scope of this plant is the widest so far seen in liberated Italy. It has also escaped with the exception of the power plant and iron foundry any serious damage. There is, however, sufficient power to run certain sections, . . steel foundry and part of the machine shop, and arrangements should be immediately made to re-open these departments to enable repairs to be carried out to the vital Terni power plants. Once these power plants are even partially repaired, the rolling mills could be reopened for the fabrication and construction of steel sections for Bailey bridges and similar structures.

(2) As this plant is the biggest single enterprise in the Terni Valley, the employment of labour will help the relief services, and assist with useful and tangible production against the present inflation tendency. The possibilities with this plant are unlimited and due to the fact that they use only local lignite, and iron ore from Piombino, the import question is not a serious one.

(3) We see no useful purpose in reactivating the heavy forge, armour plate mills, shell plants, gun machine shop, under wartime conditions unless there are requirements for the Italian Navy and Army.

(4) The order of precedence for restarting work should be something of the following order;

a) Iron and Steel Foundries, part of the heavy machine shop. This will take care of repairs to the electricity plants. Available power priority should be given to these departments.
b) Rolling Mills for the production of bridging sections for any requirements.
c) Tin plate mills and tinning plant to save imports of tin plate from U.K. and U.S.A.

(5) The many thousands of tons of steel scrap will cover the firm's steel melting programme for many months to come.

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15. ELECTRIC ORE SMELTING PLANT: At the entrance end of the works there is a partially constructed plant for melting iron ore in electric furnaces. This is housed in a fine, modern building, but none of the plant is on site and can be ruled out as an operating unit. It could with advantage be used for storage purposes.

16. STEEL PLATE MILL: One 3 stand tin plate mill about 25 years old is in an operable condition; the drive and furnaces are intact. In addition there is some 2000 tons of black plate stacked up within the shop, adjacent to the mill there is a pickling plant in operable condition, and a small, rather old 6 stand cold rolling mill. A modern cold strip mill has been removed to Germany.

Consideration would be given to the importation of electrolytic to process this 2000 tons of sheets and save imports immediately. It is known that ARMG is importing large quantities of tin plate for food canning purposes.

17. GUN TURNING PLANT: This is a large shop especially left out the rough machining of guns and associated forgings. Many items of valuable plant have been taken away, and what few machine remain leave an unbalanced unit. Little can be done with this unit under present circumstances.

18. HEAVY MACHINE SHOP: This shop is an extremely important one, and is valuable as a factor on the repair of the hydro-electric plants. Many items of turbine castings are already set up on the work tables awaiting repair, and the machinery and equipment in this shop is the only one so far seen with sufficient scope to undertake this work. Unfortunately the action taken by 86 Area Command up to the time of our visit has stopped all work, and repairs are at a standstill.

19. IRON FOUNDRY: This unit, which is the closest part of the works and situated adjacent to Terni railway station, has suffered heavy damage by aerial bombardment. The damage is such that this plant can be written off; Strewn around this plant, however, are many hundreds of cast iron water pipes of various sizes and a recovery program should be instituted forthwith. The removal of one of the iron cupolas to the steel foundry should be expedited to enable new castings to be made for the Hydro-station.

REMARKS: The works are at present being used by 86 Area as a P.O.D., and many items of foodstuffs are stored around the plant. This unfortunately, has led to a certain amount of pilfering on the part of the Italian workpeople and Brigadier Richards has now closed the works and closed any access to civilians. This, unfortunately, is having a disastrous effect on the repair work needed for the power plant, as this plant is the only one capable of carrying out repairs and fabricating the replaced parts.

Also within the works there are some 300 rail cars loaded with machinery, most of these cars have one axle box damaged, [illegible] of repair should be instituted on these

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17. GUN TURNING PLANT: This is a large shop especially laid out for the rough machining of guns and associated forgings. Many items of valuable plant have been taken away, and what few machines remain leave an unbalanced unit. Little can be done with this unit under present circumstances.

18. HEAVY MACHINE SHOP: This shop is an extremely important one, and is valuable as a factor in the repair of the hydro-electric plants. Many items of turbine casings are already set up on the work tables awaiting repair, and the machinery and equipment in this shop is the only one so far seen with sufficient scope to undertake this work. Unfortunately the action taken by 8th Army Command up to the time of our visit has stopped all work, and repairs are at a standstill.

19. IRON FOUNDRY: This unit, which is the closest part of the works and situated adjacent to Terni railway station, has suffered heavy damage by aerial bombardment. The damage is such that this plant can be written off. Strewn around this plant, however, are many hundreds of cast iron water pipes of various sizes and a recovery program should be instituted forthwith. The removal of one of the iron cupolas to the steel foundry should be expedited to enable more castings to be made for the Hydro-station.

REMARKS: The works are at present being used by 8th Army as a P.O.W., and many items of foodstuffs are stored around the plant. This unfortunately, has led to a certain amount of pilfering on the part of the Italian workpeople and Brigadier Richards has now closed the works and closed any access to civilians. This, unfortunately, is having a disastrous effect on the repair work needed for the power plant, as this plant is the only one capable of carrying out repairs and fabricating the replaced parts.

Also within the works there are some 500 rail cars loaded with machinery, most of these cars have one axle box damaged, and some programme of repair should be instituted on these wagons.

There is no question of restarting any extensive section of these works until the power position is restored, but it is essential that certain sections i.e. steel foundry, iron foundry and part of the heavy machine shops be put to work immediately in order to expedite repairs to the power plants.

The management of the plant are capable and intelligent men well able to undertake the most difficult of work.

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of operating. In addition there are three small drop hammers and an old bolt forging plant within the department. The tyre heat-treatment plant is in a state of incompletion, this item is new. This is a potentially useful unit for the production of locomotive tyres.

10. STEEL BRICK FACTORY. This plant, which is perfectly intact, has an output of 15,000 tons of refractory materials per month. Raw materials were imported from Sardinia and North Italy. A considerable quantity of brick stocks of various shapes are on hand.

11. ARMOUR PIERCING SHELL FACTORY. This plant produced about 70% of the medium and heavy armour piercing shells used by the Italian Navy. Without knowledge of the proof, conditions of performance, the standard of production appeared to be high and manufacturing details regarding hardness gradients and heat treatment particulars would no doubt be of great interest to British and U.S.A. Armament specialists. Many of the machine tools for the machining operations have been removed to Germany but the heat treatment plant is intact. This plant operated on town's gas supply.

The output of the plant was given as 8/10 of the heavy calibres per day and 40/50 of the medium calibres per day. There are considerable quantities of various calibre shells still within the plant and apparently requiring little work to complete.

12. ROLLING MILLS: This part of the works is of fairly modern construction and consists of 5 mills of various sizes.

a) 750 mm. Blooming Mill (Removed to Germany in 50 wagons, but 35 of these wagons are believed to be still within the district).
b) 750 mm. Section Mill of British design and construction - appeared to be in good condition.
c) 500 mm. Section Mill - can handle joists up to 200 mm.
d) 300 mm. Looping Mill - can handle rounds up to a maximum size of 35 mm. and also strip and flats.
e) 280 mm. Section Mill - can roll sections up to 50 mm. and flats and strips.

A certain amount of damage has been done by aerial bombardment and a direct hit was scored on one of the mill drives. The destruction however can be repaired.

The main difficulty in operating these departments is the supply of electric power and nothing can be done until the main Colleto Power Plant is restored, which will take many months. All furnace plant and auxiliary gear appeared to be intact.

13. STEEL PLANT. Adjoining the rolling mills there is the third of the works steel plants. This unit consists of one 50 ton Siemens Open Hearth Furnace and two 45 ton Siemens Open Hearth Furnaces.

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15. ELECTRIC ARC MELTING FURNACE: At the extreme east of the works there is a partially completed plant for melting iron ore in electric furnaces. This is housed in a fine, modern building, but none of the plant is on site and ran be ruled out as an operating unit. It could with advantage be used for storage purposes.

16. TIN PLATE MILL: The 3 stand tin plate mill about 25 years old is in an operable condition; the frame and furnaces are intact. In addition there is some 2000 tons of black plate stacked up within the shop, adjacent to the mill where is a tinning plant in operable condition, and a small, rather old 6 stand cold rolling mill. A second cold rolling mill has been removed to Germany.

Consideration would be given to the importation of black tin to process this 2000 tons of sheets and save imports into Italy. It is known that AMG is importing large quantities of tin plate for packing purposes.

17. GUN MOUNTING SHOP: This is a large shop especially laid out for the rough machining of guns and associated fittings. Many items of valuable plant have been taken away, and most few machine remain leave an unbalanced unit. Little can be done with this unit under present circumstances.

18. HEAVY MACHINE SHOP: This shop is an extremely important one, and is valuable as a factor on the 2 pair of the hydro-electric plants. Many items of turbine castings are already set up on the work tables awaiting repair, and the machinery and equipment in this shop is the only one so far seen with sufficient scope to undertake this work. Unfortunately the action taken by 36 Area Command up to the time of our visit has stopped all work, and repairs are at a standstill.

19. IRON FOUNDRY: This unit, which is the oldest part of the works and situated adjacent to Terni railway station, has suffered heavy damage by aerial bombardment. The damage is such that this plant can be written off. Strewn around this plant, however, are many hundreds of cast iron water pipes of various sizes and a recovery program should be instituted forthwith. The removal of one of the iron cupolas to the steel foundry should be expedited to enable new castings to be made for the hydro-station.

VEHICLES: The works are at present being used by 36 Area as a R.S.D., and many items of foodstuffs are stored around the plant. This unfortunately, has led to a certain amount of pilfering on the part of the Italian workpeople and Brigadier Nicholls has now closed the works and closed any access to civilians. This, unfortunately, is having a disastrous effect on the repair work needed for the power plant, as this plant is the only one capable of carrying out repairs and fabricating the replaced parts.

Also within the works there are some 500 rail cars located

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to process this 2000 tons of sheets and save imports into Italy. It is known that AMG is importing large quantities of tin plate for food manufacturing purposes.

17. GUN BORING PLANT: This is a large shop especially laid out for the rough machining of guns and associated forgings. Many items of valuable plant have been taken away, and what few machines remain leave an unbalanced unit. Little can be done with this unit under present circumstances.

18. CRANE MACHINE SHOP: This shop is an extremely important one, and is valuable as a trouver on the repair of the hydro-electric plants. Many items of turbine castings are already set up on the work tables awaiting repair, and the machinery and equipment in this shop is the only one so far seen with sufficient scope to undertake this work. Unfortunately the action taken by AMG Area Command up to the time of our visit has stopped all work, and repairs are at a standstill.

19. IRON FOUNDRY: This unit, which is the closest part of the works and situated adjacent to Turni railway station, has suffered heavy damage by aerial bombardment. The damage is such that this plant can be written off. Strewn around this plant, however, are many hundreds of cast iron water pipes of various sizes and a recovery program should be instituted forthwith. The removal of one of the iron cupolas to the steel foundry should be expedited to enable new castings to be made for the Hydro-station.

REMARKS: The works are at present being used by AMG Area as a P.O.W. and many items of foodstuffs are stored around the plant. This, unfortunately, has led to a certain amount of pilfering on the part of the Italian workpeople and principally pilferage has now closed the works and closed any access to civilians. This, unfortunately, is having a disastrous effect on the repair work needed for the power plant, as this plant is the only one capable of carrying out repairs and fabricating the replaced parts.

Also within the works there are some 300 rail cars loaded with machinery, most of these cars have one axle box damaged, and some programme of repair should be instituted on these wagons.

There is no question of restarting any extensive section of these works until the power position is restored, but it is essential that certain sections i.e. steel foundry, iron foundry and part of the heavy machine shops be put to work immediately in order to expedite repairs to the power plants.

The management of the plant are capable and intelligent men well able to undertake the most difficult of work.

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of operating. In addition there are three small drop hammers and an electric forging plant within the department. The type heat-treatment plant is in a state of incompletion, this item is new. This is a potentially useful unit for the production of loco and wagon tyres.

10. STEEL MELTS FACTORY. This plant, which is perfectly intact, has an output of 15,000 tons of refractory materials per month. Raw materials were imported from Sweden and North Italy. A considerable quantity of brick stocks of various shapes are on hand.

11. ARMOUR PIERCING SHELL FACTORY. This plant produced about 70% of the medium and heavy armour piercing shells used by the Italian Navy. Without knowledge of the proof, conditions of performance, the standard of production appeared to be high and manufacturing details regarding hardness gradients and heat treatment particulars would no doubt be of great interest to Bofors and U.S.A. Armament specialists. Many of the machine tools for the machining operations have been removed to Germany but the heat treatment plant is intact. This plant operated on town's gas supply.

The output of the plant was given as 8/10 of the heavy calibres per day and 40/50 of the medium calibres per day. There are considerable quantities of various calibre shells still within the plant and apparently requiring little work to complete.

12. ROLLING MILLS: This part of the works is of fairly modern construction and consists of 5 mills of various sizes.

a) 750 mm. Blooming Mill (Removed to Germany in 50 wagons, but 15 of these wagons are believed to be still within the district).
b) 750 mm. Section Mill of British design and construction - appeared to be in good condition.
c) 500 mm. Section Mill - can handle joists up to 200 mm.
d) 300 mm. Looping Mill - can handle rounds up to a maximum size of 35 mm. and also strip and flats.
e) 250 mm. Section mill - can roll sections up to 50 mm. and flats and strips.

A certain amount of damage has been done by aerial bombardment and a direct hit was scored on one of the mill drives. The destruction however can be repaired.

The main difficulty in operating these departments is the supply of electric power and nothing can be done until the main Galatto Power Plant is restored, which will take many months. All furnace plant and auxiliary gear appeared to be intact.

13. STEEL PLANT. Adjoining the rolling mills there is the third of the works steel plants. This unit consists of one 50 ton Siemens Open Hearth Furnace and two 45 ton Siemens Open Hearth Furnaces. One of these furnaces is damaged, one is under reconstruction and the third in good condition. The casting pits, rolling mill, soaking pits,

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ANNEXE I

REPORT ON HENRI DOG. ESP. ETABLISSEMENTS D'HAUTEFRICQUE, STAMBOUL

HISTORY.

This is an enormous plant comparable to any of the huge Sheffield steel and armaments plants and manufactures all kinds of finished and semi-finished steel and associated materials from tin-plate to the heaviest naval guns and armour plate. When working to full capacity the works employed 10,000 hands and manufactured 5000 tons of steel per week. Much of this steel was in the form of better quality alloy materials, such as nickel steel and stainless quality.

The standard consisted of some 20 main departments and their scope was almost unlimited. A good portion of the plant is old and many of the machines date back to before the last war. There are however, several modern sections, notably the rolling mills and some of the machine shops. Another interesting and most important point is the fact that the Siemens melting and also the re-heating and treatment furnaces are designed to burn local brown coal (or lignite) almost exclusively, and the firm own and work the deposits some 20 KM to the north. Some idea can be gained from the fact that they used 300,000 tons of lignite and only 30,000 tons of long flame coal per annum.

With the exception of the iron foundry the works have escaped serious damage from aerial bombardment or demolitions, but whole sections including all the electric steel melting furnaces and one heavy rolling mill have been removed to Germany. These electric furnaces were used for the production of alloy steels and owing to their removal the production of these quality materials will be difficult. Throughout the works there are some 70 gas producer machines designed to burn lignite, most of the hydraulic systems are complete and in good condition.

PLANT DETAILS.

It is proposed to briefly enumerate the various departments, in order to give some information as to the condition and scope of the various sections.

1. STEEL FOUNDRY. This plant had a rated output of 300/350 tons of steel castings per month. They handled chiefly heavy castings for marine work, i.e. rudder frames, stern brackets, etc. also turbine frames and casings for the hydro-electric plants; and other medium and heavy castings. They have an extensive pattern shop to serve this department. The battery of high frequency electric furnaces and two 10 ton Electric Arc melting furnaces have been removed to Germany. Three 30 ton Siemens melting furnaces are still on the site and undamaged. Certain stocks of raw materials still remain. This is an old foundry but has a high degree of technical skill --the heaviest casting ever made here is the order of 190 tons weight; pieces weighing up to 50 tons

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ATTACHMENT 2

REPORT ON SCC. "LA MACCHIA" DALMATIA

PLANT NO 3

REMARKS.

This is a large plant which originally devoted its capacity to the production of tin-plate, galvanised sheets, black-plate, etc. The maximum productive capacity was stated at 90,000 tons per year. The plant was originally founded in 1896 and is British in origin. It is understood that a large portion of the capital is still British owned.

The works are self-contained. They make their own steel which is processed by them even to the finished sheets. The plant has been so heavily damaged by aerial bombardment that it is the opinion of the general manager that the only sound solution will be to completely rebuild the plant, preferably on a fresh site adjacent to Trieste. There is no doubt that the works are in a very bad state, but as much of the equipment is old any question of attempted rehabilitation in its original form is not recommended.

The plant last operated on Jan. 19th, when a few strafing Allied raid stopped all work. The shops are so broken up with bomb craters that it is extremely difficult to tour the works, and even clearing up will take many months.

Many direct hits have been scored on the steelworks and rolling mills and caused heavy damage.

PLANT DETAILS.

So badly damaged is this unit that little purpose would be served in going into much detail, beyond saying that most major plant items have suffered damage in one form or another. Briefly, the plant consists of the following:

> Two 50 ton O.H. Siemens Martin Furnaces. Three 35 ton and Two 25 ton Siemens Martin O.H. Furnaces. Gas producers to some of this plant has been so badly damaged and all but two of the furnaces wrecked.

The main heavy rolling mill has suffered a direct hit on the housing and heavy damage has resulted. The mill floor is so broken up with bomb craters and covered with wreckage that little re-construction work is possible.

The remaining plant consists of 2 tinplate mills and 3 sheet mills, in addition there were the usual galvanising, pickling and tinning plants, together with a partially dismantled sulphuric acid

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rebuild the plant, preferably on a fresh site adjacent to Tremains. There is no doubt that the works are in a very bad state, and the cost of the equipment is also any question of attempted rehabilitation in its original form is not practicable.

The plant last operated on Jan. 16th, when a day stocking Allied Steel stopped all work. The shops are so broken up with bomb craters that it is extremely difficult to tour the works, and even clearing up will take many months.

Many direct hits have been scored on the steelworks and rolling mills and caused heavy damage.

PLANT DETAILS.

So badly damaged is this unit that little purpose would be served in going into much detail, beyond saying that most major plant items have suffered damage in one form or another. Briefly, the plant consists of the following:

Two 30 ton O.H. Siemens Martin furnaces. Three 35 ton and two 45 ton Siemens Morgan O.H. Furnaces. Gas producers to some of this plant has been so badly damaged and all but two of the flanges cracked.

The main heavy rolling mill has suffered a direct hit on the housing and heavy damage has resulted. The mill floor is so broken up with bomb craters and covered with wreckage that little re-construction work is possible.

The remaining plant consists of 3 tinplate mills and 3 sheet mills, in addition there were the usual galvanising, pickling and tinning plants, together with a partially dismantled sulphuric acid plant.

Most of the above equipment with the exception of 1 tinplate and 1 sheet mill can be considered as almost complete loss. Some of the mill driving motors are in reasonable condition. The transformer sub-station is reasonably intact, the power supply come in from Aberbeeg, and the adjacent ELW. plant. All services such as water

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APPENDIX A.

WEIGHT ON HEAVY STEEL PLANT, DORTMUND

GENERAL.

This plant is situated within the Port Area of Dortmund and covers a large area of some 2,000,000 sq. metres. The covered space is approximately 100,000 sq. metres. The products of the plant were:- coke, motor fuel, ammonia, tar, fertiliser, pig iron, steel ingots, finished steel rails, joists, sections and re-inforcing rods.

The plant operated continuously 24 hours per day, and employed approximately 3,000 hands. The output of the principal products were as follows:-

1200 tons of coke daily.
1200 tons of pig-iron daily.
1000 tons of finished steel daily, and
800 tons of ingots.

The plant has been heavily damaged by aerial bombardment - the damage is chiefly confined to the shop structures and mill floors. Most items of remaining plant can be salvaged. Some of the plant, especially the more modern, has been removed by the Germans, notably: Two 120 ton Siemens tilting furnaces and all auxiliary gear; all mechanical gear from the coke ovens and the new power plant.

Generally speaking, this was an integrated steelworks. All furnaces, both melting and re-heating, were fired by a mixture of coke oven and blast furnace gas; standby gas producers however are available. The steam raising equipment was operated by gas burners.

Some 1000 bombs fell within the precincts of the plant; many however on open ground, but the general appearance of the works is bad. All roof covering has been stripped off the buildings; many bomb craters have been blown in the shop floors and wrecked run-out tables and other auxiliaries.

PLANT DETAILS.

1. BLAST FURNACES. Two modern blast furnaces with a combined output of 1200 tons of pig-iron daily have been heavily damaged by German demolitions. In addition, some parts have been removed. A small proportion of the iron ore was imported from Elba, but the majority of this raw material came from Morocco.

2. COKE OVENS. All the mechanical equipment for the ovens have been removed to Germany. What remains of the plant has been damaged by bombs. This plant will have to be completely rebuilt and can be forgotten on any short term programme.

as follows:-

1,200 tons of coke daily.
1200 tons of pig-iron daily.
1000 tons of finished steel daily, and
900 tons of ingots.

The plant has been severely damaged by aerial bombardment - the damage is chiefly confined to the steel structures and mill floors. Most items of remaining plant can be salvaged. Some of the plant, especially the more modern, has been removed by the Germans, notably, two 120 ton Siemens Melting furnaces and all auxiliary gear; all mechanical gear from the coke ovens and the new power plant.

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2. COKE OVENS. All the mechanical equipment for the ovens have been removed to Germany. What remains of the plant has been damaged by bombs. This plant will have to be completely rebuilt and can be forgotten on any short term programme.

3. ORE WASHING PLANT. Most of this plant has been badly damaged and it is impossible to repair without any replacement parts.

4. STEEL MELTING PLANT. This plant is not in very good shape. Of the 7 furnaces only 5 remain on site and these will need re-bricking and repairs to gas producers. Two of these units could, however, be put into condition to work in a period of approximately 3/4 months.

The most modern portion of the plant, i.e. two 120 tons melting furnaces together with a 600 ton hot metal mixer have been taken away by the Germans.

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It is hardly necessary to point out that unless facilities for intercommunication between the various plants, their sources of raw materials and the consumers of the materials are made available the scheme will not work. Road, rail and coastal shipping facilities must be made available for the collection of materials and the distribution of the finished product.

A priority for available power must be established especially in the Turin area, where the destruction caused by the Germans to the main power plants have caused a serious situation. Some assistance in this can be given by the Terni Group who have a scheme for coupling an existing water turbine formerly driving the armour plate mill onto a generator. Supplies of oxygen for demolition and repair work must be made available to all plants.

All the plants will have to work together under a committee appointed from the directors of the various firms, together with representatives of A.M.G. and the Italian government. It is suggested that the Italian Government would control and allocate raw materials from central stockpiles and the finished materials would in turn be allocated by them on a ration basis. In fact, a similar body to the British Iron and Steel Control could be formed. This control should of necessity consist of men well acquainted with the needs and functions of the industry.

Attached are individual reports on all the firms covered by this programme, together with schedules giving their requirements for raw materials, and estimated finished products for the period Jan. 1, 1945 to Dec. 31, 1945.

The estimated raw materials have been broken down into imports and those materials which can be obtained locally.

In order to implement this programme, requisitions for the necessary raw materials are in course of preparation and will be submitted at an early date. It is hoped they will all be accepted to enable the programme to be put into smooth operation.

The production of 600,000 tons of steel, iron and other materials, per year against imports of raw materials amounting to 165,000 tons will show a net saving in imports of 435,000 tons per annum.

At the same time the availability of these basic materials will enable many consumers to start the wheels turning again. For example, Public Works authorities will be able to construct bridges, steel will be available for building construction, the food processing and canning industries will have some tin or black plate for the production of containers. Steel and iron castings for general engineering and repairs to hydro-electric stations will be available; locomotive, tramway and railway wagon tyres will be produced locally, plates and forgings for marine and ship construction and repairs will be available in some quantities. The call and necessity for steel in liberated Italy will be so large that the programme we have under review will do little more than touch the fringe of the requirements.

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works is not possible in one year, and operations should be confined to salvage of useful plant and raw materials.

Briefly our plan for the rehabilitation of the central and southern Italian steel industry is as follows:

(1) Maintain operations and if possible expand the output at Piombino and Torre Annunziata.
(2) Assist in every way the Terni plant to get into operation and then expand its production. This will call for the reopening of steel furnaces, rolling mills for plates, sheets and sections, and the steel foundry and machine shops, tyre mill, forge and pattern shops. It is not proposed to reactivate any of the firm's specialised armament plant for the production of ammunition, armour plate and guns.
(3) Start rehabilitation work at the Piombino plant, using as much as possible cannibalised items from Piombino. In this way it is anticipated that imported plant items can be kept down to a negligible quantity.

Obviously this programme will call for a large quantity of imported raw materials and attached to this report are estimated requirements of these materials to cover this programme from Dec. 1944 to Dec. 1945. Every effort will be made to use local products. Large tonnages of steel scrap will have to be collected and classified, coking coal will have to be imported in large tonnages. Where Italian lignite or Sardinian coal can be used no imported coal has been asked for. The Terni plant being especially designed to use lignite almost exclusively, can operate with little imported coal.

The finished products to be produced from the several steel plants are,

(a) Steel Sections, including heavy sections and rails.
(b) Steel sheets, plates and corrugated sheeting, tin and black plate, locomotive tyres.
(c) Steel tubes up to 4" diameter.
(d) Iron and Steel castings and forgings for locomotives, hydro-electric plants and general construction and repairs.
(e) Reinforcing rods, wire rods, nails, nuts and bolts, etc.

To assist in the realisation of this programme it will be necessary to put into operation the following subsidiary plants:

(1) ILVA IRON FOUNDRY, PALONCA, for the production of ingot moulds, cast iron rolls, and general consumable items of auxiliary plant used in the steelworks.

(2) CANTIERI METALLURGICI ITALIANI, CASTELLAMARE, with their sheet mills, nut and bolt plant, iron foundry and construction shops.

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[illegible] proposed to reactivate any of the firm's specialised armament plant for the production of ammunition, armour plate and guns.

(3) Start rehabilitation work at the Elva, Bagnoli plant, using as much as possible reinstalled items from Piombino. In this way it is envisaged that imported plant items can be kept down to a negligible quantity.

Obviously this programme will call for a large quantity of imported raw materials and attached to this report are estimated requirements of these materials to cover this programme from Dec. 1944 to Dec. 1945. Every effort will be made to use local products. Large tonnages of steel scrap will have to be collected and classified, coking coal will have to be imported in large tonnages. Where Italian lignite or Sardinian coal can be used no imported coal has been asked for. The Terni plant being especially designed to use lignite almost exclusively, can operate with little imported coal.

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(2) SANTIERI METALLURGICI ITALIANI, CASTELLAMMARE, with their sheet mills, nut and bolt plant, iron foundry and construction shops.

Many other plants, notably the shipyards at Naples, Castellammare, and Taranto will link into the programme with the gradual availability of materials and the well equipped engineering shops of Navalmeccanica and the machine tool plant of Bedini in Naples can assist in the supply of maintenance parts for machinery and the completion of semi-finished steel parts.

It is estimated that this programme would give direct employment to 20,000 workmen, with indirect employment to 5,000 more, and would produce after one years working 30,000 tons of steel per month.

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Coal requirements for synthetic oil plants for 1945 are:

For the production of 45,000 M. tons of synthetic oil	2,000 M. tons of coal
Coal requirements for other purposes	117,000 M. tons
Total coal capacity for the year 1945 is:	45,000 M. tons

Therefore, requisitions should be lodged for:

72,000 M. tons of ammonium sulphate.

PART VII. EFFECT ON SHIPPING SITUATION.

The production of the restituted plants will save on shipping tonnage of

45,000 M. tons

CONCLUSIONS.

a) Ammonium sulphate production of 45,000 M. tons/yearly could be realized in the Pisa-district if the requirements about coal transportation could be satisfied. Therefore the above mentioned plants should be restituted as soon as possible.

b) In order to realize the above program transportation of coal should be granted preferably.

Therefore, requisitions should be lodged for:

72,000 M. tons of ammonium sulphate.

PART VII. EFFECT ON SHIPPING SITUATION.

The production of the reactivated plants will save

45,000 M. tons

of shipping tonnage.

CONCLUSIONS

a) Ammonium sulphate production of 45,000 M. tons/yearly, corresponding to 50% of the requirements south of the Pisa-Rimini line, can be covered from local resources provided that the required electric power be allocated for the plants. This electric power subdivided as follows: 14,000 KW at Crotone, 5,600 KW at Orchiri and 5,600 KW at Nera Montoro, will be available by January 1945 and should not be diverted for other uses than nitrogenous fertilizers production.

b) In order to realize the above program transportation of pyrites to the plants should be granted.

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fertilizers in the form of ammonium sulphate, the requirement of ammonium nitrate is given in terms of ammonium sulphate 20% nitrogen.

During prewar years approximately half of the nitrogenous fertilizers used were in the sulphate form, as by products from gas plants, etc.

The requirement of 20% ammonium sulphate corresponding to 99% ammonium nitrate and capable of replacing the latter is 117,000 M. tons for 12 months.

B. Requirements

Material	Yearly average during 1938-1942 in M. tons	Estimated requirements for 1943 (south of Piei-Pisani line) M. tons
Ammonium sulphate	300,000	117,000

PART III. PRODUCTION POTENTIAL OF END PRODUCT

The production potential of ammonium sulphate in 1943 will be

45,000 M tons,

corresponding to 40% of the yearly requirements estimated by Commerce Sub-Commission in Part II.

PART IV. PRODUCTION POTENTIAL OF REQUIRED RAW MATERIALS

For the production of 45,000 M. tons of ammonium sulphate are needed:

a) Sulphuric acid (calculate 100%) 34,000 M. tons/year
b) Ammonia 11,000 M. tons/year

In order to produce the required sulphuric acid pyrites are needed. These are available and stocked in Tuscany (Scarlino station - map reference: sheet 15; E 4387).

There arises only the question of the transportation to the plant.

Nitrogen and hydrogen are required for the production of ammonia. The nitrogen is extracted from the air and the hydrogen from distilled water. In order to extract both of them large quantities of electric power are required.

PART V. SUPPORTING DATA FOR THE PRODUCTION ESTIMATES IN PARTS III AND IV

The figures regarding the plants at Oschiri (Sardinia), Crotone (province Catanzaro-Calabria) and Nera Montoro (prov. Terni), which are at present in course of reactivation by Industry Sub-Commission, are as follows:

Production capacity of ammonium sulphate in M. tons	Installed Electric power (KW)	Consumption of Electric Power (KWH)
		daily Yearly

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The production potential of ammonium sulphate in 1945 will be

45,000 M. tons,

corresponding to 10% of the yearly requirements estimated by Commerce Sub-Commission in Part II.

PART IV. PRODUCTION POTENTIAL OF REQUIRED RAW MATERIALS

For the production of 45,000 M. tons of ammonium sulphate are needed:

a) Sulphuric acid (calculated 100%) 34,000 M. tons/year
b) Ammonia 11,000 M. tons/year

In order to produce the required sulphuric acid pyrites are needed. These are available and stocked in Tuscany (Scarlino station - map reference: sheet 15: E 4387).

There arises only the question of the transportation to the plant.

Nitrogen and hydrogen are required for the production of ammonia. The nitrogen is extracted from the air and the hydrogen from distilled water. In order to extract both of them large quantities of electric power are required.

PART V. SUPPORTING DATA FOR THE PRODUCTION ESTIMATES IN PARIS III AND IV

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The figures regarding the plants at Oschiri (Sardinia), Crotone (province Catanzaro-Calabria) and Nera Montoro (prov. Terni), which are at present in course of reactivation by Industry Sub-Commission, are as follows:

Locality	Production capacity of ammonium sulphate in M. tons: daily capacity	yearly capacity	Installed Electric power (KW) Available by 1 Jan 1945	Consumption of Electric Power (KWH): daily cons.	yearly cons.
Oschiri (Sardinia)	30	10,200	5,600	134,400	4,800,000
Crotone (Calabria - prov. Catanzaro)	75	27,000	14,000	336,000	10,000,000
Nera Montoro (prov. Terni)	30	10,800	5,600	134,400	4,800,000
Total	135	48,000	25,200	604,800	19,600,000

Consumption per 1 M. ton ammonium sulphate: 4,590 KWH.

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B. NITROGENOUS FERTILIZERS

PART I. INTRODUCTION

Nitrogenous fertilizer production is completely different and much more complicated from the technical point of view than that of superphosphate fertilizers.

The nitrogen is extracted from the air (air is a mixture of about 80% of nitrogen and 20% of oxygen) and then transformed, by combining it with hydrogen, into ammonia (NH_3).

Ammonia is a basic material for preparing the following nitrogenous fertilizers:

a) Ammonium sulphate
b) Ammonium nitrate
c) Calcium nitrate

Another nitrogenous fertilizer largely consumed in Italy is calcium cyanamide (the only one prepared without using ammonia as basic material). Calcium cyanamide was produced in the Papigno plant (prov. Terni). The electric power station supplying the plant was completely destroyed and therefore no estimate can be made as regards the potential possibilities in 1945.

The nitrogenous fertilizer industry, in contrast with the superphosphate fertilizer industry, requires very large amounts of electric power. Therefore, these plants are not spread equally over the country, but are usually concentrated in a few large units and in places where large and cheap quantities of electric power are available.

Before the War the nitrogenous fertilizer plants, existing south of the Pisa-Rimini line, were situated in the following localities:

Crotone	(province Catanzaro)
Bussi	(" Pescara)
Papigno	(" Terni)
Nera Montoro	(" Terni)
Terquinia	(" Viterbo)
Oschiri	(Sardinia)

The Bussi-, Papigno- and Terquinia-plants were very badly damaged by enemy mines and by Allied bombing and at present no estimates can be made as regards the possibilities of their reactivation for the year 1945.

The three fertilizer plants of Crotone, Nera Montoro and Oschiri are being reactivated. Their production is being standardized for technical reasons for the year 1945 on ammonium sulphate only.

PART II. REQUIREMENTS AND JUSTIFICATION
(supplied by the Commerce Sub-Commission)

A. Bases and Justification

Nitrogenous fertil[illegible]

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The Pontecagnano plant is occupied by the Armed Forces, who consider it as a key position for the distribution of supplies in Italy. Therefore, it cannot be estimated whether the plant will be freed by January 1945.

Electric Power

Electric power requirements are almost negligible in the superphosphate industry. In an average sized plant (2,500 M. tons/year) 50 to70 KW are required. Consumption: about 30 KWH per 1 M. ton of superphosphate.

Coal

Coal is not needed for producing superphosphate.

PART VI. REQUISITIONS

In order to implement the production program as in Part III requisitions are being lodged for:

220,000 M. tons

of phosphate rock (average grade 50%).

PART VII. EFFECT ON SHIPPING SITUATION.

For the production of 330,000 M. tons superphosphate 220,000 M. tons of phosphate rock are needed. Therefore, importing the rock instead of the end product

110,000 M. tons

of shipping tonnage are saved.

PART VIII. INCREASE OF PRODUCTION THROUGH IMPLEMENTATION OF PROGRAM.

At present due to lack of transportation of the phosphate rock from Africa, production for the moment is carried on in only two plants(Campofranco, Sicily and Portici, Naples). In addition, owing to the limited supplies of the rock, these plants cannot be operated at full capacity.

The monthly production in these two plants is 3,000 M. tons superphosphate, corresponding to36,000 tons superphosphate per year.

Therefore, through implementation of program, the production can be increased from 36,000 M. tons/year to 330,000 M. tons/year, or 10 times the present output.

CONCLUSIONS

a) Superphosphate production of 330,000 M. tons/yearly, corresponding to the almost entire requirement south of the Pisa-Rimini line can be covered by using existing plant capacity and pyrites from local resources, provided that the required quantity of phosphate

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PART VI. REQUISITIONS

In order to implement the production program as in Part III requisitions are being lodged for:

220,000 M. tons

of phosphate rock (average grade 30%).

PART VII. EFFECT ON SHIPPING SITUATION.

For the production of 330,000 M. tons superphosphate 220,000 M. tons of phosphate rock are needed. Therefore, importing the rock instead of the end product

110,000 M. tons

of shipping tonnage are saved.

PART VIII. INCREASE OF PRODUCTION THROUGH IMPLEMENTATION OF PROGRAM.

At present due to lack of transportation of the phosphate rock from Africa, production for the moment is carried on in only two plants(Campofranco, Sicily and Portici, Naples). In addition, owing to the limited supplies of the rock, these plants cannot be operated at full capacity.

The monthly production in these two plants is 3,000 M. tons superphosphate, corresponding to36,000 tons superphosphate per year.

Therefore, through implementation of program, the production can be increased from 36,000 M. tons/year to 330,000 M. tons/year, or 10 times the present output.

CONCLUSIONS

a) Superphosphat. production of 330.000 M. tons/yearly, corresponding to the almost entire requirement south of the Pisa-Rimini line can be covered by using existing plant capacity and pyrites from local resources, provided that the required quantity of phosphate rock (220,000 M. tons) be imported.

b) In order to realize the above program it is essential that transportation of pyrites to the plants be granted.

c) It is considered convenient to increase the superphosphate production to full plant capacity in order to make the highest possible quantity of fertilizer available for application on land or for stockpiling for the non-grain areas. This would substantially reduce imports of grain in Italy for the year 1945.

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~~0,000 M. tons per year~~,

which corresponds approximately to 90% of the requirements according to the figures supplied by Control Sub-Commission in Part III.

PART IV. PRODUCTION POTENTIAL OF RAW MATERIAL

The raw materials required for the production of superphosphate are:
a) pyrites (for production of sulphuric acid)
b) phosphate rock

a) Pyrites

For the production of 330,000 M. tons superphosphate there are needed:

100,000 M. tons per year

of pyrites. This amount is available in stock at the Sterlino-station (prov. Grosseto - map reference: sheet 15; E.4387) and the only problem that arises is the transportation of these stocks to the various plants.

b) Phosphate rock

For the production of 330,000 M. tons superphosphate there are needed (rounded):

220,000 M. tons per year

of phosphate rock (average grade 60%). This rock must be imported (preferably from Tunisia) and in this respect only the transportation problem arises.

PART V. SUPPORTING DATA FOR PRODUCTION ESTIMATES IN PARTS III AND IV.

The following plants are scheduled for operation by 1 January 1945:

Locality and/or name	Monthly production of superphosphate in M. tons	Yearly production of superphosphate in M. tons
Sicily		
Campofranco	2,000	24,000
Termini Imerese	2,500	30,000
Milazzo	1,000	12,000
Licata	2,000	24,000
Ficarra	2,000	24,000
Sardinia		
S. Gilla (Cagliari)	1,500	18,000
Mainland		
Crotone	2,000	24,000
Taranto	2,500	30,000
Brindisi	2,500	30,000
Barletta	4,000	48,000
[illegible]	1,500	18,000

the various plants.

b) Phosphate rock

For the production of 330,000 M. tons superphosphate there are needed (rounded):

220,000 M. tons per year

of phosphate rock (average grade 30%). This rock must be imported (preferably from Tunisia) and in this respect only the transportation problem arises.

PART V. SUPPORTING DATA FOR PROJECTION ESTIMATES IN PARTS III AND IV.

The following plants are scheduled for operation by 1 January 1943:

Locality and/or Name	Monthly production of superphosphate in M. tons	Yearly production of superphosphate in M. tons
Sicily		
Campofranco	2,000	24,000
Tommaso Natale	2,500	30,000
Milazzo	1,500	18,000
Licata	2,000	24,000
Biocca	2,000	24,000
Sardinia		
S. Gilla (Cagliari)	1,500	18,000
Mainland		
Crotone	2,000	24,000
Taranto	2,500	30,000
Brindisi	2,500	30,000
Barletta	4,000	48,000
Pratici	1,500	18,000
Pontecagnano	2,000	24,000
Rome - Tuscolano	1,500	18,000
	Total	330,000 M. tons

At present ten of the above-indicated thirteen plants have been reactivated by Industry Sub-Commission and are ready to start working, provided thatphosphate rock be available.

The Brindisi and Rome-Tuscolan plants will be ready by 1 January 1943.

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SECTION 5

FERTILIZERS

The production of fertilizers involves essentially two classes of products:

a) Superphosphate fertilizers
b) Nitrogenous fertilizers

The superphosphate plants and the nitrogenous fertilizer plants are to be considered as two different industries and therefore the respective production programs will be analyzed separately.

A. SUPERPHOSPHATE FERTILIZERS

PART I. INTRODUCTION

The application of superphosphate fertilizer on land is essential for maintaining a constant yearly production level of grain and other agricultural products.

The superphosphate is obtained by treatment of phosphate rock (calcium phosphate) imported usually from Africa (Tunisia, Algeria and Sudan) with sulphuric acid 50 Be (chamber acid). Therefore superphosphate plants consist of two departments:
Department a) - Plant for the production of sulphuric acid 50 Be.
Department b) - Plant for the treatment of the rock by means of the above sulphuric acid.

PART II. REQUIREMENTS AND JUSTIFICATION
(supplied by the Commerce Sub-Commission)

A. Bases and Justifications

Phosphate fertilizer: Application varies from 1 to 2 quintals per hectare or 132 lbs. minimum to 200 lbs. maximum per acre, for a base of 5,500,000 acres-increase in the yield about 2/3 of the equivalent of increase with nitrate. Applied prior to the planting of legumes, these phosphates are important not only for legume production but for the gains in grain yield following the legume crop.

B. Requirements

Material	Yearly average during 1938- 1941 in M. tons	Estimated requirements for 1945 (south of the Pisa-Rimini line) - in M. tons
Superphosphate	722,000	361,000

PART III. PRODUCTION POTENTIAL OF END PRODUCT

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a) - No information is available on 15 plants in Tuscany, at pres-

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PART I. INTRODUCTION

The application of superphosphate fertilizer on land is essential for maintaining a constant yearly production level of grain and other agricultural products.

The superphosphate is obtained by treatment of phosphate rock (calcium phosphate) imported usually from Africa (Tunisia, Algeria and Sudan) with sulphuric acid 50 Be (chamber acid). Therefore superphosphate plants consist of two departments:
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PART II. REQUIREMENTS AND JUSTIFICATION
(supplied by the Commerce Sub-Commission)

A. Bases and Justifications
Phosphate fertilizer: Application varies from 1 to 2 quintals per hectare or 132 lbs. minimum to 700 lbs. maximum per acre, for a base of 5,500,000 acres-increase in the yield about 2/3 of the equivalent of increase with nitrate. Applied prior to the plantings of legumes, these phosphates are important not only for legume production but for the gains in grain yield following the legume crop.

B. Requirements

Material	Yearly average during 1938- 1941 in M. tons	Estimated requirements for 1945 (south of the Pisa-Rimini line) - in M. tons
Superphosphate	722,000	361,000

PART III. PRODUCTION POTENTIAL OF END PRODUCT

a) - No information is available on 15 plants in Tuscany, at present still in the fighting zone.
b) - South of the Pisa-Rimini line and north of the Rome-Pescara line all plants, with the exception of the Orbetello plant, are very badly damaged or destroyed owing to war action and no estimates can be made at present as to their use for 1945.
c) - The Orbetello factory, scheduled for reactivation in 2 months, cannot be taken at present into consideration for superphosphate production, being reserved for "electrolyte" (sulphuric acid for batteries) for the Army. In this respect instructions from HQ AFLRS are pending.
d) - The potential production will, therefore, refer to factories south of the Rome-Pescara line including Sicily and Sardinia. Ten plants have been reactivated by Industry Sub-Commission and two are in course of reactivation. Their total potential production in 1945 will be (with the exception of the above-mentioned 15 Tuscany plants)

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List of Raw Materials Required for One Year's Work
Broken Down by Plants

	Pubignano (Piano)									Benevento		
	Svedesi Safety	Solfortti Sulphur	Empoli	Pontorme	Fucecchio	Perugia	Jesi	Fondi	Napoli	Mariglia	De Nigris	Fucci
Metric Tons												
1. Sesqui Phosphorus	–	4.2	0.55	0.4	2.8	3.6	1.7	0.07	7.0	0.3	0.3	0.15
2. Amorphus Phosphorus	2.4	–	–	–	–	–	–	–	–	–	–	–
3. Skin Glue for Phosphoric Mixture	3.2	14.0	1.6	1.2	8.3	11.0	5.1	0.2	11.3	1.0	1.0	0.5
4. Potassium Chlorate	24.8	35.0	4.6	3.1	2.3	–	14.2	0.5	23.8	2.6	2.6	1.3
5. Zinc White (Zinc Oxide)	2.2	9.3	1.3	0.9	6.3	–	3.8	0.14	7.6	0.7	0.7	0.35
6. Manganese Peroxide	0.7	–	–	–	–	–	–	–	–	–	–	–
7. Double refined sulphur in Blocks	–	136.0	18.0	12.0	90.0	–	53.7	2.0	–	9.8	9.8	4.9
8. Sodium Silicate	–	14.0	1.8	1.2	8.6	–	5.2	0.2	–	1.0	1.0	0.5
9. Starch	16.0	8.4	1.1	0.7	5.4	5.4	3.3	0.15	9.3	0.6	0.6	0.3
10. Gum (Arabic or Manila)	4.4	–	–	–	–	12.5	–	–	21.0	–	–	–
11. Paraffin	22.3	–	–	–	–	–	–	–	–	–	–	–
12. Cotton Thread	–	–	–	–	–	5.3	–	–	38.6	–	–	–
13. Stearine	–	–	–	–	–	120.2	–	–	196.0	–	–	–
14. Poplar Wood	2600.0	3150.0	400.0	280.0	2025.0	–	1237.5	45.0	–	225.0	225.0	122.5
15. Straw Paper for Match Boxes	–	280.0	36.0	24.0	202.5	–	110.2	4.0	–	20.0	20.0	10.0
16. Straw Wrapping Paper (for packages of 100 boxes)	23.0	24.0	3.1	2.1	14.8	2.2	9.2	0.35	14.3	1.7	1.7	0.85
17. Blue Paper for Match Boxes	28.8	–	–	–	–	–	–	–	–	–	–	–
18. Yellow Paper for Match Box Labels	11.2	–	–	–	–	–	–	–	–	–	–	–
19. White Thin Cardboard for Cerini	–	–	–	–	–	60.9	–	–	150.0	–	–	–
20. Green Thin Cardboard for Cerini	–	–	–	–	–	24.5	–	–	145.0	–	–	–
21. Paste for Cardboard	–	–	–	–	–	0.8	–	–	3.6	–	–	–
22. Nails	2.8	0.5	0.07	0.1	0.4	2.2	0.2	0.02	3.3	0.1	0.1	0.05
23. Pit Coal	304.0	420.0	54.0	36.0	270.0	214.0	138.0	6.0	375.0	30.0	30.0	15.0
Thousand KW.H.												
24. Electric Power	48.0	84.0	9.0	7.0	50.0	20.0	60.0	1.0	24.0	6.0	6.0	3.0

(a) Italy
(b) Possibly Montecatini, Rumi
(c) Italy - Catondere Meridiona
(d) Italy - Lignito

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Annex A

List of Raw Materials Required for One Year's Work
Broken Down by Plants

(Pisano) Solfureti Sulphur	Empoli	Pontormo	Pucecchio	Perugia	Jesi	Fondi	Napoli	Benevento Marsiglie	Benevento De Nigris	Benevento Pucci	Valgunarnera	Giovinni Gemini	Total	
4.2	0.55	0.4	2.8	3.6	1.7	0.07	7.0	0.3	0.3	0.15	0.1	0.01	21.13	
-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	
14.0	1.6	1.2	8.3	11.0	5.1	0.2	11.3	1.0	1.0	0.5	0.05	0.03	58.68	(a)
35.0	4.6	3.1	2.3	-	14.2	0.5	23.8	2.6	2.6	1.3	0.7	0.065	115.565	(b)
9.6	1.3	0.9	6.3	-	3.8	0.14	7.6	0.7	0.7	0.35	0.2	0.02	34.01	
-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	
136.0	18.0	12.0	90.0	-	53.7	2.0	-	9.8	9.8	4.9	3.0	0.25	339.05	(a)
14.0	1.8	1.2	8.6	-	5.2	0.2	-	1.0	1.0	0.5	0.25	0.03	33.78	
8.4	1.1	0.7	5.4	5.4	3.3	0.15	9.3	0.6	0.6	0.3	0.17	0.02	51.44	
-	-	-	-	18.5	-	-	21.0	-	-	-	-	-	37.9	
-	-	-	-	-	-	-	-	-	-	-	-	-	22.8	
-	-	-	-	-	-	-	38.6	-	-	-	-	-	43.9	(c)
-	-	-	-	5.3	-	-	196.0	-	-	-	-	-	316.2	
-	-	-	-	120.0	-	-		225.0	225.0	122.5	67.5	4.5	10382.0	(a)
5150.0	400.0	280.0	2025.0	-	1237.5	45.0	-						713.2	(a)
280.0	36.0	24.0	202.5	-	110.2	4.0	-	20.0	20.0	10.0	6.0	0.5	102.75	(a)
34.0	3.1	2.1	14.8	2.2	9.2	0.35	14.3	1.7	1.7	0.85	0.5	0.05	28.8	(a)
-	-	-	-	-	-	-	-	-	-	-	-	-	11.2	(a)
-	-	-	-	-	-	-	-	-	-	-	-	-	210.9	(a)
-	-	-	-	60.9	-	-	150.0	-	-	-	-	-	169.5	(a)
-	-	-	-	24.3	-	-	145.0	-	-	-	-	-	4.4	(a)
-	-	-	-	0.8	-	-	3.6	-	-	-	-	-	11.89	(a)
0.5	0.07	0.1	0.4	2.2	0.2	0.02	3.3	0.1	0.1	0.05	0.03	0.02	1902.0	(d)
420.0	54.0	36.0	270.0	214.0	138.0	6.0	375.0	30.0	30.0	15.0	9.0	1.0		
24.0	9.0	7.0	50.0	20.0	60.0	1.0	24.0	6.0	6.0	3.0	2.0	.02	324.0	

(a) Italy
(b) Possibly Montecatini, Massa

(c) Italy - Cotoniere Meridionali, Naples & Salerno
(d) Italy - Lignite

PART V: <u>AVAILABILITY</u>

So far as requisitions of raw materials are concerned, the items and quantities outlined in IV as being unavailable from domestic resources are being requisitioned for supply in equal monthly lots commencing December, January next.

PART VI: <u>EFFECT ON EMPLOYMENT SITUATION</u>

Apart from the dismissal of 5240 people at present employed, the stoppage of domestic manufacture and its substitution by imports would involve the importation of matches to the total weight of 4000 tons per annum, occupying 1,000,000 cubic feet of shipping space. Matches are dangerous and bulky cargo, require special packing for shipment and involve heavy insurance rates.

PART VII: <u>INCREASE OF PRODUCTION THROUGH IMPLEMENTATION OF PROGRAM</u>

The present production of matches is at the rate of one billion per annum. The program now proposed provides for an increase to 31.6 billion per annum.

The difference of 31.6 billion matches would represent 3800 tons of shipping space, against which the program provides for 363 tons only of imported raw materials per annum.

Therefore, 3164 tons of dead weight shipping space or approximately 750.000 cubic feet will be saved by its implementation.

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The present production of matches is at the rate of one billion per annum. The program now proposed provides for an increase to 31.6 billion per annum.

The difference of 31.6 billion matches would represent 3900 tons of shipping space, against which the program provides for 369 tons only of imported raw materials per annum.

Therefore, 3164 tons of dead weight shipping space or approximately 750,000 cubic feet will be saved by the implementation.

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PART IV PRODUCTION POTENTIAL OF REQUIRED RAW MATERIALS

Annex A of this report contains a complete and tabulated statement of the raw materials required for a normal year's operation of all plants. Of these the following will need to be imported (all figures in m. tons). The remainder will be supplied from local resources.

Raw Material	Quantity	Remarks
Sesqui Phosphorus	211.6	
Amorphous	24.0	
Potassium Chlorate	1,165.6	Produced in North Italy, north of Pisa-Rimini line
Zinc Oxide	340.1	Produced in North Italy, north of Pisa-Rimini line
Manganese Peroxide	7.0	
Sodium Silicate	557.8	
Starch	534.4	Could only be produced in Italy at the expense of food
Gum (Arabic or Manila)	379.0	
Paraffin	228.0	
Stearine	3,162.0	

These figures of necessary importations are trifling, the main raw materials which would occupy valuable shipping space, i.e., wood and sulphur, being available in Italy.

Electric power consumption is not heavy, and can be considered, in view of the importance of the match industry, as available. Only 10 KWH are required per million matches produced. No imported coal is required.

Certain chemicals, e.g., Potassium Chlorate and Zinc Oxide are likely to be available from domestic resources by the time production on the 1945 program can commence.

Transportation of raw materials, unless conditions improve considerably in the meantime, is certain to be a major difficulty.

Paper at this moment is in short supply, but if the program for paper production (see Part II) is implemented, the requirements of the match industry should be met with no difficulty.

It is pointed out that the match plants recently liberated from German occupation are considered, for the purposes of this report, as being in working order, but as having no stocks of raw material on hand to carry forward into the new year.

PART V SUPPORTING DATA FOR PRODUCTION ESTIMATES IN PARTS III AND IV

Item 3 of Annex A - Skin Glue - sufficient production in Rome area subject to hides being available for processing
Item 4 - Potassium Chlorate - recommended for requisition
Item 7 - Distillation and Auxiliary production

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Match	514.4	could only be produced in Italy at the expense of food
Gum (Arabic or Madia)	379.6	
Paraffin	228.0	
Stearine	3.162.0	

Those figures of necessary importations are trifling, the main raw materials which would occupy valuable shipping space, i.e., wood and sulphur, being available in Italy.

Electric power consumption is not heavy, and can be considered, in view of the importance of the match industry, as available. Only 10 KWH are required per million matches produced. No imported coal is required.

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It is pointed out that the match plants recently liberated from German occupation are considered, for the purposes of this report, as being in working order, but as having no stocks of raw material on hand to carry forward into the new year.

PART V SUPPORTING DATA FOR PRODUCTION ESTIMATES IN PARTS III AND IV

Item 3 of Annex A - Skin Glue - sufficient production in Rome area subject to hides being available for processing
Item 4 - Potassium Chlorate - recommended for requisition
Item 7 - Sicilian and Apulian production
Item 12 of Annex A - Cotton Thread for 'Cerini' production at Cotoniere Meridionali, Naples and Salerno - see detailed report under Section 3 Textiles
Item 14 - Poplar wood, available all over Italy
Item 15 - Straw Paper - production at Poligrafica dello Stato Foggia and at Isola del Liri and various other small plants
Item 16, 17, 18, 19, 20 as for 15
Item 21 - Sufficient domestic production in many small plants
Item 22 - Sufficient domestic production - Naples (2 plants), Ilva, Torre Annunziata and Terni
Item 23 - Many lignite mines

Transportation will be a major problem in the supply of raw materials to the various plants.

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It is obviously of the greatest importance to encourage and assist the Italian match industry to rehabilitate itself and to stimulate production. Fortunately the consumption of electric energy is not heavy. Coal demands are not of great importance and are capable of satisfaction from local sources. The volume of necessary imports should be justified by the resultant assistance to the financial stability of the country.

PART II REQUIREMENTS AND JUSTIFICATION

1. Pre-war consumption, 140 matches per person per month, averaged over years 1938 to 1943 inclusive.

2. Present ration of 25 matches per person per month is considered below minimum civilian requirements.

3. Ration deemed minimum under conditions of 1945: 50 matches per person per month.

4. Population of area concerned, 25,000,000; Italian Army Forces assumed as 309,000; Carabinieri, 55,000; Air Force, 31,000; Navy, 75,000.

5. Ration for matches for Italian Armed Forces is considered 40 per week.

Total Requirements for 12 Months

1.	Civilians	15,000,000,000 matches
2.	Italian Armed Forces (approx.)	1,000,000,000 "
	Total Essential Needs	16,000,000,000 "

PART III PRODUCTION OF POTENTIAL OF END-PRODUCT

Assuming that requisitions of the materials shown in column 15 of Annex A are met in good time, that electric power to the modest extent indicated can be supplied and that the necessary transportation facilities within Italy are available, a total of 32,612,000,000 matches of all types can be produced in 1945 in the factories now in the area covered by this program. It is assumed for this purpose that the plants at Putignano (Pisa), Fucecchio, Pontorme (Empoli) and at Empoli are in a condition to function normally.

Plant	Type of Match	Quantity of Matches
Putignano	Safety	4,000,000,000
	Sulphur	7,000,000,000
Fucecchio	"	4,500,000,000
Pontorme	"	600,000,000
Empoli	"	900,000,000
Perugia	Wax	3,500,000,000
Josi	Sulphur	5,500,000,000
Benevento (Marsiglia)	"	500,000,000
Benevento (De Negris)	"	500,000,000
Benevento (Fucci)	"	250,000,000
Fondi	"	

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2. Present ration of 25 matches per person per month is considered below minimum civilian requirements.

3. Ration deemed minimum under conditions of 1945: 50 matches per person per month.

4. Population of area concerned, 25,000,000; Italian Army Forces assumed as 309,000; Carabinieri, 55,000; Air Force, 31,000; Navy, 75,000.

5. Ration for matches for Italian Armed Forces is considered 40 per week.

Total Requirements for 12 Months

1.	Civilians	15,000,000,000 matches
2.	Italian Armed Forces (approx.)	1,000,000,000 "
	Total Essential Needs	16,000,000,000 "

PART III PRODUCTION OF POTENTIAL OF END-PRODUCT

Assuming that requisitions of the materials shown in column 15 of Annex A are met in good time, that electric power to the modest extent indicated can be supplied and that the necessary transportation facilities within Italy are available, a total of 32,612,000,000 matches of all types can be produced in 1945 in the factories now in the area covered by this program. It is assumed for this purpose that the plants at Putignano (Pisa), Fucecchio, Pontorme (Empoli) and at Empoli are in a condition to function normally.

Plant	Type of Match	Quantity of Matches
Putignano	Safety	4,000,000,000
	Sulphur	7,000,000,000
Fucecchio	"	4,500,000,000
Pontorme	"	600,000,000
Empoli	"	900,000,000
Perugia	Wax	3,500,000,000
Jesi	Sulphur	5,500,000,000
Benevento (Marsiglia)	"	500,000,000
Benevento (De Negris)	"	500,000,000
Benevento (Fucci)	"	250,000,000
Fondi	"	200,000,000
Naples	Wax	5,000,000,000
Valguarnera (Sicily)	Sulphur	150,000,000
S. Giovanni Gemini (Sicily)	"	12,000,000
Total		32,612,000,000

N.B. Sicily produced her own requirements in sulphur matches, but drew supplies of wax matches from the mainland.

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SECTION IV

B. MATCHES

PART I INTRODUCTION

Match production is of great importance to Italy which before the war produced her own requirements and a modest export surplus, which normally was shipped to South America.

After the outbreak of hostilities between Germany and the Allies, and up to the entry of Italy into the war on the side of Germany, this surplus was diverted to Great Britain, where at that moment a scarcity existed owing to restrictions on imports of raw materials due to the utilization of the British mercantile marine for war cargoes. "Cerini", small wax-cotton matches similar to the British larger 'wax vestas' appeared in England for the first time.

The matches produced in Italy are of two main types - those with wooden 'splints' i.e., sulphur, paraffin and safety matches; and 'cerini'.

Raw materials for match manufacture were in great part imported in the form of paraffin for impregnation of wooden safety matches, wax and cotton for 'cerini' and phosphorus for preparation of the 'dip' or igniter. Some phosphorus was produced at the SAFFA works at Spoleto; this plant has been completely destroyed by aerial bombardment. 'Splints' (match stems) were produced from domestic poplar-wood.

The SAFFA plant in Naples produced 'booklet' matches and with the stock of raw materials on hand can continue this work for a further five months. The production is at the rate of 500,000 booklets, each containing 40 matches, per month. After consumption of present stocks of raw materials, SAFFA will discontinue this branch of their manufacture, for the reasons that:

a. Production is expensive and uneconomical and consumes large quantities of chlorate of potassium and other chemicals.

b. Kraft paper must be used - this is in acutely short world supply.

In Naples also, difficulties have been encountered in the production of 'cerini', cotton thread being scarce and the special paper which can substitute it unobtainable. Experiments are now proceeding in the hope of utilising domestic hemp for 'cerini' but this is considered an unsatisfactory substitute for cotton, and the latter material has been envisaged as available for 1945 production.

As in most European countries, match production is state-controlled and heavily taxed. The industry's importance to the national economy cannot, therefore, be overstressed. Pre-war the industry found employment for 4000 persons of both sexes; match manufacture by reason of its small equipment of extremely intricate and elaborate machinery is a modest employer of labor.

The greatest contribution of the match industry to the stability of Ital- economy is the revenue resulting from a heavy t- consumed. The

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'splints' i.e., sulphur, paraffin and safety matches; and 'cerini'.

Raw materials for match manufacture were in great part imported in the form of paraffin for impregnation of wooden safety matches, wax and cotton for 'cerini' and phosphorus for preparation of the 'dip' or igniter. Some phosphorus was produced at the SAFFA works at Spoleto; this plant has been completely destroyed by aerial bombardment. 'Splints' (match stems) were produced from domestic poplar-wood.

The SAFFA plant in Naples produced 'booklet' matches and with the stock of raw materials on hand can continue this work for a further five months. The production is at the rate of 500,000 booklets, each containing 40 matches, per month. After consumption of present stocks of raw materials, SAFFA will discontinue this branch of their manufacture, for the reasons that:

a. Production is expensive and uneconomical and consumes large quantities of chlorate of potassium and other chemicals.

b. Kraft paper must be used - this is in acutely short world supply.

In Naples also, difficulties have been encountered in the production of 'cerini', cotton thread being scarce and the special paper which can substitute it unobtainable. Experiments are now proceeding in the hope of utilizing domestic hemp for 'cerini' but this is considered an unsatisfactory substitute for cotton, and the latter material has been envisaged as available for 1945 production.

As in most European countries, match production is state-controlled and heavily taxed. The industry's importance to the national economy cannot, therefore, be overstressed. Pre-war the industry found employment for 4000 persons of both sexes; match manufacture by reason of its small equipment of extremely intricate and elaborate machinery is a modest employer of labor.

The greatest contribution of the match industry to the stability of Italy's economy is the revenue resulting from a heavy tax on every box of matches consumed. The cost of production of a box of 100 matches is today Lit. 0.56, duty is Lit. 1.24, and the cost to the consumer Lit. 2.00. The difference allows for profit and cost of distribution. In a normal year the revenue from match sales in the whole of Italy was Lit. 300,000,000.

Match manufacture in Italy is as to 90% in the hands of SAFFA (Soc. Anon. Fabbriche Fiammiferi ed Affini) whose head office and overseas sales department is in Milan. SAFFA control nearly all plants in liberated Italy. CIF (Consorzio Industrie Fiammiferi) deals with sales and distribution of all matches produced in liberated Italy. Both concerns are Government-controlled.

CIF distribution of matches takes place through 23 main and 647 secondary warehouses. They employ a number of motor vehicles for distributing to the main warehouses.

0116

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Data on Cigarette Paper Consumption

Plant	Monthly Production of Cigarettes m. tons	Number of Spools of Paper Consumed per month	Requirements in Spools per 6 months
	Width of Paper - 27 m/m		
Bari	120	6.000	36.000
Cagliari	30	1.500	9.000
Catania	30	1.500	9.000
Lecce	45	2.250	13.500
Napoli	10	500	3.000
Palermo	35	1.750	10.500
Rome	40	2.000	12.000
	310	15.500	93.000
	Width of Paper - 28 m/m		
Bari	10	500	3.000
Napoli	40	2.000	12.000
	50	2.500	15.000
	Width of Paper - 28,5 m/m		
Bari	5	250	1.500
Rome	7.5	375	2.250
	12.5	625	3.750
	Width of Paper - 29 m/m		
Bari	-	-	-
Lecce	35	1.750	10.500
Palermo	15	750	4.500
Rome	30	1.500	9.000
	80	4.000	24.000
	Width of Paper - 30 m/m		
Rome	7.5	375	2.250
	7.5	375	2.250
Totals	460	23.000	138.000

0117

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Roma	10	2.000	12.000
	310	15.500	93.000

Width of Paper - 28 m/m

Bari	10	500	3.000
Napoli	40	2.000	12.000
	50	2.500	15.000

Width of Paper - 28,5 m/m

Bari	5	250	1.500
Roma	7.5	375	2.250
	12.5	625	3.750

Width of Paper - 29 m/m.

Bari	-	-	-
Lecce	35	1.750	10.500
Palermo	15	750	4.500
Roma	30	1.500	9.000
	80	4.000	24.000

Width of Paper - 30 m/m

Roma	7.5	375	2.250
	7.5	375	2.250

Totals	450	23.000	138.000

2984

0118

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Carton Card for Cigarette Production

Plant	Monthly Production of Cigarette m. tons	Monthly Consumption of Carton Card m. tons	Six Months Requirements of Carton Card m. tons
Blue Card			
Bari	100	20	120
Cagliari	25	5	30
Catania	20	4	24
Lecce	25	5	30
Palermo	20	4	24
Rome	40	8	48
	230	46	276
Yellow Card			
Lecce	35	7	42
Palermo	15	3	18
Rome	30	6	36
	80	16	96
Green Card			
Bari	20	4	24
Cagliari	5	1	6
Catania	10	2	12
Lecce	20	4	24
Palermo	15	3	18
	70	14	84

The data above refer only to that part of the production of cigarettes which is supplied to the public in cartons.

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	230	45	275

Yellow Card

Lecce	35	7	42
Palermo	15	3	18
Rome	30	6	36
	80	16	96

Green Card

Bari	20	4	24
Cagliari	5	1	6
Catania	10	2	12
Lecce	20	4	24
Palermo	15	3	18
	70	14	84

The data above refer only to that part of the production of cigarettes which is supplied to the public in cartons.

0120

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Machine Type	Sizes in m/m	Number of Belts
Universal	35 x 2560	7000
	25 x 1760	2000
	21 x 1760	5000
	32 x 1920	500
Standard	26 x 2200	2000
Excelsior B.B.	56 x 3820	600
	23 x 2300	600
Excelsior B.C.	56 x 3820	500
	24 x 2500	300

The bands should comply in average with the following specification which is based on 25 x 1760 x 0,72 m/m:

Breaking strain, 180 kg.
Elongation, 6%
Weight (average), 550 grams per square meter
Thickness 56 x 3820, 0,93 m/m - all others, 0,72 m/m
Flexibility - to work without difficulty on a drum of a minimum diameter of 23 m/m
Impregnation - water and starch

Carton Cards - in addition, a demand should be lodged for the production from local resources (see Paper report in Section 2) of the following:

Thin Carton Card glazed one side, width 68 m/m wound on spools containing about 20 kg., inner diameter of spools 150 m/m, weight of card 140/160 grams per square meter.

Yellow	Light Blue	Light Green	Buck Red	
100	420	200	100	tons

Delivery in 12 equal monthly lots assorted proportionately to colors ordered.

PART VII EFFECT ON SHIPPING SITUATION

Assuming that all cigarettes, tobacco, cigars and snuff consumed in liberated Italy needed to be imported it may be stated that, the cargo being light and bulky, a tonnage of shipping space more than 40 times the space to be occupied by the items proposed to be requisitioned would be required.

PART VIII INCREASE OF PRODUCTION THROUGH IMPLEMENTATION OF PROGRAM

It is unfortunately not possible to give production figures for that part of 1944 which has now expired, as the disorganization in the industry and difficulty in obtaining accurate information from the various centers renders accurate check impossible. It is, however, possible to say that implementation of the program here proposed will enable full use to be made of the Italian resources for tobacco manufacture, will assist morale, employ many hands and will bring the maximum possible income from taxation, thus assisting materially in the rehabilitation of the country.

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Breaking strain, 180 kg.
Elongations, 6%
Weight (average), 350 grams per square meter
Thickness 56 x 3820, 0,95 m/m - all others, 0,72 m/m
Flexibility - to work without difficulty on a drum of a minimum diameter of 23 m/m
Impregnation - water and starch

Carton Cards - in addition, a demand should be lodged for the production from local resources (see Paper report in Section 2) of the following:

Thin Carton Card glazed one side, width 68 m/m wound on spools containing about 20 kg., inner diameter of spools 150 m/m, weight of card 140/160 grams per square meter.

Yellow	Light Blue	Light Green	Buck Red	
100	420	200	100	tons

Delivery in 12 equal monthly lots assorted proportionately to colors ordered.

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Assuming that all cigarettes, tobacco, cigars and snuff consumed in liberated Italy needed to be imported it may be stated that, the cargo being light and bulky, a tonnage of shipping space more than 40 times the space to be occupied by the items proposed to be requisitioned would be required.

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7983

0122
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Consumption of Fuel and Electric Energy per annum

Factory	Power Taken at Kw.	Consumption in Kw. H	Consumption of Sardinian Coal Tons
Bari	100	200,000	1,200
Cagliari	75	65,000	1,660
Caterie	67	57,000	1,440
Chiaravalle	5.5	5,500	(not known, but small)
Lecce	90	110,000	300
Naples	80	160,000	1,200
Palermo	145	300,000	624
Rome	80	150,000	450
	643.5	1,047,500	6,934

It is considered, in view of the very modest demands for coal (which can be of Sardinian origin) and electric energy, that no difficulties should arise on these subjects.

Certain auxiliary materials, such as knives for cutting tobacco, will be required. At the moment, due to the impossibility of ascertaining the requirements of the recently liberated plants, and the difficulty of collecting details from Sicily, Sardinia and the mainland at short notice, particulars will need to follow, if and when the presently proposed program is accepted.

PART V SUPPORTING DATA FOR PRODUCTION ESTIMATES IN PARTS III AND IV

Annex referred to in Part IV serves as an indication of the possibility of provision of raw tobacco.

Section 2 of the Report (on paper production) provides justification for the assumption that importation of packing paper and carton card need not be considered.

Hemp bands are subject to importation.

Sulphuric acid for production of nicotine sulphate (which is mentioned separately) can be provided from local resources.

Production figures are based on past experience.

Demands for coal and electric energy are of such modest proportions that they should be met.

PART VI REQUISITIONS

It will be necessary, to provide for the requirements of cigarette manufacture, to requisition the following quantities of materials:

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Production figures are based on past experience.

Demands for coal and electric energy are of such modest proportions that they should be met.

PART VI REQUISITIONS

It will be necessary, to provide for the requirements of cigarette manufacture, to requisition the following quantities of materials:

Cigarette Paper - quality as before supplied to the following specification:

Combustible
Weight per square meter, 20 grams with a plus/minus tolerance of 5%
Internal diameter of spools, 120 m/m
Length of paper on each spool, 1560 meters

Width	27	28	28½	29	30 m/m spools
	190,000	30,000	6,000	48,000	4,500

Glue, appropriate quantity for above
Delivery: one twelfth of above each month

A year's supply of endless fabric belts of hemp or flax made in simple cross-weave (warp and weft) from equal parts of (warp) 25x2 and (weft) 25x3 threads.

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It has not been considered useful, for production in 1945, to calculate on replacement of the 43 machines known to have been destroyed; such machines are highly complicated, in short world supply and would require a period extending beyond 1945 for delivery.

PART IV PRODUCTION POTENTIAL OF REQUIRED RAW MATERIALS

Tobacco

The table attached as Annex indicates the stocks of unprocessed tobacco at the various depositories as of 31 July 1944, which indicates that consumption is considerably below the production. These figures concern the 1943 crop and it is estimated, on return as far as at hand, that the 1944 crop will produce a minimum of 11000 tons cigarette tobacco (the bulk from Lecce Province) and 7900 tons of pipe and cigar tobacco. These figures will be exceeded when further information is at hand and it can be stated with safety that there will be no lack of tobacco for processing in 1945. In fact, there will be a substantial excess as stocks in hand are sufficient (as of August 1944) for 31 months work.

Cigarette Carton Card & Packing Paper

The table below indicates consumption of cigarette paper, carton card and cigar and pipe tobacco packing paper. It is confirmed that subject to implementation of the program of paper manufacture proposed in Section 2 of this program, importation of the items shown in columns 2, 3 and 4 will not be necessary. The quantity of cigarette paper, however, indicated in column 1 cannot be produced in liberated Italy and must be imported to a total of 283½ metric tons for the year 1945.

Annual Consumption of (1) Cigarette Paper, (2) Carton Card, (3) and (4) Packing Paper (See figures in following col.)

Factory	Cigarette Paper in Specie of 1560 Meters (1)	Carton Card on Specie (2)	Packing Paper for Cigars, Cigarettes and Tobacco (3)	Packing Paper for Tobacco in Continuous Lengths (4)
	Kg.	Kg.	Kg.	Kg.
Bari	61,000	320,000	33,456	21,840
Cagliari	10,000	72,000	16,624	67,600
Catania	18,000	72,000	8,112	4,680
Chiaravalle	7,500	30,000	15,392	-
Lecce	48,000	192,000	12,480	..
Napoli SS.A. e Soc. Ceva	..	-	25,980	-
Napoli S.F.M. e Soc. Serafini	20,000	120,000	16,720	74,100
Palermo	50,000	180,000	22,672	13,260
Roma	51,000	204,000	16,520	..
	265,500	1,190,000	165,480	181,500

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duce a minimum of 11000 tons cigarette tobacco (the [illegible]
and 7900 tons of pipe and cigar tobacco. These figures will be exceeded
when further information is at hand and it can be stated with safety that
there will be no lack of tobacco for processing in 1945. In fact, there
will be a substantial excess as stocks in hand are sufficient (as of August
1944) for 21 months work.

Cigarette Carton Card & Packing Paper

The table below indicates consumption of cigarette paper, carton card and
cigar and pipe tobacco packing paper. It is considered that subject to im-
plementation of the program of paper manufacture proposed in Section 2 of
this program, importation of the items shown in columns 2, 3 and 4 will not
be necessary. The quantity of cigarette paper, however, indicated in
column 1 cannot be produced in Italy and must be imported to a
total of 2893 metric tons for the year 1945.

Annual Consumption of (1) Cigarette Paper, (2) Carton Card, (3) and (4)
Packing Paper (See figures in histogram.)

Factory	Cigarette Paper in Terms of 1,000 Meters (1)	Carton Card in Kilos (2)	Packing Paper for Cigars, Cigarettes and Tobacco (3)	Packing Paper for Tobacco in Continuous Lengths (4)
	Mn.	Kg.	Mn.	Kg.
Bari	61,000	360,000	33,[illegible]	23,[illegible]0
Cagliari	10,000	72,000	18,[illegible]	47,[illegible]0
Catania	13,000	72,000	8,[illegible]	4,[illegible]0
Chiaravalle	7,500	360,000	13,[illegible]	-
Lecce	48,000	144,000	15,[illegible]	-
Napoli SS.A. & Sez. Cuva	-	-	28,800	-
Napoli S.F.M. & Sez. Scafati	30,000	180,000	18,720	74,100
	30,000	180,000	22,[illegible]	13,260
Palermo	30,000	144,000	16,[illegible]	-
Rem	51,000	234,000		
	283,500	1,176,000	146,620	181,[illegible]60

2992

Hemp Bands for Cigarette Bundles

These were, until the Allied occupation of Southern Italy, imported from
Milan. They serve to fold the cigarette tobacco into the paper wrapper
and consumption is very high, the Lecce factory's figure being 25 per day
in all. The problem of replacement becoming acute, the Lecce plant has
provided with repaired bands while capacity was sought for local pro-
duction. The machinery necessary for the fabrication of these hemp bands
is particularly complicated, and although research still proceeds, it is
considered inadvisable to consider an practical any other course than im-
portation for the 1945 manufacturing program. It is understood that these
bolts are identical or similar to those produced in the U. S. Annex
shows consumption for each plant of each width for six months. (See Part
VI of this report for suggested requisition.)

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Stock of Unprocessed Tobacco as of 31 July 1944
(Including 1943 Crop Balances in Stock at the Concession Warehouses)

(all figures in metric tons)

Warehouse or Plant		Cigarette Tobacco	Pipe Tobacco	Snuff Tobacco	Total	Monthly Consumption	Remarks
Manufact.	Bari	637	323	-	960		
"	Cagliari	159	179	46	384		
"	Catania	59	28	-	87		
"	Cava						No advices
"	Chiaravalle						" "
"	Lecce	30	42	66	138		
"	Napoli SS.A	-	195	-	195		
"	" S.P.M.	92	101	-	192		
"	Palermo	128	35	9	172		
"	Roma	254	109	-	363		
"	Scafati	75	125	-	200		
D.C.C.T.	Benevento	-	160	-	160		
"	Cava	150	2.800	-	2.950		Estimated stock
"	Lecce	5.500	-	-	5.500		" "
"	Palermo						No advices
"	Perugia	550	350	-	900		" "
"	Roma	-	21	-	21		" "
Istituto	Scafati	-	130	-	130		
Ag. Coltiv.	Benevento	-	900	-	900		Estimated stock
" "	Cava	-	600	-	600		
" "	Lecce	140	-	-	140		
" "	Perugia	900	-	-	900		
" "	S. Giorgio	-	700	-	700		
Mag. Teb. Greg.	Ancona						No advices

Monthly consumption is 500 kms cigarette tobacco and 355 kms pipe and cigar tobacco. Consumption of cigarette tobacco is calculated on the basis of machines actually in working order and the consumption of tobacco on previous years' experience.

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"	Chiaravalle						
"	Lecce	30	42	66	138		
"	Napoli SS.A	-	195	-	195		
"	" S.P.M.	91	101	-	192		
"	Palermo	128	35	9	172		
"	Roma	254	109	-	363		
"	Scafati	75	125	-	200		
D.C.C.T.	Benevento	-	160	-	160		
"	Cava	150	2.800	-	2.950		
"	Lecce	6.500	-	-	6.500		
"	Palermo						
"	Perugia	550	350	-	900		
"	Roma	-	21	-	21		
Istituto	Scafati	-	130	-	130		
Ag. Coltiv.	Benevento	-	900	-	900		
" "	Cava	-	600	-	600		
" "	Lecce	440	-	-	440		
" "	Perugia	900	-	-	900		
" "	S. Giorgio	-	700	-	700		
Mag. Tab. Greg.	Ancona						
" " "	Gallipoli	400	-	-	400		
" " "	Lecce	9.676	-	-	9.676		
" " "	Scafati	-	40	50	90		
Totals		20.049	6.336	171	27.058	835	

Monthly consumption is 500 kms cigarette tobacco and 335 kms pipe and cigar tobacco. Consumption of cigarette tobacco is calculated on the basis of 5 machines actually in working order and the consumption of cigar and pipe tobacco on previous years' experience.

" "

Estimated stock

" "

No advices

" "

" "

Estimated stock

No advices

Estimated stock

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Productive Capacity of the Italian Tobacco Industry in Liberated Italy
Comparison for Seasons 1942/3 and 1945

(All figures in tons of 1.000 kg.)

Factory	Actual Production per Month Season 1942/43					Maximum Attainable Mon 1945 at Present		
	Snuff	Pipe Tobacco	Cigars	Cigarettes	Total	Snuff	Pipe Tobacco	Cig
Bari	-	7.6	21.3	200.0	228.9	-	14.0	8
Cagliari	4.0	-	9.0	50.0	63.0	4.0	43.0	8
Catania	-	10.3	10.5	43.0	63.8	-	3.0	4
Chiaravallo	4.2	-	27.0	160.0	191.2	-	-	27
Lecce	3.5	-	-	46.0	49.5	3.5	-	
Napoli SS. A e Sez. di Cava	-	-	59.6	-	59.6	-	-	50
Napoli S.P. Martire e Sez. Scafati	-	80.5	-	170.5	251.0	-	47.5	
Palermo	4.4	40.0	5.6	100.0	150.0	4.4	8.5	2
Roma	-	-	-	131.5	131.5	-	-	
Tons	16.1	138.4	133.0	901.0	1,138.5	11.9	116.0	100

Capacity is therefore 60% of 1942/3 figure, which latter can be considered as normal.

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Annex A

Productive Capacity of the Italian Tobacco Industry in Liberated Italy
Comparison for Seasons 1942/3 and 1945

(All figures in tons of 1.000 kg.)

	Actual Production per Month Season 1942/43					Maximum Attainable Monthly Production for 1945 at Present Plant Capacity				
	Snuff	Pipe Tobacco	Cigars	Cigarettes	Total	Snuff	Pipe Tobacco	Cigars	Cigarettes	Total
	-	7.6	21.3	200.0	228.9	-	14.0	8.5	135.0	157.5
	4.0	-	9.0	50.0	63.0	4.0	43.0	8.0	30.0	85.0
	-	10.3	10.5	43.0	63.8	-	3.0	4.5	30.0	37.5
	4.2	-	27.0	160.0	191.2	-	-	27.0	12.5	39.5
	3.5	-	-	46.0	49.5	3.5	-	-	80.0	83.5
	-	-	59.6	-	59.6	-	-	50.0	-	50.0
afati	-	80.5	-	170.5	251.0	-	47.5	-	50.0	97.5
	4.4	40.0	5.6	100.0	150.0	4.4	8.5	2.5	50.0	65.4
	-	-	-	131.5	131.5	-	-	-	85.0	85.0
	16.1	138.4	133.0	901.0	1.188.5	11.9	116.0	100.5	472.5	700.9

Capacity is therefore 60% of 1942/3 figure, which latter can be considered as normal.

	Cigarettes Kg.	Cigars Kg.	Pipe & Cigarette Tobacco Kg.	Tobacco Kg.	Total Kg.
Total requirements tons per year:					
Italian Armed Forces	858	-	1.038	-	1.896
Civilians	6.000	1.250	1.625	300	9.175
Total	6.858	1.250	2.663	300	11.071

PART III PRODUCTION POTENTIAL OF END PRODUCT

Based on present ration and demands it can be said that, subject to assistance to the Industry by way of fulfillment of requisitions mentioned in para. 6 and to transportation facilities being available, about 80% of the demand can be met. The demand for cigarettes of 6.858 tons per annum can be satisfied only as to 5670 tons, cigars can be supplied practically to the total needed and in the case of snuff the demand for 300 tons per annum can be met only as to less than 50%.

The demand for loose tobacco does not clarify how large a quantity is for individual rolling of cigarettes and how much is to be used as pipe tobacco; the supply in any case is 270 tons short of requirements.

The situation could be balanced and an export surplus for North Italy or an increased ration for liberated Italy provided, if it were possible to replace machines which are listed below and which have been destroyed by war operations. Only the lack of those machines prevents increased production.

Chiaravalle	16 machines
Naples (Factories of S. Pietro Martire & Soc. Scafati)	25 "
Rome	4 "
Perugia	4 "

Attached as Annex A is a complete list of plants whose production and condition are known, showing the normal production and presently considered potential capacity.

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to less than 50%.

The demand for loose tobacco does not clarify how large a quantity is for individual rolling of cigarettes and how much is to be used as pipe tobacco; the supply in any case is 270 tons short of requirements.

The situation could be balanced and an export surplus for North Italy or an increased ration for liberated Italy provided, if it were possible to replace machines which are listed below and which have been destroyed by war operations. Only the lack of these machines prevents increased production.

Chiaravalle	16 machines
Naples (Factories of S. Pietro Martire & Soc. Scafati)	25 "
Rome	4 "
Perugia	4 "

Attached as Annex A is a complete list of plants whose production and condition are known, showing the normal production and presently considered potential capacity.

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not appear, under today's conditions, to be economical to manufacture this paper in Italy as the bulk and weight of the completed paper would not greatly exceed those of the raw materials needed to be brought in. These materials also would need to be imported from more than one country and the shipments would need to be coordinated.

The object of these preliminary remarks is merely to indicate the supreme importance in the case of the tobacco industry of the maintenance of regular supplies of raw and auxiliary materials.

PART II REQUIREMENTS AND JUSTIFICATION

a. 1. Prewar consumption averaging 1938 to 1943 inclusive for each kind of tobacco was the following:

Cigarettes	Cigars	Tobacco for Pipe and Cigarettes	Snuff Tobacco
Kg.	Kg.	Kg.	Kg.
0,4786	0,0922	0,1302	0,023

Total: 0,724 Kilos per person per year

2. Present ration of tobacco is 30 grams per smoker per week. The chances of increase in production is limited by destruction of some factories. This averages 30 cigarettes in Rome and in the balance of liberated Italy per week. This ration is drawn as a tobacco equivalent in terms of cigarettes or other products.

3. This ration is considered sufficient by the Monopoly as it is their expected production capacity. This ration can only be drawn by smokers, males over 18, who constitute 30% of the population. Women are not considered as smokers.

4. The revenue and morale value of tobacco are important. The limiting factor is manufacturing equipment, not tobacco leaf, of which Italy was considered practically self-sufficient. Importation of some machinery would enable a larger ration.

5. On this basis it is recommended that requirements be placed at 50% of 1938/1943 average, for the civilian population taken at 25.000.000 persons.

6. Italian Armed Forces: the ration of cigarettes for the Italian Armed Forces is set at 5 per man per day plus ½ oz. of tobacco per man per week.

b. Tobacco growth for all Italy has averaged 43.000 tons per year with waste of 50% in production of final products. This covers consumption of 0,724 Kg. per person per year, which totals 32.580 tons per year for 45.000.000 people.

c. Total requirement for 12 months:

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a. 1. Prewar consumption averaging 1938 to 1943 inclusive for each kind of tobacco was the following:

Cigarettes	Cigars	Tobacco for Pipe and Cigarettes	Snuff Tobacco
Kg.	Kg.	Kg.	Kg.
0,4786	0,0922	0,1302	0,023

Total: 0,724 Kilos per person per year

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3. This ration is considered sufficient by the Monopoly as it is their expected production capacity. This ration can only be drawn by smokers, males over 18, who constitute 50% of the population. Women are not considered as smokers.

4. The revenue and morale value of tobacco are important. The limiting factor is manufacturing equipment, not tobacco leaf, of which Italy was considered practically self-sufficient. Importation of some machinery would enable a larger ration.

5. On this basis it is recommended that requirements be placed at 50% of 1938/1943 average, for the civilian population taken at 25.000.000 persons.

6. Italian Armed Forces: the ration of cigarettes for the Italian Armed Forces is set at 5 per man per day plus 1 oz. of tobacco per man per week.

b. Tobacco growth for all Italy has averaged 43.000 tons per year with waste of 50% in production of final products. This covers consumption of 0,724 Kg. per person per year, which totals 32.580 tons per year for 45.000.000 people.

c. Total requirement for 12 months:

	Cigarettes Kg.	Cigars Kg.	Pipe & Cigarette Tobacco Kg.	Snuff Tobacco Kg.	Total Kg.
Basic consumption for civilians at 50% of normal rate:					
Kg. per person per year:	0,240	0,050	0,065	0,012	0,367

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SECTION 4

MONOPOLY PRODUCTS

A. TOBACCO

PART I INTRODUCTION

The rehabilitation of the Tobacco Industry is of considerable importance to the Italian economy for the reason that the revenue from sales represents about 17% of the total taxation income of the State. This revenue in 1943/1944 was estimated at 8 billion lire.

The industry is completely controlled by the State, the Ministry of Finance being the responsible department. No definite system of taxation by weight or number applies in the case of the main products; tobacco, cigars, snuff and cigarettes, nor in the case of the by-products; nicotine, sulphate and tobacco extract, which are valuable insecticides. A simple system of the appropriation by the State of 60% of the total receipts of the industry is applied; the remaining 20% normally covers cost of raw materials, manufacture, packing, wholesale and retail profits and distribution. The rapidly advancing cost of transportation is, however, in process of making the system difficult.

The number of persons employed in the cultivation of the tobacco leaf, in its processing into pipe tobacco, cigars, snuff, cigarettes and insecticides was substantial in normal times, amounting to 270,000. Further personnel find employment in transportation, warehousing and distribution. The factories are directly controlled by the Government-owned Regia Manifatura Tabacchi.

The effects of war and of the occupation by the Allies of Sicily, Sardinia and the mainland of Italy dealt the industry an all but fatal blow. This was due not so much to any destruction of the tobacco crop or damage to the factories in the South of Italy, which actually escaped owing to the rapid advance of the Allied Armies, as to the stoppage of auxiliary supplies and spares. These auxiliary items, the paper for the manufacture of cigarettes, and the cardboard for cartons, had all previously been received from the North of Italy. Another, at that time irreplaceable, item was the fabric-bands on which the cigarettes are rolled, and which are expended extremely rapidly.

By October 1943, the situation in regard to cigarette paper was becoming desperate. Little of this paper remained in the two factories then working in Apulia, at Bari and Lecce, although good stocks of cigarette tobacco (the product of Lecce Province) were on hand, employees and all other materials were available. Short time had to be instituted and production reduced while an urgent requisition for cigarette paper was dispatched to the U.S.A. on 6 November 1943. Strict rationing of consumption of cigarettes on a greatly reduced scale was instituted.

Delays inseparable from the conditions of wartime and the difficulty of provision of shipping space for civilian supply items to a theater of war caused the first supply of paper, due in January, to arrive only in April 44. The production situation was by then desperate and the effect on the country's revenue disastrous.

A picture of the situation can be gathered from the fact that in November 43, when the disturbance to the trade was at its maximum, the income from tobacco

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the appropriation by the State of 50% of the total receipts of the industry is applied; the remaining 20% normally covers cost of raw materials, manufacture, packing, wholesale and retail profits and distribution. The rapidly advancing cost of transportation is, however, in process of making the system difficult.

The number of persons employed in the cultivation of the tobacco leaf, in its processing into pipe tobacco, cigars, snuff, cigarettes and insecticides was substantial in normal times, amounting to 270,000. Further personnel find employment in transportation, warehousing and distribution. The factories are directly controlled by the Government-owned Regia Manifatura Tabacchi.

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Delays inseparable from the conditions of wartime and the difficulty of provision of shipping space for civilian supply items to a theatre of war caused the first supply of paper, due in January, to arrive only in April 44. The production situation was by then desperate and the effect on the country's revenue disastrous.

A picture of the situation can be gathered from the fact that in November 43, when the disturbance to the trade was at its maximum, the income from tobacco taxation was at Lit. 85.000.000. The revenue remained at a monthly figure around Lit. 120 to 130 millions until April when it rocketed to Lit. 225.000.000. From November 1943 until the actual arrival of the cigarette paper strenuous efforts had been made, by cable representations to Washington, to urge delivery, and the docking of the steamer with the first supply relieved a situation which had become very serious. A complete stoppage of production with serious damage to the country's financial stability had just been averted.

There is no possibility of the production of cigarette paper in that part of liberated Italy which is south of the Pisa-Rimini line, and indeed it would

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enormous damage suffered by part of the group must inevitably involve substantial adjustments to its future capital structure.

For Lieutenant General MASON MACFARLANE:

D.S. ARMS
Colonel, GE
Executive Officer,
Economic Section.

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Declassified per section.

2. In full production the plant will consume about 1500 Kg. of yarn daily, which can be supplied from the surplus produced at Modena.

3. Preparatory machinery, winding, warping, and sizing, has been almost completely destroyed. It will therefore be necessary to deliver warps ready loomed from Angri.

4. All the looms are very old, and comprise a large number of different makes, many of them have already been cannibalised, and this process will need to be continued to produce the estimated 300 or 400 which will eventually operate. For this reason no specific details can be given at this stage.

5. Part of the premises has been requisitioned by Allied Forces, but this HQ has taken action to ensure that this occupation does not interfere with the modified rehabilitation being carried out.

6. Power and power lines are available, the source of supply being public utility.

M.C.M. IX PERSONNEL AND WAGES (Reggiorsole)

1. The first named factory has been almost entirely destroyed, but a survey will shortly be made to see if any reactivation or recovery of machinery is possible. The second is very seriously damaged structurally, and vital equipment wrecked, for example the battery of eight boilers have all been methodically mined. In addition the premises are largely occupied by R.E.M.E., and efforts by this HQ to limit their expansion have been denied on the grounds of military necessity.

2. A considerable amount of the spinning frames and looms are, however, capable of operation after extensive overhaul and repair or cannibalisation, and this is proceeding.

M.C.M. X CONCLUSION

1. The group of three mills covered by this survey form a completely balanced unit and can make an important contribution to the rehabilitation of the economic life of South Italy, not only by providing employment, but by reducing the need for importation of semi-manufactured goods. In order to make this effective, however, considerable quantities of raw materials and other supplies will be required, and these have been the subject of appropriate requisitions, which were submitted under dates July 29 and July 30 1944.

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2. The directorate has been purged of unreliable and fascist elements, and under the supervision of this HQ is now managed by nominees of the shareholders approved by A.C.C.

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6. Power and power lines are available, the source of supply being public utility.

M.C.M. EX TRENTINO AND WATERS (Rovereto)

1. The first named factory was been almost entirely destroyed, but a survey will shortly be made to see if any reactivation or recovery of machinery is possible. The second is very seriously damaged structurally, and vital equipment wrecked, for example the battery of eight boilers have all been methodically mined. In addition the premises are already occupied by P.W.B., and efforts by this HQ to limit their expansion have been denied on the grounds of military necessity.

2. A considerable amount of the spinning frames and looms are, however, capable of operation after extensive overhaul and repair or cannibalisation, and this is proceeding.

M.C.M. X CONCLUSION

1. The group of three mills covered by this survey form a completely balanced unit and can make an important contribution to the rehabilitation of the economic life of South Italy, not only by providing employment, but by reducing the need for importation of semi-manufactured goods. In order to make this effective, however, considerable quantities of raw materials and other supplies will be required, and these have been the subject of appropriate requisitions, which were submitted under dates July 29 and July 30 1944.

2978

2. The directorate has been purged of unreliable and fascist elements, and under the supervision of this HQ is now managed by nominees of the shareholders approved by A.C.C.

3. No account has been taken in this survey of the financial position of the M.C.M., but it will be appreciated that the

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(e) Warehouse and Stock Disposal

At present approximately 8,000,000 metres of cotton fabrics of various kinds, chiefly in the grey, are in stocks, and are being gradually added to by present production. Some withdrawals have been made by Allied Forces for military purposes, but the bulk is frozen and earmarked for inclusion in a rationing scheme, now under active consideration by this HQ and the Italian Government.

M.C.M. VI. LABOUR

Labour is adequate and skilled, and live adjacent to the various factories so that transportation is not a problem. When fully occupied the employment provided is approximately as follows:

NOCERA--- 600 workers
ANGRI --- 900 "
FRATTE
DI SALERNO-- 500 "
FRATTA-
MAGGIORE -- 250 " (not yet in operation)

M.C.M. VII. POWER AND FUEL

1. At maximum rate of production the monthly requirements of power on fuel will be as follows:

	ANGRI	NOCERA	FRATTE DI SALERNO	FRATTAMAGGIORE	TOTAL
Coal (tons)	110	25	400	20	555
Nafta "	-	-	180	0-	180
Electricity (KWH)	270,000	330,000	225,000	80,000	905,000

2. At Fratte di Salerno steam is raised for both power and processing by two vertical tube boilers, one for burning coal and one nafta. It has been found that the coal-fed boiler cannot consume Sardinian coal on account of the difficulty of raising the necessary pressure, and also because the high sulphur content causes rapid depreciation in the automatic stoker. In all other cases it is considered that Sardinian coal can be made to serve.

M.C.M. VIII FRATTAMAGGIORE

1. Of the three heavily damaged factories, that at FRATTAMAGGIORE alone presents some prospects of early reactivation. This is a weaving plant of approximately 560 dobby looms, the majority of which

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NOCERA--- 600 workers
ANGRI --- 900 "
PIANTE
DI SALERNO-- 300 "
FRATTA-
MAGGIORE -- 250 " (not yet in operation)

M.C.M. VII. POWER AND FUEL

1. At maximum rate of production the monthly requirements of power an fuel will be as follows:

	ANGRI	NOCERA	PIANTE DI SALERNO	FRATTAMAGGIORE	TOTAL
Coal (tons)	110	25	100	20	255
Nafta "	-	-	180	0-	180
Electricity (KWH)	270,000	330,000	285,000	30,000	905,000

2. At Fratte di Salerno steam is raised for both power and processing by two vertical tube boilers, one for burning coal and one nafta. It has been found that the coal-fed boiler cannot consume Sardinian coal on account of the difficulty of raising the necessary pressure, and also because the high sulphur content causes rapid deprecation in the automatic stoker. In all other cases it is considered that Sardinian coal can be made to serve.

M.C.M. VIII FRATTAMAGGIORE

1. Of the three heavily damaged factories, that at FRATTAMAGGIORE alone presents some prospects of early reactivation. This is a weaving plant of approximately 360 dobby looms, the majority of which have escaped serious damage, and M.C.M. are engaged in repairing and overhauling these with the intention ultimately of putting between 300 and 400 into commission. A number are already in running order, but it will be some months before the remainder are working; one of the chief difficulties being lack of transmission belting, which has been universally located.

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4. MACHINERY

As the plant is very extensive and is of a nature such as to require few if any replacements or spares, (other than commodities used in processing), only an outline of the more important machines are given in this summary.

a) Bleaching

6	Sheering and trimming machines	Monforts
1	Singeing Machine	Mather & Platt 1922
1	" "	Dehaitre "
12	Washing "	Mather & Platt "
5	Horizontal Bleachers	" " "
3	Vertical "	" " "
1	Calender	Gonschovitz "
2	Horiztonal Drying Machines	Mather & Platt "
1	Vertical " "	James Scott "

Vats, Sizing & rolling machinery and hydro-extractors.

b) Finishing

1 Wringer	Gonschovitz
3 Tenters	Edmeston-Soldorf
3 Calenders	James Scott-Manchester
1 Size Breaker	Weisbach - Chemnitz
3 Whipping Machines	Wenner - Manchester
1 Trimming Machine and	Grossi-Busto Arsizio
1 Pin Tenter	

Various rolling machines and hydraulic presses.

c) 14 Jiggers — Gomerio - Busto Arisizio
26 " — Beninger
2 Calenders — Gomerio - Pontedere
1 Hydro-extractor
3 Drying Machines (for cloth)
Various Vats and winding, folding and tentering machinery.

d) Printing

1 Mercerising Machine	Zittauer
2 Shearing "	Boveri & Marceli
4 Brushing "	Moltrone
2 Winding "	-
2 Tentering "	Zittauer-Mather &Platt
4 Etching "	Mather & Platt
9 Printing "	" " 1922
1 " "	Gadet "
1 " "	Andre Kachting "

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3 Vertical	"	" "
1 Calender		Gonschevitz "
2 Horizontal Drying Machines		Mather & Platt "
1 Vertical " "		James Scott "

Vats, Sizing & rolling machinery and hydro-extractors.

b) Finishing

1 Wringer	Gonschevitz
3 Tenters	Edmeston-Soldorf
3 Calenders	James Scott-Manchester
1 Size Breaker	Weisbach - Chemnitz
3 Whipping Machines	Wenner - Manchester
1 Trimming Machine and	Grossi-Busto Arsizio
1 Pin Tenter	

Various rolling machines and hydraulic presses.

c) 14 Jiggers	Gomerio - Busto Arsizio
26 "	Reninger
2 Calenders	Gomerio - Pontedera
1 Hydro-extractor	
3 Drying Machines (for cloth)	

Various Vats and winding, folding and tentering machinery.

d) Printing

1 Mercerising Machine	Zittauer
2 Sheering "	Boveri & Marceli
4 Brushing "	Moltrone
2 Winding "	-
2 Tentering "	Zittauer-Mather &Platt
4 Etching "	Mather & Platt
9 Printing "	" " 1922
1 " "	Gadet "
1 " "	Andre Machting "
1 Drifting Machine	Sconosciuto
9 Engraving "	Schultz & Sucommun and Soc.Alsacienne 1923/4/5

and vericus ancillary machines and equipment. Also complete dye mixing plant and machinery for finishing and conditioning printed fabrics.

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(f) cont'd.

1059 automatic weft changing looms

Weaving	Reed Space	Picks per min.	Maker & Date
454 looms	106 cm	160	Ruti
102 "	110 cm	164	" 1926
556 automatic weft changing looms			
1615			
4	117		G.Giani 1941
24	127		" 1942
2	208		" 1942
30			H. Sumberger 1943
6	135		
36 dobby looms			
1651 total looms			

B) Measuring & Inspecting

17 power driven measuring tables Zell-Baden 1923/24

A typical weaving plan has been prepared, using the yarn production given, and working a double shift of 45 effective hrs. No account has, however, been taken of the dobby looms which were installed especially for the weaving of rayon. As however, there is no availability of rayon yarn, except by imports, this potential has been ignored. For information the following details of the rayon preparatory plant is given below,-

h) Rayon

6 bottle winders	Fontana-Legnano		1941
5 Section Warping Mills	"	"	"
5 Weft Winders	"	"	"
1 Warp Sizer	"	"	"

4. On completion of the cycle described above, the grey cloth is sent by road to the finishing plant at FRATTE DI SALERNO for bleaching, printing or dyeing.

M.C.M. V. BLEACHING, DYEING, PRINTING - FRATTE DI SALERNO.

1. The factory at FRATTE DI SALERNO received the grey pieces from the weaving mill at ANGRI, and after half bleaching, with or without subsequent full bleaching, dyeing or printing, acts as warehouse and dispersal centre for the finished goods.

2. The plant is comprehensive and almost undamaged, and is capable of dealing easily with the whole output

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1651 total looms

e) Measuring & Inspecting
17 power driven measuring tables Zell-Baden 1923/24

A typical weaving plan has been prepared, using the yarn production given, and working a double shift of 15 effective hrs. No account has, however, been taken of the dobby looms which were installed especially for the weaving of rayon. As however, there is no availability of rayon yarn, except by imports, this potential has been ignored. For information the following details of the rayon preparatory plant is given below:-

h) Rayon

6 bottle winders	Fontana-Legnano	1941
3 Section Warping Mills	" "	"
3 Weft Winders	" "	"
1 Warp Giver	" "	"

4. On completion of the cycle described above, the grey cloth is sent by road to the finishing plant at FRATTE DI SALERNO for bleaching, printing or dyeing.

M.G.M. V. BLEACHING, DYEING, PRINTING - FRATTE DI SALERNO.

1. The factory at FRATTE DI SALERNO received the grey pieces from the weaving mill at ANGRI, and after half bleaching, with or without subsequent full bleaching, dyeing or printing, acts as warehouse and dispersal centre for the finished goods.

2. The plant is comprehensive and almost undamaged, and is capable of dealing easily with the whole output from the looms at ANGRI.

3. It may be noted that, although not adapted for garment dyeing, a portion of the plant has been reorganised, at the instigation of HQ ACC, for the dyeing of unserviceable army uniforms for subsequent issue to Italian civilians, as a temporary expedient to relieve the acute clothing shortage, especially amongst heavy workers. An initial contract for 10,000 garments has been placed, and will be followed by others, dependent upon the results of the first.

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ing of sewing thread or twine. The plant installed consists of:-

9	Doubling frames	Brooks Dow 1906
3	Twin Thread Chasers	Schlafhorst & Kolliker
29	Tubular Cord Twisters	Various
1	Weft rewinder	Lesson

M.C.M. IV WEAVING - ANGRI

1. The weaving shed contains 1615 automatic weft changing looms and 36 dobby looms, under one roof. The shed is partitioned into three for conservation of heat and humidity. In addition there is all the appropriate warp preparation machinery, in addition to a tool shop where overhauls and repairs and manufacture of minor spares can be carried out.

2. Within recent months a maximum of approximately 1640 looms have been running a single shift of 8 hours; further production cannot be attained until increased quantities of yarn are produced by the spinning mill at Nocera, which in turn is limited by the amount of cotton available.

3. MACHINERY.

Weft. being spun straight on to weft tubes, goes, after being conditioned, straight to the loom.

Warp passes through the following machinery;

		Maker & Year
a)	Winding	
	10 frames x 200 spindles	Ruti - -
b)	Beam Warping (English system)	
	15 Y creels x 600 bobbins	" 1906
	15 warping mills	-
c)	Warp Sizing & Denting	
	5 machines	" 1907/20/25
d)	Knotting	
	2 Automatic warp knotters	Barber & Coleman -
	1 Model 5 E	-
	1 Model 4 E	-

e) Production per single shift of (a - d) above;-

(a)	Winding	4450 Kg.
(b)	Warping	4450 Kg.
(c)	Sizing	2240 Kg. (2 shifts necessary)
(d)	Knotting	2880 Kg. (" " ")

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f) Weaving

	Reed Space	Picks per min.	Maker & Date

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1040 looms have been running a single shift of 8 hours; further production cannot be attained until increased quantities of yarn are produced by the spinning mill at Moscara, which in turn is limited by the amount of cotton available.

3. MACHINERY.

Weft. being spun straight on to weft tubes, goes, after being conditioned, straight to the loom.

Warp passes through the following machinery:

		Maker & Year
a) Winding		
10 frames x 200 spindles		Rüti - -
b) Beam Warping (English system)		
18 V creels x 600 bobbins	"	1906
18 warping mills		-
c) Warp Sizing & Reeming		
3 machines	"	1907/20/25
d) Knotting		
2 Automatic warp knotters		Barber & Coleman -
1 Model 5 E		-
1 Model 4 E		-

e) Production per single shift of (a - d) above:-

(a) Winding	4450 Kg.	
(b) Warping	4450 Kg.	
(c) Sizing	2240 Kg.	(2 shifts necessary)
(d) Knotting	2880 Kg.	(" " ")

2976

f) Weaving:

	Reed Space	Picks per min.	Maker & Date
67 looms	85 cm.	159	Bohemia Date &
1 "	95 cm.	159	Maker Unknown
2 "	100 cm.	159	" "
886 "	105 cm.	159	" "
69 "	112 cm.	159	" "
1 "	115 cm.	159	" "
45 "	125 cm.	152	" "
26 "	135 cm.	148	" "

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e) Intermediates

14	Intermediate	Marzoli 1940/41
8	"	Alsacienne 190 .39
2	"	Platt.bros. 1908
11	"	" " 1893/06
5	"	Rieter 1909
40		

f) Roving Frames

4	Roving frames	Marzoli 1940
32	" "	Platt bros. 1901/10
16	" "	Alsacienne 1908/09
12	" "	Reiter 1908/09
64		

g) Jack Frames

6	Jack frames	Marzoli 1940
5	" "	Dobson 1909
2	" "	Alsacienne 1908
1	" "	" 1898
1	" "	Platt bros. 1897
15		

h) Spinning

(i) Breakdown of frames by types
(ii) Breakdown of frames by make and size

(iii) Daily production

Summary

			Spindles
119	Ring Spinning Frames	for Warp	44,472
69	" " "	" Weft	28,444
188			72,916
	of which the following are suitable for combed yarn:-		
55	frames for warp	20252	spindles
11	" " weft	4620	"
		24872	"
122	remainder for carded yarn	48044	
188			72916

i) Winding & Doubling

At present there are only 3 doubling frames, used chiefly for folding yarns for selvedges, but some are being removed from the wrecked factory at Naples to Nocera for overhaul and repair. Installation has, however, been delayed by lack of space, aggravated by the damage done by Vesuvius. When this has been completed, the doubling cap-

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6	jack frames	Marzoli	1946
5	" "	Dobson	1900
2	" "	Alsacienne	1903
1	" "	"	1898
1	" "	Platt Bros.	1897
16			

h) Spinning

(i) breakdown of frames by types
(ii) breakdown of frames by make and size

(iii) Daily production

Summary

		Spindles
119	Ring Spinning Frames for Warp	44,472
69	" " " " Weft	28,444
188		72,916

of which the following are suitable for combed yarn:-

55	frames for warp	20252 spindles
11	" " weft	4620 "
		24872 "
122	remainder for carded yarn	48044
183		72916

i) Winding & Doubling

At present there are only 3 doubling frames, used chiefly for folding yarns for selvedges, but some are being removed from the wrecked factory at Naples to Nocera for overhaul and repair. Installation has, however, been delayed by lack of space, aggravated by the damage done by Vesuvius. When this has been completed, the doubling capacity of approximately 36 frames will be able, if need be, to deal with the production of yarn (2350 Kg. per day - see I above) which is surplus to the consumption capacity of the Napoli weaving mill. It should be noted, however, that these frames are not suitable for specialised work such as the fold-

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2. The machinery installed deals with the raw cotton from the bale to the finished yarn ready for warping or the shuttle. The plant was constructed with a view to the production of an average count of 20s, and therefore, on account of the size and gauge of individual machines, the most economical as well as the maximum output is attained by spinning varying counts; from 16s to 32s for carded yarns, and from 38s to 80s combed. (Combed yarns represents less than 10% of the total production by weight, and provide a valuable source of yarn not only for light-weight clothes, but for the manufacture of threads, and twines. In addition, if the combing facilities were ignored, overall output would be correspondingly reduced.)

3. MACHINERY:

a) Preparation

		Make
2 Bale breakers	36"	Lord Brothers
2 Hopper feeds with openers and Scutchers	45"	" "
2 Hopper feeds with porcupine openers, exhaust openers and scutchers	40") 45")	Platt Brothers
1 Hopper feed with Scutcher and Crighton opener	45"	" "
2 Scutchers with 2 beaters	45"	" "
7 Scutchers (single)	45"	" "
2 Rag Machines	45"	" "
1 Carnetting Machine		S. Prokks
1 Willey		Hannoversche Maschinenfabrik Chemnitz

b) Carding Machines

36 Flat Cards	45"	Platt Brothers
34 " "	40"	" "
10 " "	45"	Biellese
130		
1 Card Clothing Machine		Dronsfield
3 Card Grinders (traverse)		"

c) Combing and Drawing

24 Combs with 6 delivers	Nasmith
6 Drawing Frames	Alsacienne
14 " "	Platt Brothers
20 " " (106 Deliveries)	

d) Slubbing Frames (

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2 Bale breakers	36"	Lord Brothers
2 Hopper feeds with openers and Scutchers	45"	" "
2 Hopper feeds with Porcupine openers, exhaust openers and scutchers	40" / 45"	Platt Brothers
1 Hopper feed with Scutcher and Crighton opener	45"	" "
2 Scutchers with 2 beaters	45"	" "
7 Scutchers (single)	45"	" "
2 Rag Machines	45"	" "
1 Garnetting Machine		S. Brokks
1 Willey		Wennoversche Maschinenfabrik Chemnitz

b) Carding Machines

86 Flat Cards	45"	Platt Brothers
34 " "	40"	" "
10 " "	45"	Biellese
130		

1 Card Clothing Machine	Dronsfield
3 Card Grinders (traverse)	"

c) Combing and Drawing

24 Combs with 6 deliverys	Nasmith
6 Drawing Frames	Alsacienne
14 " "	Platt Brothers
20 " " (166 Deliveries)	

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d) Slubbing Frames (

5 Slubbers	Marzoli 1940
2 "	" 1941
1 "	Platt Bros. 1910
3 "	" " 1908
3 "	" " 1904
1 "	" " 1901
1 "	" " 1887
2 "	Rieter 1909
20	

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M.C.M. II. RAW COTTON REQUIREMENTS.

1. The spinning plant at NOCERA ENTERPRISE comprises 72916 ring spinning spindles with all necessary preparatory and ancillary machinery, and has a potential daily output of 11,000 Kgs. of yarn, both carded and combed, of an average count of 28s, by working two shifts of eight hours each or 15 effective hours per day.

2. On the assumption that indigenous cotton is not available or has been exhausted, the amount of cotton necessary to maintain a daily output of 11,000 Kg., and using the machinery to the best advantage, is as follows,-

AMERICAN COTTON: (for carded yarns)

Strict Middling or Middling 1-1/32" st. col.

Daily Consumption 11,350 Kg.
Yielding 89% - 10,100 Kg. yarn

EGYPTIAN COTTON: (for combed yarns)

Uppers of good type and staple
(for fine count - weft)

Daily Consumption 530 Kg.
Yielding 65% - 350 Kg. yarn

Sakellarides of good type and staple
(for fine counts - warp and
sewing thread)

Daily Consumption 846 Kg.
Yielding 65% 550 Kg. yarn

Total Daily Consumption of
Cotton - 12,726 Kg.

Total Daily Production
of Yarn :- 11,000 Kg. yarn

SUMMARY:

Assuming a month of 25 working days and an average bale weight of 220 Kg. for American and 330 Kg. for Egyptian Cotton, monthly requirements will be

AMERICAN S.M. OR M.	-	1300 Bales
EGYPTIAN UPPERS	-	45 "
" SAKEL	-	66 "

M.C.M.III. PREPARATION AND SPINNING - NOCERA.

1. Very little damage has been done to this plant by military action, but since the previous report, some machines collapsed under the

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Daily Consumption 11,350 Kg.
Yielding 89% - 10,100 Kg. yarn

EGYPTIAN COTTON: (for combed yarns)

Uppers of good type and staple
(for fine count - weft)

Daily Consumption 530 Kg.
Yielding 65% - 350 Kg. yarn

Sakellarides of good type and staple
(for fine counts - warp and
sewing thread)

Daily Consumption 846 Kg.
Yielding 65% 550 Kg. yarn

Total Daily Consumption of
Cotton - 12,726 Kg.

Total Daily Production
of yarn :- 11,000 Kg. yarn

SUMMARY:

Assuming a month of 25 working days and an average bale weight of 220 Kg. for American and 330 Kg. for Egyptian Cotton, monthly requirements will be

AMERICAN S.M. OR M.	-	1300 Bales
EGYPTIAN UPPERS	-	45 "
" SAKEL	-	66 "

M.C.M.III. PREPARATION AND SPINNING - NOCERA.

1. Very little damage has been done to this plant by military action, but since the previous report, some roofs have collapsed under the weight of dust and ashes deposited upon them during the recent eruption of Vesuvius. Fortunetely the damage has not seriously affected the machinery, repairs are within the capacity of the firm's own workshops, and future production will not be affected. It is estimated, however, that 2,000 railway car loads of deposit will eventually have to be removed from the factory premises.

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who had a lien upon it, this cottonhad not been delivered by the end of August. Consequently production estimates suffered severely.

8. Output in May was at the rate of 9/10,000,000 metres per annum (or 33-1/3% of potential), of which 20% approximately was going to the Italian War Ministry and the remainder into grey fabrics suitable, either with or without subsequent dyeing or printing, for inclusion in a proposed civilian rationing scheme. Later this rate decreased on account of the non-arrival of the Sicilian crop.

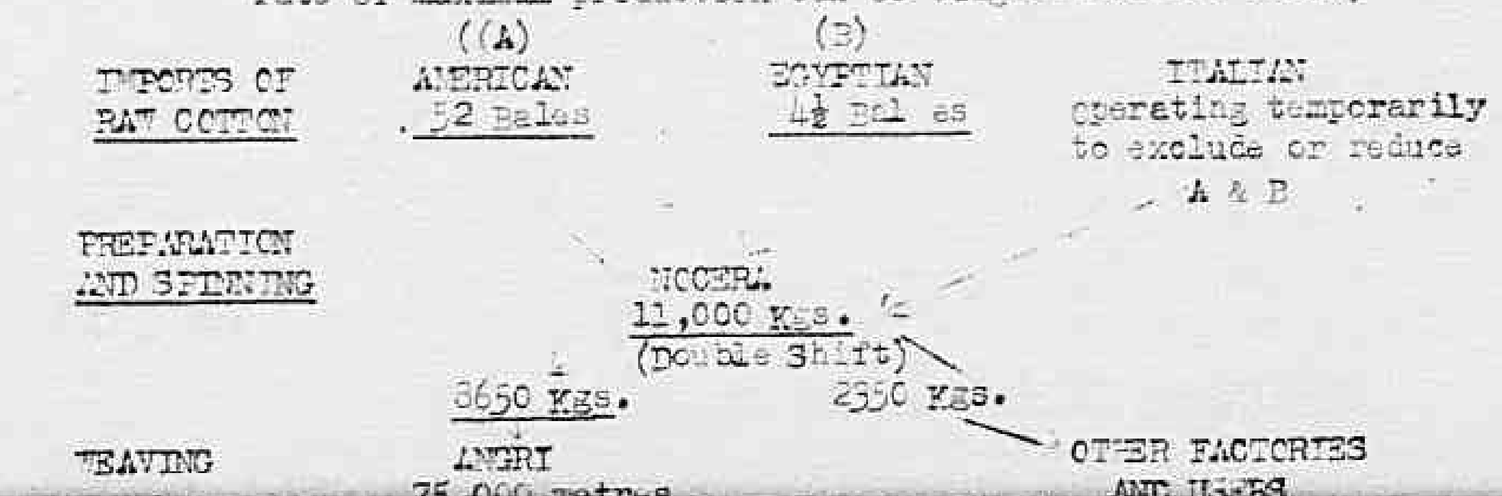
9. When the latter does arrive output will be increased almost to capacity. This will enable production to be maintained for 1-2 months, when imports of American or Egyptian cotton will be necessary to carry over until the 1944 Italian crop can be gathered and delivered though this can only be regarded as a stop-gap, equivalent to 2-3 months supply.

CONTENTS: For convenience of reference, the summary which follows is sub-divided into Sections as under:-

I Production potential
II Raw Cotton Requirements
III Preparation and Spinning - NOCERA.
IV Weaving - ANORI
V Bleaching, Dyeing & Finishing - FRATTE DI SALERNO
VI Labour
VII Power
VIII FRATTAMAGGIORE factory
IX PIEDIMONTE and NAPLES factories
X Conclusion

M.C.M. I. PRODUCTION POTENTIAL

Briefly, the daily cycle of operations and output at the rate of maximum production can be diagrammised as below:



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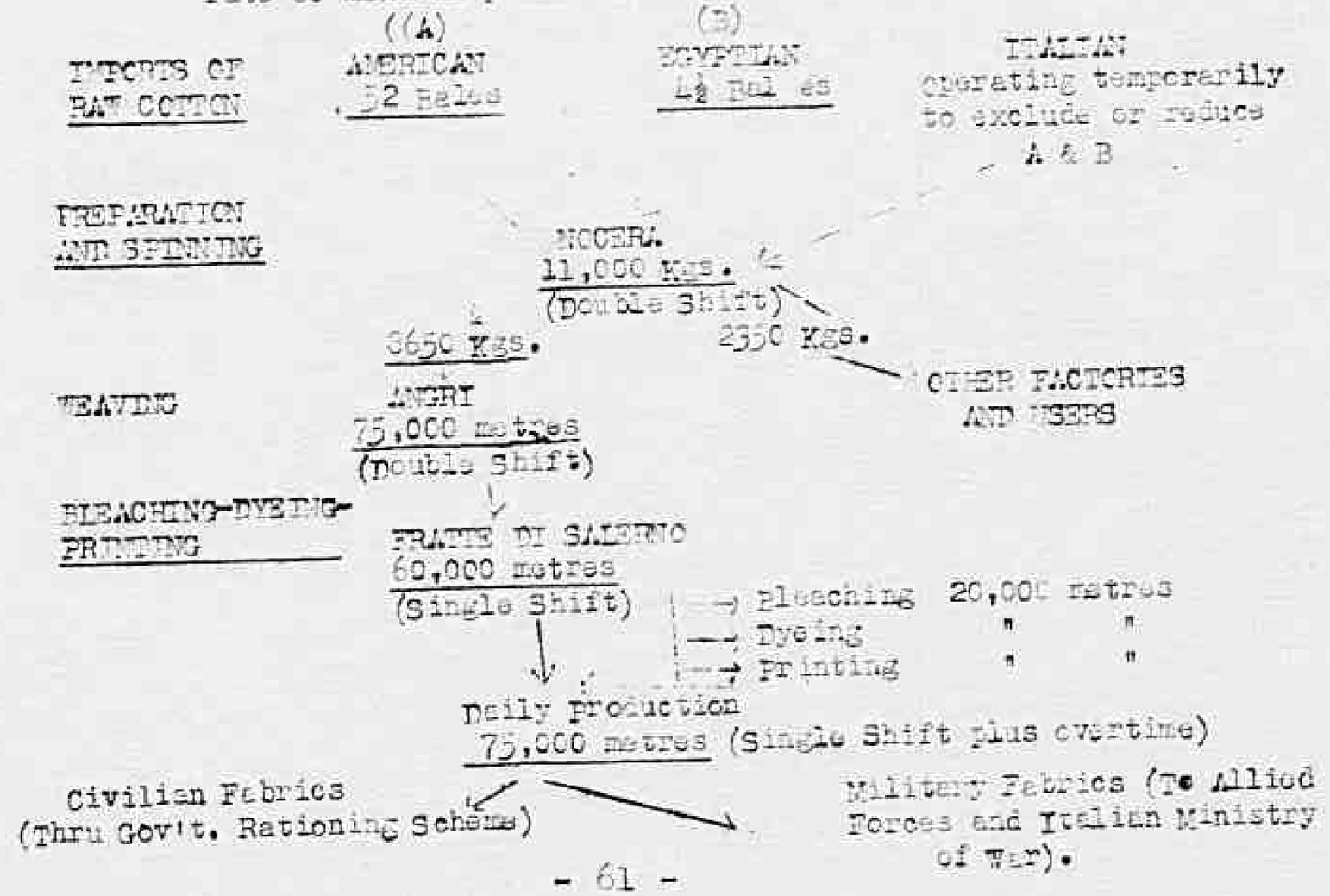
and delivered though this can only be regarded as a stop-gap equivalent to 2-3 months supply.

CONTENTS: For convenience of reference, the summary which follows is sub-divided into sections as under:-

I Production Potential
II Raw Cotton Requirements
III Preparation and Spinning - NOCERA.
IV Weaving - ANGRI
V Bleaching, Dyeing & Finishing - FRATTE DI SALERNO
VI Labour
VII Power
VIII FRATTAMAGGIORE Factory
IX PIEDIMONTE and NAPLES Factories
X Conclusion

M.C.M. I. PRODUCTION POTENTIAL

Briefly, the daily cycle of operations and output at the rate of maximum production can be diagrammised as below;



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SECTION 3 - TEXTILES

APPENDIX "D"

HEADQUARTERS
ALLIED CONTROL COMMISSION
ECONOMIC SECTION
APO 394

FEIK/edg

29 May 1944
Amended to
28 Aug.1944

Ref. ACC/5157/IC

SUBJECT: Production of Cotton Goods in Liberated Italy.

SURVEY OF THE MANIFATTURE COTONIERE MERIDIONALI

REFERENCES 1. Reference is made to this HQ over numbers of 11 Feb '44 and 20 Mar. '44, and to Calairgram 3 of 25 Mar. 44.

INTRODUCTION 2. Additional data have not been obtained regarding the present and future potential capacity of the M.C.M., and, with particular reference to an assessment of and justification for the importation of essential requirements of raw materials, replacements and commodities ancillary to manufacturing processes, these data are detailed as to type, make and size, where this information was forthcoming or deemed necessary.

3. In order as far as possible to obviate errors of description, a glossary of the translations given to some of the more technical Italian terms is attached as an Appendix.

4. As has been previously pointed out, of the six factories of the M.C.M. situated in liberated Italy, three, namely those of NAPLES (Poggioreale), PIEDIMONTE and FRATTAMAGGIORE have been so heavily damaged as a result of enemy demolitions andbombings as to make rehabilitation a long term policy, whereas the remaining three, at NOCERA, AIRRI and FRATTE DI SALERNO, are substantially undamaged, and, subject to the completion of minor repairs which are now being carried out, are immediately capable of resuming full production.

5. This survey is therefore confined to the activities of the three latter factories, except that brief notes on the prospects of the other three are included.

6. The plants at NOCERA, AIRRI, and FRATTE DI SALERNO form in themselves an independent and completely balanced unit, capable of producing 25/30,000,000 metres of cotton fabrics yearly, together with a surplus of cotton yarn which can be woven or converted elsewhere either into cloth or other cotton products, e.g. sewing thread, cord, twine, candlewicks and the like. In this connection it should be noted that the M.C.M. possesses the only cotton spinning in liberated Italy, and therefore all other consumers of cotton yarn must, failing importations, derive their supplies from M.C.M.

7. At this moment the balance of old stocks of cotton and staple fibre and the 1943 [illegible]

present and future potential capacity of the M.C.M., and, with particular reference to an assessment of and justification for the importation of essential requirements of raw materials, replacements and commodities ancillary to manufacturing processes, these data are detailed as to type, make and size, where this information was forthcoming or deemed necessary.

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5. This survey is therefore confined to the activities of the three latter factories, except that brief notes on the prospects of the other three are included.

6. The plants at NOCERA, AVERSA, and FRATTE DI SALERNO form in themselves an independent and completely balanced unit, capable of producing 25/30,000,000 metres of cotton fabrics yearly, together with a surplus of cotton yarn which can be woven or converted elsewhere either into cloth or other cotton products, e.g. sewing thread, cord, twine, candlewicks and the like. In this connection it should be noted that the M.C.M. possesses the only cotton spinning in liberated Italy, and therefore all other consumers of cotton yarn must, failing importations, derive their supplies from M.C.M.

7. At this moment the balance of old stocks of cotton and staple fibre and the 1943 mainland crop are being used, and last year's Sicilian crop, estimated at 300 tons, has been frozen and allotted to M.C.M., and arrangements are being concluded to have this shipped as quickly as possible to the spinning mill at Nocera in time to avoid a breakdown in production. On account of difficulties raised by the Marina di Sicilia,

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Specification	Individual requirement	Total
Knitted underwear fabric wool & cotton 36" wide Tubular (split)	2 per man 3 yds per garment	1,900,000 yds.
Cotton underwear knitted fabric 36" wide	2 per man 3 yds per garment	1,900,000 "
Yarn wool & cotton moderately heavy	Gloves 1 pr per man 1/4 lb per pair Socks 2 pr per man ½ lb per pair	437,500 lbs.
Cotton yarn	socks 2 pr per man 1/4 lb per pair	175,000 lbs.

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1/4 lb per pair	per lb.	1/5,000 lb.			

Specification	Individuel requirement	Total
Blankets fabric 60" wide 22/24 oz., wool or manipulated wool	2 Blankets per man 2½ yds per blanket	395,000 yds.
Knitting yarn (wool & cotton)	socks, 3 pr per man ½ lb. per pair	118,500 lbs.
Wool jersey fabric (wool or manipulated wool)	1 garment per man 1 lb per garment	79,000 lbs.
Cotton Drill - water proof - ed or rubberized	Raincoats - 1 per man 3 yds per garment	237,000 yds.

In addition, the needs of 30,000 men overseas are as follows,

Tropical shirts, cotton gaberdine or poplin shirting, 36" wide 3/9 oz.	2 per man 3½ yds per shirt	210,000 yds
Tropical shorts, 54" wide cotton gaberdine	2 pr per man 1 yd per pair	60,000 yds
Knitting yarn (cotton)	2 pr socks per man 1/4 lb per pair	15,000 lbs.

3. ITALIAN ARMY. 350,000 man complement requirements are as follows,

54" wide 12/13 oz. manipulated wool suiting	Trousers, 1 per man 1½ yd per garment Jacket, 1 per man 2½ yds per garment woolen cap ½ yd per garment	1,575,000 yds
54" 22/24 oz. wool or manipulated wool overcoating	1 overcoat per man 3 yds per garment	1,050,000 yds
36" wide 8 oz Twills or denim cotton suiting	Trousers, 1 per man 2½ yds per garment Jackets, 1 per man 3½ yds per garment Cap, 1 per man, ½ yd per garment	2,275,000 yds
Muslin 36" wide	Handkerchiefs, 3 per man 9 per yd	117,000 yds
Cotton Denim 54" wide	work garments 1/5 per man 3 yds per garment	210,000 yds
36" wide cotton, poplin or gabardine	Shirts, 2 per man 3½ yds per garment	2,450,000 yds
54" wide manipulated wool shirting 10/11 oz.	Shirts, 2 per man 2½ yds per garment	1,750,000 yds

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shirting, 36" wide 8/9 oz.	3½ yds per shirt	
Tropical shorts, 54" wide cotton gaberdine	2 pr per man 1 yd per pair	60,000 yds
Knitting yarn (cotton)	2 pr socks per man 1/4 lb per pair	15,000 lbs.

3. ITALIAN ARMY. 350,000 man complement requirements are as follows:

54" wide 12/13 oz. manipulated wool suiting	Trousers, 1 per man 1½ yd per garment Jacket, 1 per man 2½ yds per garment woolen cap ½ yd per garment	1,575,000 yds
54" 22/24 oz. wool or manipulated wool overcoating	1 overcoat per man 3 yds per garment	1,050,000 yds
36" wide 8 oz Twills or denim cotton suiting	Trousers, 1 per man 2½ yds per garment Jackets, 1 per man 3½ yds per garment Cap, 1 per man, ½ yd per garment	2,275,000 yds
Muslin 36" wide	Handkerchiefs, 3 per man 9 per yd	117,000 yds
Cotton Denim 54" wide	work garments 1/5 per man 3 yds per grment	210,000 yds
36" wide cotton, poplin or gabardine	Shirts, 2 per man 3½ yds per garment	2,450,000 yds
54" wide manipulated wool shirting 10/11 oz.	Shirts, 2 per man 2½ yds per garment	1,750,000 yds

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Item and Specification	Justification	Recommended requirement per individual
(e) 36" wide, 3¼/4 oz. in weight Linings rayon and/or acetate	14,900,000 yds. 23,800,000 yds. -Men's garments (2/5 coats & overcoats per man) 2 yds per garment	1½ yds
	-2/5 coat per woman 2 yds per garment	3/4 "
	-2/5 coat per child 1 yd per garment	½ "
(f) Utility febrics 54" wide; Cotton Denim or drill for work clothing, chemically (water repellent) treated or rubberized for rain wear. - 11/12 oz. weight.	14,900,000 yds. To be used for manufacture of, -Two piece overalls and work clothing for man (2/5 garment per man) 3 yds per garment	1 1/3 "
	-Raincoats (1/10 garment per man) 3 yds per garment	12 inches
	-1/10 garment per child 2 yds per garment	7.1/4 "
	-1/10 garment per women 2½ yds per garment.	9 "
(g) 36" wide, 8/10 oz. Utility fabric. Cotton Corduroy	23,800,000 yds. -Men and boys' jackets and trousers 2/5 per person - 7 yds per garment. .	2 3/4 "
(h) Blanket fabric 60" wide, 22/25 oz weight, manipulated wool or knitted (napped)	12,500,000 yds 2½ yds per blanket 1 blanket for each family of 5	½ "
(i) Yarn (wool, cotton and cotton and wool) light weight for socks and/or stockings and moderately heavy for sweaters.	39,650,000 lbs. - socks for men (2 pr each)	1 lb.
	- socks for women (2 pr each)	1 "
	- sweater for women (1 each)	1 "
	- socks for children (2 pr each). . . .	1 "
	- sweaters for children (1 each). . . .	3/4 "

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	for rain wear. - 11/12 oz. weight.	-1/10 garment per child 2 yds per garment	7-1/4 "
		-1/10 garment per woman 2½ yds per garment.	9 "
(g)	36" wide, 8/10 oz. Utility fabric. Cotton Corduroy	23,800,000 yds. -Men and boys' jackets and trousers 2/5 per person - 7 yds per garment. .	2 3/4 "
(h)	Blanket fabric 60" wide, 22/25 oz weight, manipulated wool or knitted (napped)	12,500,000 yds 2½ yds per blanket 1 blanket for each family of 5	½ "
(i)	Yarn (wool, cotton and cotton and wool) light weight for socks and/or stockings and moderately heavy for sweaters.	39,650,000 lbs. - socks for men (2 pr each)	1 lb.
		- socks for women (2 pr each)	1 "
		- sweater for women (1 each)	1 "
		- socks for children (2 pr each). . . .	1 "
		- sweaters for children (1 each). . . .	3/4 "

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SECTION 3 - TEXTILES

APPENDIX "C"

TEXTILE REQUIREMENTS FOR ITALIAN ARMED FORCES;
SPECIFICATIONS AND INDIVIDUAL ALLOTMENTS.

1. ITALIAN AIR CORPS: 31,000 man complement requirements are as follows:

Specification	Individual requirement	Total
Blanket fabric, 60" wide, wove or manipulated wove 22/24 oz.	2 blankets per man 2½ yds per blanket	77,500 yds
Overcoating 27/28 oz. 54" wide, wool or manipulated wool	1 coat per man 2 3/4 yds garment	86,800 "
Suiting 15/16 oz. 54" wide, wool or manipulated wool	1 uniform per man 4 yds per garment ½ yd per man for cap	129,000 "
Denim - 54" wide, cotton	overalls (work clothes) 2 per man 3 yds per garment	186,000 "
Knitted underwear fabric-tubular (split) 36" wide cotton	2 per man 3 yds per garment	186,000 "
36" wide cotton gabardine or poplin shirting	2 per man 3½ yds per shirt	217,000 "
Knitting yarn (wool and cotton) moderately heavy	socks 3 per man ½ lb. per pair	46,500 lbs.
Knitting yarn (cotton)	socks, 3 pr. per man 1/4 lb. per pair	23,250 lbs.
Cotton Drill (chemically treated for water proofing or rubberized)	1 Raincoat per man. 3 yds per garment	93,000 yds.

The requirements as presented above do not include heavy flying clothing which, for the most part, is fur lined.

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2. ITALIAN NAVY: 79,000 man complement requirements are as follows:

Suiting 15/16 oz., 54" wide wool or manipulated wool	1 uniform per man 4 yds per garment 1/3 yd per man for cap	342,500 yds.
		276,000 yds.

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Overcoating 27/28 oz. 54" wide, wool or manipulated wool	1 coat per man 2 3/4 yds garment	"
Suiting 15/16 oz. 54" wide, wool or manipulated wool	1 uniform per man 4 yds per garment ½ yd per man for cap	129,000 "
Denim - 54" wide, cotton	overalls (work clothes) 2 per man 3 yds per garment	186,000 "
Knitted underwear fabric-tubular (split) 36" wide cotton	2 per man 3 yds per garment	186,000 "
36" wide cotton gaberdine or poplin shirting	2 per man 3½ yds per shirt	217,000 "
Knitting yarn (wool and cotton) moderately heavy	socks 3 per man ½ lb. per pair	46,500 lbs.
Knitting yarn (cotton)	socks, 3 pr. per man 1/4 lb. per pair	23,250 lbs.
Cotton Drill (chemically treated for water proofing or rubberized)	1 Raincoat per man. 3 yds per garment	93,000 yds.

The requirements as presented above do not include heavy flying clothing which, for the most part, is fur lined.

2971

2. ITALIAN NAVY: 79,000 man complement requirements are as follows:

Suiting 15/16 oz., 54" wide wool or manipulated wool	1 uniform per man 4 yds per garment 1/3 yd per man for cap	342,500 yds.
Overcoating 24/28 oz. 54" wide manipulated wool	1 coat per man 3½ yds per garment	276,000 yds.
Shirts, 36" wide flannel	2 shirts per man 3½ yds per garment	546,000 yds.
Knitted underwear fabric tubular (split) 36" wide cotton	2 undershirts per man 2 underpants per man 2 yds per garment	316,000 yds.

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APPENDIX 2

TEXTILE REQUIREMENTS FOR CIVILIAN POPULATION, SPECIFICATIONS, JUSTIFICATION AND INDIVIDUAL ALLOTMENTS.

Item & Specification	Justification	Recommended requirement per Individual
(a) Flannel approximate construction 44x36 36" wide, napped on both sides - all shades	1,125,000 yds. To be used for manufacture of garments for children up to 5 years of age, pyjamas and night gowns.	1½ yds.
(b) Cotton or cotton & rayon & cotton & wool i.e., Chambray, calico, poplin, muslin. White, plain, fancies, prints, woven & knitted (plain) 2 to 9 oz. weight	281,400,000 yds. To be used for manufacture of, -Rompers (2 per child) 1½ yds. per garment	3 "
	-Underwear (2 per child) 2½ yds per garment	5 "
	-Blouses (1 per child) 1½ yds per garment	1½ "
	-Handkerchief (9 per yd) 2 per capita.	1/4 "
	-Dresses (1 per woman) 4 yds per dress	4 "
	-Underwear (2 sets each woman) 2½ yds per garment.	5 "
	-Blouses (1 per woman) 2 yds per blouse	2 "
	-Shirts (2 per man) 3½ yds per garment.	7 "
	-Underwear (2 sets each man) 2½ yds per set	5 "
	-Bed clothes (sheets & pillow cases) N.B. 6 yds per family of 5.	1.1/5 "
(c) 54" wide - 12/13 oz. manipulated wool, suiting "Suder type" - cotton, wool and rayon mixtures.	14,915,000 yds. To be used for, -Two piece men's suits 2/5 suit per man	15 inches
	- (4 yds per garment) - Boys' trousers (1 per boy) ½ yd per garment	½ yd.
	-Two piece boys suit (1 per boy) 3 yds per garment	3 "
	-Skirts for girls (1 per girl) 3/4 yd per garment.	3/4 "
(d) 54" wide - 20/24 oz - manipulated wool overcoating woven or knitted fabric	27,000,000 yds. To be used for, -Children (average 12 years old) 2/5 per child, 2 yds per garment . .	1 1/8 yd
	-Women (2/5 per woman) 3 yds per garment	1 1/3 "

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poplin, muslin. White, plain, fancies, prints, woven & knitted (plain) 2 to 9 oz. weight

-Underwear (2 per child)
2½ yds per garment . . . . . 5 .
-Blouses (1 per child)
1½ yds per garment . . . . . 1½ "
-Handkerchief (9 per yd)
2 per capita. . . . . 1/4 "
-Dresses (1 per woman)
4 yds per dress . . . . . 4 "
-Underwear (2 sets each woman)
2½ yds per garment. . . . . 5 "
-Blouses (1 per woman)
2 yds per blouse . . . . . 2 "
-Shirts (2 per man)
3½ yds per garment. . . . . 7 "
-Underwear (2 sets each man)
2½ yds per set . . . . . 5 "
-Bed clothese (sheets & pillow cases)
N.E. 6 yds per family of 5. . . . . 1.1/5 "

(c) 54" wide - 12/13 oz. manipulated wool, suiting "Suder type" - cotton, wool and rayon mixtures.

14,915,000 yds.
To be used for:
-Two piece men's suits
2/5 suit per man . . . . . 15 inches
- (4 yds per garment)
- Boys' trousers (1 per boy)
½ yd per garment . . . . . ½ yd.
-Two piece boys suit (1 per boy)
3 yds per garment . . . . . 3 "
-Skirts for girls (1 per girl)
3/4 yd per garment. . . . . 3/4 "

(d) 54" wide - 20/24 oz - manipulated wool overcoating woven or knitted fabric

27,000,000 yds.
To be used for:
-Children (average 12 years old)
2/5 per child, 2 yds per garment . . 1 1/3 yd
-Women (2/5 per woman)
3 yds per garment . . . . . 1 1/3 "
-Men (2/5 per man)
3 yds per garment . . . . . 1 1/3 "

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(3) The third contemplated phase looks forward to a gradual overall increase in production as supplies of raw materials and electric power permit.

E. Recommendations.

(1) The company should be permitted to embark on phase 1 only after due consideration has shown that the necessary raw materials and electric power can be made available for six months operation. A hand to mouth operation with raw materials in inadequate amount for such a program will lead only to continuous demands and requests and an unsatisfactory labor situation.

(2) Assistance should be afforded the company to move from Naples to Rome such equipment and materials as are important to preparing the Rome Works for Phase 1 operations. Care should be taken, however, not to interfere with the Armies' use of critical engineering materials in the Naples Works which are not essential to programs 1 and 2.

V. Advance Information on CISA VISCOSA, RIETI

A. Normal production was 23,000 Kg. ficcc and 10,000 Kg. rayon per day.

B. The plant is reported in good condition except for electric motors, pumps, and switch gear carried away by the Germans.

C. The Company is seeking to repair a water turbo-generator of 250 KW capacity to supply power for Rieti.

VI. Miscellaneous Notes.

A. Utita machine tool works at Padua which make machine tools, e.g. shell turning lathes at Navalmeccanica, etc; also textile machinery, is a wholly owned subsidiary of CISA VISCOSA.

B. Padua Works of CISA VISCOSA is reported to have a normal production of 8000/9000 Kg. Rayon filament and 5000/6000 Kg. ficcc per day.

C. All Italian rayon (continuous filament) was sold through a cartel known as "Italraion", MILANO.

A cartel known as "Italviscosa", Milano, sold the ficcc output of Snia Viscosa, Cisa Viscosa and Chatillon, and accounted for 95% of Italian ficcc production.

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(2) Assistance should be afforded the company to move from Naples to Rome such equipment and materials as are important to preparing the Rome Works for Phase 1 operations. Care should be taken, however, not to interfere with the Armies' use of critical engineering materials in the Naples Works which are not essential to programs 1 and 2.

V. Advance Information on CISA VISCOSA, RIETI

A. Normal production was 23,000 Kg. ficcco and 10,000 Kg. rayon per day.

B. The plant is reported in good condition except for electric motors, pumps, and switch gear carried away by the germans.

C. The Company is seeking to repair a water turbo-generator of 250 KW capacity to supply power for Rieti.

VI. Miscellaneous Notes.

A. Utita machine tool works at Padua which make machine tools, e.g. shell turning lathes at Navalmeccanica, etc; also textile machinery, is a wholly owned subsidiary of CISA VISCOSA.

B. Padua Works of CISA VISCOSA is reported to have a normal production of 8000/9000 Kg. Rayon filament and 5000/6000 Kg. ficcco per day.

C. All Italian rayon (continuous filament) was sold through a cartel known as "Italreion", MILANO.

A cartel known as "Italviscosa", Milano, sold the ficcco output of Snia Viscosa, Cisa Viscosa and Chetillon, and accounted for 95% of Italien ficcco production.

Rome Telephone Cisa Viscosa 62909
Via Dei Sabini.

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These two units formerly produced 65% of the electrical energy needed for the production of staple fibre (fiocco).

Stoker motors and boiler feed pumps have been carried away by the Germans; all transformers and switch gear, but two, carried away by the Germans.

C. Raw Materials:

(1) Cellulose: 200 tons in the plant, another 200 tons on railway cars in the Rome area loaded by Germans for despatch to Germany, i.e. enough for 5 month's operation on the basis of first program (see below).
(2) Caustic Soda: 50 m. tons.
(3) Carbon Bisulphide: 34 tons.
(4) Sulphuric Acid 50° Be: 25 tons.
(5) Salt: 350 tons.
(6) Lignite: 300 tons.

D. The Company has advanced a plan of operations that initially embraces only the Rome plant.

(1) First phase will convert 3000 Kg. Cellulose per day and yield roughly the same weight of fiocco. This will use one steeping press, two alkali cellulose disintegrators, one cellulose ripening room, two Xanthating churns, one fiocco machine.

Raw material requirements per month for the production of 90 m. tons of fiocco are:

100 tons cellulose
60 tons caustic soda
28 tons carbon bisulphide
162 tons 50° Be sulphuric Acid
1.5 tons zinc
4.5 tons salt
536 tons Sardinian coal
0.2 tons soap
130.000 KWH Electric Power (250 KW)

(2) The second phase plans to produce 60 m. tons of rayon (continuous filament) per month and will use the following additional equipment: one steeping press, two alkali cellulose shredders, two Xanthating churns, one rayon spinning machine and necessary winding and twisting machines.

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Raw material requirements per month for the production of 60 m. tons of rayon filament are stated to be:

78 m. tons cellulose
51 m. tons caustic soda

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(4) Sulphuric Acid 50° Be: 23 tons.
(5) Salt: 350 tons.
(6) Lignite: 300 tons.

D. The Company has advanced a plan of operations that initially embraces only the Rome plant.

(1) First phase will convert 3000 Kg. Cellulose per day and yield roughly the same weight of ficcco. This will use one steeping press, two alkali cellulose disintegrators, one cellulose ripening room, two Xanthating churns, one ficcco machine.

Raw material requirements per month for the production of 90 m. tons of ficcco are:

100 tons cellulose
60 tons caustic soda
28 tons carbon bisulphide
162 tons 50° Be sulphuric Acid
1.5 tons zinc
4.5 tons salt
536 tons Sardinian coal
0.2 tons soap
130.000 KWH Electric Power (250 KW)

(2) The second phase plans to produce 60 m. tons of rayon (continuous filament) per month and will use the following additional equipment: one steeping press, two alkali cellulose shredders, two Xanthating churns, one rayon spinning machine and necessary winding and twisting machines.

Raw material requirements per month for the production of 60 m. tons of rayon filament are stated to be:

78 m. tons cellulose
51 m. tons caustic soda
22 m. tons carbon bisulphide
140 m. tons 50° Be sulphuric acid
1.7 m. tons zinc
18 m. tons salt
0.5 m. tons soap
0.2 m. tons acetic acid
572 m. tons Sardinian coal
240.000 KWH Electric Power (600 KW)

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D. Comments and Recommendations:

(1) This plant is the best equipped for consideration in any plan for immediate reconstruction. It is therefore recommended that this works be viewed chiefly as a source of cannibalised materials and equipment for the Rome and Naeti plants.

(2) Some of the materials listed in B above are important to a plan of reconstruction and operations by the company. So far as is possible, those materials should be conserved for that purpose. Much of the material in this list is not needed in any immediate plans and as such should be reported to the Engineering Materials Sub-Committee of AFLR (I) B.

(3) The large stock of high grade cellulose should be divided according to some rational scheme between urgent Italian needs for paper and a planned campaign for the manufacture of rayon and staple fibre.

IV. Cisa Viscosa Works, ROME. Director, Dott. E. Martegiani.

A. This works suffered only sporadic damage by aerial bombing. Most of the plant and equipment is undamaged, but most of the electric motors in the plant have been carried away by the Germans and must be replaced, presumably from motors now in the Company's plant at Naples.

Normal production was 10,000 Kg. ficco and 10,000 Kg. rayon per day.

B. Plant and Equipment.

(1) Nine caustic steeping tanks and hydraulic presses with a capacity of 2,000 Kg. of initial cellulose per press per day. Hydraulic pumps and motors must be brought from Naples.
(2) Twelve large Pometti alkali-cellulose shredders. Require motors and belts.
(3) Two large air-conditioned ripening rooms for alkali cellulose, in operable condition - (22-23°C).
(4) 16 Xanthating churns capable of converting the equivalent of 1600 Kg. cellulose per day. Condition is good but require motor drives.
(5) Eight viscose dissolvers, require motors and belts.
(6) Four large staple fibre spinning, curing and cutting machines. Require motor drives.
(7) 53 rayon spinning machines of which 35 are in operable condition and 18 seriously damaged by aerial bombing. Each machine has 200 spinnerettes (filiere).
(8) Power Plant:
(a) One Franco Tosi boiler at 18 tons steam per hour and 25 Kg/cm sq.
(b) Four low pressure boil[illegible]

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urgent Italian needs for paper and a planned campaign for the manufacture of rayon and staple fibre.

IV. Cisa Viscosa Works, R.C.E. Director, Dott. E. Martegiani.

A. This works suffered only sporadic damage by aerial bombing. Most of the plant and equipment is undamaged, but most of the electric motors in the plant have been carried away by the Germans and must be replaced, presumably from motors now in the Company's plant at Naples.

Normal production was 10,000 Kgs. fiocco and 10,000 Kg. rayon per day.

B. Plant and Equipment:

(1) Nine caustic steeping tanks and hydraulic presses with a capacity of 2,000 Kgs. of initial cellulose per press per day. Hydraulic pumps and motors must be brought from Naples.
(2) Twelve large Fenaroli alkali-cellulose shredders. Require motors and belts.
(3) Two large air-conditioned ripening rooms for alkali cellulose; in operable condition - (22-23°C).
(4) 16 Xanthating churns capable of converting the equivalent of 1600 Kgs. cellulose per day. Condition is good but require motor drives.
(5) Eight viscose dissolvers, require motors and belts.
(6) Four large staple fibre spinning, curing and cutting machines. Require motor drives.
(7) 59 rayon spinning machines of which 35 are in operable condition and 16 seriously damaged by aerial bombing. Each machine has 200 spinnerettes (filiere).
(8) Power Plant:
(a) One Franco Tosi boiler at 18 tons steam per hour and 28 Kg/cm sq.
(b) Four low pressure boilers; two B & W and two Ansaldo-Jaumann, each 5/7 tons steam per hour at 16 Kg/cm. sq.
(c) Two Franco Tosi steam turbo-generators which tap the steam to 3 Kg/cm. sq.
1350 KW high pressure 26 Kg/cm. sq.
900 KW low " 16 " " "

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(13) Large stocks of steel forms and shapes.
(14) Stocks of steel strip for boxing and baling.
(15) Stocks of steel baling wire.
(16) Stocks of steel rails, Standard and Decauville.
(17) Several large coils of steel rope.
(18) Very large stocks of steel boiler tubes in a wide variety of forms.
(19) Stocks of fire brick.
(20) Lead: sheet and pipe.
(21) Much cork and glasswool insulation.
(22) Brass, Bronze and Lead-Line piping, fittings and valves.
(23) About 50 round bronze bars for bearings, about 4" dia. x 12" long.
(24) Heavy sheet copper.
(25) Copper tubing and pipe 1½" to 2" dia. x 15 to 18 feet in length.
(26) A complete steam turbine rotor, reaction type.
(27) Variety of electrical instruments, switch gear, etc.
(28) Large assortment of electrical motors, starters, and gear reduction boxes.
(29) Steam space-heating radiators.
(30) Ceramic acid storage jar 1500 litres capacity.
(31) Ceramic piping, fittings and valves.
(32) Cast-iron stoker grates and replacement bars.
(33) Large electrical current breakers.
(34) Much shafting, pulleys, multi-sheave drive wheels.
(35) Stocks of leather and rubber endless V-belts in many sizes.
(36) Stocks of 2" Aluminum tubing.
(37) 2 ft. square steel ventilating ducts.
(38) 3 ton hydraulic baling press.
(39) Hydraulic pumps in variety of heads and capacities.
(40) Large number of rayon spinning pumps.
(41) About 300 10-inch rubber tyred cart wheels.
(42) Boxes of glass laboratory apparatus.

C. Power Plant consisted of:

(1) Three Ansaldo boilers each of 12 tons steam per hour at 25 Kg./sq. cm. These have automatic stokers which have been damaged.
(2) One boiler rated at 30 tons steam per hour at 32 Kg/sq. cm. with automatic overhead coal feed. This unit appeared intact.
(3) Three Ansaldo steam turbo-generators each of 750 KVA at 450 Volts, 3 phase, 45 cycles. These were designed to reduce steam pressure from 25 Kg./sq. cm. to 3.5 Kg/sq. cm., and use the exhaust steam for process heating. Of these three turbo-generators, one is intact, a second is seriously damaged but believed to be repairable, a third is completely destroyed.

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(24) Heavy sheet copper.
(25) Copper tubing and pipe 1½" to 2" dia. x 15 to 18 feet in length.
(26) A complete steam turbine rotor, reaction type.
(27) Variety of electrical instruments, switch gear, etc.
(28) Large assortment of electrical motors, starters, and gear reduction boxes.
(29) Steam space-heating radiators.
(30) Ceramic acid storage jar 1500 litres capacity.
(31) Ceramic piping, fittings and valves.
(32) Cast-iron stoker grates and replacement bars.
(33) Large electrical current breakers.
(34) Much shafting, pulleys, multi-sheave drive wheels.
(35) Stocks of leather and rubber endless V-belts in many sizes.
(36) Stocks of 2" Aluminum tubing.
(37) 2 ft. square steel ventilating ducts.
(38) 3 ram hydraulic baling press.
(39) Hydraulic pumps in variety of heads and capacities.
(40) Large number of rayon spinning pumps.
(41) About 300 10-inch rubber tyred cart wheels.
(42) Boxes of glass laboratory apparatus.

C. Power Plant consisted of:

(1) Three Ansaldo boilers each of 12 tons steam per hour at 25 Kg./sq. cm. These have automatic stokers which have been damaged.
(2) One boiler rated at 30 tons steam per hour at 32 Kg/sq. cm. with automatic overhead coal feed. This unit appeared intact.
(3) Three Ansaldo steam turbo-generators each of 750 KVA at 450 Volts, 3 phase, 45 cycles. These were designed to reduce steam pressure from 25 Kg./sq. cm. to 3.5 Kg/sq. cm., anduse the exhaust steam for process heating. Of these three turbo-generators, one is intact, a second is seriously damaged but believed to be repairable, a third is completely destroyed.
(4) Ammonia refrigerating system: composed of two units of 600.000 calories/hour capacity each, and driven by 210 KW motors. One unit is intact, but without ammnia and motor. The latter was requisitioned and taken to Corradini Wire Plant. The second unit is seriously damaged.

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HEADQUARTERS
ALLIED CONTROL COMMISSION
INDUSTRY SUB-COMMISSION
APO 394

APPENDIX A2.

Tel. 556

WEM/rj

Ref. ACC/5596/IND

21 July 1944

SUBJECT: CISA VISCOSA (Compagnia Industriale Societa Anonima).

I. Three works belonging to the CISA VISCOSA group are covered in this report.

(a) Cisa Viscosa, NAPLES
(b) Cisa Viscosa, ROME
(c) Cisa Viscosa Carbon Bisulphide Plant at TERNI (Soc. Umbra. Prodotti Chimici).

A fourth major unit of this group, at RIETI, will be surveyed and reported upon as soon as time permits.

II. The Cisa Viscosa group is controlled from above by the Snia Viscosa combine. The General Manager of Cisa Viscosa is Dott. F.M. Oddasso. He is assisted by Ing. G. Campolunghi as Technical Manager.

III. Cisa Viscosa, NAPLES. Director Ing. Fabbri. Inspected 26 June 1944. This plant is severly damaged, chiefly by German demolitions. It is under control of RE Engineers. Normally it produced 52.000 Kg. of Staple Fibre (ficcec) per day (no continuous rayon filament) and employed 1,000 persons, of whom 900 were work people and 100 directors and technicians.

A. This plant cannot operate except after a long period of reconstruction. German demolitions have destroyed much important machinery including pumps, churns, dissolvers, filters, spinning and drying equipment, and serious damage has been done to steam boilers, two or three turbogenerators, air compressors and ammonia refrigerating plant. Much good and valuable equipment, however, remains, the destruction having been hasty and scattered. Many of the buildings are still in good condition.

B. Stocks of Materials on Hand include,

(1) About 2,500 m. tons of high grade Swedish and Finnish cellulose in six depots about the plant.
(2) About 200 bales of short fibre clean cotton of approximately 1 quintal each.
(3) 51 Carboys of 50° Be Sulphuric Acid.
(4) Several tons of new jute sacking [illegible]

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II. The Cisa Viscosa group is controlled from above by the Snia Viscosa combine. The General Manager of Cisa Viscosa is Dott. F.M. Oddasso. He is assisted by Ing. G. Campolunghi as Technical Manager.

III. Cisa Viscosa, NAPLES. Director Ing. Fabbri, Inspected 26 June 1944. This plant is severely damaged, chiefly by German demolitions. It is under control of FBS Engineers. Normally it produced 52.000 Kg. of Staple Fibre (fiocco) per day (no continuous rayon filament) and employed 1.000 persons, of whom 900 were work people and 100 directors and technicians.

A. This plant cannot operate except after a long period of reconstruction. German demolitions have destroyed much important machinery including pumps, churns, dissolvers, filters, spinning and drying equipment, and serious damage has been done to steam boilers, two or three turbogenerators, air compressors and ammonia refrigerating plant. Much good and valuable equipment, however, remains, the destruction having been hasty and scattered. Many of the buildings are still in good condition.

B. Stocks of Materials on Hand include:

(1) About 2.500 m. tons of high grade Swedish and Finnish cellulose in six depots about the plant.
(2) About 200 bales of short fibre clean cotton of approximately 1 quintal each.
(3) 51 Carboys of 50° Be Sulphuric Acid.
(4) Several tons of new jute sacking material in bolts.
(5) 30/40 m. tons of carbon bisulphide stored in open concrete tanks under water.
(6) About 50 barrels of roofing pitch.
(7) About 10 drums of lubricating and transformer oils.
(8) About 50 carboys (demijohns) of acetic acid (believed to be "glacial" grade).
(9) 35 Oxygen cylinders scattered about the plant, particularly between the spinning machines.
(10) Large stocks of steel and cast-iron steam and water piping up to 16 inches diameter.
(11) Large cast-iron pipe elbows and fittings.
(12) Stocks of Eternit piping up to 14" diameter.

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(c) NAPLES:

This plant suffered both extensive and intensive damage by German demolitions, but the destruction is of an uneven or sporadic character, so that a planned programme of annibalization of damaged equipment will enable enough workable plant to be made operable to assist in reactivating the works at Rome and Rieti, and also give the Naples works the possibility of a limited production of fiocco during the second half of the year.

PART VI REQUISITIONS.

Requisitions for high quality cellulose, suitable for synthetic fibre production and in amount to meet the production programmes set forth in Part III (a) and (2) above are in the course of preparation. All other materials will be met from local resources.

PART VII. EFFECT ON SHIPPING SITUATION.

No great effect in the saving of shipping space can be achieved by this programme because, in rough terms, about one ton of cellulose must be imported for every ton of synthetic fibre produced. It does, however, permit the importation of a low cost commodity to enable the local production of a high cost one.

PART VIII. INCREASE OF PRODUCTION THROUGH THE IMPLEMENTATION OF THIS PROGRAMME

Since there is at present no production of synthetic fibres in liberated Italy the entire produce of this planned campaign will represent "increase of production".

In conclusion it may be useful to summarise the effect of the production programme in over-all tonnages:

Total production of Fiocco in 12 months	7,740 tons
" " " Rayon " " "	2,160 tons
Total production of synthetic fibres	9,900 tons

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PART VII. EFFECT ON SHIPPING SITUATION.

No great effect in the saving of shipping space can be achieved by this programme because, in rough terms, about one ton of cellulose must be imported for every ton of synthetic fibre produced. It does, however, permit the importation of a low cost commodity to enable the local production of a high cost one.

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In conclusion it may be useful to summarise the effect of the production programme in over-all tonnages:

Total production of Fiocco in 12 months	7,740 tons
" " " Rayon " " "	2,160 tons
Total production of synthetic fibres	9,900 tons

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B. RAYON (contd)

salt (NACL)	0.3 tons
coal (Sardinian)	6.1 tons
Electric power (KWH)	1000

Of the above only the cellulose need be imported. Therefore the requirements of raw materials in m. tons for the total rayon production for the three monthly periods given in III (b) above are:

1945	Jan/Mar.	Apr./June	July/Sept	Oct./Dec.	Total for one year
cellulose	Nil	468	936	1,404	2,808
caustic soda	"	360	720	1,080	2,160
carbon bisulphide	"	126	252	378	756
sulphuric Acid 50° Be	"	864	1,728	2,592	5,184
salt	"	108	216	324	648
coal - Sardinian	"	2,200	4,400	6,600	13,200
Electric power KWH	"	1,440,000	2,880,000	4,320,000	8,640,000

With regard to the basic raw materials required for the programme the 11,232 tons of cellulose will have to be imported from abroad.

The 7,573 tons of caustic soda can be locally produced if the programme for the rehabilitation of the soda solvay works at Rosignano is implemented in its entirety. This programme is to be found in Section 1., SOAP.

The 3,465 tons of carbon bisulphide will be covered by the rehabilitation programme for the three major units of carbon bisulphide production, which is again to be found in the Soap Programme.

The 17,532 tons of sulphuric acid 50° Be presents no problem as adequate amounts of this commodity will be available from the various plants of the Montecatini combine.

It will be noted that little or no imported coal is wanted to implement this programme, but it calls for the use of 33,456 tons of Sardinian coal, which it is anticipated will be readily available.

The provision of 648 tons of salt presents no difficulties.

PART V. SUPPORTING DATA FOR PRODUCTION ESTIMATES IN PARTS III AND IV

(a) ROME:

This plant suffered only mildly from aerial bombing, and that exclusively to rayon spinning equipment. Fiocco equipment is undamaged. The major difficulty at this works, however, resides in the fact that the Germans carried away all electric motors, power belting, essential parts of hydraulic pumps, and governors from the steam turbogenerators. These deficiencies are being met in great measure by the cannibalization of the much more damaged Naples plant, where sufficient equipment can be secured for the reduced programme set forth, and also leave enough plant equipment

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Soda	"	108	216	324	648
coal - Sardinien	"	2,200	4,400	6,600	13,200
Electric power KWH	"	1,440,000	2,880,000	4,320,000	8,640,000

With regard to the basic raw materials required for the programme the 11,922 tons of cellulose will have to be imported from abroad.

The 7,573 tons of caustic soda can be locally produced if the programme for the rehabilitation of the soda solvay works at Rosignano is implemented in its entirety. This programme is to be found in Section 1., SOAP.

The 3,465 tons of carbon bisulphide will be covered by the rehabilitation programme for the three major units of carbon bisulphide production, which is again to be found in the Soap Programme.

The 17,539 tons of sulphuric acid 50° Be presents no problem as adequate amounts of this commodity will be available from the various plants of the Montecatini combine.

It will be noted that little or no imported coal is wanted to implement this programme, but it calls for the use of 33,450 tons of Sardinian coal, which it is anticipated will be readily available.

The provision of 648 tons of salt presents no difficulties.

PART V. SUPPORTING DATA FOR PRODUCTION ESTIMATES BY PLANT BY

(a) ROME:

This plant suffered only mildly from aerial bombing, and that exclusively to rayon spinning equipment. Fiocco equipment is undamaged. The major difficulty at this works, however, resides in the fact that the Germans carried away all electric motors, power belting, essential parts of hydraulic pumps, and governors from the steam turbogenerators. These deficiencies are being met in great measure by the cannibalization of the much more damaged Naples plant, where sufficient equipment can be secured for the reduced programme set forth, and also leave enough plant equipment at Naples to permit that works to return to a limited production campaign during the second half of the year. An inventory survey of the Rome factory is attached as Appendix A1 as an illustration of the detailed work on which the programme is based. In addition an expert staff study of the factories at Rome and Naples is appended as Appendix A2.

(b) RIETI:

This plant is undamaged by bombing or demolition, but suffered, as did the Rome plant, by the removal of the same types of equipment by the Germans. In a similar fashion the deficiencies will be made up by cannibalizing the Naples works.

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(a) Fiocco: Planned production rate in kilograms per day in 3 monthly periods:-

1945	Rome	Rieti	Naples	Daily Totals	Quarterly Totals
Jan. - March	3,000	3,000	Nil	6,000	540,000
Apr. - June	6,000	6,000	Nil	12,000	1,080,000
July - Sept.	9,000	12,000	8,000	29,000	2,610,000
Oct. - Dec.	12,000	15,000	12,000	39,000	3,510,000
				ANNUAL TOTAL	7,740,000

(b) Rayon: Planned production rate in kilograms per day in 3 monthly periods:

1945	Rome	Rieti	Naples	Daily Totals	Quarterly Totals
Jan. - March	Nil	Nil	Nil	Nil	-
Apr. - June	2,000	2,000	Nil	4,000	360,000
July - Sept.	4,000	4,000	Nil	8,000	720,000
Oct. - Dec.	6,000	6,000	Nil	12,000	1,080,000
				ANNUAL TOTAL	2,160,000

NOTE: A working month has been taken as being 30 days, on the assumption that production maintained without interruption.

PART IV. PRODUCTION POTENTIAL OF REQUIRED RAW MATERIALS

A. FIOCCO:

Raw material requirements per m. ton of fiocco are:

cellulose	1.1 tons
caustic soda	0.7 tons
carbon bisulphide	0.35 tons
sulphuric acid 50°Be	1.6 tons
coal (Sardinian)	2.6 tons
Electric power (KWH)	1450

Of the above only the cellulose need be imported. Therefore the requirements of raw materials in m. tons for the total fiocco production for the three monthly perios given in III (a) above are:-

1945	Jan/Mar.	Apr/June	July/Sept.	Oct/Dec.	Total for one year
cellulose	594	1,188	2,871	3,861	8,514
caustic soda	378	756	1,827	2,457	5,418
carbon bisulphide	189	378	912	1,230	2,709
sulphuric acid 50°Be	864	1,728	4,176	5,586	12,354

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Jan. - March	Nil	Nil	Nil	Nil	-
Apr. - June	2,000	2,000	Nil	4,000	360,000
July - Sept.	4,000	4,000	Nil	8,000	720,000
Oct. - Dec.	6,000	6,000	Nil	12,000	1,080,000
				ANNUAL TOTAL	2,160,000

NOTE: A working month has been taken as being 30 days, on the assumption that production maintained without interruption.

PART IV. PRODUCTION POTENTIAL OF REQUIRED RAW MATERIALS

A. Fiocco:

Raw material requirements per m. ton of fiocco are:

cellulose	1.1 tons
caustic soda	0.7 tons
carbon bisulphide	0.35 tons
sulphuric acid 50°Be	1.6 tons
coal (Sardinian)	2.6 tons
Electric power (KWH)	1450

Of the above only the cellulose need be imported. Therefore the requirements of raw materials in m. tons for the total fiocco production for the three monthly perios given in III (a) above are:-

1945	Jan/Mar.	Apr/June	July/Sept.	Oct/Dec.	Total for one year
cellulose	594	1,188	2,871	3,861	8,514
caustic soda	378	756	1,827	2,457	5,418
carbon bisulphide	189	378	912	1,230	2,709
sulphuric acid 50°Be	864	1,728	4,176	5,586	12,354
coal - Sardinian	1,410	2,820	6,900	9,120	20,250
Electric power (KWH)	783,000	1,566,000	3,900,000	5,089,500	11,340,000

B. Rayon:

Raw material requirements per m. ton of rayon are:

cellulose	1.3 tons
caustic soda	1.0 tons
carbon bisulphide	0.35 tons
sulphuric acid 50° Be	2.4 tons

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SECTION 3 - TEXTILES

APPENDIX "A"

SYNTHETIC FIBRES

PART I. INTRODUCTION.

The manufacture of synthetic fibre has been one of Italy's most important industries, both for internal consumption and for export. In recent years it was developed intensively as a substitute for imported cotton and wool in Italian schemes for autarchy. In 1942 Italian production of synthetic fibres by the viscose process amounted to some 60,000,000 kgs. of rayon (continuous filament) and 145,000,000 kgs. of ficcco (staple fibre). For this production some 225,000 m. tons of high grade cellulose were imported, chiefly from Sweden, Finland, and Canada. All other essential raw materials for this production, excepting coal, were produced within Italy. This industry, therefore, presents a very desirable one for a country poor in natural resources, for, with relatively small dollar imports, a large increment of labour and technical processing yields a product of relatively high value.

In view of the urgent need for clothing in Italy and further, in view of the importance of this industry to the Italian economy, it has been decided to do all possible to reactivate it.

The CISA Viscosa Company is a major unit in this field. It is in turn controlled by the SNIA Viscosa Company, and together they produce the lion's share of Italian artificial fibres. These two companies further own machine tools works in the north where much of their own machines were made. The CISA Viscosa Company has three important works in the liberated area of Italy now under consideration, and their normal pre-invasion production in kilograms per day was:-

	Rayon	Ficcco
(a) Rome	10,000	10,000
(b) Rieti	10,000	25,000
(c) Naples	-	55,000

PART II. REQUIREMENTS AND JUSTIFICATION.

See Part II of main report, items (b) and (e) and Appendix "B".

PART III. PRODUCTION POTENTIAL OF END PRODUCT.

For (a) Ficcco (staple fibre)
(b) Rayon (continuous filament)

The only important units for the production of these commodities in the territories under consideration are the group of factories belonging to the CISA Viscosa Company. Enumerated hereunder is the plan of production

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raw materials for this production, excepting coal, were produced within Italy. This industry, therefore, presents a very desirable one for a country poor in natural resources, for, with relatively small dollar imports, a large increment of labour and technical processing yields a product of relatively high value.

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PART III. PRODUCTION POTENTIAL OF END PRODUCT.

For (a) Ficcco (staple fibre)
(b) Rayon (continuous filament)

The only important units for the production of these commodities in the territories under consideration are the group of factories belonging to the CISA Viscosa Company. Enumerated hereunder is the plan of production programme for the three units of this group, divided into two sections, namely (a) for the production of staple fibre, and (b) for the production of continuous filament.

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form of cotton, or cellulose from which fiocco or rayon can be made. The Italian cotton crop may produce in 1945 the equivalent of 5,640 American bales or 2,707,000 lbs. This will lose in processing an average of approximately 15%, that is it will yield about 2,300,000 lbs. yarn, sufficient to produce, on the same basis of calculation, as previously used, viz: average 5 oz. per yd., 7,360,000 yds. As this is less than one fifth of potential, it is assumed that the deficiency in ancillary commodities will not be seriously felt, except in the case of a few items. This calculation gives therefore the following relative data:

Potential Production (Part III, 8)	Present Productive Capacity	Increase
38,000,000 yds., or 13,436,000 lbs.	3,200,000 yds., or 1,000,000 lbs.	34,800,000 yds. or 12,436,000 lbs.

(c) Rayon:

The calculation here is simple. Unless the reactivation program as envisaged in Appendix "A" hereto is implemented in whole or in part, production will be nil. The comparative figures in this case are therefore: (Appendix A, Part III):-

	Potential Production	Present Productive Capacity	Increase
Fiocco	17,000,000 lbs.	Nil.	17,000,000 lbs.
Rayon	4,750,000 lbs.	Nil.	4,750,000 lbs.

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	or 13,436,000 lbs.	or 1,000,000 lbs.	24,500,000 yds. or 12,436,000 lbs.

(c) Rayon:

The calculation here is simple. Unless the reactivation program as envisaged in Appendix "A" hereto is implemented in whole or in part, production will be nil. The comparative figures in this case are therefore: (Appendix A, Part III):-

	Potential Production	Present Productive Capacity	Increase
Fiocco	17,000,000 lbs.	Nil.	17,000,000 lbs.
Rayon	4,750,000 lbs.	Nil.	4,750,000 lbs.

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ticularly in the export trade, in which in the last normal year, 1938, the proportion of textiles exported represented approximately one third of total exports, but also because of the large number of operatives employed, particularly women, amounting to almost 10% of the working population. This figure is exclusive of all trades allied to textile production, which accounted for another 16% of the population capable of industrial work.

It is not contended that these facts have any commensurate importance in the area under review. As has been noted above, this area is industrially negligible in the textile field, and the number of workers engaged is relatively small. But this fact has a compensating importance from two points of view. First, the reactivation of the industry in this area will impose no great burden on the sources of supply, and will have early political repercussions of value to national stability; and secondly, the dispersion of industry, even though on a small scale, into non-industrial areas, makes the incidence of employment problems less acute by introducing a stabilizing element.

(b) Although the end of the war in Europe will enable the primary manufacturing centers of the world to redirect some of their energies to non-military requirements, this will for a long time only be partial, and the plant so set free will necessarily be devoted first to production for home and United Nations needs, and the availability for an ex-enemy is therefore likely to rank low in priority. In addition, primary raw materials, cotton and wool, are stockpiling in the producing centers, and shipment can be made without the delays attendant upon manufacture.

4. It is therefore strongly recommended that, despite the lack of advantage to the shipping situation by the importation of raw materials as against finished articles, such raw materials and ancillary commodities as are necessary to the reactivation of the textile industries should be imported, as providing outweighing compensations in the political and economic field.

PART VIII. INCREASE OF PRODUCTION BY IMPLEMENTATION OF PROGRAM

1. The particulars under this subheading are reached by calculating the difference between present productive capacity, using indigenous resources only, and maximum potential production as shown in Part III above.

2. (a) Wool:

The implementation of the program in this case does not depend upon the importation of the raw material, but of spares, maintenance items, replacement and commodities used in manufacture. The extent to which the present deficiency in these affects production cannot be calculated, as its incidence falls upon machinery efficiency, which varies, according to condition, in each case. An estimate only therefore can be made, and 50% of potential efficiency is regarded as being reasonable. This will

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	Potential Production (Part III 5)	Present Productive Capacity	Increase
Cloth	1,000,000 yds.	500,000 yds.	500,000 yds.
Felt	225,000 lbs.	112,500 lbs.	112,500 lbs.

(b) Cotton

In addition to the absence of ancillary commodities, this industry inevitably depends upon raw materials either in the

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Card Clothing - 30 pieces - for doffers, various lengths, 38 mm wide BWA 110.

3,000 pieces for flats, various lengths, 23 mm wide.

Pickers	6,000 pieces, various
Picker Straps	7 cwts,
Shuttles	7,500 pieces, various
Travellers	2,000 boxes (avg. 10,000 pieces) various gauges
Gear Oil	14 tons
Spindle Oil	3 tons
Dyestuffs	100 tons
Leather belting	15,000 feet, various widths

(d) Artificial Fiber and Rayon Industry Requirements - See Appendix A.

8. (a) The quantities and specifications quoted above are approximate only, and are subject to revision and quantitative screening when all the data are available.

(b) In preparing requisitions full account istaken, in screening, of all stocks and supplies from local resources, including those set free by cannibalization or absorption.

PART VII. EFFECT ON SHIPPING SITUATION.

1. By virtue of the fact that the Italian textile industries are essentially importers of primary raw materials, the reactivation of those industries cannot materially affect the shipping situation because such importations do not to any substantial extent consume commodities indigenously produced. The converse is rather the case. Finished piece goods, with which this industry is largely concerned, usually bulk less and weigh less than the raw materials out of which they are made; losses in manufacturing processes have already taken place; and with raw materials must also be shipped the ingredients, the spare parts and items for maintenance of machinery, which would be unnecessary in the case of the shipment of finished goods.

2. But this adverse effect upon the shipping situation would at most be slight; an overall estimate is that it would not exceed 20% in extra weight or bulk. Other factors of equal or greater value to global post war economy are presented by:

(a) Amount of employment given and its effect upon the Italian economic and political life, and

(b) Restricted

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(a) Amount of employment given and its effect upon the Italian economic and political life, and

(b) Restricted manufacturing capacity in the primary producing centers of the world.

3. The case in support of these factors may be summarized briefly as follows:

(a) There can be little doubt that the post war reorientation of Italian industry will lay most emphasis upon the production of consumer goods. In normal times the textile group was one of the most important, if not the most important, element in Italian economy, not only because of its place in the financial structure of the country, par-

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less such amount of staple fiber as is considered advisable on technical or economic grounds. It may be noted that the potential production of this material can amount to the equivalent of 35,000 bales of American cotton.

6. Requisitions for ancillary materials and commodities used in manufacture and maintenance can only be outlined in a survey of this kind. But as an example of the detail which is necessary, the requisitions submitted on behalf of a single firm are attached as Appendices "E" and "F". Similar requisitions for other firms and industries are in course of compilation, and will be submitted as soon as completed, but the following estimates are given as an approximate guide to what will be required under this heading:-

7. REQUISITIONS FOR ACCESSORIES, INGREDIENTS, AND MAINTENANCE MATERIALS.

(a) As these are almost limitless in number and variety, and are the subject of consideration, screening and preparation on the lines of the requisitions submitted on behalf of M.C.M. (Appendices "E" and "F"), it is proposed here to give a summary by classes and quantities of the most important items, bulked for all consumers, but exclusive of requisitions already made.

(b) Woolen Industry Requirements. All firms are deficient of accessories and spare parts, dye stuffs and ingredients, which were normally obtained in Northern Italy. The most urgent needs are for:

Card clothing	1,000 pieces fillet; length, each, 105 meters, width 60 m/m; triangular steel wire, gauge 27/31.	
Pickers	5,000 pieces, size 120 mm x 115 m, for power driven looms.	
Shuttles	3,000	various
Reeds	1,000	various widths
Rim band	10,000	lbs. 22 m/m
Rim band	10,000	lbs. 18 m/m
Rim band	10,000	lbs. 14 m/m
Spindle band	4,500	lbs.
Gear oil	10	tons
Spindle oil	2	tons
Dye stuffs	62	tons
Leather belting	5,000	feet, various widths

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7. REQUISITIONS FOR ACCESSORIES, TRANSPORT, MATERIALS.

(a) As these are almost limitless in number and variety, and are the subject of consideration, screening and preparation on the lines of the requisitions submitted on behalf of M.C.M. (Appendices "E" and "F"), it is proposed here to give a summary by classes and quantities of the most important items, bulked for all consumers, but exclusive of requisitions already made.

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Reeds	1,000	various widths
Rim band	10,000	lbs. 22 m/m
Rim band	10,000	lbs. 18 m/m
Rim band	10,000	lbs. 14 m/m
Spindle band	4,500	lbs.
Gear oil	10	tons
Spindle oil	2	tons
Dye stuffs	62	tons
Leather belting	5,000	feet, various widths

(c) Cotton Industry Requirements.

Similar deficiencies exist in the cotton industry as in the woolen, with some additions due to differences in machinery. The chief needs are for:-

Card Clothing - 30 pieces - For cylinders, various lengths, 51 mm wide BWG 100.

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(iii) The factory is situated near the railway station of Spoleto, and therefore transportation problems will be entirely those of railway communications. Most suitable port- Civitavecchia.

Imported Requirements:

7,000 bales American cotton.

Accessories, spares and commodities used in spinning.

PART VI. REQUISITIONS.

1. The requirements of the textile industries are complex. Normally dependent to a very great extent upon importations of raw materials, the situation has been aggravated during the last few years by the dislocation which industry has suffered on account of the ill-founded drive towards autarchy.

2. Fortunately the situation is partially simplified by the limitations of the area reviewed in this summary, in that it is considered that native production of wool will meet most of the requirements of the woolen industry, and that therefore this material need not be the subject of requisition. A very different state of affairs will however be the case if the main producing centers in the north are liberated relatively undamaged.

3. Failing autarchic materials the Italian cotton fabric production, including in this case not only cotton, but staple fiber and rayon fabrics, which receive subsequent processing similar to cotton, is based almost entirely upon imported raw materials. Sicilian and Italian mainland cotton is, as has been previously shown incapable of making any substantial contribution; synthetic fibers can however do much to relieve indigenous deficiencies in the vegetable crop.

4. REQUISITIONS FOR PRIMARY RAW MATERIALS would therefore be limited to:-

(a) cotton up to the spinning capacity of the industry, less any contribution made by staple fiber and home produced cotton.

(b) Cellulose for staple fiber to the extent envisaged in Appendix "A" hereto.

(c) Cellulose for rayon to an extent to which cotton spinning capacity is unable to supply complete needs of weavers, plus a small surplus.

5. (a) Cotton requisitions have already been submitted for:

11 May	150 tons American and/or Egyptian	(for twelve
29 July	7,482,000 lbs. "	months pro-
29 July	959,040 " Egyptian	duction

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the ill-founded drive towards autarchy.

2. Fortunately the situation is partially simplified by the limitations of the area reviewed in this summary, in that it is considered that native production of wool will meet most of the requirements of the woolen industry, and that therefore this material need not be the subject of requisition. A very different state of affairs will however be the case if the main producing centers in the north are liberated relatively undamaged.

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(c) Cellulose for rayon to an extent to which cotton spinning capacity is unable to supply complete needs of weavers, plus small surplus.

5. (a) Cotton requisitions have already been submitted for:

11 May 150 tons American and/or Egyptian (for twelve months production
29 July 7,482,000 lbs. "
29 July 959,040 " Egyptian
for Manifatture Cotoniere Meridionali)(See Appendix "E").

(b) Allowing for the above, and on the assumption that timely arrival of these supplies will ensure maximum production up to the end of Sept 1945, approximate requirements for the balance of the year will be:-

Man. Cotoniere Meridionali	3,900 bales	(American)	Oct.to
	330 "	(Egyptian)	Dec.
Cotonificio di Spoleto	7,000 "	(American)	Jan-Dec

less 5,640 bales Italian cotton.

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Potential Production: 27,500,000 yds.

Types of Products: cotton; artificial fibre and rayon fabrics; light, medium and heavy. Whites, colours and prints. Cotton yarn for threads, twines, etc.

Plant: (i) Preparatory machinery
(ii) 130 cards.
(iii) 24 combs.
(iv) 72,000 spindles.
(v) 1,650 looms (plus 300 to 400 at Frattamaggiore in process of rehabilitation by cannibalization.)
(vi) Dyeing, finishing and printing machinery.

Operatives: 2,250

Fuel Requirements: Coal, hard, 4,800 tons.) Per
Coal, Sardinian, 2,400 tons.) annum.
Naptha, 2,000 tons.

Power Requirements: 905,000 KWH per month.

Remarks: See Appendix "D"

Imported Requirements: 15,600 bales American cotton) see copy
(less Italian crop of 5,640) requisi-
bales) 1,330 bales Egyptian) tions
cotton) attached hereto as Appendix "E" and "F".
Various spares and ancillary materials

Surplus Production: 1,550,000 lbs. yarn for subsequent processing elsewhere.

(b) Cotonificio di Spoleto, Spoleto:

Condition: Structural damage to buildings, but machinery intact.

Potential Production: 2,970,000 lbs. cotton yarn.

Type of Products: Cotton and fiocco weaving or hosiery yarns.

Plant: (i) Preparatory machinery.
(ii) 46,000 spindles.
(iii) winding machinery.

Operatives: 800

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Fuel Requirements: Negligible.

Power Requirements: Dependent upon public utility service which has been completely wrecked. Estimated consumption - 180,000 KWH per month.

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Operatives: 2,250

Fuel Requirements: Coal, hard, 4,800 tons.) Per
Coal, Sardinian, 2,400 tons.) annum.
Naptha, 2,000 tons.

Power Requirements: 905,000 KWH per month.

Remarks: See Appendix "D"

Imported Requirements: 15,600 bales American cotton) see copy
(less Italian crop of 5,640) requisi-
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Potential Production: 2,970,000 lbs. cotton yarn.

Type of Products: Cotton and fiocco weaving or hosiery yarns.

Plant: (i) Preparatory machinery.
(ii) 46,000 spindles.
(iii) winding machinery.

Operatives: 800

2963

Fuel Requirements: Negligible.

Power Requirements: Dependent upon public utility service which has been completely wrecked. Estimated consumption - 180,000 KWH per month.

Remarks: (i) Apart from the M.C.M. this is the only cotton spinning unit located in Liberated Italy. Normally it spun fiocco on account of Gerli Rayon of Cusano, but it can easily be adapted to spin cotton.

(ii) Restoration of the buildings out of local resources will not be difficult; meanwhile it has been recommended that until power can again be provided, measures shall be taken to proceed with this work, especially with a view to preserving machinery from the weather.

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of those have been given previously (in Part III, 6. (b)). On account of the wide diversity of machinery and mechanical efficiency in different plants, exact computation of production is not possible. Assuming however an average weight of 5 oz. per yards. annual production from 10,290,000 lbs. of yarn will be approximately 33,000,000 yards.

(c) Power: 1. Spinning. The electrical energy consumed is of the order of .63 kw per lb. of spun yarn, or 6,500,000 Kw per annum

2. Weaving. Consumption is at the rate of 4.7 kw per loom per single shift, or 9.7 kw per double shift, or 10,700,000 kw per annum

(d) Fuel: In normal years the consumption of coal by the cotton industry, in the area under review, was approximately 16,000 tons. In view of the damage done, especially to the largest users, the M.C.M., it is not possible to give an accurate estimate. A rounded figure however of 16,000 tons of Sardinian coal is considered to be a reasonable approximation, Plus 5,000 tons imported hard coal.

(e) Cotton Requirements: Spinning. In order to calculate the requirements of raw cotton for the spinning process, it is necessary to take account of:-

(i) average counts
(ii) average daily hours of work
(iii) average yield of raw materials

These have been taken as being the following:

(i) 24s (English counts)
(ii) 15 hours per day (double shift) for 300 working days per year.
(iii) 89% (Middling or Strict Middling cotton)

Hence with an hourly production of 12 gr. per spindle, the yearly requirements of cotton for the 120.476 spindles listed above is theoretically

$$\frac{120.476 \times 12 \times 15 \times 300}{89} = 6,506,000 \text{ kg or approximately } 14,312,000 \text{ lbs.}$$

which will give an annual production of yarn of approximately:- 12,700,000 lbs.
which corresponds closely to the estimates given in III 6 (b) above. To produce this amount of yarn, approximately 12,500,000 lbs. cotton will be required annually or roughly 24,000 bales (of which 8% by weight of M.C.M.'s requirements would be Egyptian) (See VI 5 (b) below) less indigenous production of say 5,640 bales, or 18,360 bales.

For technical and practical reasons however, this production, which is the theoretical output, cannot be reached, and it is estimated that, with a 20% loss in efficiency for these reasons, the true figure will be in the neighborhood of 10,200,000 lbs

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[redacted] figure however of 8,000 tons of Sardinian coal is considered to be a reasonable approximation, Plus 5,000 tons imported hard coal.

(c) Cotton Requirements: Spinning. In order to calculate the requirements of raw cotton for the spinning process, it is necessary to take account of:-

(i) average counts
(ii) average daily hours of work
(iii) average yield of raw materials

These have been taken as being the following:

(i) 24s (English counts)
(ii) 15 hours per day (double shift) for 300 working days per year.
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For technical and practical reasons however, this production, which is the theoretical output, cannot be reached, and it is estimated that, with a 20% loss in efficiency for these reasons, the true figure will be in the neighborhood of 10,200,000 lbs

7. Cotton Spinning and Manufacturing Firms.

(a) Manifatture Cotoniere Meridionali (See Appendix "D")

Condition (Mills at: Nocera - spinning) in full running
Angri - weaving) order.
Fratte di Salerno-) dyeing, printing,) finishing.
Frattemaggiore - Weaving - in course of rehabilitation
Naples - spinning and weaving - rehabilitation a long term policy.
Piedimonte - spinning - destroyed.

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Types of cloth:		Medium and heavy suitings and overcoatings, blankets and military cloths.
Plants:	(i)	3 wool scouring plants.
	(ii)	200 carding sets
	(iii)	40,000 spindles
	(iv)	275 looms (power operated)
	(v)	winding and finishing machinery.
Operatives:		1,000.
Fuel:		Wood and lignite.
Power:		500,000 KWH per month.
Remarks:	(i)	The group whose characteristics are outlined above can be regarded as being self-sufficient and inter-balanced both as to primary and secondary raw materials.
	(ii)	Ancillary commodities and spares and replacements, especially card clothing, are however needed and will be the subject of requisitions.
	(iii)	As transportation will be almost entirely local no difficulties are anticipated in this respect.

Imported Requirements:

(i)	Wool - Nil.	
(ii)	Yarn - Nil.	
(iii)	Other commodities and spares	To be requisitioned.

6. The Cotton Spinning and Weaving Industries.

(a) Distribution of Plants and Machinery: In the area under review, there are a total of 120,476 spindles and 3,686 looms, of which more than half of the spindles and approximately half of the looms are operated by the Manifatture Cotoniere Meridionali, and almost all the remaining spindles by the Cotonificio di Spoleto. The breakdown by regions is roughly as follows:-

	Looms	Spindles	Operatives
Sicily	152	-	212
Apulia	131	-	155
Campania	2,982	74,476	2,778
Umbria	53	46,000	851
Abruzzi	158	-	148
Marche	122	-	141
Tuscany (Prov. of Arezzo only)	88	-	75

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Remarks:

(i) The group whose characterisation are outlined above can be considered as being self-sufficient and future-balanced both as to primary and secondary or raw materials.

(ii) Auxiliary commodities and spares and replacements, especially cord clothing, are however needed and will be the subject of requisitions.

(iii) As transportation will be almost entirely local no difficulties are anticipated in this respect.

Imported Requirements:

(i) Wool - Nil.
(ii) Yarn - Nil.
(iii) Other commodities and spares } To be requisitioned.

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	Looms	Spindles	Operatives
Sicily	152	-	212
Apulia	131	-	155
Campania	2,982	74,476	2,778
Umbria	59	46,000	851
Abruzzi	158	-	118
Marche	122	-	141
Tuscany (Prov. of Arezzo only)	88	-	75
Total	3,686	120,476	4,350

(b) Spinning: As stated above, this is confined to the major units, with the addition of one very small plant in Salerno Province, and potentially amounts to 10,290,000 lbs.

(c) Weaving: With the exception of the weaving plants of the M.C.M. at Angri, and Frattamaggiore, there are only about a dozen firms with more than 50 looms, and brief details

Remarks: (i) The group ... lined above can be regarded as being self-sufficient and inter-balanced both as to primary and secondary raw materials.

(ii) Ancillary commodities and spares and replacements, especially card clothing, are however needed and will be the subject of requisitions.

(iii) As transportation will be almost entirely local no difficulties are anticipated in this respect.

Imported Requirements:

(i) Wool - Nil.
(ii) Yarn - Nil.
(iii) Other commodities and spares — To be requisitioned.

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(a) Distribution of Plants and Machinery: In the area under review, there are a total of 120,476 spindles and 3,686 looms, of which more than half of the spindles and approximately half of the looms are operated by the Manifatture Cotoniere Meridionali, and almost all the remaining spindles by the Cotonificio di Spoleto. The breakdown by regions is roughly as follows:-

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Marche	122	-	141
Tuscany (Prov. of Arezzo only)	88	-	75
Total	3,686	120,476	4,360+

2982

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(c) Weaving: With the exception of the weaving plants of the M.C.M. at Angri, and Frattamaggiore, there are only about a dozen firms with more than 50 looms, and brief details

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Potential Production: 180,000 to 200,000 lbs. per annum.

Types of Cloth: Papermakers felt.

Plant: (i) Two turbines totalling 126 HP

(ii) 4 sets carding machines.

(iii) 1630 spindles

(iv) 15 automatic looms from 72" to 600" wide

(v) Winding and finishing machinery

Operatives: 250

Fuel: Negligible consumption.

Power: Own hydro-electric generator.

Remarks: (i) This is one of the most important papermakers felt manufacturers in Italy, with production approximating 20%-25% of the total of the total for the whole country. In view of the importance of the paper industry, and as this is the only source of supply of felt south of the Pisa-Rimini Line, its reactivation is important, and preliminary steps to this end have already been taken.

(ii) Normally this plant consumed 225,000 to 250,000 lbs of $46^{s}/56^{s}$ imported wool annually, but although an inferior cloth is produced, locally grown wool of similar fineness and staple can be used. Information is not yet available as to what quantity of such indigenous wool will be forthcoming, but supplies are expected to be adequate.

(iii) Transportation: Imports:- Naples to Isola del Liri Sta.
Distribution: Ippolito & Pisani supplied felt to paper makers throughout Italy, but as there is a centre of this industry in the neighborhood, transportation difficulties will be considerably reduced.

(iv) Requisitions will be submitted for ancillary and maintenance requirements, and for wool if found necessary.

(c) Summary of all firms engaged in woolen spinning and weaving. (See V / above)

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Remarks: (i) This is one of the most important paper-makers felt manufacturers in Italy, with production approximating 20%-25% of the total of the total for the whole country. In view of the importance of the paper industry, and as this is the only source of supply of felt south of the Pisa-Rimini Line, its reactivation is important, and preliminary steps to this end have already been taken.

(ii) Normally this plant consumed 225,000 to 250,000 lbs of 48s/56s imported wool annually, but although an inferior cloth is produced, locally grown wool of similar fineness and staple can be used. Information is not yet available as to what quantity of such indigenous wool will be forthcoming, but supplies are expected to be adequate.

(iii) Transportation: Imports:- Naples to Isola del Liri Sta.
Distribution: Ippolito & Pisanni supplied felt to paper makers throughout Italy, but as there is a centre of this industry in the neighborhood, transportation difficulties will be considerably reduced.

(iv) Requisitions will be submitted for ancillary and maintenance requirements, and for wool if found necessary.

(c) Summary of all firms engaged in woolen spinning and weaving. (See V 4 above).

Number: 100, located throughout Central and Southern Italy.

Condition: Buildings & Plant 95% undamaged.

Total potential production: 1,000,000 yds; plus artisan manufacture and knitting, amounting to rather more than this quantity, say 1,150,000 yds.

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(iii) Winding and Warping Frames) adequate to
(iv) Finishing Machinery) loom capacity

Fuel. Sardinian Coal. Available locally.

Power. KWH not known. Negligible and available.

Remarks. (i) On account of the deficiency of spinning machinery, this firm relies upon (a) local hand spun yarn, and (b) imported yarns.

(ii) (a) local hand spun yarn produces approximately 400 lbs. of yarn per day leaving a deficiency of approximately 800 lbs. (in oil) in order to produce the type of cloth manufactured. Sardinian wool is available in ample supply, hand spinning is to be increased to meet the deficiency.

(b) Preliminary requisitions have already been submitted for 110,000 lbs. yarn to bridge the gap between local production and potential output for six months (to end of March 1945).

(iii) No transport difficulties anticipated. Port Cagliari.

(iv) This is the only textile manufactory in Sardinia, and can make a substantial contribution to the basic needs of the island.

(v) It is recommended, to obtain economical production., that spinning machinery, which had been destroyed in course of delivery, shall be provided and the plant thus made an independent unit.

(vi) Requisitions for spinning machinery, and also for ancillary materials and replacements are in course of preparation and will be submitted on completion.

Raw Material and other Imports required in 1945.

(i) Wool - Nil.

(ii) Yarn - Nil. Assuming satisfactory arrangements being made for local spinning.

(iii) Other commodities) to be requisitioned
and spares)

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Raw Material and other Imports required in 1945.

(i) Wool - Nil.

(ii) Yarn - Nil. Assuming satisfactory arrangements being made for local spinning.

(iii) Other commodities and spares) to be requisitioned

(b) Ippolito & Pisani, Isola del Liri, Frosinone.

Condition
- Buildings - Damaged but capable of early restoration, provided cement and reinforcing iron can be provided, and production will commence in 2-3 months.
- Plant - 80-85% undamaged.

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(iii) 40,000 Spindles.
Self-acting mules, frequently with less than 300 spindles each, the majority without looms to follow.

(iv) 275 Power Looms.
Reed space usually wider than 70"; most common type Schönherr. Usually supplied from spindles in the same plant.

(c) Number of operatives. - approximately 1,000, including the proprietors and their families, who in many cases are also manual workers in their own plants. It should be noted however that this number is variable according to the season of the year; there is no true pool of specialist textile operatives.

(d) War Damage has been insignificant except in a few places, namely at Pontefelcino, where there is the most important woolen manufacturing plant in Central Italy, and which has been damaged to the extent of 85-90%, at Vietri sul Mare and at Isola del Liri. Information has not yet been received of the condition of factories in the areas of Siena, the Marche and the Abruzzo.

It is calculated that the overall damage is less than 10%, much of it repairable out of local resources.

(e) Present Activity.

(i) Of the three scouring plants, only that at Macomer is operating. The Rome plant is deficient of its electric motors, which were removed by the Germans, and that at Castellammare di Stabia is at present occupied by Allied Forces, though its de-requisition has been recommended.

(ii) The small spinning plants are working part-time, due chiefly to deficiencies of accessories and spares, and lack of maintenance arising therefrom.

(f) Power.

In general electricity is supplied by public utilities. Some small plants are run by water wheels or turbines, others have their own small hydro-electric installations. A detailed breakdown by firms of consumption of electric power has not been possible, but the average in normal years was of the order of:-
500,000 KWH per month, a figure which may be taken as closely approximating the requirements of the industry during 1945.

5. Woolen, Spinning and Manufacturing Firms.

(a) A.L.A.S. Weaving Mill, Macomer, Sardinia (Gruppo Lanario

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500,000 KWH per month, a figure which may be taken as closely approximating the requirements of the industry during 1945.

5. Woolen, Spinning and Manufacturing Firms.

(a) A.L.A.S. Weaving Mill, Macomer, Sardinia (Gruppo Lanario Sardo).

Condition. Buildings and Plant undamaged.

Potential Annual Production. 300,000 yds.

Types of Cloth. Heavy woolens, overcoats and suitings.

Plant. (i) Wool Scouring Set, capable of scouring 10,000 lbs. daily. New 1940.

(ii) 37 heavy wide looms independently drive, total capacity 1000 meters per day, single shift.

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is, which has been the subject of special treatment (see V, 5 a) below).

b) Cotton Yarn and Rayon.
A deficiency of production over requirements has been shown in Part III, para 10 above, of 3,146,000 lbs. of cotton yarn. This deficiency will easily be covered by the potential rayon production program of CISA Viscosa, which, if put into effect, would produce an estimated 4,750,000 lbs. by the end of the year.

PART V. SUPPORTING DATA FOR ESTIMATED PRODUCTION IN PARTS III AND IV.

1. In Part III, paras. 3 and 6 above are listed spinners and manufacturers upon whose capacity the maximum production potential is based.

2. Below are given particulars in support of these estimates of production, together with such other details as are necessary to provide jusitification and to indicate probable requirements. As however to produce individual studies for each separate firm would involve duplication, one comprehensive survey illustrative of the method adopted hasbeen attached as Appendix "D". This is the survey of the Manifatture Cotoniere Meridionali, issued under reference ACC/5157/IC dated 29 May 44, amended to date. It should be noted that the particular importance and relatively large size of this group of mills has involved an attention to detail which it has not been necessary to expend upon smaller firms. The principles used in calculation, however, are broadly the same, and the more important elements are included below. In cases where accurate data are deficient, reasonable estimates have been made.

3. It is proposed therefore to give a brief general survey of each primary textile industry in Liberated Italy, exclusive of the present battle area, (Firenze, Pisa, Casentino), and to add particulars of a few of the more important units in greater detail.

4. The Woolen Spinning and Manufacturing Industries.
a) Plants. There are approximately 100 firms widely scattered in the area under review which can be classified as follows:-
(i) Numerous small yarn spinners, without weaving to follow, who spin materials brought by farmers and peasants and deliver the spun yarn back to them.
(ii) A few felt makers whose products are used by the paper-making industry, located in the vicinity of Isola del Liri (Frosinone). The machinery of this group is almost all of modern type and construction.
(iii) A number of small and medium sized self-contained units, that is, with both spinning, weaving and finishing machinery, some of which produce cloth not only for local consumption but also for military purposes (Pontefoleino, Vietri sul Mare, Baronissi, Polla Lagonegro, Gioia del Colle).
(iv) It should be noted that there is no woolen spinning

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Based.

2. Below are given particulars in support of those estimates of production, together with such other details as are necessary to provide jusitifcation and to indicate probable requirements. As however to produce individual studies for each separate firm would involve duplication, one comprehensive survey illustrative of the method adopted hasbeen attached as Appendix "D". This is the survey of the Manifatture Cotoniere Meridionali, issued under reference AGC/5157/IC dated 29 May 44, amended to date. It should be noted that the particular importance and relatively large size of this group of mills has involved an attention to detail which it has not been necessary to expend upon smaller firms. The principles used in calculation, however, are broadly the same, and the more important elements are included below. In cases where accurate data are deficient, reasonable estimates have been made.

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(iv) It should be noted that there is no woolen spinning or weaving in Sicily, nor any production of worsted (combed) yarns anywhere in Liberated Italy.

b) <u>Machinery Particulars</u>

(i) 3 Scouring plants (Rome, Macomer (Sardinia), and Castellammare di Stabia).
Primarily for scouring mattress work, but can be adapted for other types. Most wool scouring is however done by hand.

(ii) 200 sets of Carding Machines.
Mostly less than 60" wide, and many less than 48".
Of German (Hartmann) or Belgian (Houget) make, and of antiquated type, especially in the smallest plants.

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wool, about half of which will go to the producer under the assessment allowance to be woven on hand-looms or used in home knitting. The balance will be taken up by felt manufacturers (if they are unable to obtain imported wools), to the extent of 4/500,000 lbs. greasy, and by the self contained spinners and weavers for the manufacture of medium and heavy suitings, over-coatings and blankets of a total length of about 1,000,000 yards. (2,000,000 lbs. greasy wool).

(iv) The estimated number of sheep involved is 3,659,000 and the average size of flock 35. As approximately five persons are entitled to the allowance of 2 kg. per head for each flock, the total amount which producers will draw in 1945 is calculated at:-

$$\frac{3,659,000 \times 5 \times 2}{35} \text{ kgs. or } 2,300,000 \text{ lbs.}$$

(v) The weight of wool (greasy weight) consumed by hand and industrial manufacture can therefore be summarized:-

Felt Makers	500,000 lbs.
Industry	2,000,000 lbs.
Artisan	2,300,000 lbs.
	4,800,000 lbs.

which is adequately covered by the estimated production shown in sub-para. (ii) above, and from information received most of the industrial manufacturers are already well provided with wool, especially pulled wool, and the results of this year's (1944) assessment will also be delivered to them, largely on behalf of the Italian Ministry of War for the manufacture of military cloths.

b) Cotton

(i) The Italian cotton crop made, in normal times, an insignificant contribution to the requirements of the industry as a whole. During recent years the situation has further deteriorated and the 1943 production to reach industrial consumers was only a few hundred tons, the balance having got into the hands of speculators or having been destroyed as a result of military operations.

(ii) The forecast of the 1944 crop, made in May 1944 and based on acreage, shows a theoretical expectation of about 2,400 tons. To what extent this will be fulfilled cannot yet be determined, but it is considered that this estimate is over-optimistic, and is unlikely to be reached, especially as the Sicilian crop has been seriously affected by the drought. The arbitrary figure of 1,600 tons has therefore been adopted, equivalent in weight to about 7,250, or in yield, to 5,640 American bales, or 2,707,000 lbs.

(iii) A preliminary forecast of the 1945 crop indicates a production of 1,920 tons. This however will not become available for manufacture until the end of the year and therefore no account has been taken of it for the year under review.

c) Fiocco (Staple Fibre). The estimated potential production

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hand and industrial manufacture can therefore be summarized.

Felt makers	500,000 lbs.
Industry	2,000,000 lbs.
Artisan	2,300,000 lbs.
	4,800,000 lbs.

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(iii) A preliminary forecast of the 1945 crop indicates a production of 1,920 tons. This however will not become available for manufacture until the end of the year and therefore no account has been taken of it for the year under review.

c) Fiocco (Staple Fibre). The estimated potential production of this substitute for cotton is calculated at 7,740,000 kgs. or 17,000,000 lbs by the end of 1945 (see Appendix "A", Part III).

3. Secondary Raw Materials.

a) Woolen Yarn.

It has been observed above (III, 4. a)) that in general the few and small plants constituting the woolen industry in Central and Meridional Italy are self contained, either as individual firms or regarded as small local groups. No questions of importations or diversions of yarn production need therefore be considered, except in the case of the A.L.A.S. Woolen Mills, Sardin-

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Bari	18,000 lbs.
Lecce	28,000 "
Naples	125,000 "
Rome	1,000,000 "
Total	1,171,000 "

8. Sewing thread twisting and winding is small. Three firms in the Naples area are the only producers, and on account of heavy damage to plant, their production is unlikely to exceed 90,000 lbs. in 1945. Fishing net and similar twines are made in larger quantities, chiefly in Sicily, Salerno and the Naples area, and the estimated potential annual production amounts to 300,000 lbs. All firms engaged in these processes are however only doublers and winders, and necessarily draw their yarn supplies from spinners.

9. No account has been taken of the group of tapestry and silk weavers in the Caserta area. These could be adopted in part for the production of essential consumer goods, but detailed particulars of plant and production are not known. It is estimated however that the normal production was of the order of 500,000 meters a year, and the surplus of yarn disclosed in para 10 below would meet their probable requirements.

10. Summary of Cotton Industry

		Lbs.	Lbs.
a)	Potential Cotton Yarn production		10,290,000
b)	Potential Piece Goods consumption of yarn	11,875,000	
"	Hosiery " "	1,171,000	
"	Thread "	90,000	
"	Twine "	300,000	
	Balance of Cotton Yarn deficient		13,436,000
c)	Potential Rayon production		3,146,000
d)	Leaving a surplus of yarn for stockpiling or other purposes of:-		4,750,000
			1,604,000

PART IV. PRODUCTION POTENTIAL OF REQUIRED RAW MATERIALS.

1. The raw materials of one manufacturing process may be the finished goods of another; e.g. yarn is the weaver's raw material but the spinner's finished article. It is therefore necessary to make a distinction between:-

a) Primary Raw Materials e.g. wool, cotton, staple fibre.
b) Secondary Raw Materials e.g. woolen and cotton yarn, rayon.

2. Primary Raw Materials.

a) Wool.

2959

(i) Although indigenous production of wool in Italy is normally quite inadequate for overall capacity requirements, and very large importations were made in prewar years, now, as the bulk of the woolen industry lies north of the Pisa-Rimini line, the very small

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winders, and necessarily draw their yarn supplies from spinners.

9. No account has been taken of the group of tapestry and silk weavers in the Caserta area. These could be adopted in part for the production of essential consumer goods, but detailed particulars of plant and production are not known. It is estimated however that the normal production was of the order of 500,000 meters a year, and the surplus of yarn disclosed in para 10 below would meet their probable requirements.

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b) Secondary Raw Materials e.g. woolen and cotton yarn, rayon.

2. Primary Raw Materials.

2939

a) Wool.

(i) Although indigenous production of wool in Italy is normally quite inadequate for overall capacity requirements, and very large importations were made in prewar years, now, as the bulk of the woolen industry lies north of the Pisa-Rimini line, the very small manufacturing capacity in the area under review is amply catered for by local availability. Therefore, until the main consuming centers are liberated, the industry can be regarded as being self-sufficient in its primary raw material, and no importations will be necessary, except perhaps for felt-making (see V. 5 b) below) or for other special cloths.

(ii) Wool production in 1945 in Liberated Italy has been estimated at 10,976,000 kg. or approximately 22,000,000 lbs. The larger part of this wool, however, is unsuitable for spinning and weaving and is used for filling mattresses.

(iii) It is considered that, working partly single and partly double shifts, the annual production of yarn will amount to approximately 2,500,000 lbs. of average counts 10 skeins, consuming nearly twice this weight of greasy

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PRIVINCE	FIRM	ADDRESS	OPERA-TIVES	SPINDLES	LOOMS	ANNUAL YARN PRODUC. (in lbs)	ANNUAL PIECE GDS PRODUC. (in yds)
Napoli	Lanza Umberto	Otta-viano	25	-	75	-	550,000
"	Nappo	"	18	-	9	-	65,000
"	Man.Tess. Vesuvi-ana	S.Giuseppe Vesu-viano	25	-	48	-	300,000
"	Lappe Salvatore	"	18	-	33	-	190,000
"	Galdi Franceo-sco	Terzigno	18	-	33	-	190,000
"	F.lli Monticelli	Portici	20	-	36	-	220,000
Salerno	Bisogno Vincenzo	Cava de' Tirreni	39	-	83	-	40,000
"	D'Apuzzo Michele	"	20	-	48	-	300,000
"	Siani Leopoldo	"	150	-	205	-	1,500,000
"	Pisapia Francesco	"	20	-	12	-	96,000
"	Fania Do-menico	Coperchia	8	-	11	-	80,000
"	Cavalieri Giovanni	Salerno	30	-	36	-	225,000
"	Man.Tess. di Scafati	Scafati	59	-	115	-	750,000
"	Landi Paolo	Vietri sul Mare	13	-	38	-	260,000
Palermo	Gubi	Palermo	133	-	150	-	950,000
		Total	4,143		3,555		37,566,000
		Miscellaneous (est.)	217		131		434,000
			4,360		3,686		38,000,000

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	Francesco						
"	F.lli Monticelli	Portici	20	-	36	-	22 ,000
Salerno	Bisogno Vincenzo	Cava de' Tirreni	39	-	83	-	40,000
"	D'Apuzzo Michele	"	20	-	48	-	300,000
"	Siani Leopoldo	"	150	-	205	-	1,[illegible]00,000
"	Pisapia Francesco	"	20	-	12	-	96,000
"	Fania Domenico	Coperchia	8	-	11	-	80,000
"	Cavalieri Giovanni	Salerno	30	-	36	-	225,000
"	Man.Toss. di Scafati	Scafati	59	-	115	-	750,000
"	Landi Paolo	Vietri sul Mare	13	-	38	-	260,000
Palermo	Gubi	Palermo	133	-	150	-	950,000
		Total	4,143		3,555		37,566,000
		Miscellaneous (est.)	217		131		434,000
			4,360		3,686		38,000,000

7. There is also a considerable hosiery trade. This again is largely composed of small concerns, located chiefly in Rome, with about half a dozen in Naples and one or two units elsewhere. Detailed particulars of plant and requirements are not known, but the estimated yearly potential consumption of hosiery spun yarns, by areas, is as follows:

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COTTON WEAVING

PROVINCE	FIRM	ADDRESS	OPERATIVES	SPINDLES	LOOMS	ANNUAL YARN PRODUC. (in Lbs.)	ANNUAL PIECE GOODS PRODUC. (in yds.)
Salerno	Mar.Cotoniere Meridionali	Angri	900	-	1,650		25,000,000
Salerno	" "	Fratte di Salerno	500	Finishing Dyeing & only	Printing -	-	-
Salerno	" "	Fratte Maggiore	250	-	350	-	2,500,000
Bari	Stecliconio Vincenzo	Andria	12	-	8	-	65,000
Bari	Secondo Michele	Bari	50	-	73	-	500,000
Bari	Lanificio Latterulo	Gioia del Colle	25		42		250,000
Ancona	Nondarini Leonildo	Falconara.	14	-	12	-	30,000
Ancona	Latini Ci..into	Tesi	55	-	52	-	300,000
Ascoli	Tess.Macc.Iononi Muzio	Piceno	38	-	22	-	130,000
Ascoli	Buglia Aurelio	S.Benedetto	34	-	35	-	220,000
Chieti	Ind.Tessile Abruzzese	Lanciano	30	-	64	-	400,000
Arezzo	Colazzi & Cappelletti	S.Giovanni Valdarno	45	-	83	-	600,000
Benevento	Perlinghieri SA	-	15	-	48	-	300,000
Perugia	Ceccari Vincenzo	Foligno	15	-	53	-	350,000
Teramo	Migliorati Alfonso	-	48	-	70	-	500,000

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	chio Vin. cenzo						
Bari	Scarpio Michele	Bari	50	-	73	-	500,000
Bari	Lanificio Latterulo	Gioia del Colle	25		42		250,000
Ancona	Mondarini Leonildo	Falconara.	14	-	12	-	80,000
Ancona	Latina Ci. Anto	Tesi	55	-	52	-	300,000
Ascoli	Tess.Maco Ieroni Muzio	Fermo	33	-	22	-	130,000
Ascoli	Puglia Aurelio	S.Benedetto	34	-	35	-	220,000
Chieti	Ind.Tessile Abruzzese	Lanciano	30	-	64	-	400,000
Arezzo	Colazzi & Cappelletti	S.Giovanni Valdarno	45	-	88	-	600,000
Benevento	Perlinghieri SA	-	15	-	48	-	300,000
Perugia	Ceccari Vincenzo	Foligno	15	-	53	-	350,000
Teramo	Migliorati Alfonso	-	48	-	70	-	500,000
Napoli	Lovani Pietro	Napoli	16	-	32	-	200,000
Napoli	Buono Saverio	Napoli	14	-	24	-	150,000

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4. The following observations are made on the above table:-
a) Generally speaking the small spinning and weaving units are self-conteined, that is, yarn capacity balances loom output. Where this is not the case surplus yarn production usually goes either to other small weavers whose spindleage is insufficient or to local handloom weaving or knitting. For this reason no accurate figures of yarn production can be given and it has been arbitrarily assumed that one yard of cloth consumes one lb. of yarn, except in the case of felt manufacturers, whose cloth output is not comparable with normal practice.
b) The majority of the firms not listed are small spinners who cater for the wool producer's unamassed allowance of 2 kg. per head.
c) The discrepancy between number of looms and operatives and output between different firms is explained by differences between types of cloth, and by relative mechanical efficiency.
d) Production figures have been supplied by or on behalf of the manufacturers themselves and it has been found that they tend to be exaggerated. They have therefore in some cases been equated to probability. In other cases, where available data were not complete, estimates based on plant particulars have been inserted.
e) In addition to the firms listed above there are a number of others bulked in the table as"Miscellaneous", mostly very small, of whom no particulars have been received. They do not in the aggregate, however, substantially affect production prospects.

5. Summary of Woolen Industry.

	Yds.	Lbs.
Potential Industrial Cloth Production	1,000,000	1,000,000
" Felt "	-	225,000
	1,000,000	1,225,000
Potential Industrial Yarn Production	-	1,225,000
Balance	Nil	Nil

6. Cotton Industry.
a) The production of cotton piece goods necessarily depends upon the supply of yarn, of which at the present moment (April 1944) there is only one native source in production. One other can be added as soon as structural repairs have been carried out and electrical power restored, and the reactivation of the Rayon industry (See Appendix "A") will also eventually provide supplies.
b) In the list of yarn and fabric producers given below, only those for whom data are available are shown All the Chief plants are however included and the remainder represents an insignificant proportion of the whole.

COTTON SPINNING

	ANNUAL YARN	ANNUAL PIECE

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between types of cloth, and by relative mechanical efficiency.

d) Production figures have been supplied by or on behalf of the manufacturers themselves and it has been found that they tend to be exaggerated. They have therefore in some cases been adjusted to probability. In other cases, where available data were not complete, estimates based on plant particulars have been inserted.

e) In addition to the firms listed above there are a number of others bulked in the table as"Miscellaneous", mostly very small, of whom no particulars have been received. They do not in the aggregate, however, substantially affect production prospects.

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Potential Industrial Cloth Production	1,000,000	1,000,000
" Felt "	-	225,000
	1,000,000	1,225,000
Potential Industrial Yarn Production	-	1,622,000
Balance	Nil	Nil

6. Cotton Industry.

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b) In the list of yarn and fabric producers given below, only those for whom data are available are shown. All the Chief plants are however included and the remainder represents an insignificant proportion of the whole.

COTTON SPINNING

PROVINCE	FIRM	ADDRESS	OPERATIVES	SPINDLES	LOOMS	ANNUAL YARN PRODUCTION (in lbs.)	ANNUAL PIECE PRODUC. (in yds)
Salerno	Man.Cotoniere Meridionali	Nocera	600	72.916	-	7,250,000	-
Perugia	Cotonificio di Spoleto	Spoleto	800	46,000	-	2,970,000	-
Salerno	Tessili Mattioli	Vietri s.Mare	86	1,560		70,000	
				120,476		10,290,000	

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PROVINCE	FIRM	ADDRESS	SPINDLES	LOOMS	ANNUAL YARN POTENTIAL IN LBS.	ANNUAL POTENTIAL
Sardinia		Macomer	-	37	NIL	
Salerno	Michele Napoli	Barcinisi	480	10	- (4)	
Salerno	Enrico Barone	Polla	200	3	- (4)	
Salerno	Aniello Barone	Polla	260	4	- (4)	
Salerno	Biagio Liguori	Polla	360	7	- (4)	
Potenza	Venanzio Guida	Lagonegro	400	9	- (4)	
Potenza	Pietro Guida	Lagonegro	660	15	- (4)	
Salerno	Gaetano Notari	Vietri sul Mare	900	19	- (4)	
Salerno	Angelo Liguori	Pelezzano	300	4	- (4)	
Campobasso	Loreto Merlino	Trivento	300	1	- (4)	
Frosinone	S. Domenico	Isola Liri	1,260	14	20,000 (1)	
Catanzaro	Fratelli Lo Bari	Marinelli	300	1	- (4)	
Bari	Lanificio Lattarulo	Gioia del Colle	1,080	5	- (4)	
Frosinone	Ippolito & Pisari	Isola del Liri	1,680	15	208,000 (1)	
Perugia	Lanificio Ponte Felcino (3)	Ponte Felcino	550	8	- (4)	
Rieti	Luna Emilio	Rieti	360	1	- (4)	
Rieti	A. Marinozzi	Rieti	400	4	- (4)	
Roma	Lazzaio	Tivoli	300	4	- (4)	
Roma	S. Bonaventura	Frascati	300	4	- (4)	
			TOTAL	167	228,000 (1)	
Miscellaneous for whom data are not available				108	-	
				275		1,0

Note: (1) Felt production expressed in lbs.
(2) Estimated only, the relatively small loom output is due to the fact that these firms are usu
and work only sporadically.
(3) No account taken of damaged machinery whose repair is problematical.
(4) Yarn potential not estimated -- assumed all consumed in piece production.

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FIRM	ADDRESS	SPINDLES	LOOMS	ANNUAL YARN POTENTIAL IN LBS.	ANNUAL PIECE GOODS POTENTIAL IN YARDS
	Macomer	-	37	NIL	300,000
chele Napoli	Barrafrasi	48?	10	- (4)	40,000
rico Barone	Polla	200	3	- (4)	12,000
iello Barone	Polla	26?	4	- (4)	20,000
egio Liguori	Polla	360	7	- (4)	30,000
nanzio Guida	Lagonegro	400	9	- (4)	45,000
tro Guida	Lagonegro	66?	15	- (4)	50,000
etano Notari	Vietri sul Mare	90?	19	- (4)	90,000
gelo Liguori	Pelezzano	30?	4	- (4)	20,000
reto Marino	Trivento	300	1	- (4)	5,000
Domenico	Isola Liri	1,26?	14	20,000 (1)	20,000
atelli Lo	Marinelli	2?0	1	- (4)	5,000
nificio	Gioia del Colle	1,08	5	- (4)	20,000
ttorulo	Isola del Liri	1,68?	15	203,000 (1)	-
polito &					
nari					
nificio Ponta	Ponte Felcino	550	8	- (4)	60,000
alcino (3)					
na Emilio	Rieti	360	1	- (4)	6,000
Marinozzi	Rieti	40?	4	- (4)	38,000
ziale	Tivoli	3??	4	- (4)	25,000
Bonaventura	Frascati	30?	4	- (4)	25,000
		TOTAL	167	228,000 (1)	806,000
whom data are not available			108	-	194,000 (2)
??					
??			275		1,000,000
??					

duction expressed in lbs.
d only, the relatively small loom output is due to the fact that these firms are usually antiquated
only sporadically.
nt taken of damaged machinery whose repair is problematical.
tential not estimated - assumed all consumed in piece production.

Infants	under	1	year	of	age		2 %
Children	"	5	years	"	"		8 %
Boys	5 to	15	"	"	"		10 %
Girls	" "	"	"	"	"		10 %
Boys	15 "	20	"	"	"		3½%
Girls	" "	"	"	"	"		3½%
Men	20 years	of	age	or	older		31½%
Women	" "	"	"	"	"		31½%
					Total		100 %

5. For the purpose of textile distribution the population may be broken down as follows:

Men	8,500,000
Women	9,000,000
Children	7,500,000
	25,000,000

6. As far as possible only fabrics for the manufacture of clothing believed to be absolutely essential for the maintenance of minimum health standards have been included. In the choice of textiles and yarn and in the specifications (detailed in Appendix "B") textile types of a cheap and durable variety have been selected.

PART III. POTENTIAL PRODUCTION OF END PRODUCT.

1. The information set forth herewith is the estimated maximum potential output during the year Jan. 1 - Dec. 31, 1945 (300 working days). It has been assumed that all necessary facilities, services and materials will be available, and that essential repairs and maintenance have, where necessary, been carried out. No consideration has been given to the possible effects upon production of major rehabilitation measures requiring the importation of complete plant or machinery units.

2. As the rate at which overseas supplies will arrive is incalculable, it has been assumed, for the purpose of this survey, that this rate is constant throughout the year under review, that is, that adequate supplies of all kinds will be available at the commencement of the period and will be maintained without substantial fluctuations. Otherwise, of course, estimates of potential production will be adversely affected. This assumption has been adopted because the cotton and woolen industries do not in general require extensive rehabilitation. Where they do, it is a question of long term policy, and such cases have been ignored in this account.

3. Woolen Industry.
a) As has been stated elsewhere, in Central and Southern Italy this industry is negligible in size and productive capacity, and is to a large extent on an artisan basis, chiefly spinners and hand loom weavers of whom no accurate data are known, and

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6. As far as possible only fabrics for the manufacture of clothing believed to be absolutely essential for the maintenance of minimum health standards have been included. In the choice of textiles and yarn and in the specifications (detailed in Appendix "B") textile types of a cheap and durable variety have been selected.

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3. Woolen Industry.

a) As has been stated elsewhere, in Central and Southern Italy this industry is negligible in size and productive capacity, and is to a large extent on an artisan basis, chiefly spinners and hand loom weavers of whom no accurate data are known, and who have therefore been consolidated. Machinery in this case is primitive, and is operated seasonally or spasmodically.

b) The following tabulation of power-operated spinning and weaving plants is believed to be comprehensive, but is exclusive of factories south of the Pisa-Rimini line, which are still in the battle area, and of which reports have not yet been received.

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5. Damage due to military action by both Allies and Axis has been sporadic. Small firms, being widely scattered, have generally escaped; the large units have suffered to the extent of about 40% on the average, usually, although not entirely, due to demolitions by the retreating enemy.

PART II - REQUIREMENTS AND JUSTIFICATION.

1. The estimates of quantities of textiles necessary to sustain annual manufacture of essential civilian clothing requirements, together with justification therefor, have been compiled by Commerce Sub-Commission. An appendix has been attached to cover the requirements of the Italian Armed Forces also.

2. The population South of the Pisa-Rimini line has been taken as being 25,000,000 and the list which follows is calculated on this basis.

3. Civilian Requirements.

Item		
(a)	36" wide flannel, napped on both sides	1,125,000 yds.
(b)	36" wide cotton fabric or cotton and rayon, e.g., poplin, muslin, calico, etc., knitted and woven, white, plain, fancies and prints: for bedclothing, blouses, dresses, pajamas, infants garments, etc.	281,400,000 "
(c)	54" manipulated wool fabric, 12/13 oz. weight, i.e. "Suder" cloth. To be used in manufacture of two piece men's suits, skirts for women and girls, boys' short trousers and knickers.	14,915,000 "
(d)	54" wide manipulated wool, 20/24 oz. for overcoats.	27,000,000 "
(e)	36" wide rayon or acetate Lining fabric	23,800,000 "
(f)	54" wide Utility fabrics cotton Denim or Drills, etc., for overalls and work clothing, chemically treated (water repellent) or rubberized for rain wear.	14,900,000 "
(g)	36" wide Utility fabrics, Cotton Corduroys. Men and boys' coats, jackets and trousers to be worn in the country.	23,800,000 "
(h)	22/25 oz. Blanket fabric woven or knitted (napped).	12,500,000 "
(i)	Yarn (moderately heavy and light weight wool or wool and cotton. For stockings and/or socks and sweaters.	39,650,000 lbs.

These estimates concern only the civil population, justification attached as Appendix B. Requirements for the Armed Forces are

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3. Civilian Requirements.

Item		
(a)	36" wide flannel, napped on both sides	1,125,000 yds.
(b)	36" wide cotton fabric or cotton and rayon, e.g., poplin, muslin, calico, etc., knitted and woven, white, plain, fancies and prints: for bedclothing, blouses, dresses, pajamas, infants garments, etc.	281,400,000 "
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(i)	Yarn (moderately heavy and light weight wool or wool and cotton. For stockings and/or socks and sweaters.	39,650,000 lbs.

These estimates concern only the civil population, justification attached as Appendix B. Requirements for the Armed Forces are listed in Appendix C.

4. The following estimated age and sex breakdown are compiled by NAEB, and clothing requirements for same were based on the European Civilian population of North Africa and on available data regarding the economic and social condition of the civilian population of Sardinia, Sicily and Southern Italy. The data on the population distribution are derived from statistics in the Annual Italian Statistical Year Book for 1938 (Compendio Statistico Italiano 1938, page 312):

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LII. TEXTILES

PART I - INTRODUCTION.

1. The discussion of the textile industries of Central and Southern Italy which follows is confined to the Woolen, Cotton and Artificial Fibre and Rayon industries. Hemp and similar products and Silk have been excluded, as they are at present subject to special arrangements, and are largely producing for export and making no direct contribution to the civilian economy.

2. The proportion of the primary textile industries which lies south of the Pisa-Rimini line is small compared with the total, and comprises only approximately 10% of potential italian production. It is scattered throughout the length of Liberated Italy and is mainly made up of small units with limited capacity. There are in fact only two major producers, the Manifatture Cotoniere Meridionali in the Naples area, and the C.I.S.A. Viscosa at Rome and Naples: the former has been the object of an exhaustive survey, and the latter, which has only recently been liberated, is at present being studied in detail.

3. The following is a summary of the textile industry in Central and Southern Italy:

a) Woolen Industries.

Negligible in size and production, there being few firms large enough to be called industrial units, and the majority being small family concerns with a few hundred spindles and two or three looms. There is however a considerable home production of hand loom woven fabrics and knitted goods, which consumes locally grown wool in some quantity, and for which the yarn is spun on commission by small spinning plants.

Preliminary estimates indicate that the woolen industry is the best placed of all the main textile producers for early production, in that, in the area under review, its demands for raw materials are reasonable and can be furnished from local resources.

b) Cotton Industries.

The Manifatture Cotoniere Meridionali, besides being the largest unit in the cotton industry in liberated Italy, is the only one at present able to produce cotton yarn, and upon it therefore will depend the other cotton fabric weavers for their supplies, until such time as the two other chief producers of yarn are reactivated, namely the Cotonificio di Spoleto and C.I.S.A. Viscosa.

c) Artificial Fibre and Rayon Production is confined to the output of C.I.S.A. Viscosa, with one plant in Naples and two in the Rome area. The production of this firm is capable of making a very substantial contribution towards the requirements of cotton spinners and weavers, in substitution of raw cotton or cotton yarn. It has however suffered major damage, and although some immediate production is possible, cannibalization on a considerable scale will be necessary before maximum potential production is reached, and reactivation must therefore be phased.

Having regard however to the fact that the production of

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a) Woolen Industries.

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Preliminary estimates indicate that the woolen industry is the best placed of all the main textile producers for early production, in that, in the area under review, its demands for raw materials are reasonable and can be furnished from local resources.

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Having regard however to the fact that the production of these commodities is a chemical process, only becoming textile when it is used in subsequent manufacturing, it has been treated in this survey seperately from the cotton and woolen industries, and is attached as an appendix. The incidence of this industry upon the availability of raw materials, yarn or fabric, is however referred to, where applicable, in the main report.

4. The major problem in the rehabilitation of all textile industries (exclusive of damage due to military action) is the supply of raw materials. Italian textile production is essentially dependent upon importations, whether of cotton, wool or pulp, indigenous supplies being small in quantity and largely indifferent in quality.

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The paper plants are usually supplied by their own hydroelectric power. The power stations have mostly been damaged by enemy mines but a number of small generators has been saved.

The position of the scheduled plants as regards electric power will be by 1 January 1945 as follows:

Own hydroelectric power:

Cartiere Meridionali, Isola del Liri	2,200 KW
Cartiere Boimond, Isola del Liri	900 "
Cartiere Visconti, Isola del Liri	400 "
Cartiere Visconti & Arath, Caprino	1,500 "
Cartiere Milliani, Fiorano	700 "
Cartiere dell'Istituto Poligrafico dello Stato, Foggia	600 "

This plant has no own hydroelectric power but thanks to the improved electric power situation on the southeastern coast the required 600 KW have already been allocated.

Cartiere Tiburtina, Tivoli 300 KW

From the required 300 KW, 300 KW are produced by means of their own coal power station and 300 KW have been already allocated for 6 hours daily.

Cartiera Nomentana, Roma 300 KW

200 KW are produced by means of their own coal power station and the remaining 100 KW are already allocated.

PART VI REQUISITIONS

For implementing the production program as given in Part III (namely 37,000 M. tons of paper) for the year 1945,

5,700 M. tons of wood cellulose

should be imported.

PART VII EFFECT ON SHIPPING SITUATION

If Sardinian coal is used for the entire production of 37,000 M. tons of paper, 40,000 M. tons of coal in addition to 5,700 M. tons of wood cellulose must be imported. 31,300 tons of shipping space will therefore be saved.

[illegible] THROUGH IMPLEMENTATION OF PRODUCTION

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Rollo Stato, Rossa

This plant has [illegible] hydroelectric power but thanks to the improved electric power situation on the southeastern coast the required 500 KW have already been allocated.

Cartiere Tiburtine, Tivoli — 300 KW

From the required 600 KW, 300 KW are produced by means of their own coal power station and 300 KW have been already allocated for 6 hours daily.

Cartiere Nomentane, Rome — 500 KW

200 KW are produced by means of their own coal power station and the remaining 100 KW are already allocated.

PART VI EXCULSITIONS

For implementing the production program as given in Part III (namely 37,000 M. tons of paper) for the year 1945,

5,700 M. tons of wood cellulose

should be imported.

PART VII EFFECT ON SHIPPING SITUATION

If Sardinian coal is used for the entire production of 37,000 M. tons of paper, 40,000 M. tons of coal in addition to 5,700 M. tons of wood cellulose must be imported. 31,300 tons of shipping space will therefore be saved.

PART VIII INCREASE OF PRODUCTION THROUGH IMPLEMENTATION OF PRODUCTION

If the above program be implemented in its entirety the production of "standard" paper and newsprint will be increased by 500%.

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BENTONITE

The yearly requirements of bentonite are:

400 M. tons

This quantity will be supplied from local resources - mine of S. Severo (prov. Foggia).

ALUMINIUM SULPHATE

The yearly requirements of aluminium sulphate are:

200 M. tons

This quantity will be supplied from local resources - mines Tolfa, Civitavecchia (prov. Rome).

COLOFONY

The yearly requirements of colofony are:

200 M. tons

This quantity will be supplied from local resources - Campagnia Resiniera Italiana, Bari.

COAL

For producing one ton of paper the average coal requirement is:

0.6 M. tons (7,000 Cal.)

If Sardinian coal is used, for producing one ton of paper

1 M. ton

is required.

Therefore, the total yearly requirements for producing 39,000 M. tons of paper (newsprint plus "standard" type) are approximately:

19.000 M. Tons of Sardinian coal

ELECTRIC POWER

The average electric power requirements for producing "standard" paper are:

1,700 KWH per 1 M. ton of paper 2954

which corresponds to the absorption of

70 KW for producing 1 M. ton of paper

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COLOFONY

The yearly requirements of colofony are:

200 M. tons

This quantity will be supplied from local resources - Campagnia Resiniera Italiana, Bari.

COAL

For producing one ton of paper the average coal requirement is:

0.4 M. tons (7,000 Cal.)

If Sardinian coal is used, for producing one ton of paper

1 M. ton

is required.

Therefore, the total yearly requirements for producing 39,000 M. tons of paper (newsprint plus "standard" type) are approximately:

40.000 M. Tons of Sardinian coal

ELECTRIC POWER

The average electric power requirements for producing "standard" paper are:

1,700 KWH per 1 M. ton of paper

which corresponds to the absorption of

70 KW for producing 1 M. ton of paper daily.

The production of newsprint in the Rome region - chiefly based on the use of waste paper as raw material - requires less electric power. In this case the average consumption is:

700 KWH per 1 M. ton newsprint

which corresponds to the absorption of

30 KW per 1 M. ton newsprint daily

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PART V SUPPORTING DATA FOR PRODUCTION ESTIMATES IN PARTS III AND IV

The wood pulp, wood cellulose and straw cellulose will be produced in the following plants:

Locality and Name of Plant	Wood Pulp in M tons		Wood Cellulose in M. tons		Straw Cellulose in M. tons	
	Daily Capacity	Yearly Capacity	Daily Capacity	Yearly Capacity	Daily Capacity	Yearly Capacity
Prov. Frosinone						
Cartiere Meridionali, Isola del Liri	20	6,000	-	-	5	1,500
Cartiera Boimond, Isola del Liri	6	1,800	-	-	-	-
Cartiera Viscogliosi, Isola del Liri	6	1,800	-	-	-	-
Cartiera Visocchi & Arata, Ceprano	8	2,400	15	4,500	-	-
Prov. Foggia						
Cartiera dell"Ist. Poligrafico dello Stato", Foggia	-	-	-	-	7	2,100
Total		12,000		4,500		3,600

The end products, namely "Standard" writing or printing paper and newsprint will be produced in the following plants:

Locality and Name of Plant	"Standard" Writing or Printing Paper in M. tons		Newsprint	
	Daily Capacity	Yearly Capacity	Daily Capacity	Yearly Capacity
Prov. Frosinone				
Cartiere Meridionali, Isola del Liri	30	9,000	-	-
Cartiera Boimond, Isola del Liri	-	-	13	3,900
Cartiera Visocchi & Arata, Ceprano	15	4,500	-	-
Prov. Rome				
Cartiera Tiburtina, Tivoli	-	-	30	9,000
Cartiera Nomentana, Rome	-	-	10	3,000

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Cartiera Boimond, Isola del Liri	6	1,800	-	-	-	-
Cartiera Viscogliosi, Isola del Liri	6	1,800	-	-	-	-
Cartiera Visocchi & Arata, Cepraro	8	2,400	15	4,500	-	-
Prov. Foggia						
Cartiera dell"Ist. Poligrafico dello Stato", Foggia	-	-	-	-	7	2,100
Total		12,000		4,500		3,600

The end products, namely "Standard" writing or printing paper and newsprint will be produced in the following plants:

Locality and Name of Plant	"Standard" Writing or Printing Paper in M. tons		Newsprint	
	Daily Capacity	Yearly Capacity	Daily Capacity	Yearly Capacity
Prov. Frosinone				
Cartiere Meridionali, Isola del Liri	30	9,000	-	-
Cartiera Boimond, Isola del Liri	-	-	13	3,900
Cartiera Visocchi & Arata, Cepraro	15	4,500	-	-
Prov. Rome				
Cartiera Tiburtina, Tivoli	-	-	30	9,000
Cartiera Nomentana, Rome	-	-	10	3,000
Prov. Macerata				
Cartiera Miliani, Fiorano	10	3,000	-	-
Prov. Foggia				
Cartiera dell'Ist. Poligrafico dello Stato, Foggia	15	4,500	-	-
Total		21,000		15,900

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PART III PRODUCTION POTENTIAL OF END PRODUCT

The production potential during 1945 will be as follows:

"Standard" paper	21,000 M. tons
Newsprint	16,000 M. tons

The writing and printing paper production will therefore correspond to 50% of the estimated requirements of 42,300 M. tons

The newsprint production will correspond to 90% of the estimated requirements of ..... 18,000 M. tons

PART IV PRODUCTION POTENTIAL OF REQUIRED RAW MATERIALS

The raw materials required for producing newsprint are as follows:

1. Wood pulp (produced mechanically)	4,000 M.	tons
2. Waste paper (white).....	13,000 M.	tons
Total	17,000 M.	tons, which will produce,

after processing, an amount of newsprint equal to:

16,000 M. tons

For producing the "standard" writing and printing paper the following raw materials are needed:

a. Wood pulp (produced mechanically)	8,000 M.	tons
b. Wood cellulose (produced chemically from Calabrian pine - "Pino silano")	4,500 M.	tons
c. Wood cellulose (imported)	5,700 M.	tons
d. Straw cellulose	3,600 M.	tons
e. Bentonite	400 M.	tons
f. Aluminium sulphate	200 M.	tons
g. Colofony	200 M.	tons
Total	22,500 M.	tons, which will produce,

after processing, an amount of "standard" writing or printing paper equal to:

21,000 M. tons

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PART IV PRODUCTION POTENTIAL OF REQUIRED RAW MATERIALS

The raw materials required for producing newsprint are as follows:

1. Wood pulp (produced mechanically)	4,000 M.	tons
2. Waste paper (white).....	13,000 M.	tons
Total	17,000 M.	tons, which will produce,

after processing, an amount of newsprint equal to:

16,000 M. tons

For producing the "standard" writing and printing paper the following raw materials are needed:

a. Wood pulp (produced mechanically)	8,000 M.	tons
b. Wood cellulose (produced chemically from Calabrian pine - "Pino silano")	4,500 M.	tons
c. Wood cellulose (imported)	5,700 M.	tons
d. Straw cellulose	3,600 M.	tons
e. Bentonite	400 M.	tons
f. Aluminium sulphate	200 M.	tons
g. Colofony	200 M.	tons
Total	22,600 M.	tons, which will produce,

after processing, an amount of "standard" writing or printing paper equal to:

21,000 M. tons

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Type	Quantity Tons (Government)	Tons (Civilian)
Wrapping and Packing:		
a. waxing paper		700
b. corrugated raw paper		8,700
c. straw paper		10,800
d. miscellaneous		28,800
Cigarettes and Cartons: (Govt. Monopoly)		
a. cigarette paper	1,200	
b. packages for tobacco, salt & quinine	4,000	
Filter Paper		200
Sacks and Bags:		
a. kraft, for making cement sacks, etc.		9,600
b. paper for grain bags		4,000
c. straw paper		50
Safety Paper	420	400
Cardboard		24,000
Ration Cards		3,000
Total	12,820	158,900

2. Collated

Newsprint		18,000
Printing Paper	5,300	26,000
Writing Paper		10,000
Office Supplies	900	14,650
Wrapping and Packing		49,000
Cigarettes and Cartons	5,200	
Filter Paper		200
Sacks and Bags		13,650
Safety Paper	420	400
Cardboard		24,000
Ration Cards		3,000
Total	12,820	158,900

B. Observations

1. The above mentioned quantities represent 35% of total sales by all paper mills in Italy during 1941. These were checked with figures representing civilian consumption for the same period and were found to be correct.

2. No data are available for the 1941 consumption of safety paper. Present requirements are based on government estimates for 1943.

3. Bank paper is not found in Italian statistics under such a name. It is probably included partly in writing paper and partly in safety paper.

4. Paper for ration cards is calculated on the basis that:

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Ration Cards		3,000
Total	12,820	158,900

2. Collated

Newsprint		18,000
Printing Paper	6,300	26,000
Writing Paper		10,000
Office Supplies	900	14,650
Wrapping and Packing		49,000
Cigarettes and Cartons	5,200	
Filter Paper		200
Sacks and Bags		13,650
Safety Paper	420	400
Cardboard		24,000
Ration Cards		3,000
Total	12,820	158,900

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1. The above mentioned quantities represent 35% of total sales by all paper mills in Italy during 1941. These were checked with figures representing civilian consumption for the same period and were found to be correct.

2. No data are available for the 1941 consumption of safety paper. Present requirements are based on government estimates for 1943.

3. Bank paper is not found in Italian statistics under such a name. It is probably included partly in writing paper and partly in safety paper.

4. Paper for ration cards is calculated on the basis that:

   a. Each ration card weighs about 20 gms.
   b. Each person needs 6 cards per annum.
   c. The population of Free Italy is estimated at 25,000,000 inhabitants.

5. Figures for the consumption of paper in State departments in Communes, and in the Provinces, are not available as supplies were obtained locally from a financial grant. For the purpose of this estimate, therefore, the necessary figures can be taken to be included in those shown for civilian consumption.

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5. Foggia - "Istituto Poligrafico dello Stato"

The Foggia plant has been reactivated and is producing now "standard" type paper at the approximate rate of 250 tons a month. Information with regard thereto is set forth in Part V.

As a result of the preliminary work already accomplished, it is possible to produce locally 50% of the requirements of writing and printing paper and 90% of the requirements of newsprint, which are set forth in Part II hereof.

The requirements of other qualities of paper set forth in Part II should be imported.

PART II REQUIREMENTS AND JUSTIFICATION

A. Basis and Justification

Owing to fluctuations in recent years, present estimates are based on consumption for a pre-war normal year in the whole of Italy. For the purpose of estimating requirements of all types of paper in liberated Italy, up to the Gothic line, the population in that territory has been taken as 25,000,000, representing approximately 55% of the total population of 45,000,000. However, in view of the fact that paper consumption is far greater in northern Italy, i.e. in enemy occupied territory, present estimates represent 35% of normal consumption for the whole of Italy in 1941.

The first column of figures represents requirements solely for the Italian Government, and the second column requirements for the civilian population.

Since the statistics belonging to the "Poligrafico dello Stato" were taken away by the Germans, the requirements for the Government were calculated from the purchase price of their stocks. The estimated quantity was not reduced as for the civilian supplies because the State bodies are mainly in Rome. However, it is estimated that the real need of the Government can be reduced to about 70% of the consumption figures provided by Istituto Poligrafico.

Figures represent normal requirements and do not take into consideration wartime abnormalities.

Requirements:	Type	Quantity Tons (Government)	Tons (Civilian)
1. In Detail			18,000
	Newsprint		5,000
	Printing Paper:		
	a. for periodicals in rolls		500
	b. " " flat bed		8,500
	c. " books and magazines		2,500
	d. " school books		1,000
	e. " illustrations		3,000
	f. roofing paper	6,300	5,500
	g. miscellaneous		3,000

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A. Basis and Justification

Owing to fluctuations in recent years, present estimates are based on consumption for a pre-war normal year in the whole of Italy. For the purpose of estimating requirements of all types of paper in liberated Italy, up to the Gothic line, the population in that territory has been taken as 25,000,000, representing approximately 55% of the total population of 45,000,000. However, in view of the fact that paper consumption is far greater in northern Italy, i.e. in enemy occupied territory, present estimates represent 35% of normal consumption for the whole of Italy in 1941.

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Figures represent normal requirements and do not take into consideration wartime abnormalities.

Requirements: Type	Quantity Tons (Government)	Tons (Civilian)
1. In Detail		18,000
Newsprint		5,000
Printing Paper:		
a. for periodicals in rolls		500
b. " " flat bed		8,500
c. " books and magazines		2,500
d. " school books		1,000
e. " illustrations		3,000
f. roofing paper	6,300	5,500
g. miscellaneous		
Writing Paper:		3,000
a. letter paper		2,000
b. envelope paper		5,000
c. miscellaneous		
Office Supplies:		2,300
a. registers, etc.		150
b. letters copy books		300
c. block notes, etc.		3,000
d. steno books		900
e. mimeograph		700
f. manifold		300
g. blotting paper	900	7,000
h. miscellaneous		

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SECTION 2

PAPER

PART I INTRODUCTION:

The program for the production of paper is scheduled for two types:

1. Newsprint
2. Writing or printing paper (of a "standard" type determined by Industry Sub-Commission)

South of the Pisa-Rimini line production of paper is distributed as follows:

1. Tuscany paper mills (provinces of Florence and Pistoia)
2. Miliani-Fabriano mills (provinces of Macerata and Ancona)
3. Tivoli and Rome (province of Rome)
4. Liri Valley (province of Frosinone)
5. "Istituto Poligrafico dello Stato" mill, Foggia (province of Foggia)

In other localities (i.e. Amalfi, Naples) there are some small mills almost all producing wrapping paper (using waste paper as raw material). No account will be taken in the present survey of their production.

1. Plants in Tuscany

These mills are still in the fighting zone and no reports are available.

2. Miliani-Fabriano

The provinces of Macerata and Ancona have been freed only recently (about one month ago) and are still near to the fighting zone (within a range of 20 to 25 miles).

Detailed reports on these plants are not yet available and it is premature as yet to give a picture of their production possibilities as regards the year 1945. Preliminary reliable information with regard thereto will be set forth in Part V.

3. Rome Province

Two plants are in operative condition. They are scheduled for the production of newsprint only. Information with regard thereto will be set forth in Part V.

4. Liri Valley

Owing to the existence of adequate hydro-electric power, before the war a flourishing paper industry existed in the Liri Valley. The 10 principal plants and the corresponding electric power stations were distributed chiefly between Isola del Liri, Ceprano and Atina (all of them in the Frosinone province). All the plants have been damaged owing to war action in the Liri Valley, where fighting has been very heavy.

Taking account of the condition of the various plants a reactivation plan has been prepared [illegible]

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3. Tivoli and Rome (province of Rome)
4. Liri Valley (province of Frosinone)
5. "Istituto Poligrafico dello Stato" mill, Foggia (province of Foggia)

In other localities (i.e. Amalfi, Naples) there are some small mills almost all producing wrapping paper (using waste paper as raw material). No account will be taken in the present survey of their production.

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Taking account of the condition of the various plants a reactivation plan has been prepared for three of them, namely:

Cartiera Meridionale, Isola del Liri
Cartiera Boimond, Isola del Liri
Cartiera di Ceprano, Ceprano

For these three plants a production estimate for 1945 is set forth in Part V. The other mills are so badly damaged and still so covered by debris that at present no estimate can be given as regards their production possibilities in 1945.

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D. Stocks on Hand:

(1) Carbon disulphide crude 300 - 350 m. tons.
(2) All other materials in negligible quantities.

E. Recommendations.

Carbon disulphide is urgently needed for olive oil production and wheat preservation. Therefore operate the plant as soon as electric power permits.

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~~SECTION C - SOAP~~

ATTACHMENT C

Societa Fabbr. Prodotti Chimici, Colleretto (Torni)

Manufacture of Carbon Disulphide. Plant Manager and Director Prof. Guido Sacti.

A. This is a modern works with eight electrically heated retorts. Its normal production was about 3000 m. tons per year of carbon disulphide and drew about 4500 KW of electric power from the Terni Power Group. The plant was started in 1936 and completed in August of 1937. It is wholly owned by CTSA [redacted]. Production stopped last February.

The entire plant is in excellent condition, except that transformers, switch gear and busbars for four of the eight retorts have been carried away by the Germans. The management hopes that this essential electrical equipment is still in the Rome area on railway wagons and may still be recovered. The remaining four retorts are complete and operable. Each retort can produce about 135/140 m. tons of carbon disulfide per month.

Normally each retort was operated on a cycle; 4 months continuous operation, 1½ months cooling, cleaning, repairing firebrick lining, etc. then return to operation. Retort operations were staggered so that six were normally operating while two were under repair.

The entire output of carbon bisulphide went to CTSA[redacted]CA for artificial fibre manufacture.

B. Plant Components.

(1) Retorts. Used vertical, concentric carbon electrodes each, and each retort drew 550 KVA at Cos ϕ of 0.80. Transformers dropped incoming power from 10.000 volts to 60 volts.

The furnaces operate at 900°C. Carbon electrodes are 450 mm. diameter and should be highly graphitized carbon for long wear and uniform heating. Each furnace normally produces about 3000 Kg. Carbon Disulphide per day.

(2) Charcoal driers (6 six in number and each heated with 3 carbon electrodes and drew 120 KVA.

(3) Oil scrubber tower to remove hydrogen sulphide.

(4) Condensers, cooling water pumps, crude product storage (3 open concrete basins with 1.200.000 liter capacity for carbon bisulphide - stored under water).

(5) Two electrically heated steam boilers for distillation of product.

(a) 550 KW at 220 Volts 16 Kg./cm. sq.
(b) 250 " " " " " " "

(6) Seven steam heated distillation and condenser units for carbon bisulphide.

(7) Purified product storage for 100.000 liters.

switch gear and busbars for four of the eight retorts have been carried away by the Germans. The management hope that this essential electrical equipment is still in the Rome area on railway wagons and may still be recovered. The remaining four retorts are complete and operable. Each retort can produce about 130/140 m. tons of carbon bisulfide per month.

Normally each retort was operated on a cycle: 4 months continuous operation, 1½ months cooling, cleaning, repacking firebrick lining, etc. then return to operation. Retort operations were staggered so that six were normally operating while two were under repair.

The entire output of carbon bisulphide went to [redacted] for artificial fibre manufacture.

B. Plant Components.

(1) Retorts. Used vertical, concentric carbon electrodes each, and each retort drew 360 KVA. at Cos ϕ of 0.89. Transformers dropped incoming power from 16,000 volts to 80 volts.

The furnaces operate at 900°C. Carbon electrodes are 450 m.m. diameter and should be highly graphitized carbon for long wear and uniform heating. Each furnace normally produces about 3000 Kg. Carbon Bisulphide per day.

(2) Charcoal driers are six in number and each heated with 3 carbon electrodes and drew 120 KVA.

(3) Oil scrubber tower to remove hydrogen sulphide.

(4) Condensers, cooling water pumps, crude product storage (3 open concrete basins with 1,200,000 liter capacity for carbon bisulphide - stored under water).

(5) Two electrically heated steam boilers for distillation of product.

(a) 500 KW at 220 Volts 16 Kg./cm. Sq.
(b) 250 " " " " " " "

(6) Seven steam heated distillation and condenser units for carbon bisulphide.

(7) Purified product storage for 100,000 litres.

C. Raw Material Requirements.

(1) 300 KW electrical power overall used per retort - or 4500 KW for entire works.

(2) Charcoal obtained locally, about 0.5 Kg. per Kg. of product.

(3) 98-99% sulphur, about 1.1 Kg. per Kg. product.

(4) Carbon electrodes, 1 Kg. per 100 Kg. product normally obtained from America (Acheson) or from Italian Acheson Company.

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material requirements are:

1. 5000 tons of sulfur
2. 2500 tons beechwood charcoal
3. 3500 tons coal (Sardinian)

The sulfur is to be made available from Sicily, the charcoal from Calabria, and the coal from Sardinia, the chief obstacle in all cases being transportation to the works. This plant should be in operation by mid-December.

Part 6 Requisitions: No requisitions have been lodged for importation of outside materials, as none are deemed necessary.

Part 7: Effect on shipping situation. Since no imports are sought, the 5000 tons of product to be made available from this program is entirely a saving of that weight of shipping. Further, be it noted that it saves shipping carbon bisulfide, a liquid far more inflammable than aviation gasoline.

Part 8: Implementation of this program will result in the production of 5000 m. tons of carbon bisulfide, as against a present production of nil.

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[illegible] tons of product to be made available from this program is entirely a saving of that weight of shipping. Further, be it noted that it saves shipping carbon dioxide, a liquid gas more intolerable than ethylene gasoline.

Item 5: Implementation of this program will result in the production of 5000 m. tons of carbon bisulfide, an organic pesticide of mil.

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SECTION I SOAP

APPENDIX B

CARBON BISULFIDE PRODUCTION

Part 1 Introduction: Carbon bisulfide is an exceedingly important commodity in Italy, being required especially for fumigation of grain, extraction of olive oil and production of synthetic fibers, such as rayon and ficocco. The oliver oil extracted by means of carbon bisulfide is known as "sulfur oil" and, depending upon its quality and acidity, finds employment both as food and as a soap raw material .

Part 2: The average annual consumption of carbon bisulfide in that area of Italy under consideration in this study and that for 1945 is estimated in m. tons at

	Average Annual Consumption	Estimated 1945 Consumption
Grain Fumigation	1,500	1,000
Olive Oil Extraction	3,500	3,500
Synthetic Fibers	13,500	3,500
Total	18,500	8,000

Part 3 Production Potential: Three plants for the production of carbon bisulfide exist in liberated Italy and steps have been taken to reactivate all three with a view to meeting requirement stated in Part 2. It is expected that all three plants will be in operation throughout 1945.

	m. tons
a. Soc. Umbra Prodotti Chimici, Collestatte, Terni	2,600
b. Ulisse Crocchi & Sons, Terrunieri, Siena	2,400
c. L'Insulare, S.F.E.R.C. Catania	3,000
Total	8,000

The planned production will, therefore, just meet the anticipated requirements as stated in Part 2.

Part 4 Required Raw Material: All required raw materials including beechwood charcoal and sulfur are in Italy in adequate supply.

Part 5

A. A report on the Soc. Umbra Prodotti Chimici works is attached as Appendix C. The works is in condition to start operation with a maximum of four retorts as soon as electric power of about 800 KW per retort can be made available. Power for one retort is to be available by mid-December.

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tons at

	Average Annual Consumption	Estimated 1945 Consumption
Grain Fumigation	1,500	1,000
Olive Oil Extraction	3,500	3,500
Synthetic Fibers	13,500	3,500
Total	18,500	8,000

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Total	8,000

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Part 5

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B. Ulisse Crocchi & Sons Works at Siena is entirely in order, possesses large stocks of locally available charcoal, requires a very small allocation of electric power and will commence operations as soon as transportation for large stocks of sulfur some 100 kilometers distant can be secured to bring the sulfur to the works.

C. L'Insulare Works at Catania is old and inefficient, but since it can produce 3000/3500 tons of carbon bisulfide in one year's operation, it will be operated to the maximum. For 3000 tons of product the raw

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(2) 12 lime kilns, each processing 250/300 m. tons of limestone per day and yielding 150/180 tons of burnt lime. Two of these kilns will be required for initial program set forth in 3a. above.

(3) Power Plant

a. 6 Breda boilers at 38 atmos. and 20 tons steam per hour designed for Sardinian coal.

b. 2 B&W boilers at 15/20 atmos. and 15 tons steam per hour for Sardinian coal. One of these is damaged by a bomb hit.

c. 8 boilers 9/12 atmos. and 5/7 tons steam per hour. One is completely destroyed by a bomb hit and 2 are damaged but repairable.

d. A 100 m. chimney was destroyed by a bomb and is being rebuilt.

e. 3 high pressure Escher Wyss-Brown Boveri (Swiss) turbo alternators, one of which is badly damaged.

2000 KW, 200 V, 50 cycle - damaged
3000 KW, 6000 V, " " - good
3000 KW, 6000 V, " " - good

These turbines receive steam at 36/38 atmospheres and discharge steam at 9 atmospheres for plant heat processing. Also, there are two smaller low pressure type turbo generators, both in operable condition and rated each at

1000 KW, 220 V, 50 cycles.

f. 3 steam reciprocating generator sets, all in operable condition and rated at

300 KW, 220 and 440 V, continuous current

g. Transformer units -

(1) 2000 KW, 6000 V/220 V
(2) 2000 KW, 6000 V/220 V
(3) 1000 KW, 6000 V/500 V
(4) 1000 KW, 6000 V/500 V

(4) Brine storage tanks and system - brine storage capacity is about 30,000 cu.m. Treating and settling tanks for purification of the brine are all in good order. 2948

(5) Seven enormous "distillation" columns which produce sodium bicarbonate equivalent to about 250 m. tons of soda ash per day.

(6) Five giant steel lime slakers - all in good condition.

(7) 16 triple effect evaporators.

(8) 10 caustic soda [illegible]

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c. 2 boilers 9/12 atmos. and 5/7 tons steam per hour. One is completely destroyed by a bomb hit and 2 are damaged but repairable.

d. A 100 m. chimney was destroyed by a bomb and is being rebuilt.

e. 3 high pressure Escher Wyss-Brown Boveri (Swiss) turbo alternators, one of which is badly damaged.

2000 KW, 220 V, 50 cycles - damaged
2000 KW, 6000 V, " " - good
2000 KW, 6000 V, " " - good

These turbines receive steam at 36/38 atmospheres and discharge steam at 9 atmospheres for plant heat processing. Also, there are two small low pressure type turbo generators, both in operable condition and rated each at

1000 KW, 220 V, 50 cycles.

f. 3 steam reciprocating generator sets, all in operable condition and rated at

300 KW, 220 and 440 V, continuous current

g. Transformer units -

(1) 2000 KW, 6000 V/220 V
(2) 2000 KW, 6000 V/220 V
(3) 1000 KW, 6000 V/500 V
(4) 1000 KW, 6000 V/500 V

(4) Brine storage tanks and system - brine storage capacity is about 30,000 cu.m. Treating and settling tanks for purification of the brine are all in good order.
(5) Seven enormous "distillation" columns which produce sodium bicarbonate equivalent to about 250 m. tons of soda ash per day.
(6) Five giant steel lime slakers - all in good condition.
(7) 16 triple effect evaporators.
(8) 10 caustic soda fusion systems with a capacity for about 500 m. tons of fused caustic per day.
(9) A sodium bicarbonate plant of 40 tons per day capacity in operable condition.
(10) A barrel making plant for steel drums.
(11) Enormous steel silos for storage of soda ash.
(12) Large, well equipped machine and maintenance shops.
(13) Large magazine for the storage of spare equipment and replacement parts. The character of this depot spoke well for the progressive and energetic management.

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the company near the works, and though now considerably damaged, stands as a model of cleanliness and order in sharp contrast to workers' villages so common elsewhere.

5. Initial Program of Production: As soon as repairs to the brine pipe line and the railway for limestone can be completed, an initial reduced program of production will be started. Subsequently, the production will be expanded as fast as coal, coke and ammonia can be made available. This program will result in a daily production of

a. 100 m. tons of soda ash and
100 m. tons of fused 98/99% caustic soda.

or

b. alternatively, if the caustic soda need is more urgent than that for soda ash, 175 m. tons of caustic soda.

For program (a) there is required:

(1) 35/40 tons of high grade metallurgical coke per day. On hand there is enough to permit about 80 days of continuous operation.
(2) Also required is 1 m. ton of ammonia per day. On hand is enough to permit operation for 35 days. Ammonia for further operations will be supplied through 4 tons daily of ammonium sulfate.
(3) Coal 250/300 tons daily with some 8000 tons on hand.
(4) Limestone 510 tons daily.
(5) Sheet steel (black plate) for caustic soda drums.

6. Stocks on Hand:

A. Raw Materials:

(1) Coal	8000 m. tons	
(2) Metallurgical Coke	3000 m. tons	
(3) Brine	10000 cu. meters	
(4) Limestone	30000 m. tons	
(5) Ammonia	35 m. tons	
(6) Paper bags for soda ash		1500 tons
(7) Black plate for caustic soda drums		200 tons

B. Finished Products:

(1) Soda Ash (in silos) approx.	1500 tons
(2) Caustic Soda	2000 tons
(3) Sodium Bicarbonate	90 tons

N.B. It is important to note that 100 tons of soda ash must remain at the works to per-

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b. Alternatively, if the caustic soda used is more urgent than that for soda ash, 175 m. tons of caustic soda.

For program (a) there is required:

(1) 35/40 tons of high grade metallurgical coke per day. On hand there is enough to permit about 30 days of continuous operation.
(2) Also required is 1 m. ton of ammonia per day. On hand is enough to permit operation for 35 days. Ammonia for further operations will be supplied through 4 tons daily of ammonium sulfate.
(3) Coal 250/300 tons daily with some 8000 tons on hand.
(4) Limestone 510 tons daily.
(5) Sheet steel (black plate) for caustic soda drums.

4. Stocks on Hand:

A. Raw Materials:

(1) Coal	8000 m. tons	
(2) Metallurgical Coke	3000 m. tons	
(3) Brine	10000 cu. meters	
(4) Limestone	30000 m. tons	
(5) Ammonia	35 m. tons	
(6) Paper bags for soda ash		1500 tons
(7) Black plate for caustic soda drums		200 tons

B. Finished Products:

(1) Soda Ash (in silos) approx.	1500 tons
(2) Caustic Soda	2000 tons
(3) Sodium Bicarbonate	90 tons

N.B. It is important to note that 100 tons of soda ash must remain at the works to permit the plant to be restarted.

C. The 8000 m. tons of coal listed in A (1) above are now being consumed to produce emergency power for Livorno and that general area. At the present rate of consumption, it will be exhausted early in October.

7. Essential Plant Components:

(1) Excellent coal, coke and limestone handling equipment and all in good condition.

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Boiler Blowdown 900 g. hrs
Domestic Sewer 5,000 g. hrs
Boiler Ash 10,000 lb. tons

3. Analyze fuller scientific procedures for the three products of this waste:

c. Chemical Power: Sulfuric-nitric electric fuses can be generated in modern equipment at moderate cost. Sandstone coal to make this waste of about 1 ton. However, 200 KW of electric power must be made available at Iowa Ground for brine pumping (and 200 KW at the S. Missouri Ground). The operation of this power, formerly carried from Centerville, has been studied and it is expected that it will become available when the plant is ready. Ground operations.

d. Can ton of ammonia per day must be provided for continuous production of caustic soda and soda ash. This material is critically short and may mean extra in steam at the plant to start operation one million pounds for 37 days. Ammonia was formerly received from the Terril Creek works at Iowa Mountain, and it is hoped that a supplies of ammonia production at that plant in some time to ask months when electric power operations will undergo a time of turnaround and to make temperature by supplying a time of ammonia sulfate per day.

3. Coal requirements for a minimum process run steam at 210 tons Sandstone (or 150 tons Lignite steam coal) and 40 tons of Good coke per day. Negotiations for coal and coke are in the course of preparation. The coke is an essential in producing the necessary blast lime and carbon dioxide, and no other material may serve as a substitute.

Burning the year long, production was reduced considerably, wherein the boiler department on the scene employed many devices to achieve a general plant slowdown with a view to maintaining the production time might become available to the Ground. In January 1944, the plant finally suspended all operations and the remaining coke oven plant. The change is estimated by the management at about 10-15% of the value of the plant and is contained largely to the pipe lines, power lines, steam boilers, chimneys and the

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During the year 1945, production was reduced considerably, mainly due to
delayed consumer demand and some employee hardship. Wages can also
place pressure on the economy with a view to maintaining the production rate despite
competitive to the economy. In January 1946, the Army finally released all
restrictions and has started into operation. For example is estimated up the
requirements as about 10-15% of the Value of the plant and is contained
largely to the type items, power lines, steam boilers, catalog and the like
and all reasonable difficult importations since exposed.

4. Dependence and Labor: The composition of this market is of the highest
quality and may be depended upon in every forward looking region and return
the plant to operation with the minimum of crowding accelerating the delay.

Currently the plants employed 2500/3000 workmen about 50% civilian
and technicians personnel. It houses village, may be with schools for
machine, children and vocational schools for present and potential workers,
churches, hospital, shops for community needs, etc., has been built by

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3. Average Power Supply production for the three products of this
works was:

Base Mat.	10,000 K. tons
Chemie Bldg.	5,000 K. tons
Bolton Electrodes	300 K. tons

4. Chief requirements for a thermal process are plenty of air
(one Zeichmann (or 120 tons bituminous steam coal) and of
tons of good water per day. Refrigeration for acid cool
are in the course of production. The main is unessential
in producing the necessary heavy lime and carbon dioxide,
and no other material may serve as a substitute.

5. One ton of uranium may be produced for centuries
potentially short and only about 1/10th of the
initially during the plant to operate at the
plant to ensure operation one minimum period for 10 days.
Ammonia was first produced from Tetal Steel Works
of Trade Monitors, and it is hoped that a reduction of
liquefaction at this plant is given to maintain that
chemical pump could become available until about a maximum
quality of uranium. In the material, it is produced
to meet this deficiency to supplant a base of economic
matter per day.

SECTION 3. SCAF

ATTACHMENT A

SUBJECT: REPORT OF SOLVAY SODA WORKS, ROSIGNANO (LIVORNO)

1. This plant is the largest and most fully integrated works for the production of caustic soda, soda ash and sodium bicarbonate in all of Italy. The plant is wholly owned by the Belgian Solvay Co. and its director is a Belgian national, Mon. C. Van Overbergh. He is an engineer and administrator of high quality and extends all Solvay interests in Italy, e.g., Societa Chimica dell'Ardeina and also the Solvay plant at Monfalcone.

It is possible to derive an impression of the importance of the Solvay works in Italian economy by noting that this plant, together with a much smaller one at Monfalcone (Trieste) accounted for 80% of all caustic soda production and almost all soda ash and sodium bicarbonate produced in Italy.

The products of this plant are essential to any plan for the re-activation of Italian industry. The synthetic textile industry (e.g. rayon and fiocco) alone consumed 30% of all the caustic soda produced in Italy, and the paper, chemical, glass, aluminum, soap and food processing industries may also be listed as vitally dependent upon large and continuous supplies of caustic soda and soda ash for their operations.

This plant at present is under guard by the 338 U.S. Engineer Regiment, Company B, under Captain Moreland.

2. The works at Rosignano suffered no German demolitions and only minor damage from Allied aerial bombing. Given essential raw materials, the plant itself is ready to resume production at relatively short notice. However, several collateral difficulties exist which make production improbable for at least four months.

a. Several rail road bridges connecting Rosignano with S. Vincenzo, the source of limestone, have been destroyed. An estimate of three to four months for the reconstruction of these bridges has been advanced, but the rapidity with which this essential railway service can be restored will depend largely upon the aid and co-operation afforded by the military.

Normally, the quarries at S. Vincenzo supplied plant requirements of 2000 m. tons of limestone per day. Present plans for restoration of production require a daily minimum, continuous supply of 300 m. tons of limestone. 36 good 40 ton rail cars for limestone transportation are available, but there appears to be a shortage of locomotives for hauling them. Explosives for the mines at S. Vincenzo are adequate for several months of operation. About 200 KW of electric power, needed at the quarries, came formerly from Leghorn.

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[illegible] Department of State [illegible]

[illegible] Department of State [illegible]

[illegible] Department of State [illegible]

The mobilisation of local soap production as outlined in Part V will avoid imports of soap and save

50,000 M. tons

of shipping tonnage.

PART VIII - INCREASE OF PRODUCTION THROUGH IMPLEMENTATION OF PROGRAMME

Assuming that the planned programs be considered initiated by 1st January 1945 the increase of production in comparison with July '44 is estimated at 50%.

CONCLUSIONS:

1) Soap production of 30,000 M. tons corresponding to the yearly requirements of the Armed Forces plus the entire civilian population south of the Pisa-Rimini line plus the Italian Army, can be derived from local resources and existing plant capacity, provided that the carbon disulphide plants and the caustic soda Reagliano-Solvay plant be recovered by January 1945.

2) The success of the above programme depends chiefly on the transportation of the "essence" to the extraction centres and the extracted oil to the soap factories; as well as on the transportation of the "soap-stocks" from the oil refineries to the soap factories.

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B - Raw Materials (contd)

Therefore it is estimated that if the Rosignano plant could be put into operation on a basis of 100 to 150 M. tons caustic soda per day (about 10 to 15% of the present production), thus making available for the present sufficient quantities of alkali, great quantities of additional fatty materials, which at present go to waste, could be utilized, producing at least another 5,000 M. tons of soap.

THEREFORE, THE TOTAL ESTIMATED PRODUCTION WILL BE APPROXIMATELY

50,000 M. tons

b) Carbon disulphide.

The quantity of carbon bisulphide needed for processing the "sansa" is estimated at

3,500 M. tons

Plants to produce carbon disulphide are being reactivated. 3,500 M. tons can be produced in the first year. If the sulphur sale programme is realised in time it can be considered that it will be possible to yield the estimated quantity of oil.

A study on the carbon bisulphide industry is attached as Appendix "B".

C - CAUSTIC SODA

The yearly caustic soda requirements are

5,150 M. tons

corresponding to a monthly requirement of 500 M. tons. This quantity can be produced by the Rosignano-Solvay plant, provided this can be reactivated.

A report on the revised programme for the manufacture of caustic soda at the above plant is attached as Appendix "A".

D - FUEL

The fuel suitable used is "exhausted sansa" (the residue of the olive husks after the extraction of the "sulphur oil" by means of carbon bisulphide).

For the entire yearly production of soap, in addition to the "exhausted sansa" a quantity of

8,000 M. tons

of Sardinian coal is needed.

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PART V - Difference data.

In this total figures combining Florence and Ancona are not included. In these two localities important plants exist about which nothing has been reported: Ancona has been freed only recently, and Florence is still in the fighting zone but in view of the already known causes of possible production, it is not considered necessary to the emergency programme that these factories in the forward area need be immediately reactivated.

F - Raw Materials.

a) Sansa.

The quantity of the "sansa" depends upon the raw olive crop and is estimated for this year at about

500,000 M. tons

The "sansa" contains on an average 6% oil and therefore the total oil output is:

30,000 M. tons

Part of this quantity - 18,000 M. tons - consists of "high acidity sulphur oil" which is used directly in the soap industry.

The remaining 24,000 M. tons, consisting of "low acidity sulphur oil", are refined by means of caustic soda.

The resulting refined oil is used for edible purposes, while the residues, called soap-stock ("paste di raffinazione") are passed to the soap industry.

This soap-stock corresponds to:

2,000 M. tons "high acidity oil".

In addition from the refining of "olio lampante" a quantity of soap-stock corresponding to:

4,500 M. tons "high acidity oil".

is obtained.

The total amount of "fatty acids" available for soap manufacture therefore, is:

23,500 M. tons.

In addition to the fatty materials recovered, during the refining process of the different qualities of olive oil, as stated above, the following quantities of fats were produced yearly south/the Pisa-Rimini line:

a) bone-grease 1,000 M. tons

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e) Sansa

The quantity of the "sansa" depends upon the raw olive crop and is estimated for this year at about

500,000 M. tons

The "sansa" contains an average 7% oil and therefore the total oil output is:

40,000 M. tons

Part of this quantity - 16,000 M. tons - consists of "high acidity sulphur oil" which is used directly in the soap industry.

The remaining 24,000 M. tons, consisting of "low acidity sulphur oils", are refined by means of caustic soda.

The resulting refined oil is used for edible purposes, while the residues, called soap-stock ("pasta di raffinazione") are passed to the soap industry.

This soap-stock corresponds to:

3,000 M. tons "high acidity oil".

In addition from the refining of "olive lampante" a quantity of soap-stock corresponding to:

1,500 M. tons "high acidity oil".

is obtained.

The total amount of "fatty acids" available for soap manufacture therefore, is:

23,500 M. tons.

In addition to the fatty materials recovered, during the refining process of the different qualities of olive oil, as stated above, the following quantities of fats were produced yearly south/the Pisa-Rimini line:

a) bone-grease	1,600 M. tons	2945
b) tallow	1,900 M. tons	
Total	3,500 M. Tons	

Therefore, the total amount of fatty materials will be 27,000 M. tons.

According to the specification of the "standard" soap (average fatty acid content of 40%), the above mentioned quantity of fatty materials will be sufficient for producing approximately 45,000 M. tons of soap per year. In addition, it should be pointed out that in the country the peasants traditionally manufacture soap themselves, using fatty residues (oils or grease), easily to be found even in a poor form, and caustic soda, which is bought. These fatty materials are not comprised in the above calculations, because there are no practical means of controlling and collecting them.

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PART IV - SUPPORTING DATA (cont'd)

Locality	Name	Maximum production capacity in M. tons per month
Sicily		
Province Messina	Vaccarino Giovanni	100
" "	Vaccarino Giovanni	100
" Palermo	Miceli Francesco	200
" Catania	Anfuso	200
		600 M. tons
Sardinia		
Province Cagliari	La Fontela	50
" Nuoro	Deriu Bortigali	50
" Sassari	Usseddu	100
		200 M. tons
Mainland (West Coast)		
Province Naples	Di Salvi Romeo	200
" Naples	Ing. Giuliano A.	200
" Naples	Cannavale	100
		500 M. tons
Province Rome	Mira Lanza	800
" Rome	Zarelli	700
		1,500 M. tons
(East Coast)		
Province Bari	Cleifici It. Meridion	400
" Bari	Ing Rolfo	400
" Bari	Lonigro	200
" Bari	Perolli	150
" Brindisi	Liabate'	100

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Sardinia

Province	Cagliari	La Fenice	50
"	Nuoro	Doriu Portigeli	50
"	Sassari	Mesudda	100
			200 M. tons

Mainland (West Coast)

Province	Naples	De Salvi Ronco	200
"	Naples	Ing. Giuliana A.	200
"	Naples	Cannavale	100
			500 M. tons
Province	Roma	Miro Danza	800
"	Roma	Borelli	700
			1,500 M. tons

(East Coast)

Province	Bari	Oleifici It. Meridion	800
"	Bari	Landolfo	400
"	Bari	Luigino	200
"	Bari	Borelli	150
"	Brindisi	L'Ateneo'	100
"	Lecce	Megli, Supersano	250
			1,700 M. tons

Total yearly capacity:

54,000 M. tons.

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A. Basis and justification (contd).

(f

(5) The Italian armed forces receive an allotment of 300 grams per man per month: total forces estimated to average 470,000 personnel drawing rations through Army stores.

B - Total soap treatment for 12 months.

(1)	Allied forces	3,400 tons
(2)	Civilian minimum needs	23,000 "
(3)	Italian armed forces	1,692 "
	Total:	30,092 tons

C - No toilet or baby soap is included in the above estimate. If possible to produce a soap of finer quality than the chefs course type, assuming an average family of 4 persons and the limitation of such soap to baby use by a low percentage ration, 10% of the above civilian needs would be the requirement for toilet soap or 2,300 tons per year.

PART III - PRODUCTION POTENTIAL OF END PRODUCT.

The capacity of the scheduled plants (Sicily, Sardinia and mainland) is approximately

55,000 m. tons per year.

This capacity is large enough for producing the total civilian requirements including 3,400 tons for the Armed Forces, as set forth above.

PART IV - PRODUCTION POTENTIAL OF REQUIRED RAW MATERIALS.

Soap is a chemical combination of "fatty acid" and alkali. It is usually obtained by boiling a fatty material - be it oil or grease - with caustic soda. The materials required for soap manufacture are:

a) "sansa" (olive husks) recovered as residue after pressing the edible oil from the olives.
b) Carbon bisulphide (a solvent used for extracting oil from the "sansa"). The extracted oil is called "sulphur oil" and is subdivided into two qualities:
   1. "high acidity sulphur oil" suitable for industrial purposes only, and
   2. "low acidity sulphur oil" suitable for edible use after refining it by means of caustic soda.
c) "high acidity sulphur oil" as per para b).
d) Soapstock (I) - residues arising from the refining of "low acidity sulphur oil" as per para b).
e) Soapstock (II) - residues arising from the refining of "lampante oil". (This is a quality of pressed olive oil which must be refined by means of caustic soda before being suitable for edible use).
f) bone grease and tallow.
The total production of fatty material is approximately

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c - No toilet or baby soap is included in the above estimates. It is possible to produce a soap of fair quality when the above coarse type, obtaining an average family of 6 persons and the distribution of such soap to baby used by a low percentage ratio, 1/6 of the above civilian needs would be the requirement for toilet soap or 4,300 tons per year.

PART III - PRODUCTION CAPACITY OF THE FACTORIES.

The capacity of the scheduled plants (Sicily, Sardinia and mainland) is approximately

55,000 m. tons per year.

This capacity is be ing enough for producing the total civilian requirements including 3,400 tons for the Armed Forces, as set forth above.

PART IV - PRODUCTION POSSIBILITIES OF REQUIRED RAW MATERIALS.

Soap is a chemical combination of "fatty acid" and alkali. It is usually obtained by boiling a fatty material - be it oil or grease - with caustic soda. The materials required for soap manufacture are:

a) "sansa" (olive cake) recovered as residue after pressing the edible oil from the olives.
b) carbon bisulphide (a solvent used for extracting oil from the "sansa"). The extracted oil is called "sulphur oil" and is subdivided into two qualities:
   1. "high acidity sulphur oils" suitable for industrial purposes only, and
   2. "low acidity sulphur oil" suitable for edible use after refining it by means of caustic soda.
c) "high acidity sulphur oil" as per para b).
d) Scrapstock (I) - residues arising from the refining of "low acidity sulphur oil" as per para b).
e) Scrapstock (II) - residues arising from the refining of "lampante oil". (This is a quality of pressed olive oil which must be refined by means of caustic soda before being suitable for edible use).
f) bone grease and tallow.

The total production of fatty material is approximately 2914

27,000 tons

g) Caustic soda - See Appendix "A" - 6,000 tons.
h) Carbon disulphide - See Appendix "B" - 3,500 tons.

PART V - SUPPORTING DATA FOR PRODUCTION ESTIMATES IN PART III AND IV.

A - Production capacity

The following soap factories have been reactivated for soap manufacture, according to the rationalised soap programme.

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S E C T I O N 1

EMERGENCY PROGRAMME FOR THE PRODUCTION OF SOAP

PART I INTRODUCTION

There are adequate production facilities for soap making in liberated Italy, but the industry consists of a large number of relatively small units, there being no outstanding factory of special importance.

The industry as a whole is in production at the present time, and the Sub-Commission has gathered reliable statistics on some 254 factories, out of which 18 have been selected for active production after detailed survey.

The production of soap in Italy is dependent on the provision of adequate supplies of the following raw materials:

a) caustic soda
b) sulphur oil

In order to obtain the sulphur oil it is necessary that the requisite amounts of Carbon bisulphide be available to extract from the "sansa" (or olive husks) which remains after the olives have been crushed, the actual sulphur oil.

The production programme prepared by the Industry Sub-Commission will provide for the soap needs of the on tire population on the scale laid down by higher Authority and in addition will provide the Armed forces with some 300 tons per month for so long as they may require it.

It has been decided to produce a standard type of soap, in this way obtaining maximum possible production from the raw materials and manufacturing possibilities available. This standard soap is of a sufficiently good quality as to be suitable both for laundry and toilet purposes.

The fuel problem in the soap industry is relatively unimportant some 65% of requirements being provided by the use of "sansa esausta", a by-product resulting from the treatment of "sansa" by carbon bisulphide. The coal requirements are relatively small and can be almost completely met by the use of Sardinian coal. The electric power involved is very small, on an average only 100,000 kwh being required per 1,000 tons soap produced.

However, the whole programme is dependent for its implementation on the provision of adequate land and coastal transport facilities. The "sansa esausta" and sulphur oil have to be moved from the local sources of supply to the main production centres of Naples and Bari, caustic soda has to be distributed from the ports of entry or from the source of production (Soda Solvey Factory at Rossignano) to the factories and should also be moved to the olive crop areas so that the low acidity sulphur oil may be further treated and the edible content obtained and used for human consumption.

PART II - REQUIREMENTS AND JUSTIFICATION

adequate supplies of the following:

a) caustic soda
b) sulphur oil

In order to obtain the sulphur oil it is necessary that the requisite amounts of Carbon bisulphide be available to extract from the "sansa" (or olive husks) which remains after the olives have been crushed, the actual sulphur oil.

The production programme prepared by the Industry Sub-Commission will provide for the Soap needs of the un tire population on the scale laid down by higher Authority and in addition will provide the Armed Forces with some 300 tons per month for so long as they may require it.

provide for the Soap needs of the un tire population on the scale laid down

It has been decided to produce a standard type of Soap, in this way obtaining maximum possible production from the raw materials and manufacturing possibilities available. This standard Soap is of a sufficiently good quality as to be suitable both for laundry and toilet purposes.

The fuel problem in the soap industry is relatively unimportant as the bulk of requirements be ing provided by the use of "sansa esausta", a by-product resulting from the treatment of "sansa" by carbon bisulphide. The coal requirements are relatively small and can be almost completely met by the use of Sardinian coal. The electric power involved is very small, on an average only 100,000 kwh being required per 1,000 tons soap produced.

However, the whole programme is dependent for its implementation on the provision of adequate land and coastal transport facilities. The "sansa esausta" and sulphur oil has to be moved from the local sources of supply to the main production centres of Naples and Bari, caustic soda has to be distributed from the ports of entry or from the source of production (Soda Solvay Factory at Rosignano) to the factories and should also be moved to the olive crop areas so that the low acidity sulphur oil may be further treated and the edible content obtained and used for human consumption.

PART II - REQUIREMENTS AND JUSTIFICATION

A. Bases and justification.

(1) Prewar consumption about 200,000 tons of all types of soap per year for a population of 45,000,000; that means 377 grams per person per month.

(2) Present ration of 100 grams per person per month, as applied in Rome, is considered below minimum civilian requirements.

(3) Ration prescribed by AFHQ/G-5 in their memo G-5L dated 22 June 44 is 150 grams per month per person. This forms the basis for computations of total requirements given below.

(4) AFHQ/G-5 memo G-5L dated 3 June refers to program favored by ACC for ration of 300 grams per person per month which was rejected by AFHQ in favor of the 150 gram ration. Laundry and other essential household needs indicate that at least a 250 gram ration should be used as the basis of requirements.

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Declassified E.O. 12356 Section 3.3/NND No. 785046

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Declassified E.O. 12356 Section 3.3/NND No. 785016

[illegible] Commissioner [illegible] to [illegible] the [illegible] of the Secretary of Agriculture with the approval of the Secretary, to establish [illegible] to cooperate with the Department of Agriculture or any other agency in the administration within any area of authority conferred upon the Secretary of Agriculture and to cooperate with any agency or person in the protection or restoration of any such area that is threatened by soil erosion, floods, or other natural hazards.

The Secretary of Agriculture is authorized to develop, construct, operate, and maintain, either directly or through contracts, leases, agreements, or other arrangements, facilities for the conservation, development, use, and disposal of water and the control of floods and the prevention of erosion and channelization in connection with the activities authorized by this section. In connection with the activities authorized by this section, the Secretary of Agriculture is authorized to acquire lands, interests in lands, water rights, and other property by donation, purchase, or exchange, and to construct, operate, and maintain recreation facilities, and to provide for the public use thereof, and to charge reasonable fees for the use of such facilities. Such fees shall be deposited in the Treasury and shall be available for expenditure, without further appropriation, for the operation and maintenance of such facilities. Not more than 25 per centum of the moneys received during any fiscal year from any project pursuant to this section shall be used for the acquisition of lands for recreational purposes.

The Secretary of Agriculture is authorized to enter into contracts with, and to make grants to, any agency or person to carry out the purposes of this section. Contracts may be entered into without regard to the provisions of section 3709 of the Revised Statutes (41 U.S.C. 5), and may be performed at such times as the Secretary deems necessary or desirable. Contracts may be entered into for the acquisition of lands or interests in lands, water rights, and other property, and for the construction, operation, and maintenance of facilities, and for the provision of public use thereof, and for the charging of

Part VII is intended to show the effect of the substitution of raw material imports for imports of consumer goods on the shipping situation.

Part VIII enumerates clearly the expedient increase in Italy of production of end products which will result from the implementation of the proposed programme.

In reading the report it must be borne in mind that the assumption is made that the present acute shortage of transport facilities will have been alleviated. At the time of drafting of this programme it appears possible that by January 1st, 1945, Italy may no longer be a scene of active military operations, with the result that the burden of supplying and feeding the armies in the field may no longer impose such a strain on Italian transportation facilities. It must, however, be emphasized that the complete implementation of the proposed programme will be dependent on adequate facilities to move the imported raw materials from the ports of entry to the centers of production, and thereafter when converted finally into end products it is essential that there shall be adequate means for the distribution of the end products to the consumer.

In view of the great diminution of availability of electric motive power, great care has been given to accurate estimates of the amount of electric power necessary to implement the proposed programme, and it is anticipated that in no case will it be impossible for the necessary amount of electric power to be made available. Accurate details are embodied in each section of the amount of electric power required in order that the programme may be implemented.

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In conclusion it should be pointed out that this first instalment of the Emergency Programme has been prepared by the Industry Sub-Commission with the assistance and approval of the Italian Government.

It is the intention of the Italian Government to prepare similar programmes covering the other key industries which cater for the essential needs of the community. Such programmes are already in course of preparation and after scrutiny by and approval of the Economic Section of the Allied Control Commission will be forwarded as subsequent parts of the overall coordinated programme for the rehabilitation of the Italian industrial economy in so far as it covers the supply to the community of essential civilian needs.

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declassified E.O. 12356 Section 3.3/NND No. 785016

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		(A)		(A)		(A)				
B. Tree Crops										
1. Vines	166.000	5.3	3.150	1.0	...		734.250	350.570	79.470	+++
2. Olives	260.067	8.8	55.884	11.4	+		44.170	=	=	=
3. Citrus fruits	133.767	31.6	34.780	32.9	++		...	=	=	+
4. Fruit "	56.600	21.5	6.352	27.9	...		31.690	=	=	+
5. Forest "	14.000	1.4	2.205	1.4	...		=	=	=	...
	630.434	7.4	102.571	7.0	21.500	0.6	850.110	350.570	79.470	9.760
Grand Total	10.462.747	28.3	1.447.510	24.5	24.125	0.6	847.530	350.570	79.470	9.760

Notes:

(A) The percentage is referred only to the specialized area.
(1) The negligible quantities of disinfectant used for the seed has been considered with that needed for the "B" crops.

=	Zero
...	Small, negligible quantity
+	Small quantity
++	Medium quantity
+++	Maximum quantity

(a)	White oil	ql.	3.500
(b)	Tar Oil	"	1.720
(c)	Nicotine	"	2.343
(d)	Arsenates & Arsenites	"	4.055
(e)	Phosphide (Zinc)	"	61
(f)	Barium Fluosilicate	"	46
(g)	Cyanide	"	1.055
(h)	Carbon Bisulfide	"	5.620
(i)	Formicide	"	230
(l)	Polysulphides	"	610

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Estimates of Requirements of Fertilisers, etc. -- continued

	(f)		(f)					
3.150	1.0	...		754.250	350.570	79.470	+++	(h+)
55.884	11.4	+		44.170	=	=	=	
34.780	32.9	++		...	=	=	+	(n+++)(g+++)(J+)
6.552	27.9	...		31.690	=	=	+	(n+)(h+++)(o+++)(d++)(i++)
2.205	1.4	...		=	=	=	...	
102.571	7.0	21.500	0.6	830.110	350.570	79.470	9.760	
1.447.510	24.5	98.125	0.6	847.530	350.570	79.470	9.760	

...red only to the specialised area.
...es of disinfectant used for the seed bed
...ch needed for the "B" crops.

...ity

... 41. 3.500
..... " 1.720
..... " 2.343
..... " 4.055
..... " 61
..... " 45
..... " 1.055
..... " 5.620
..... " 230
..... " 610

0280 /

Declassified E.O. 12356 Section 3.3/NND No. 785016

Estimates of Requirements of Specified Fertilizers and Pesticides, Season 1944-45
Europe, Excl. U.S.S.R., and the United States, the Near East, and the Islands

Crops	Fertilizer Requirements						Pesticides			
	Phosphates		Nitrates		Potassics		Pesticides			
	Estimated Phosphate Requirements 31.5% P2O5	Fertilized Area	Expressed as Ammonium Nitrate Equiv. 33.5% N	Fertilized Area	Expressed as Sulphate of Potash Equiv. 48% K2O	Fertilized Area	Copper sulphate	Sulphur		Inorganic sulphur
	qr.	%	qr.	%	qr.	%	qr.	qr.	Copper	qr.
A. Cereals										
1. Wheat	2.829.900	25.0	776.710	37.7	...		...	=	=	=
2.3.4. Rye, Barley, Oats	27.000	1.1	9.300	2.2			...	=	=	=
5. Rice	29.600	95.5	9.546	96.9	...		...	=	=	=
6. Corn	844.500	36.1	123.375	46.2	...		...	=	=	=
	3.790.000	23.6	900.531	34.3	2.750	...	0...	=	=	=
B. Dried Legumes & Other Food Crops										
1. Horse Beans	1.824.933	96.6	=	0	...		=	=	=	=
2. Other legumes	718.400	46.3	=	0	...		=	=	=	=
3. Potatoes	828.500	62.7	129.867	62.7	++		++	=	=	=
4. Tomatoes	141.527	60.6	20.401	68.3	+		++	=	=	=
5. Vegetables	241.540	59.4	68.216	75.7	+		+	...	...	...
	3.754.900	69.4	218.484	22.1	26.062	1.5	17.420	...	...	...
C. Industrial Crops										
1. Sugar Beet	177.600	100.0	39.630	100.0	+		=	=	=	=
2. Tobacco	103.960	100.0	24.650	100.0	++		=	=	=	=
3. Hemp	256.000	89.2	40.854	99.2	+		=	=	=	=
4. Cotton	12.400	45.2	1.620	45.2	+		=	=	=	=
5. Flax	=	0	720	10.2	-		=	=	=	=
6. Other Crops	=	0	=	0	...		=	=	=	=
	550.760	82.2	107.574	87.1	37.063	15.6	=	=	=	=
D. Forage Crops-Meadows:										
1. Wet Legum. pltg.	1.055.500	25.6	42.750	3.1	+		=	=	=	=
2. Ist yr. pltg.	312.353	17.2	2.700	1.3	+		=	=	=	=
3. Mul.-Forage	248.000	30.0	22.050	19.3	...		=	=	=	=
4. Mulch for "	18.0.000	21.2	50.850	40.0	=		=	=	=	=
	1.795.853	23.8	118.350	12.9	6.750	0.2	=	=	=	=

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Declassified E.O. 12356 Section 3.3/NND No. 785016

ination of Requirements of Insecticides and Fungicides, Season 1945-46
tories, Hawaii, and for Shipment to the South, and the Islands

Appendix B

Fertilizer Ingredients				Pesticides in Premixes				
Nitrogen		Potash		Fungicides			Insecticides	
Pounds in Fertilizer Mixtures 33/	Percent	Equivalent in Sulfate of Potash 33/	Percent	Copper Sulphate	Sulfur	Copper	Lead Arsenate	(see footnotes)
qt.	%	qt.	%	qt.	qt.	qt.	qt.	
776.710	57.7	...		...	=	=	=	
6.300	2.2			...	=	=	=	
5.136	36.2	...		...	=	=	=	
123.575	44.2	...		...	=	=	=	
909.951	38.3	2.750	...	0...	=	=	=	(a++)(e++)(i+++)
=	0	...		=	=	=	=	(h+)
=	0	...		=	=	=	=	(h+)
329.867	62.7	++		++	=	=	=	
20.401	63.3	+		++	=	=	=	
68.216	76.7	+		+	...	...	...	(c++)(d++)(f++)
218.484	22.1	26.062	1.3	17.420	...	...	...	
39.650	100.0	+		=	=	=	=	(d++)
24.650	100.0	++		=	=	=	=	
40.854	99.2	+		=	=	=	=	
1.690	45.2	=		=	=	=	=	
720	10.2	=		=	=	=	=	
=	0	...		=	=	=	=	
107.574	87.1	37.063	15.6	=	=	=	=	
42.750	8.1	+		=	=	=	=	
2.700	1.3	+		=	=	=	=	
22.050	19.3	...		=	=	=	=	
50.850	40.0	=		=	=	=	=	
118.350	32.2	6.750	0.2	=	=	=	=	

(cont. on next page)

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Declassified E.O. 12356 Section 3.3/NND No. 785016

Estimate of Agricultural Production, 1945 Season
Tuscany, Emilia and the Mainland to the South, and the Islands
Tree Crops

Crops	Actual - 1936			E
	Area in Hectares		Total Production in Quintals	T
	Specialized	Promiscuous		
I Vines	674.408	2.119.244		
1. Grapes			40.866.510	
2. Wine			24.933.660	
II Olive Trees	767.238	1.322.548		
1. Olives			8.262.980	
2. Oil			1.276.240	
III Citrus Fruits				
1. Oranges	26.464	21.673	3.616.270	
2. Tangerines	2.903	22.322	599.090	
3. Lemons	22.185	21.697	2.837.070	
4. Other Citrus Fruits	3.671	1.110	251.240	
IV Pomaceous Fruits				
1. Apples	7.120	1.357.062	1.747.669	
2. Pears	3.487	1.669.946	1.263.650	
3. Quinces - Pomegranates	146	119.673	88.630	
V Drupaceous Fruits				
1. Cherries	1.349	938.347	517.330	
2. Peaches	15.524	936.788	989.080	
3. Apricots	1.990	315.845	206.430	
4. Plums	2.464	732.768	372.680	
VI Dried Fruits				
1. Almonds	155.021	752.722	1.611.850	
2. Nuts	1.036	611.995	350.930	
3. Hazel Nuts	28.647	46.916	258.690	
4. Carob Beans	8.214	114.960	577.440	
VII Other Fruit Trees				
1. Figs	40.916	1.186.356	2.761.860	

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Declassified E.O. 12356 Section 3.3/NND No. 735016

Estimate of Agricultural Production, 1945 Season
Tuscany, Emilia and the Mainland to the South, and the Islands
Tree Crops

	Actual - 1936			Estimates - 1945
	Area in Hectares		Total Production in Quintals	Total Production in Quintals
	Specialized	Promiscuous		
	674.498	2.119.244		
			40.866.510	42.230.000
			24.933.660	25.159.000
	767.238	1.322.343		
			8.262.980	10.654.000
			1.276.240	1.682.000
	26.464	21.673	3.616.270	3.172.100
	2.503	22.322	599.090	558.920
	22.185	21.697	2.837.070	2.986.530
s Fruits	3.671	1.130	251.240	270.220
	7.120	1.357.062	1.747.669	1.144.300
	3.487	1.669.546	1.263.650	1.042.000
mogranates	326	115.673	88.630	83.100
ts				
	1.349	938.347	547.330	497.000
	15.924	936.788	985.080	1.168.500
	1.990	315.845	206.430	228.500
	2.464	732.768	372.680	398.200
	165.021	752.722	1.611.850	1.817.800
	1.036	631.995	550.930	347.600
	28.647	45.916	258.690	190.210
	8.214	114.960	577.440	507.150
s				
	40.916	1.186.396	2.761.860	2.822.200

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Declassified E.O. 12356 Section 3.3/NND No. 785016

Estimate of Agricultural Production, 1945 Season
Tuscany, Emilia and the Mainland to the South, and the Islands
Field and Garden Crops

Crops	Actual - 1936			Estim
	Area - Hectares	Production in Quintals		Area - Hectares
		Total	Per Hectare	
A. Cereals	4.159.916	44.403.360	10,6	3.777.500
1. Wheat	25.736	243.570	9,4	23.560
2. Rye	182.462	1.767.590	9,7	219.800
3. Barley	389.780	4.095.790	10,5	395.000
4. Oats	7.260	460.029	63,3	10.270
5. Rice	712.054	10.342.280	14,5	642.100
6. Corn	5.477.193			5.068.230
B. Legumes and Other Food Crops	636.983	5.178.310	8,1	513.850
1. Horse Beans	546.660	2.693.400	4,9	481.800
2. Other Legumes	294.158	15.173.300	51,6	296.700
3. Potatoes	51.972	8.652.370	166,5	51.750
4. Tomatoes	133.988	13.229.870	98,7	140.060
5. Vegetables	1.663.761			1.484.150
C. Industrial Crops	59.696	13.119.250	219,9	62.000
1. Sugar Beets	26.282	317.532	12,8	31.726
2. Tobacco		822.040	15,1	
3. Hemp - fibre	67.354	27.580	-	62.410
- seed		21.369	1,9	
4. Cotton - fibre	10.736	38.744	3,6	12.830
- seed		17.370	4,8	
5. Flax - fibre	3.578	25.010	6,0	2.810
- seed	4.189	15.274	14,5	12.810
6. Other Crops	1.054			2.660
	172.889			187.246
D. Forage Crops on Rotation Basis	1.251.477	67.169.300	53,6	1.167.500
1. Meadows not of 1st year planting	464.317	5.753.200	12,3	450.700
2. Meadows of first year planting	174.084	9.309.900	53,4	253.600
3. Annual Meadows	313.204	9.232.800	29,4	282.200
4. Intermittent Meadows for Forage	2.203.082			2.154.000

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Estimate of Agricultural Production, 1945 Season
Tuscany, Emilia and the Mainland to the South, and the Islands
Field and Garden Crops

Agricultural
Appendix A-1

	Actual - 1956			Estimtos - 1945		
	Area - Hectares	Production in Quintals		Area - Hectares	Production in Quintals	
		Total	Per Hectare		Total	Per Hectare
	4.159.916	44.403.360	10,6	3.777.500	36.818.800	9,7
	25.726	243.570	9,4	23.560	197.140	8,4
	182.462	1.767.590	9,7	219.800	1.958.020	8,9
	389.730	4.095.790	10,5	395.000	3.460.150	8,7
	7.260	460.029	63,3	10.270	554.350	54,0
	712.054	10.342.280	14,5	642.100	8.072.350	12,6
	5.477.198			5.068.230		
	636.933	5.178.310	8,1	513.850	3.943.350	7,7
	546.660	2.693.400	4,9	493.800	2.349.610	4,9
	294.158	15.173.300	51,6	296.700	15.918.650	53,6
	51.972	8.652.370	166,5	51.750	7.746.750	149,6
	133.988	13.229.870	98,7	140.050	14.011.500	100,0
	1.663.761			1.484.150		
	59.696	13.119.250	219,9	62.000	13.498.000	217,7
	26.232	317.532	12,8	31.726	351.321	11,1
		822.040	13,1		649.710	10,4
	67.354	27.500	-	62.430	34.640	-
		21.369	1,9		20.595	1,6
	10.736	38.744	3,6	12.850	45.770	3,6
	3.578	17.370	4,8	2.810	13.105	4,7
	4.189	25.010	6,0	12.810	78.090	6,1
	1.054	15.274	14,5	2.660	36.456	13,7
	172.889			187.286		
Le						
Planting	1.251.477	67.169.300	53,6	1.167.500	57.225.500	49,0
nting	464.317	5.753.200	12,3	490.700	6.602.150	14,6
	174.084	9.309.900	53,4	253.600	8.332.400	32,8
forage	313.204	9.232.800	29,4	282.200	7.483.350	26,5
	2.203.082			2.154.000		

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SECRET

NOTES (cont'd): The spot requisitions are made up of [illegible] many items for which prices must be obtained statistics are compiled the dollar value will be added to future reports and a fo practicable to attempt an estimated dollar value to include in this report.

(4) All petroleum products were shipped as military supplies and distributed in the quired to meet relief needs. No record of this distribution is as yet available

(5) A change has been made from the previous month's report to correct an excess of 3 tons, and 36,000 dollar value reported in error on 1o April to 1o May report.

SOURCE: Combined Civil Affairs Committee, Supply Sub-Committee, CCAC (S) 1/23.

This is the latest information available to ACC on shipments to Italy.

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spot requisitions are made up of [illegible]. Many items for which prices must be obtained individually. As soon as statistics are compiled the dollar value will be added to future reports and a footnote made. It is impossible to attempt an estimated dollar value to include in this report.

petroleum products were shipped on military supplies and distributed in the theater to the extent required to meet civilian needs. No record of this distribution is as yet available here.

change has been made from the previous months report to correct an excess of 360 gross long tons, 336 ship age, and 36,000 dollar value reported in error on 1st April to 1st May report.

Advisory Committee, Supply Sub-Committee, COSC (S) 1/29.

information available to ACC on shipments to Italy.

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Declassified E.O. 12356 Section 3.3/NND No. 785016

Shipments (cont'd)

ITEM	1 MAY 1943 TO 10 MAY 1944			10 MAY 1944 TO 10 JUNE 1944			
	Gross Long Tons	Ship Tons	Dollar Value	Gross Long Tons	Ship Tons	Dollar Value	Gross Long Tons
Other Items							
Clothing	1,311	5,696	6,917,000	-	-	-	1,311
Gateson	65	124	29,000	20	62	7,000	85
Newsprint	2,147	3,355	140,000	275	461	15,000	2,422
Miscellaneous Paper	228	296	61,000	36.3	46.9	13,000	264.
Cotton & Paper Flour Sacks	42	79	45,000	72	151	9,000	114
Soap	4,959	3,951	521,000	-	-	-	4,052
Tarpaulins	2	5	3,000	2.7	7.7	1,000	4.
Twine	3	7	2,000	-	-	-	3
Roofing	721	984	44,000	-	-	-	791
Coal & Other Mining Supplies and Equipment	308	336	75,000	10.5	10.1	3,000	318.
Cigarette Supplies	470	344	227,000	135	124	116,000	305
Steel Items	195	216	62,000	-	-	-	195
Copper Wire	2.6	3.2	5,000	2.3	4.1	2,000	4
Automobiles	-	-	-	7.3	73	8,000	7
Total	9,516.6	15,566.2	8,133,000	561.1	937.4	179,000	10,077
GRAND TOTAL	607,638.9	783,204.6	75,927,000	60,257.9	82,702.3	5,388,000	677,592

NOTES: (1) It should be noted that the present method of analysis of shipping reports has been in operation only since February. Consequently, the information on to shipments made prior to 10 February is subject to adjustment as statistics are obtained from a further analysis of prior shipments.

(2) Prices are estimated cost not including overseas shipping cost or, in most instances, domestic transport to first inland depot. In some instances exact net quantities are not yet known and costs have been estimated from gross quantities.

(3) It should be noted that present and future shipments of medical items to this theater will be spot items as needed. It is unlikely that more basic units will be requisitioned. Included in the shipments 10 May to 10 June chipped to 10 June is 10 gross tons and 19.7 ship tons of medical supplies for which no dollar value has

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Shipments (cont'd)

10 May 1944 to 10 June 1944

Gross Long Tons	Ship Tons	Dollar Value
-	-	-
-	62	7,000
90	161	18,000
275	116.5	13,000
36.3	151	9,000
72	-	-
-	7.7	2,000
9.7	-	-
-	-	
-		
		3,000
10.5	10.1	116,000
135	124	-
-	-	
		2,000
2.3	4.1	8,000
7.3	71	
561.1	937.4	179,000
6,957.9	82,702.1	5,388,000

10 May 1944 to 10 June 1944

Gross Long Tons	Ship Tons	Dollar Value
-	-	-
20	62	7,000
275	161	18,000
36.3	116.5	13,000
72	151	9,000
-	-	-
9.7	7.7	2,000
-	-	-
-	-	
		3,000
10.5	10.1	116,000
135	124	-
-	-	
		2,000
2.3	4.1	8,000
7.3	71	
561.1	937.4	179,000
6,957.9	82,702.1	5,388,000

TOTAL

Gross Long Tons	Ship Tons	Dollar value
1,511	5,696	6,917,000
85	246	30,000
2,422	3,816	166,000
264.3	342.5	74,000
114	230	34,000
4,052	3,951	521,000
4.7	12.7	6,000
3	7	2,000
793	984	44,000
318.5	396.1	78,000
905	468	343,000
195	216	62,000
4.0	7.3	7,000
7.3	71	8,000
10,071.7	16,143.6	8,312,000
677,592.8	866,506.7	81,365,000

The present method of analysis of shipping reports has been in operation only since the first of this information as to shipments made prior to 10 February is subject to adjustment as more accurate from a further analysis of prior shipments.

Does not include overseas shipping cost or, in most instances, domestic transportation costs beyond ports; instances exist but quantities are not yet known and costs have been estimated by conversion

Shipments and future shipments of medical items to this theater will be spot items requisitioned as that have basic units will be requisitioned. Included in the shipments 10 May to 10 June and Total gross tons and 19.7 ship tons of medical supplies for which no dollar value has been included.

TRANSPORT APPENDIX

ANNEX A

APPENDIX "P" TO PLANNING DIRECTIVE NO. 7
DATED 26 SEPTEMBER 1943 (Issued by ACC under ACC/1021, 26 Sep 43)

FUNCTIONS OF TRANSPORTATION SUB-COMMISSION.

(a) MISSION.

To assist Italian transport administrations to re-establish the workings of their system and supervise such workings to ensure that facilities are used to the best advantage subject to the prior requirements of the Allied Forces and to meet the requirements of the Commission; the movement of demobilized military personnel and general civil needs of the country.

The term "Transportation" as used herein includes only Railways, Inland Waterways and Docks, their maintenance, operation and repair and the use of transport on highways except local bus and tramways.

(b) MAJOR FUNCTIONS.

(1) The Transportation Sub-Commission will perform the following staff functions:-

(a) Advise the Commission on all technical transportation matters
(b) Formulate plans, policies and procedures in the field of transportation
(c) Ascertain transportation requirements of other Sub-Commissions and formulate plans accordingly.
(d) Cooperate with respective Sub-Commissions with respect to the making of arrangements as required, and to organize the keeping of necessary statistics.
(e) Make recommendations to the Commission in respect of the foregoing.

(2) The Transportation Sub-Commission will directly perform the following operating functions:-

(a) Supervise the execution by the Italian Government of directions issued by the Commission.
(b) Issue directives to regions of procedures to be followed, including those cases where areas of regions do not correspond with areas of Italian railway divisions.
(c) Coordinate, adjust as necessary and direct to proper channels, all requisitions for equipment and stores which it is not possible for local transport administrations to meet from local resources.
(d) Issue directives as to and supervise the maintenance and repair of transportation facilities.
(e) Take all possible steps to ensure the maximum output

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personnel and remedial civil affairs of the country.

The term "Transportation" as used herein includes only Railways, Inland Waterways and Docks, their maintenance, control and repair and the use of transport on highways except local bus and tramways.

(b) MAJOR FUNCTIONS.

(1) The Transportation Sub-Commission will perform the following steps functional:-

(a) Advise the Commission on all technical transportation matters
(b) Formulate plans, policies and procedures in the field of transportation
(c) Ascertain transportation requirements of other Sub-Commissions and formulate plans accordingly.
(d) Coordinate with respective Sub-Commissions with regard to the method of transportation as required, and to organize the training of necessary establishments.
(e) Make recommendations to the Commission in respect of the foregoing.

(2) The Transportation Sub-Commission will directly perform the following operating functions:-

(a) Supervise the execution by the Italian Government of directives issued by the Commission.
(b) Issue directives to regions of Italy to be followed, including in the case where areas of regions do not correspond with areas of Italian railway divisions.
(c) Coordinate, adjust as necessary and direct to proper channels, all requisitions for equipment and stores which it is not possible for local transport administrations to meet from local resources.
(d) Issue directives as to and supervise the maintenance and repair of transportation facilities.
(e) Take all possible steps to ensure the maximum output and quickest turnround of all transportation systems as defined above.

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ANNEX B

ALLIED FORCE HEADQUARTERS
APO 512

24 October 1943

GENERAL ORDERS)

NUMBER 69)

DEVELOPMENT AND OPERATION OF ALL ITALIAN RAILWAYS

1. Brigadier General CARL R. GRAY, JR., 0-109452, USA Director General, Military Railway Service, this headquarters, will be responsible for the rehabilitation, technical development and operation of all Italian State and privately owned railways, except for those sections which may from time to time be returned to civilian operation under the supervision of the Transportation Sub-Commission of the Allied Commission.

2. All United States Railway Service Troops, the Railway portion of the British Transportation Service, and Italian Railway personnel and material will be at his disposal and will operate under his direction. So far as Italian personnel is concerned, this will be accomplished by having General di Raimondo, together with all of the Italian military railway organization, report to the Director General to carry out the duties prescribed. The command and administration of British Railway Transportation Units referred to above will be exercised through normal British channels.

3. In the reconstruction and operation of the Italian Railways, the Director General will be governed by priorities established by this headquarters, presently represented on the Mainland of Italy by the Deputy Chief Administrative Officer, Advanced Administrative Echelon, AFHQ, who will coordinate and present to the Director General the railway requirements of Allied Forces and of Italian civilian and military users.

4. The Director General will continue to be governed in the operation of military railways in North Africa by the provisions of General Order Number 10, this headquarters, as.

By command of General EISENHOWER:

J. F. M. WHITELEY,
Major General, GS, Acting Chief of Staff

OFFICIAL:

T. J. Davis
T. J. DAVIS

Brigadier General, United States Army

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ANNEX C

ALLIED FORCE HEADQUARTERS

AFO 512.

ADMINISTRATIVE MEMORANDUM)
NUMBER 76)

9 November 1943.

ITALIAN TRANSPORTATION SYSTEMS: RELATIONS BETWEEN THE MOVEMENTS AND TRANSPORTATION ORGANIZATION OF THE ALLIED MILITARY FORCES, AND THE TRANSPORTATION ORGANIZATION OF THE ALLIED COMMISSION.

I. RAILWAYS

1. This directive deals with the respective responsibilities for the control and operation of ITALIAN railways of:

a. The Movement and Transportation organizations of the Allied Military Forces, including the Military Railway Service.*

b. The Internal Transportation Sub-Commission of the Allied Control Commission and the Transportation Sections of the Allied Military Government, 15 Army Group.

2. The directive also defines the relations between a. and b. above.

3. a. The responsibilities of G-4 (Mov & Trans), this headquarters, and the staffs and services operating under its command are laid down in Administrative Memorandum No. 12, this headquarters, dated 20 Oct 1943. The instructions contained in that Memorandum are a guide to the general policy to be adopted by the Allied Forces for establishing their movement and transportation organizations in occupied territory.

b. Those instructions, with any amendments in detail which may from time to time become necessary, will continue to form the basis of the movement and transportation policy to be followed in all parts of ITALY occupied by the Allied Forces under command of this headquarters.

*NOTE: Instructions covering the establishment on the Mainland of ITALY, and the functions of AFHQ Advanced Administrative Echelon (FLAMBO) are given in Administrative Memorandum No. 67 this headquarters, as. In this directive, FLAMBO will be regarded as the appropriate military authority, and the Movements and Transportation organizations under its control as the appropriate Movements and Transportation organizations, in all cases covered by the responsibilities of FLAMBO as given in Administrative Memorandum No. 67.

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1. This directive deals with the respective responsibilities for the control and operation of enemy railways of:

a. The Movement and Transportation Organizations of the Allied Military Forces, including the Military Railway Service.*

b. The Internal Transportation Sub-Commission of the Allied Control Commission and the Transportation Section of the Allied Military Government, 15 Army Group.

2. The directive also defines the relations between a. and b. above.

3. a. The responsibilities of G-4 (Mov & Trans), this headquarters, and the specific and services operating under its control* are laid down in Administrative Memorandum No. 67, this headquarters, dated 20 Oct 1943. The instructions contained in this Memorandum are a guide to the general policy to be pursued by the Allied Forces for establishment, maintenance and termination of enemy railroads in occupied territory.

b. These instructions, with any amendments as detail which may from time to time become necessary, will continue to form the basis of the movement and transportation policy to be followed in all parts of ITALY occupied by the Allied Forces under command of this headquarters.

*NOTE: Instructions covering the establishment in the Mediterranean of ITALY, and the functions of AFHQ Advanced Administrative Echelon (FLAMBO) are given in Administrative Memorandum No. 67 this headquarters, as. In this directive, FLAMBO will be regarded as the appropriate military authority, and the Movements and Transportation organizations under its control as the appropriate movements and transportation organizations, in all cases covered by the responsibilities of FLAMBO as given in Administrative Memorandum No. 67.

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4. The responsibilities of the Director General, Military Railways Service, for the development and operation of all Italian railways are given in General Order No. 60, this headquarters, as.

5. a. The responsibilities and functions of the Internal Transportation Sub-Commission are given in Allied Control Commission Planning Directive No. 7 dated 26 September 1943, Appendix "B". (NOTE: To be re-issued with slight amendments shortly).

b. Of these responsibilities and functions, those concerned with the control, supervision and operation of Italian railways will only be applicable to those sections of railway which are from time to time returned (by the Allied Military Forces) to

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Declassified E.O. 12356 Section 3.3/NND No. 785016

a. Liaison and co-operation with Movements and Transportation personnel of the Allied Military Forces.

b. To negotiate at the responsible levels all agreements made by the Allied Military Government, the Allied Control Commission and the Italian authorities, for movement assistance to meet civil needs, and to establish relative priorities between these needs.

c. To represent such requirements to the Military Movements and Transportation staffs concerned, in order that these needs may be considered by the military authority in common with bids for military requirements.

d. To make preparations for taking over the supervision of any parts of the Italian railway systems returned to civilian administration as described in paragraph 5 b above.

e. To agree with the appropriate Movements and Transportation staffs of the Allied Forces what portions of the Italian railways the Movements and Transportation staffs will recommend to the Commander-in-Chief, Allied Force, for return to civilian administration under the supervision of the Transportation Section of the Allied Military Government or of the Internal Transportation Sub-Commission.

NOTE: Such portions of the Italian railways will not be handed over on the orders of the Commander-in-Chief, Allied Force, to civilian administration until

(1) the Allied military forces have no further vital interests in the area concerned.

(2) the Internal Transportation Sub-Commission is in a position to provide such supervisory Allied personnel as the Sub-Commission considers necessary.

and (3) the Italian railway administration is capable, in the opinion of the Commander-in-Chief, of operating sufficiently to meet essential needs, the portion of railway concerned.

II. INLAND WATERWAYS AND HIGHWAYS (Except local bus and tram services)

The relations between the organizations shown in paragraph 1, a. and b., above, will be based on the principles given in Section I - Railways, above.

III. PORTS AND SHIPPING

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0298

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4252

Approved For Release 2000/08/08 : CIA-RDP85-00988R000100010001-3

Senate Resolution 400

94th Congress, 2d Session

To establish a standing Committee of the Senate on Intelligence Activities, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 19 (legislative day, MAY 17), 1976

Mr. BAYH, Mr. [illegible], Mr. [illegible], Mr. [illegible],

0299

Declassified E.O. 12356 Section 3.3/NND No. 785016

934

ANNEX D

Internal Transportation Sub-Commission, ACC
Attached Hov & Tn.,
AFHQ Advanced Administrative Echelon.

ACC Tn/3/4

20 December 43.

ACC Tn. Memorandum No. 1

Procedure for ACC and AMG to secure transportation to meet essential civilian requirements

1. OBJECT. The amplification of certain paragraphs of Adv. Adm. Echelon AFHQ Administrative Instruction No. 14 dated 6 December 43, to assist all concerned in ACC and AMG in securing transportation to most essential civilian requirements.

2. BASIC SCHEDULE OF TRAINS.
Para 5b of Instruction No. 14. Movements required by ACC and AMG by such trains will be pre-arranged through the person in charge at the sending station. As many days notice as possible should be given to enable the person in charge at the sending station to make the necessary arrangements through the normal channels and thus ensure that railway wagons will be available at time and date required for loading and that room is left on the trains concerned to clear the traffic.

There it is anticipated that traffic, if uncontrolled, will be greater than the capacity of the basic schedule of trains, ACC or AMG according to area concerned, should arrange the introduction of a system which requires intending travellers or civilian consignors of freight to secure by production of justifiable evidence, a permit for each movement. In such circumstances the local railway officials at the stations concerned should be instructed that rail movements without permits is strictly forbidden. Permit systems already in operation should be continued and should be made more restrictive if possible in those cases where acute overcrowding of trains and congestion of traffic is occurring.

The local Carabinieri should be made responsible if necessary for control of crowds at railway stations.

3. ADDITIONAL MOVEMENTS OVER AND ABOVE BASIC RAIL SCHEDULE
Paras 6 (a) and (c) of Instruction No. 14. The inclusive periods of ten days for forecasts (or "bidding") will be
21 to 30 December 43.
31 Dec to 9 Jan 44
10 Jan to 19 Jan 44
and so on

Paras 6 (b) and (d) of Instruction No. 14. An example of how this

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ORDER. The amplification of certain paragraphs of Adv. Adm. Echelon AFHQ Administrative Instruction No. 11 dated 6 December 43, to assist all concerned in ACC and AMB in securing transportation to meet essential civilian requirements.

2. BASIC SCHEDULE OF TRAINS.
Para 5b of Instruction No. 11. Movements required by ACC and AMB by such trains will be pre-arranged through the person in charge at the sending station. As many days notice as possible should be given to enable the person in charge at the sending station to make the necessary arrangements through his normal channels and thus ensure that railway wagons will be available at time and date required for loading and that room is left on the trains concerned to clear the traffic.

There it is anticipated that traffic, if uncontrolled, will be greater than the capacity of the basic schedule of trains, ACC or AMB according to area concerned, should arrange the introduction of a system which requires intending travellers or civilian consignors of freight to secure by production of justifiable evidence, a permit for each movement. In such circumstances the local railway officials at the stations concerned should be instructed that rail movements without permits is strictly forbidden. Permit systems already in operation should be continued and should be made more restrictive if possible in those cases where acute overcrowding of trains and congestion of traffic is occurring.

The local Czar should be made responsible if necessary for control of crowds at railway stations.

3. ADDITIONAL MOVEMENTS OVER AND ABOVE BASIC RAIL SCHEDULE
Paras 6 (a) and (e) of Instruction No. 11. The inclusive periods of ten days for forecasts (or "bidding") will be
21 to 30 December 43.
31 Dec to 9 Jan 44
10 Jan to 19 Jan 44
and so on

2933

Paras 6 (c) and (d) of Instruction No. 11. An example of how this procedure will work is as follows - Under para 6 (a) a bid may be made for 1,000 tons of olive oil from Station A to Station B. If this bid is accepted by the Transportation Committee at AMGT Adv. Adm. Ech., the allocation of the additional rail tonnage involved will be advised to the ACC or AMB office from which the bid emanated and to the appropriate Military Movements and Transportation Office.

The specific movements within the tonnage allocated will then be arranged direct between ACC or AMB officer responsible for making the bid and the appropriate Military Movements and Transportation Office. (See App. B. of Instruction No. 11.

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0302

In para 1 of this Memorandum details of the ACC and AMG Transportation Officers who will be attached as soon as possible to the Military Movements and Transportation offices are shown.

The arrangement of the specific movements will comprise the definite fixing of the tonnage to be moved each day, times for loading at sending stations and times of trains on which to be despatched. It will be essential to adhere strictly to the detailed plan so arranged for each consignment.

4. DESCRIPTION AND FUNCTIONS OF ACC AND AMG TRANSPORTATION SERVICES. Paras 5 (a) and 10 and App. B. of Instruction No. 14. The Transportation Officers who will be attached as soon as possible to the more important British and U.S. Military Movement and Transportation Offices are shown below:

Mov. NAPLES	:	Cap t. R.A. RYAN (A)
Mov. FOGGIA	:	Major V.H. ROGERS (B)
Mov. S. Italy BARI	:	(Major S.F. BUCKLEY (B) (Capt. S. WALL (A)
Mov. W. Italy and Tn. F.H.Q.	: WARING	Major T.N. VOSER (A)

On arrival at their posts they will :-

(i) notify all concerned of their address, telephone number and full information of each British and U.S. Military Movement and Transportation Office with which arrangements for specific movements under para 6 (b) and (d) of Instruction No. 14 are to be made in each ACC and AMG Region or Area concerned.

(ii) make all necessary contacts with ACC and AMG Region HQs.

(iii) carry out the requirements of Instruction No. 14

In addition, Transportation officers will be located for the time as shown below:-

HQ. ACC	:	Capt. A.T. BUTLER (B)
HQ. Region 2	:	Major C.H. HOLLAWAY (A) Capt. A.N. DE MARNY (A)
HQ. Region 3	:	Duties to be covered by Major T.N. VOSER (see above)

These officers, in addition to their ordinary duties will assist in co-ordinating the Transportation requirements of the various sections of their headquarters, insure that the requests are made through the proper channels and that the requirements of Instruction No. 14 are complied with.

5. INTERNAL TRANSPORTATION SUB-COMMISSION, ACC.

Address:-

"Attached Mov & Tn
ATFO Adv. Adm. Echelon".

Phone numbers:-

Colonel S.A. FITCH (Personal) PLAZZO Extension 115
[illegible] Extensions 251,250

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6 (contd)

(b) In planning the movement of large consignments do everything possible to arrange block loads to avoid costly haulage of railway wagons.

7. TRAIN GUARDS TO PREVENT PILFERAGE. It has been found necessary to provide Military personnel as guards to prevent pilferage on trains conveying military traffic. Certain Arc or AMD consignments, particularly of foodstuffs, should also be guarded throughout. and it will be the responsibility of the ACC or AMD consignors to arrange guards or other security measures when considered to be necessary.

It will pro bably be found practicable to arrange for the local Carabinieri to provide the guards. As a further safeguard, arrangements should be made for railway reports concerning consignments considered to be particularly liable to pilferage, to be sealed before being handed over to the guard, and for the guard to be held responsible that the seals remain intact until the wagons are handed over at destination to the person authorised to receive them.

8. ARRANGEMENT OF LOCAL MILITARY TRANSPORTATION AND OTHER MILITARY STATIONS. This will be the responsibility of the ACC and AMD officers from whom the requests for rail movements emanate. Therefore, all rail movements should be based on the railway stations (capable of dealing with the traffic) which are nearest to the originating and destination points. It should be possible for ACC and AMD officers concerned to arrange for the local civil authority to provide the use of local mechanical, horse and other animal or manual transport to move traffic to and from railway stations in those cases where consignors or consignees have insufficient transport of their own. The problem might also be eased by the establishment of warehouses or dumps in close proximity to railway stations.

9. HIGHWAY TRANSPORT OTHER THAN LOCAL. A separate Memorandum on this matter will be issued. Owing to shortage of road transport, it is unlikely that much will be available for some considerable time. Meanwhile, details of any Italian Highway Transport organisations, including the numbers of vehicles (runners and non-runners) in their possession and what action is required to enable them to operate, should be sent as soon as possible to the Internal Transportation Sub-Commission, ACC.

10. DOCUMENTATION AND RECORDING OF R.T. TRAFFIC. A separate Memorandum on this matter will be issued. Meanwhile, the procedure should be:-

(a) For movement when the consignee or sender is ACC or AMD and in respect of which no tariff charges to be paid:-

(i) Where Military Warrants (Forms AF 407a or 1044) suitably endorsed "ACC" or "AMD" are now being used, this practice should be continued, but without prejudice to the normal Italian Railway documentation procedure where the sections of railway concerned are being operated by Italian railway organisations.

(ii) Where warrants are not being used the normal documentation procedure employed by the Italian Railway organization, with appropriate endorsements to show

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11. PERIOD FROM NAT UNTIL THE ORGANIZATION FOR OPERATING RAIL MOVEMENT IS TOWING PROPERLY. Circumstances are such that delay may occur in getting the officers detailed in para 4 hereof to their assigned positions and in their establishing necessary contacts and communications. Meanwhile, ACC or AMG requests for specific movements which cannot be arranged otherwise, should be made direct to Internal Transportation Sub-Commission. (See para 5).

Colonel,
Chief, of Internal Transportation Sub-Commission, A.C.C.

DISTRIBUTION
MAB Adv. (2)
HQ. ACC. (Brindisi) (4)
HQ. AMG. (Palermo) (4)
HQ. AMG. (Naples) (4)
HQ. AMG. (Salerno) (4)
HQ. AMB. 15 Army Group Rear (4)
AMG Supply & Economics Section, 15 Army Group, Naples (4)
HQ., Region 2 (10)
HQ., Region 3 (6)
HQ., Region 4 (6)
* HQ., Region 5 (2)
* HQ., Region 6 (2)

ACC Sub-Commissions.
Shipping (10)
Finance - for para 10
Foreign Trade
Industry & Commerce
Public Works and Utilities
Fuel
Agriculture, Forestry & Fisheries
Labour
Interior
Public Safety
Postal Services

DISTRIBUTION FOR INFORMATION
PCOB (6)
D/COT
PCOMS
Mov Dept Italy
Mov Dept Italy
Mov Taranto
Mov Brindisi
Mov Bari
Mov Barletta
Mov Reggio
Mov Rd Ilsed Sub Area
Mov Naples
Mov Salerno
Mov Torre Annunziata
Mov Castellamare
Lt.Col. Wynne Davies
General Di Raimondi

* For information together with copy of Adv. Adm. Sch. AMG Administrative Instruction No. 14.

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DPMA (M)
D/CCI
ADDS
DD/A Registry
DD/I Registry
OGC
OLC
OLL
OPA
OPP
OPR
OSP
OTE
OTR
PAO
SAVA
VA
Chief, Publications Staff
Chief, Publications Review Staff
Chief, Publications Branch
Chief, Publications Services Staff
Chief, Publications Distribution Branch
Chief, Publications Control Branch
Chief, Publications Research Staff
Chief, Publications Production Staff
Chief, Publications Support Staff
Chief, Publications Reference Staff
Chief, Publications Publishing Staff
Chief, Publications Publishing Staff
Chief, Publications Publishing

0308

ANNEX 2

Internal Transportation Sub-Commission, ACC
c/o Movs Th.,
AFHQ Advanced Administrative Echelon,
C.M.F.

Our reference : ACC Tn/3/4
Date : 29 Dec 43

ACC Tn MEMORANDUM No. 2.

Procedure for ACC and AMG to secure transportation to meet essential civilian requirements.

1. Object. Amplifications and amendments to ACC Tn Memorandum No. 1 dated 10 Dec 43.

2. Form of Authorisation for freight movements.

(a) Reference is made to para 2 of ACC Tn Memorandum No. 1 dated 10 Dec 43. From experience of "bids" received and movements already arranged, it is expected that it will be possible to carry out the majority of freight movements required by ACC/AMG by the basic Schedule of Trains. In order to ensure (i) that the correct consignor loads the railway wagons provided, (ii) that unauthorised traffic (such as black-market) does not pass, and (iii) to facilit ate the regulation of traffic, it has been decided by the Transportation Sub-Committee at AFHQ Adv Adm Echelon that a standard form of authorisation to accept for the movement of all consignments despatched by ACC or AMG on civilian consignors authorised by ACC or AMG. This form of Authorisation will take the place of the "permit" referred to in para 2 of ACC Tn Memorandum No. 2. The new arrangement to commence on Monday 10 Jan 44.

(b) A model form of authorisation is shown at Appendix "A". It will be prepared by ACC or AMG departments responsible for originating the movements concerned, and will be issued by them for specific movements only.

(c) Persons in charge (either Military or Civil at railway stations are being instructed NOT to accept consignments for conveyance unless the consignor hands in a properly completed form of authorisation.

3. "Bidding". Reference is made to para 6 (c) of Adv Adm Echelon AFHQ Administrative Instruction No. 14 dated 10 Dec 43. As stated therein, the dates within which the movements are required and the quantities available for movement per day must be given. Bids have been received lacking this essential information. The omissions have caused unnecessary delay.

4. Disposition and functions of ACC/AMG Transportation officers. Reference is made to para 4 of ACC Tn Memorandum No. 1 dated 10 Dec 43. The Transportation Officers (Internal Transportation Sub-Commission representatives) are now in their assigned positions. As there have been alterations in personnel the complete list

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Declassified E.O. 12356 Section 3.3/NND No. 785016

tion to meet essential civilian requirements.

1. Object. Amplifications and announcements to ACC Tn Memorandum No. 1 dated 10 Dec 43.

2. Form of Authorisation for freight movements.

(a) Reference is made to para 2 of ACC Tn Memorandum No. 1 dated 10 Dec 43. From experience of "blue" requests and movements already executed, it is expected that it will be possible to carry out the majority of freight movements required by ACC/ACB on the basis of Schedule of Trains. In order to ensure (i) that the correct consignee loads the railway wagons provided, (ii) that unauthorised traffic (such as black-market) does not pass, and (iii) to facilit ate the regulation of traffic, it has been decided by the Transportation Sub-Commission at AFHQ Adv Adm Echelon that a standard form of authorisation is adopted for the movement of all consignments despatched by ACC or ACB to civilian consignors authorised by ACC or ACB. This form of Authorisation will take the place of the "permit" referred to in para 2 of ACC Tn Memorandum No. 2. The new arrangement to commence on Monday 10 Jan 44.

(b) A model form of authorisation is shown at Appendix "A". It will be prepared by ACC or ACB departments responsible for originating the movements concerned, and will be issued by them for specific movements only.

(c) Persons in charge (either Military or Civil at railway stations are being instructed NOT to accept consignments for conveyance unless the consignee hands in a properly completed form of authorisation.

3. "Bidding". Reference is made to para 6 (c) of Adv Adm Echelon AFHQ Administrative Instruction No. 14 dated 10 Dec 43. As stated therein, the dates within which the movements are required and the quantities available for movement per day must be given. Bids have been received lacking this essential information. The omissions have caused unnecessary delay.

4. Disposition and functions of ACC/ACB Transportation officers. Reference is made to para 4 of ACC Tn Memorandum No. 1 dated 10 Dec 43. The Transportation officers (Internal Transportation Sub-Commission representatives) are now in their assigned positions. As there have been alterations in personnel the complete list to date, is given below:-

2931

Internal Transportation Sub-Commission representatives

Mov Reggio		Capt A M Di Marzo (B)
Mov Foggia		Major V R Romero (B)
Mov E Italy Ports		Capt S Hall (A)
		Lieut Irvine Lynch (B)
Mov W Italy)		
and)	Naples	Major T M Yoder (A)
HQ TAS)		
Region 2	Matera	Major G F Holladay (A)
Region 3	Naples	Major S L Selster (B)
ACC HQ	Brindisi	Capt A M Street (B)

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Declassified E.O. 12356 Section 3.3/NND No. 785016

Signed:
S. J. ERVIN, Colonel
Transmitted through Subcommittee, ACC.

DISTRIBUTION FOR RECOMMENDATION

To: (2)
ACC
Members
Miss M. Brady
Miss M. Brady
Miss Tarabay
Miss Tarabay
Miss Schroder
Miss Bird
Miss Cardenas
Miss Mendoza
Miss Baldwin
Miss Baldwin
Miss Nicolas
Miss Nicolas
Miss Solomon
Miss Solomon
Miss Jaramillo
Miss Jaramillo
Miss Calderon
Miss Calderon
Miss Cole, Wyoming Depina
Miss Peterson
Miss Peterson

ACC Sub-Committees

Shipping (10)
Finance
Foreign Trade
Industry & Commerce
Public Works & Utilities
Fuel
Agriculture, Forestry & Fisheries
Labour
Interior
Public Safety
Postal Services

International Organizations Concerned (Sub-Committee)

Major W.H. Sawyer c/o Mr. Foster Dulles
Major W.H. Wilson
Major C.H. Holladay, c/o Department of State
Major S.L. Saister, c/o Mission to Italy
Capt. J.M. de Mineo, c/o Mr. Merchant
Capt. S. Neil, c/o Mr. E. Taylor
Capt. Art. Street, Jr., ACC Secretariat
Lieut. Irvine Lyngh, c/o Mr. Reed.

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New Delhi Sub-Area
New Naples
New Nicosia
New Athens
New Ankara
New Caserta
Rome, Monte Mario
Rome, Forte Braschi
Rome, Via Lucullo
Rome, Via Aniene
Rome, Via Flaminia
Rome, Via Appia
Rome, Via Cassia
Rome, Via Aurelia
Rome, Via Salaria
Rome, Via Tiburtina
Rome, Via Nomentana
Rome, Via Ostiense
Rome, Via Ardeatina
Rome, Via Portuense
Rome, Via Trionfale
Rome, Via Clodia
Rome, Via Casilina
Rome, Via Prenestina
Rome, Via Tuscolana
Rome, Via Ardeatina
Rome, Via Ostiense

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ATTENDIX 'A'

(Title and Address of ACC/AMG Authority issuing this document)

_____

_____

AUTHORISATION FOR RAIL MOVEMENT (Serial No_____)

TO: The person in charge, at _____(Station)_____(Province)

The undermentioned consignment/s is/are authorised to be transported by rail in accordance with the details given below:-

Name of Consignor and Address: _____

_____

ACC or AMG officer to contact:

Name_____ Address_____
Phone Number_____

Name of Consignee and Address _____

_____

ACC or AMG Officer to contact:

Name_____ Address _____
Phone Number_____

Reference number of Movement _____

Date of Movement	Description of Consignment	Weight in TONS	Station FROM	Station TO

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ACC or AMD officer to contact:

Name_____ Address_____
Phone Number_____

Name of Consignee and Address _____

ACC or AMD Officer to contact:

Name_____Address _____
Phone Number_____

Reference Number of Movement _____

Date of Movement	Description of Consignment	Weight in tons	Station FROM	Station TO

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Signature of authorising officer_____
Designation _____
Date _____

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ANNEX F

BASIC SCHEDULE OF TRAINS FOR AD/ACC TRAFFIC AND CIVILIAN REQUIREMENTS.

27 Jan. 44

Section of Railroad	PASSENGER (each way)	FREIGHT (each way)	MIXED (each way)
ITALIAN STATE, STANDARD GAUGE:			
NAPLES - POTENZA - TARANTO - BRINDISI - BARI	Bi-weekly	One daily	
BARI - BARLETTA			one daily
BARI - BRINDISI			one daily
BRINDISI - LECCE			one daily
BARI - TARANTO (via Gioia)			one daily
BARI - GIOIA	One daily		
MELFI - POTENZA			Tri-weekly
SIGNANO - LAGONEGRO			Tri-weekly
AVELLINO - NOCERA			*) Bi-weekly
S.EUFEMIA - BATTIPAGLIA			one daily
REGGIO - CATANZARO - METAPONTO - TARANTO		One daily	Tri-weekly
SIRACUSA - PACLA			X) Tri-weekly
REGGIO - NOCERA			one daily
CATANZARO - MARINA - S.EUFEMIA			X) Tri-weekly
SUD-EST STANDARD GAUGE SYSTEM	Two Daily	One daily	
SECONDARY LINES METRE GAUGE:			
BARI - MATERA	One daily	Three daily	
BARI - TORITTO	One daily		
METAPONTO - GRAVINA			Two daily
POTENZA - AVIGLIANO			Two daily
POTENZA - CANELLO			Tri-weekly

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BARI - BRINDISI			One daily
BRINDISI - LECCE			One daily
BARI - TARANTO (Via Gioia)			One daily
BARI - GIOIA	One daily		
MELFI - POTENZA			Tri-weekly
SICIGNANO - LAGONEGRO			Tri-weekly
AVELLINO - NOCERA			°) Bi-weekly
S.EUFEMIA - BATTIPAGLIA			One daily
REGGIO - CATANZARO - METAPONTO - TARANTO		One daily	Tri-weekly
STRADE - TAGLA			X) Tri-weekly
REGGIO - NICOSTRA			One daily
CATANZARO - MARTINA - S.EUFEMIA			X) Tri-weekly
SUB-EST STANDARD GAUGE SYSTEM	Two Daily	One daily	

SECONDARY LINES METRE GAUGE:

BARI - MATERA	One daily	Three daily	
BARI - TORITTO	One daily		
ALTAMURA - GRAVINA			Two daily
POTENZA - AVIGLIANO			Two daily
POTENZA - CANELLO			Tri-weekly
ATENA - MARSICO - NUOVO			Tri-weekly
LAGONEGRO - SPEZZANO			One daily

NOTE: °) Service to connect with the MELFI - TARANTO - BRINDISI - BARI Bi-weekly passenger train, both ways.

X) Service to connect with the REGGIO - CATANZARO - METAPONTO - TARANTO Tri-weekly mixed train both ways.

"Daily" Services work only on WEEK DAYS.

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ANNEX G

HEADQUARTERS
ALLIED CONTROL COMMISSION
TRANSPORTATION SUB-COMMISSION
A.C. 324

TRANSPORTATION FOR ACC & CIVILIAN TRAFFIC IN - ITALIAN MAINLAND ONLY

Reference : ACC Tn/19/18
Date : 27 April '44.

ACC TRANSPORTATION NO. 2.

1. Purpose of this Instruction & Effective Date.
(a) Shortage of rail transportation facilities and priority requirements of Allied Forces necessitate more positive control of movement by rail of civil freight traffic. For this reason HQ, AAI has issued Amendment No.2 dated 23 April 44, to Adv. Adm. Echelon, AMG Administrative Instruction No. 11 dated 6 Dec 43.

(b) Revised control arrangements will be effective from 0001 hours 1st May 44. They are covered by following instructions for obtaining rail transportation of civil freight traffic on mainland of Italy, so that reference to previous instructions is unnecessary.

2. Types of Civilian Freight Traffic.
Civilian (i.e. all non-military) traffic falls into two broad categories;
(a) ACC Traffic. Comprises commodities which ACC considers essential to meet vital needs, and over which ACC exercises large measure of control, such as wheat, flour, sugar, olive oil and other basic foodstuffs or supplies. Salt, fuel, fertilizer, seeds and essential products sponsored by Italian Government under ACC auspices, are included in this category.
(b) Ordinary Italian Civilian Freight Traffic. Comprises all freight movements required by civilians, not coming under sub-para (a) above. Such movements must be limited to capacity available after requirements of sub-para (a) above have been fully met.

3. Railway Divisional Boundaries.
(a) Railway operation on Italian mainland is based on Italian railway divisional systems as were in effect prior to outbreak of hostilities. These do not always correspond with Provincial or ACC Regional boundaries. Briefly, these divisions cover areas as under:

Standard Gauge Lines.

I. Reggio - Calabria Division - Capo Compartimento at Reggio.
Includes all of following Provinces:-
(a) Reggio (b) Catanzaro (c) Cosenza
and (d) Rail line; Marina di Maratea to Acquafredda in Potenza Province
and (e) Rail line; Sapri to S. Nicolas Verco(near Battipaglia in Salerno Province
and (f) Rail line; Nova Siri to Basilic(near Metaponto)in Matera Province.

II. Bari Division - Capo Compartimento at Bari.
Includes all of following Provinces.-
(a) Taranto

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(a) Shortage of rail transportation facilities and priority requirements of Allied Forces necessitate more positive control of movement by rail of civil freight traffic. For this reason HQ, AAI has issued Amendment No.2 dated 25 April 44, to Adv. Adm. Bulletin, AFHQ Administrative Instruction No. 11 dated 6 Feb 44.

(b) Revised control arrangements will be effective from 0001 hours 15 May 44. They are covered by following instructions for obtaining rail transportation of civil freight traffic on mainland of Italy, so that reference to previous instructions is unnecessary.

2. Types of Civilian Freight Traffic.

Civilian (i.e. all non-military) traffic falls into two broad categories:
(a) ACC Traffic. Comprises commodities which ACC considers essential to meet vital needs, and over which ACC exercises large measure of control, such as wheat, flour, sugar, olive oil and other basic foodstuffs or supplies. Salt, fuel, fertilisers, crude and essential products sponsored by Italian Government under ACC auspices, are included in this category.
(b) Ordinary Italian Civilian Freight Traffic. Comprises all freight movements required by civilians, not coming under sub-para (a) above. Such movements must be limited to capacity available after requirements of sub-para (a) above have been fully met.

3. Railway Divisional Boundaries.
(a) Railway operation on Italian mainland is based on Italian railway divisional systems as were in effect prior to outbreak of hostilities. These do not always correspond with Provincial or ACC Regional boundaries. Briefly, these divisions cover areas as under:

Standard Gauge Lines.

I. Foggia - Calabria Division - Capo Compartimento at Foggia.
Includes all of following Provinces:-
(a) Foggia (b) Catanzaro (c) Cosenza
and (d) Rail line; Marina di Marsico to Acquafredda in Potenza Province 2929
and (e) Rail line; Sapri to S. Nicolas Varco(near Battipaglia in Salerno Province
and (f) Rail line; Nova Siri to Basilio(near Metaponto)in Matera Province.

II. Bari Division - Capo Compartimento at Bari.
Includes all of following Provinces:-
(g) Taranto (h) Lecce (i) Brindisi (j) Bari
and (k) Potenza, except line noted as in para I. (e) above.
and (l) Matera, except line noted as in para I. (f) above.
and (m) Foggia, except Troia & Rovino stations on Foggia-Benevento line, which are under Naples Division.
and (n) Rail line from Termoli north, along east coast to Fossacesia (normally part of Ancona Division)
and (p) "Sud-Est System" - Privately owned line operating in Provinces as in paras (g) to (j) inclusive, above.

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(iv)(contd) for non-military traffic.

(c) Traffic over any lines not covered by (a) or (b) above will be bid for through HQ, Transportation Sub-Commission, ACC.

(d) Emergency traffic of extreme urgency, which on account of time factor cannot be included in the normal bidding period will be bid for as "emergency" through appropriate channels as above.

(e) Narrow Gauge Lines. These have separate managements, but maintain liaison with FSH. For shipments originating and terminating on the same narrow gauge line arrangements may be effected with local management directly. Where freight is to be interchanged with standard gauge lines, bid system, paras 1 (a) & (b) and 3 will apply.

5. Procedure for obtaining Movement of Italian Civilian Freight Traffic (vide para 2 (b)).

(a) Civilian consignors will apply to local FSH stationmaster at despatching point, in writing which shall be their bid, and shall give:-

(i) Description of commodity, how packed, and weight in tons.
(ii) Despatching and receiving stations.
(iii) Names and addresses of consignor and consignee.
(iv) Date of proposed shipment.
(v) Definite statement that transportation to loading station and loading labour has been arranged and statement that wagons will be unloaded promptly upon arrival at destination.

(b) Bids will be forwarded by station master to his Depo Compartimento, who will collate them in railway line sections and pass them to ACC Transportation Sub-Commission Officer at Reggio or Bari, or to ACC Transportation Officer, Region III for traffic originating in Naples Area. These bids will be screened by ACC Representatives at Monday meetings, at Reggio and Bari (or for Naples FSH Area by ACC Representative Region III), as referred under para 4 (b) (iv) above.

(c) Each bid must be given a serial number by Depo Compartimento and quantities bid for must not exceed amount which can be loaded within seven-day bidding period.

(d) Bids for consideration by Transportation Sub-Committee, will, after screening, be forwarded to HQ Transportation Sub-Commission for necessary action.

(e) Decision of Transportation Sub-Committee, will be notified to ACC Transportation Sub-Commission officer concerned, who will advise Depo Compartimento of action taken. (Acceptance or rejection).

(f) Bids accepted for movement under local arrangements will be included in the seven-day loading programme, only after ACC requirements have been met. ACC Transportation Sub-Commission officer will advise Depo Compartimento of final decision.

(g) ACC Transportation Sub-Commission Officer will issue official ACC

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times, bid system, paras 1 (a) & (b) and 5 will apply.

5. Procedure for obtaining Movement of Italian Civilian Freight Traffic (vide para 2 (c)).

(a) Civilian consignors will apply to local FSP stationmaster at despatching point, in writing which shall be their bid, and shall give:-

(i) Description of commodity, how packed, and weight in tons.
(ii) Despatching and receiving stations.
(iii) Names and addresses of consignor and consignee.
(iv) Date of proposed shipment.
(v) Definite statement that transportation to loading station and loading labour has been arranged and statement that wagons will be unloaded promptly upon arrival at destination.

(b) Bids will be forwarded by station master to his Capo Compartimento, who will collate them in railway line sections and pass them to ACC Transportation Sub-Commission Officer at Reggio or Bari, or to ACC Transportation Officer, Region III for traffic originating in Naples Area. These bids will be screened by ACC Representatives at Weekly meetings, at Reggio and Bari (or for Naples FSP Area by ACC Representative Region III), as referred under para 1 (b) (iv) above.

(c) Each bid must be given a serial number by Capo Compartimento and quantities bid for must not exceed amount which can be loaded within seven-day bidding period.

(d) Bids for consideration by Transportation Sub-Committee, will, after screening, be forwarded to HQ Transportation Sub-Commission for necessary action.

(e) Decision of Transportation Sub-Committee, will be notified to ACC Transportation Sub-Commission officer concerned, who will advise Capo Compartimento of action taken, (acceptance or rejection).

(f) Bids accepted for movement under local arrangements will be included in the seven-day loading programme, only after ACC requirements have been met. ACC Transportation Sub-Commission officer will advise Capo Compartimento of final decision.

(g) ACC Transportation Sub-Commission Officer will issue official ACC wagon labels, (vide para 6 below), to Capo Compartimento who will instruct consignor concerning arrangements. 2928

GENERAL INSTRUCTIONS

6. ACC Official Wagon Labels.

(a) Present form of authorisation laid down in para 2 ACC Tn. Memorandum No. 2 dated 29 Dec 43 will be discontinued effective 0001 hours 22 May 44.

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GENERAL INSTRUCTIONS (contd)

(b) Effective same time ACC official wagon labels will be brought into use for all freight traffic either ACC or civilian, bid for and accepted under arrangements laid down above. Two (2) labels will be provided for each authorised wagon. It is the responsibility of consignor to see that they are affixed to each wagon.

(c) ACC official wagon labels will be supplied by ACC Transportation Sub-Commission Representative to Regional and Provincial Supply Officers, who will insert in ink, in block letters, details of commodity, serial number of bid, date during which movement is authorised; stamp and sign them before issuing to consignor. The number of the wagon to be inserted (in ink) on labels by stationmaster at time of loading.

(d) For civilian freight traffic, ACC official wagon labels will be completed and signed by ACC Transportation Sub-Commission Representative before issue to Cape Compartiments.

(e) Wagons not bearing ACC official wagon labels will NOT be moved.

(f) Any cases of misused, lost, stolen or defaced wagon labels, will be brought to attention of authorising ACC Transportation Sub-Commission Officer, by immediate communication. Only after thorough investigation is ACC Transportation Sub-Commission Officer authorised to issue replacement labels, which shall be clearly marked "DUPLICATE". Any cases of dishonesty or criminal mis-handling of ACC official wagon labels will be promptly reported to HQ Transportation Sub-Commission ACC, with all supporting details.

(g) On any cancellation of movement, ACC official wagon labels must be returned to issuing authority.

(h) IT IS ESSENTIAL THAT ALL ACC OFFICIAL WAGON LABELS BE DESTROYED IMMEDIATELY UNLOADING IS COMPLETED.

7. Transport to and from Railway Station.

Bidder must ensure that adequate local labour and transport are available to move goods, authorised for despatch TO and FROM railway station. Preliminary arrangements should be made while bid is being considered. If, owing to wagon shortage or military necessity, consignment cannot move on allotted date, arrangements must be re-effected for subsequent date.

8. Embargoes.

Embargoes which must be placed will be determined by HQ. Transportation Sub-Commission, ACC., from volume of applications for movement in relation to tonnage lift available.

9. Port Clearance.

Arrangements outlined in para 5 above will not change existing system, under which Port Clearance of ACC freight traffic is effected by "Movements", HQ, AAI as part of military lift but all such wagons shall bear ACC official wagon labels (vide para 6).

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(a) [illegible] and signed by ACC Transportation Sub-Commission Representative [illegible] issue to Corps Compartments.

(e) Wagons not bearing ACC official wagon labels will NOT be moved.

(f) Any cases of misuse, lost, stolen or defaced wagon labels, will be brought to attention of authorising ACC Transportation Sub-Commission Officer, by immediate communication. Only after thorough investigation is ACC Transportation Sub-Commission Officer authorised to issue replacement labels, which shall be clearly marked "DUPLICATE". Any cases of dishonesty or criminal mis-handling of ACC official wagon labels will be promptly reported to HQ Transportation Sub-Commission ACC, with all supporting details.

(g) On any cancellation of movement, ACC official wagon labels must be returned to issuing authority.

(h) IT IS ESSENTIAL THAT ALL ACC OFFICIAL WAGON LABELS BE DESTROYED IMMEDIATELY UNLOADING IS COMPLETED.

7. Transport to and from Railway Station.
Bidder must ensure that adequate local labour and transport are available to move goods, authorised for despatch TO and FROM railway station. Preliminary arrangements should be made while bid is being considered. If, owing to wagon shortage or military necessity, consignment cannot move on allotted date, arrangements must be re-effected for subsequent date.

8. Embargoes.
Embargoes which must be placed will be determined by HQ. Transportation Sub-Commission, ACC., from volume of applications for movement in relation to tonnage lift available.

9. Port Clearance.
Arrangements outlined in para 5 above will not change existing system, under which Port Clearance of ACC freight traffic is effected by "Movements", HQ, AAI as part of military lift but all such wagons shall bear ACC official wagon labels (vide para 6).

10. Weekly Returns.
ACC Representatives in Provinces or Regions shall make weekly returns of traffic DESPATCHED in respect of each accepted bid from their area, to the ACC Transportation Sub-Commission Officer. (for Region II direct to HQ Transportation Sub-Commission).

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11. Conclusion.

Under revised arrangements, first loading programme, as per paras 4 & 5, will be prepared for traffic required to move during week commencing MONDAY 22 MAY44. As from that date, all outstanding freight traffic bids, whether ACC or civilian, and any unexecuted forms of authorisation become NULL and VOID. Therefore, all such traffic effected must be re-bid for in accordance with procedure outlined above.

By command of Lieutenant General MASON MACFARLANE:

L.E. WYNNE.
Lieut-Colonel, R.E.,
A/Director, Transportation Sub-Commission, A.C.C.

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A/[illegible] Secretariat, Disarmament Sub-Commission, Geneva.
Distribution Restricted.
2 Sep. 1957.

ALLIED CONTROL COMMISSION - TRANSPORTATION SUB-COMMISSION

(See reverse for instructions) A.T.S. 394 FORM TSC/3

RED - REQUEST FOR TRANSPORTATION - RTC

Originated by :-_____ DATE_____

Originators Serial No. of Bid_____ Type of Traffic_____
(See para 2 on rev.)

This request is for inclusion among Bids for seven day period (indicate period or stipulate "Emergency Request") - Monday_____ (date) To Sunday_____ (date)

Description of commodity: and how packed:_____

Consignor_____

ACC (or AMG) officer to contact_____

Has transportation to loading station and loading labour been arranged?_____

Loading station (precise R-R. station or Dist must be specified) (inc. Province)	Date Loading can Commence	Amount that can be loaded per day.	Total Tonnage	Wagon loads (or units of 40 c.ft. for sea movement)

Only one consignment to be shown on each bid (form TSC/3).

Consignee_____

C.R-loading station_____ Province_____

ACC (or AMG) officer to contact_____

Has it been ascertained that consignee can unload at expected rate of arrival?_____

Reason transportation is required and order of priority: (state fully):-

If sea movement is specified state reasons:

LIMITATION:- RAIL TRANSPORTATION MUST BE LIMITED TO ALLIED MILITARY TRAFFIC PLUS ONLY SUCH MINIMUM CIVIL TRAFFIC AS IS NECESSARY TO LIFE OF COMMUNITY AND ESSENTIAL WAR INDUSTRY. BEFORE REQUESTING RAIL TRANSPORTATION ACC OFFICERS MUST CONCLUSIVELY ESTABLISH THAT PROPOSED MOVEMENT IS NECESSARY, IN ACCORDANCE WITH FOREGOING.

IMPORTANT

Read all instructions for preparation of this form, on reverse hereof; check to insure all required information being properly shown, then complete following

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Consignee _____

ACC (or AMD) officer to contact _____

Has transportation to loading station and loading labour been arranged? _____

Loading station (precise R.R. station or Ferry must be specified) (Ins. Terminus)	Date loading can Commence	Amount that can be loaded per day.	Total Tonnage	Wagon loads (or units of 40 c.f. for sea movement)

Only one consignment to be shown on each bid (Form TSO/3).

Consignee _____

Of loading station _____ Province _____

ACC (or AMD) officer to contact _____

Has it been ascertained that consignees can unload at expected rate of arrival? _____

Reason transportation is required and order of priority: (state fully):-

If sea movement is specified state reasons:

LIMITATION:- RAIL TRANSPORTATION MUST BE LIMITED TO ABLEST MILITARY TRAFFIC PLUS ONLY SUCH MINIMUM CIVIL TRAFFIC AS IS NECESSARY TO LIFE OF COMMUNITY AND ESSENTIAL WAR INDUSTRY. AREAS REQUESTING RAIL TRANSPORTATION ACC OFFICERS MUST CONCLUSIVELY ESTABLISH THAT PERSON MOVEMENT IS NECESSARY, IN ACCORDANCE WITH FOREGOING.

IMPORTANT

Read all instructions for preparation of this form, on reverse hereof; check to insure all required information being properly shown, then complete following certification.

CERTIFICATION

I certify that I have read above Bid, checked all details shown; that Bid meets provision of "LIMITATION", above, and I hereby approve same.

(Name) (Rank) (Official Position)

(Location) (Mail Address) (Signal and/or Telephone Address)

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0 3 2 8

Declassified E.O. 12356 Section 3.3/NND No. 785016

INSTRUCTIONS FOR PREPARATION OF BID - FORM TSC/3.

1. Bidding system is designed to provide positive control of transportation by rail of civil freight traffic (both ACC and Ordinary Italian). Careful reading of these instructions and preparation of Form TSC/3. also compliance with all requirements and instructions will materially assist all concerned to obtain best possible transportation.

2. Types of Civilian Freight Traffic. Civilian (i.e. all non military) traffic falls into two broad categories, viz:-

(a) ACC Traffic. Comprises commodities which ACC considers essential to meet vital needs, and over which ACC exercises a large measure of control, such as wheat, flour, sugar, olive oil and other basic foodstuffs or supplies. Salt, fuel, fertiliser, seeds and essential products sponsored by Italian Government under ACC auspices are included in this category.

(b) Ordinary Italian Civilian Freight Traffic. Comprises all freight movements required by civilians, not coming under sub-para (a) above. Such movements must be limited to capacity available after requirements of sub-para (a) above, have been fully met.

3. Emergency Traffic of Extreme Urgency. Regular working of bidding system is essential. However, it is appreciated that there may arise emergencies requiring special movement arrangements. In such cases, form TSC/3 will be prepared, clearly marked "Emergency Request", and details of emergency clearly specified. Officers preparing form TSC/3 are responsible for determining that there is actual urgency.

4. ACC Official Wagon Labels. Attention is directed to the fact that wagons must bear official ACC WAGON LABELS, completed in ink. Two labels will be provided, upon acceptance of bid, for each authorised wagon. Labels will be supplied by ACC Tn. Representatives to Regional and Provincial Supply Officers, who will endorse them with details of commodity, serial number of bid, date during which movement is authorised, stamp and sign them before issuing to consignee. The number of the railway wagon will be inserted in ink, by stationmaster, at time of loading. On any cancellation of movement, ACC official wagon labels must be returned to issuing authority.

5. WARNING. Italian railways have been seriously affected by ravages of war, there are critical shortages of coal, supplies and wagons, and military necessities must always receive preference. Bids beyond reason or necessity must not be made and quantities shall be limited to actual requirements, and must not exceed the quantity that can be loaded within any one seven-day period. Mass bids for large quantities, to move at problematical date, or for which all details have not been fully determined, will NOT be submitted on form TSC/3. Letter giving details of such proposed or problematical shipments should be submitted to HQ. ACC Transportation Sub-Commission in advance, through usual channels, giving all known details.

under ACC auspices are included in this category.

(b) Ordinary Italian Civilian Freight Traffic. Comprises all freight movements required by civilians, not coming under sub-para (a) above. Such movements must be limited to capacity available after requirements of sub-para (a) above, have been fully met.

3. Emergency Traffic of Extreme Urgency. Regular working of booking system is essential. However, it is appreciated that there may arise emergencies requiring special movement arrangements. In such cases, form TSC/3 will be prepared, clearly marked "Emergency Request", and details of emergency clearly specified. Officers preparing form TSC/3 are responsible for determining that there is actual urgency.

4. ACC Official Wagon Labels. Attention is directed to the fact that wagons must bear official ACC WAGON LABELS, completed in ink. Two labels will be provided, upon acceptance of bid, for each authorized wagon. Labels will be supplied by ACC Tn. Representative to Regional and Provincial Supply Officers, who will endorse them with details of commodity, serial number of bid, date during which movement is authorized, stamp and sign them before issuing to consignor. The number of the railway wagon will be inserted in ink, by stationmaster, at time of loading. On any cancellation of movement, ACC official wagon labels must be returned to issuing authority.

5. WARNING. Italian railways have been seriously affected by ravages of war, there are critical shortages of coal, supplies and wagons, and military necessities must always receive preference. Bids beyond reason or necessity must not be made and quantities shall be limited to actual requirements, and must not exceed the quantity that can be loaded within any one seven-day period. Mass bids for large quantities, to move at problematical date, or for which all details have not been fully determined, will NOT be submitted on form TSC/3. Letter giving details of such proposed or problematical shipments should be submitted to HQ. ACC Transportation Sub-Commission in advance, through usual channels, giving all known details.

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Declassified E.O. 12356 Section 3.3/NND No. 785016

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Declassified E.O. 12356 Section 3.3/NND No. 785016

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Declassified E.O. 12356 Section 3.3/NND No. 785016

ANNEX 1.

HEADQUARTERS
ALLIED CONTROL COMMISSION
A.C. & M.G. SECTION
APO 394

Ref/142/4/G1

11 February 1944

SUBJECT: Organization and Operation of Road Haulage Transport

TO: HQ. Region I, II, III, IV, V

1. Instructions for the organization and operation of road haulage are issued herewith.

2. Immediate steps will be taken to put this plan into force so that trucks may be allocated and brought into use at the earliest possible date.

3. The information asked for in para. III (ii) will be forwarded direct to Int. Tpsn. Sub-Commission so as to arrive later than 21 Febr. 1944.

NORMAN E. RISER
Colonel, Cavalry,
Deputy Executive
Commissioner

HEADQUARTERS
ALLIED CONTROL COMMISSION
INTERNAL TRANSPORTATION SUB-COMMISSION
APO 394

10 February 1944

INSTRUCTIONS FOR ORGANIZATION AND OPERATION OF ROAD HAULAGE TRANSPORT

OBJECT OF THE ORGANIZATION: To re-establish Road Haulage Transport Organizations on a civilian basis throughout occupied territory, in order that the needs of the country may be met and to supervise such organizations so as to ensure that the interest of the Allied Governments are met and that any Road Haulage Transport abuses are eliminated.

I ORGANIZATION

A. Regional

The Regional Control Commissioner will appoint a Regional Road Haulage Transport Control Officer.

B. Provincial

The Regional Control Commissioner will add to the duties of his

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to Int. Tptn. Sub-Commission so as to arrive later than 21 Febr. 1944.

NORMAN E. HIGHE
Colonel, Cavalry,
Deputy Executive
Commissioner

HEADQUARTERS
ALLIED CONTROL COMMISSION
INTERNAL TRANSPORTATION SUB-COMMISSION
APO 394

10 February 1944

INSTRUCTIONS FOR ORGANIZATION AND OPERATION OF ROAD HAULAGE TRANSPORT

OBJECT OF THE ORGANIZATION: To re-establish Road Haulage Transport Organizations on a civilian basis throughout occupied territory, in order that the needs of the country may be met and to supervise such organizations so as to ensure that the interest of the Allied Governments are met and that any Road Haulage Transport abuses are eliminated.

I ORGANIZATION

A. Regional

The Regional Control Commissioner will appoint a Regional Road Haulage Transport Control Officer.

B. Provincial

The Regional Control Commissioner will add to the duties of his Provincial Civil Supply Officers those of Provincial Road Haulage Control Officer. These officers will require additional staff, who may be either ACC/AMG or proved reliable Italian military or civilian personnel, with a knowledge of Road Transport.

C. Duties of the Regional Road Haulage Transport Control Officer

(i) He will advise his Region HQ. on all matters concerning haulage of goods by road.

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II MOVEMENT OF GOODS BY ROAD

This can be divided into two categories.

A. Movement beginning and ending with the Provincial Boundary

Movement of goods by road within the Province will be under the jurisdiction of the Provincial Civil Supply and Road Haulage Transport Control Officer, through whose organization all requests for movement by road will be made. The Provincial Civil Supply and Road Haulage Transport Control Officer and his organization will be guided by the following principles.

(i) The priority of goods to be carried.

(a) ACC/AMG goods
(b) Foodstuffs, vegetables, fruits and wine
(c) Salt
(d) Livestock and fowls, alive or slaughtered
(e) Coal and coke for industry
(f) Cement, lumber and building materials
(g) Charcoal
(h) Seeds
(i) Fertilizers and raw materials for manufacture of fertilizers
(j) Agricultural machinery
(k) Soaps

The above list will be amended by the Regional Control Commissioner as he thinks necessary, having regard to the varying conditions prevailing in different Provinces.

(ii) (a) Goods carried on behalf of ACC/AMG and on behalf of civilian consignees will be carried at freight rates, to be drawn up by each provincial Civil Supply and Road Haulage Transport Control Officer and submitted to the Regional HQ. for review and forwarding to HQ. ACC (Internal Transportation Sub-Commission) for approval. In submitting such rates for approval, the comparative pre-occupation rates should also be shown.

(b) Existing practices regarding payment of freight charges will be continued. Freight charges for goods carried strictly for ACC/AMG domestic purposes will be paid by the consignee (ACC/AMG).

(c) When ACC/AMG vehicles are allocated to civilian road haulage with transport organizations, this will be done on a contract basis. These vehicles will be supplied to the Regions as explained in paragraph III below and it will be the responsibility of the Regional Road Haulage Transport Control Officer to turn over the vehicles to the civilian road haulage organizations, on the recommendations of the provincial officers. Gasoline, oil, maintenance, manpower and other requirements will be supplied and paid for by the civilian road haulage organization. A standard form of contract for each civilian road haulage organization, with provision for local variations as necessary, will be issued.

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(iii) Goods preferable

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(c) Coal
(d) Livestock and feeds, alive or slaughtered
(e) Coal and coke for industry
(f) Cement, timber and building materials
(g) Charcoal
(h) Seeds
(i) Fertilizers and raw materials for manufacture of fertilizers
(j) Agricultural machinery
(k) Soaps

The above list will be amended by the Regional Control Commissioner as he thinks necessary, having regard to the varying conditions prevailing in different Provinces.

(ii) (a) Goods carried on behalf of ACC/AMG and on behalf of civilian consignors will be carried at freight rates, to be drawn up by each provincial Civil Supply and Road Haulage Transport Control Officer and submitted to the Regional HQ. for review and forwarding to HQ. ACC (Inland Transportation Sub-Commission) for approval. In submitting such rates for approval, the comparative pre-occupation rates should also be shown.

(b) Existing practices regarding payment of freight charges will be continued. Freight charges for goods carried strictly for ACC/AMG domestic purposes will be paid by the consignor (ACC/AMG).

(c) When ACC/AMG vehicles are allocated to civilian road haulage with transport organisations, this will be done on a contract basis. These vehicles will be supplied to the Regions as explained in paragraph III below and it will be the responsibility of the Regional Road Haulage Transport Control Officer to turn over the vehicles to the civilian road haulage organisations, on the recommendations of the provincial officers. Gasoline, oil, maintenance, manpower and other requirements will be supplied and paid for by the civilian road haulage organisation. A standard form of contract for each civilian road haulage organisation, with provision for local variations as necessary, will be issued.

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(iii) Goods preferably will not be transported by road if rail transport is available except when trucks are returning empty.

(iv) No other goods shall be accepted for transport so long as any goods on the priority list are awaiting transport.

(v) The subject of return loads will always be borne in mind.

(vi) All requests for road transport of ACC/AMG goods will be submitted to the Provincial Civil Supply and Road Haulage Control Officer at least 24 hours before the movement is required to take place.

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(ii) He will supervise the Provincial Civil Supply and Road Haulage Transport Control Officer in his Region as far as Road Transport is concerned.

D. Duties of the Provincial Civil Supply and Road Haulage Transport Control Officer

(i) To liaise with any civilian Road Haulage organisation existing in his Province and assist them in re-establishing that organisation in order that it may operate under his supervision.

(ii) Where no civilian Road Haulage organisation exists in the Province, to liaise with the Consiglio Provinciale Dell'Economia and through them, to contact the most reliable haulage operator and with him build up an organisation to handle Road Transport.

(iii) Through the civilian road haulage organisation established, under (i) or (ii) above, to form a pool or pools of vehicles according to the lay-out and transport needs of his Province. By the use of the word "pool" it is not meant that all vehicles must be grouped in one building: they can remain with their respective owners and still constitute a pool.

(iv) To ensure that the civilian road haulage organisation established, under (i) or (ii) above, organises a Maintenance, Repair and Servicing depot or depots. It must be borne in mind that a good mechanical engineer is absolutely essential.

(v) At a specified time and in conjunction with the appropriate Regional authorities, to cancel all existing civilian load carrying vehicles licences and issue new permits after proper registration. If the existing C.I.P. system is considered sufficient to prevent road haulage transport abuses, no further action is necessary.

(vi) All drivers will be supplied with a combined work ticket and delivery note, which will bear a serial number.

(a) One copy to remain in the hands of the civilian transport organisation.
(b) One copy to be handed to consignee.
(c) One copy to be carried by the driver, signed by the consignee and returned by the driver to the transport organisation.

These forms will be printed in English with an Italian translation. The printing will be carried out by HQ. AAI/ACC. Regions must give early advice to HQ. ACC (Internal Transportation Sub-Commission) as to their requirements.

(vii) Arrangements will be made with the appropriate authorities (C.I.P.), so that petrol and lubricants can be delivered in bulk to the maintenance depot or depots established, in order that truck owners can draw their supplies from one

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(iii) Through the civilian road haulage organisation established, under (i) or (ii) above, to move a unit or pools of vehicles according to the lay-out and to support needs of his Province. By the use of the word "pool" it is not meant that all vehicles must be merged in one building; they can remain with their respective units but shall constitute a pool.

(iv) To ensure that the civilian road haulage organisation established, under (i) or (ii) above, receives maintenance, repair and servicing input or inputs. It must be borne in mind that a good mechanical organisation is absolutely essential.

(v) At a specified time and in conjunction with the appropriate Regional authorities, to permit all existing civilian load carrying vehicles licenced and duly non pedrits after proper registration. If the above C.I.F. system is considered sufficient to prevent such vehicles transport abuse, no further section is necessary.

(vi) All drivers will be supplied with a combined work ticket and delivery note, which will bear a serial number.

(a) One copy to remain in the hands of the civilian transport organisation.
(b) One copy to be issued to consignee.
(c) One copy to be carried by the driver, signed by the consignee and returned by the driver to the transport organisation.

These forms will be printed in English with an Italian translation. The printing will be carried out by HQ. AMG/ACC. Regions must give early notice to HQ. ACC (Internal Transportation Sub-Commission) as to their requirements.

(vii) Arrangements will be made with the appropriate authorities (C.I.F.), so that petrol and lubricants can be delivered in bulk to the maintenance depot or depots established, in order that truck owners can draw their supplies from one source. A monthly petrol account will be kept; this account to be open to inspection at any time.

(viii) All application for Provincial Road Haulage movement will be made through his organisation.

(ix) He will maintain a record of Road Haulage Movement in his Province and render a weekly vehicle availability statement to the Regional Road Haulage Transport Control Officer.

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B. Movement extending beyond the Provincial boundary

(i) All requests for the movement of goods beyond the Provincial boundaries will be made to the Regional Road Haulage Control Officer and the principles set out in "A" apply. The Regional Road Haulage Transport Control Officer, with the information supplied to him by his provincial officers, will be in a position to organise these moves and utilise the most convenient Provincial Road Haulage Transport Organisation or Organisations. The Regional Road Haulage Transport Control Officer, acting with the agreement of numbers in adjacent regions, will establish thru-routes for inter-regional movements. (Regional officers may also establish inter-provincial thru-routes in their regions.)

(ii) Close contact between Regional Road Haulage Transport Control Officers is essential and this contact will enable full use to be made of the return load system.

III SUPPLY OF ADDITIONAL TRUCKS

(i) It is anticipated that in the near future additional trucks will be made available. Under these circumstances, Regional Road Haulage Transport Control Officers must make every effort to see that organisations, as set out in para. I, are established with every possible speed.

(ii) They will collate the following information as soon as possible. Number and carrying capacity of additional trucks required, (after taking into account those at present available) to maintain essential road haulage facilities within their Provinces and Regions. Consideration must be given to import expectations and overall distribution and warehousing. This information will be forwarded to: Internal Transportation Sub-Commission, ACC c/o Mov. & Tn., AMMG, Advance Administration Caserta, CMF.

IV FORMATION OF EMERGENCY TRANSPORT POOL

(i) In the very near future, 200 trucks will be made available and these have been provisionally allocated as follows: Crotone 15 trucks; Reggio 10 trucks; Messina 10 trucks; and Catanzaro 10 trucks (Region II); Naples area 60 trucks (Region III); Bari 20 trucks; Taranto 20 trucks; and Brindisi 10 trucks (Apulia, Italy), with a reserve of 15 trucks at Bari and 10 trucks at Brindisi.

(ii) These 200 trucks will be organized on a military basis, but it will be necessary for the Regions concerned in the above mentioned areas to have ready an officer and staff to take over the supervision of these trucks. In the main, this Emergency Transport Pool will be dealing with the carriage of imported foodstuffs from ports to warehouses and from warehouses as distributing centres.

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(i) In the very near future, 200 trucks will be made available and these have been provisionally allocated as follows: Crotone 15 trucks; Reggio 10 trucks; Corsenza 10 trucks; and Catanzaro 10 trucks (Region II); Naples each 20 trucks (Region III); Bari 20 trucks; Taranto 20 trucks; and Brindisi 10 trucks (King's Italy), with a reserve of 15 trucks at Bari and 10 trucks at Brindisi.

(ii) These 200 trucks will be organised on a military basis, but it will be necessary for the Regions concerned in the above mentioned areas to have ready an officer and staff to take over the supervision of these trucks. In the main, this Emergency Transport Pool will be dealing with the carriage of imported foodstuffs from ports to warehouses and from warehouses to distributing centres.

(iii) The formation of this Emergency Transport Pool is in order to meet the most urgent road haulage requirements until such time as civilian organisations, as outlined in para. 2, are capable of taking over commitments. When that time is reached, it will be possible to transfer the Emergency Transport Pool to forward areas of occupied territory, where road transport is of vital urgency and no civilian organisation can be operated. The regions to which this transport is allocated must bear this important fact in mind and appreciate that it may be necessary to withdraw some or all of that transport at very short notice.

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ALLEGATO 1

MINISTRY OF COMMUNICATIONS

Rome, Aug. 12th, 1944.
N.V.L.

SUBJECT: Inter-ministerial Decree May 31th, 1944
Official Gazette No. 44 of 3 Aug. 44

TO : All Prefects

The charges for motor freight haulage have been fixed by Inter-Ministerial decree published upon the Official Gazette of 3 August 1944.

Said charges appear upon two tables attached to the above decree and they are intended for indivisible quintal, according to the distance covered and the load carrying capacity of the motor vehicle.

Table I shows the charges for the ordinary transportation without a specific prescription as far as the duration of the service is concerned; table II shows the charges when the motor vehicle is engaged for an 8 hour day and for a maximum distance of 50 Kms.

To the above tables are attached instructions, dealing with the various kinds of motor vehicles, the kind and duration of road haulage to which the above charges are to be applied, together with the question of collective hauls and the regulations to be applied to the motor haulage contracts at present in force.

I send you herewith a copy of the above decree in order that it may be immediately and rigorously enforced from the very first day of its becoming effective.

I call your attention upon the necessity of immediate severity in order to put an end to the present situation, and I demand that nothing be neglected in order that everybody observes the law.

Please confirm and send, if possible, a detailed report

The Minister

/s/ CERASOMA

MINISTERIAL DECREE OF MAY 31st, 1944

Charges for Motor Freight Haulage

The Minister for Industry, Labor and Commerce in agreement with the Minister of Communication;

having seen the Royal Law Decree, Dec. 9, 1941, No. 1486, reporting regulations on prices of non-alimentary products and sources,

having seen the Ministerial Decree of June 28, 1942, published in the Official Gazzette No. 167 of July 17, 1942, which fixes the charges for motor freight haulage,

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...ge. The motor vehicle is engaged for an 8 hour day and for a maximum distance of 50 Kms.

To the above tables are attached instructions, dealing with the various kinds of motor vehicles, the kind and duration of road haulage to which the above charges are to be applied, together with the question of collective hauls and the regulations to be applied to the motor haulage contracts at present in force.

I send you herewith a copy of the above decree in order that it may be immediately and rigorously enforced from the very first day of its becoming effective.

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The Minister for Industry, Labor and Commerce in agreement with the Minister of Communication;

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having seen the Ministerial Decree of June 28, 1942, published in the Official Gazette No. 167 of July 17, 1942, which fixes the charges for motor freight haulage,

considering the necessity of relating said charges to the present conditions

Decides

(Only article)

The charges for motor freight haulage cannot exceed those specified in the attached tables and directions.

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Distance in Kms.	Smooth & Undulating			Broken			Mountainous		
	Heavy	Medium	Light	Heavy	Medium	Light	Very	Mountainous	
50	5.70 5.25 4.95 4.70	6.50 5.45 5.10 4.80	7.60 6.00 5.50 5.20	11.00 8.25 7.35 6.80	15.45 10.65 9.15 8.25	25.15 15.05 12.10 10.40	25.05 15.45 11.80 9.95	25.35 15.20 11.45 9.65	25.75 15.35 11.25 9.55
65	6.30 5.80 5.45 5.20	7.20 6.00 5.65 5.30	8.40 6.60 6.05 5.75	12.15 9.10 8.10 7.50	17.05 11.75 10.10 9.15	27.65 16.55 13.30 11.45	27.60 17.00 12.95 10.95	27.85 16.75 12.60 10.60	28.35 16.90 12.40 10.50
80	6.90 6.35 5.95 5.70	7.90 6.55 6.20 5.80	9.20 7.25 6.65 6.30	13.30 9.95 8.85 8.20	18.65 12.85 11.05 10.00	30.25 18.10 14.55 12.55	30.20 18.60 14.15 11.95	30.45 18.35 13.80 11.60	31.00 18.50 13.55 11.50
100	7.70 7.10 6.65 6.35	8.80 7.30 6.90 6.50	10.25 8.10 7.40 7.00	14.85 11.10 9.85 9.15	20.80 14.35 12.30 11.15	33.75 20.20 16.25 14.00	33.70 20.75 15.80 13.35	34.00 20.50 15.40 12.95	34.60 20.65 15.15 12.85
120	8.45 7.80 7.30 6.95	9.65 8.00 7.55 7.15	11.25 8.90 8.10 7.70	16.30 12.20 10.80 10.05	22.80 15.75 13.50 12.25	37.00 22.15 17.80 15.35	36.95 22.75 17.30 14.65	37.30 22.50 16.90 14.20	37.95 22.65 16.60 14.10
150	9.30 8.60 8.05 7.65	10.60 8.80 8.30 7.85	12.40 9.80 8.90 8.45	17.95 13.45 11.90 11.05	25.10 17.35 14.85 13.50	40.75 24.40 19.60 16.90	40.70 25.05 19.05 16.15	41.10 24.80 18.60 15.65	41.80 24.95 18.30 15.55
180	10.15 9.40 8.80 8.35	11.55 9.60 9.05 8.55	13.55 10.70 9.70 9.20	19.60 14.70 13.00 12.05	27.40 18.95 16.20 14.75	44.50 26.65 21.40 18.45	44.45 27.35 20.80 17.65	44.90 27.10 20.30 17.10	45.65 27.25 20.00 17.00
210	11.00 10.20 9.55 9.05	12.50 10.40 9.80 9.25	14.70 11.60 10.50 9.95	21.25 15.95 14.10 13.05	29.70 20.55 17.55 15.95	48.25 28.90 23.20 20.00	48.20 29.65 22.55 19.15	48.70 29.40 22.00 18.55	49.50 29.55 21.70 18.45
240	11.85 10.95 10.30 9.75	13.45 11.20 10.55 9.95	15.85 12.50 11.30 10.70	22.90 17.20 15.20 14.05	32.00 22.15 18.90 17.20	52.00 31.15 25.00 21.55	51.95 31.95 24.30 20.65	52.50 31.70 23.70 20.00	53.35 31.85 23.40 19.90
270	12.70 11.75 11.05 10.45	14.40 12.00 11.30 10.65	17.00 13.40 12.10 11.45	24.55 18.45 16.30 15.05	34.30 23.75 20.25 18.45	55.75 33.40 26.80 23.10	55.70 34.25 26.05 22.15	56.30 34.00 25.40 21.45	57.20 34.15 25.10 21.35
300	13.55 12.55 11.80 11.15	15.35 12.80 12.05 11.35	18.15 14.30 12.90 12.20	26.20 19.70 17.40 16.05	36.60 25.35 21.60 19.70	59.50 35.65 28.60 24.65	59.45 36.55 27.80 23.65	60.10 36.30 27.10 22.90	61.05 36.45 26.80 22.80

Distance in Kms.

The Director of Commercial Intelligence, Calcutta, has published the following statistics of imports into India during the month of October 1944 :-

	Value in Rs.
Cotton piece-goods	1,50,00,000
Cotton yarn	30,00,000
Metals	1,00,00,000
Machinery	1,00,00,000
Chemicals	50,00,000
Paper	50,00,000
Sugar	1,00,00,000
Motor vehicles	50,00,000
Rubber manufactures	50,00,000
Silk manufactures	50,00,000
Woollen manufactures	50,00,000
Others	5,00,00,000
Total	13,00,00,000

Calcutta, Dec 21, 1944.

The Director of Industry, Orissa has issued a Press Note :-

| | Motor-cycles | Trucks | | |

Motor Freight Haulage rates at a full load transported on the load platform of the truck. (Vehicles engaged for a whole day (8 hours) and covering a maximum distance of 50 kms.)

Tariff charge is by indivisible quintal. (Income tax not included.)

TABLE II

Distance in Kms.	Truck & Trailers		Trucks			Motor-cycles	
	Heavy	Medium	Heavy	Medium	Light	Van	Tri-cars
Fr. 1 to 5	5.85	4.60	7.40	8.15	20.70	10.10	15.95
" 6 " 10	6.20	7.00	8.15	9.55	15.55	14.40	28.25
" 11 " 15	6.80	7.60	8.95	10.10	20.45	18.55	40.45
" 16 " 20	8.15	9.05	10.70	12.80	25.25	22.95	52.70
" 21 " 30	10.10	12.05	13.40	15.55	35.00	31.50	77.20
" 31 " 40	12.45	14.50	15.70	20.05	44.75	40.05	-
" 41 " 50	14.95	17.90	21.50	24.50	54.45	48.50	-

The above rates are applied for the whole distance covered, both with load and empty. To the total of the charge there must be added:

200.00	13.65	11.55	660.00	405.00	170.00	135.00

1. In applying the rates in the attached tables, vehicle classification is as follows:

   Heavy truck and trailer - those having a load capacity of more than 90 quintals
   Medium truck and trailer - " " " " " up to 90 quintals
   Heavy trucks - " " " " " " " 40 "
   Medium trucks - " " " " " between 20 and 40 quintals
   Light trucks - " " " " " up to 20 quintals
   Motorcycle vans - all three-wheel vehicles having a load capacity of up to 10 quintals and in exceptional cases even more
   Motorcycle Tri-cars - all motorcycles adapted for haulage and having a load capacity of up to 3.5 quintals

   It is understood that a truck and trailer is a vehicle composed jointly of a truck and trailer, the truck part provides the traction but in calculation of the charge, it is considered indivisable from the trailer.

   The load capacity is defined as that indicated on the circulating permit and only said load capacity must be considered when classifying a vehicle and calculating transportation charges.

2. The charges in Table II are applied when the vehicle is explicitly engaged for a whole day of 8 hours and the distance covered by the vehicle in performing the required service does not exceed 50 kms.

   In all other cases, the charges set out in Table I are applied.

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" 21 " 30	10.10	12.05	13.10	15.35	35.00	31.50	77.20
" 31 " 40	12.45	14.90	16.70	20.05	44.75	40.05	-
" 41 " 50	14.95	17.90	21.50	24.50	54.45	48.30	-

The above rates are applied for the whole distance covered, both with load and empty. To the total of the charge there must be added:

2100.00	13.55	11.55	660.00	405.00	170.00	155.00

1. In applying the rates in the last eight tables, vehicle classification is as follows:

   Heavy truck and trailer - those having a load capacity of more than 50 quintals
   Medium truck and trailer - " " " " " up to 50 quintals
   Heavy trucks - " " " " " " " 40 "
   Medium trucks - " " " " " between 20 and 40 quintals
   Light trucks - " " " " " up to 20 quintals
   Motorcycle vans - all three-wheel vehicles having a load capacity of up to 10 quintals and in exceptional cases over more
   Motorcycle Tri-cars - all motorcycles adapted for haulage and having a load capacity of up to 3.5 quintals

   It is understood that a truck and trailer is a vehicle composed jointly of a truck and trailer, the truck part provides the traction but in calculation of the charge, it is considered indivisible from the trailer.

   The load capacity is defined as that indicated on the circulating permit and only said load capacity must be considered when classifying a vehicle and calculating transportation charges.

2. The charges in Table II are applied when the vehicle is explicitly engaged for a whole day of 8 hours and the distance covered by the vehicle in performing the required service does not exceed 80 kms.

   In all other cases, the charges set out in Table I are applied.

3. Whenever, because of the nature of the freight or for other reasons, the entire load capacity of the vehicle cannot be utilized as whenever the capacity of the vehicle is fully used with bulky material, whatever the weight may be, the charges as shown in the Tables are applied notwithstanding and in accordance with the maximum useful load of the vehicle.

4. Fractions of a km. are considered as a whole km.

5. The distance must be calculated in kms. proceeding by the shortest route from the garage of the vehicle to the place of discharge of the freight;

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the reverse will be true for the return trip. It must be understood that the shortest route includes eventual necessary deviations.

6. For empty return trips rates in Table 2 will be applied reduced by 40%.

7. When the vehicle carries freight belonging to several persons with various destinations along the same route the amount which must be paid for the transport must be calculated taking into account the whole distance covered and the useful load of the vehicle, calculating also the eventual empty return. The above amount will be divided proportionately, to the number of quintals been covered for each person.

8. The charges as per attached tables include also the time required in the loading and unloading of the vehicle. This must be done at the rate of 80 quintals per hour, for truck and trailer, and of 40 quintals per hour for other vehicles. For each half-hour more employed the consignor or consignee (depending on the circumstances) must pay:

1. 130 - for heavy truck and trailer
" 85 - " medium " " "
" 70 - " heavy trucks
" 40 - " medium "
" 25 - " light "

9. The length of the carriage must be computed from the moment when the vehicle leaves the garage to the time when they return to said garage without taking into account time which is for the personal account of the trucker himself.

10. The above regulations and charges do not replace those presently valid that are more favorable to the contractor of transport.

11. Contracts now in effect, which do not show conditions more favorable to the contractor of transport than those of this decree, must be considered as cancelled from the day when the above regulations and charges are published in the Official Gazette; in the other cases the contracts will be valid until one month after said publication.

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for other voltages. For each multiplier more or less than
connected (depending on the alternator) must be:

L. 120 - for battery charging and traction
" 95 - " sodium
" 70 - " heavy grade
" 40 - " medium "
" 25 - " light "

3. The length of the service must be regulated from the nearest main fan ventilo
leaving the garage at the time when they return. It shall operate automatic heating
into vacuums time which is the thermostatic control of the interior heater.

10. The above requirements may differ for the replace should preferably read this
are more favorable to the continuation of temperature.

11. Connected now in effect, which do not show installations need thoroughly to the
connection of equipment when those of this system, made to consistence or
associated from the day when all doors refrigerate with dampers are published
in the official Gazette. In the other case the entrance all terrible
until one month after publication.

ANNEX 7

CITY OF ROME

SUMMARY OF TRANSPORT AND LOADS CARRIED
BY OFFICIAL ROAD TRANSPORT ON 19 AUGUST 44

Commodity	Total Number of Vehicles Used	Total Weight of Load Carried (Quintals)	Total Number of Kms. Travelled	*Estimated Fuel Consumption (Gals.)
Grain	1	148	500	59
Flour	14	644	1,650	147
Flour (other kinds)	3	127	280	60
Potatoes	8	155	1,420	111
Meat & Livestock	1	6	400	31
Poultry	2	49	820	64
Eggs	2	75	900	70
Fish (fresh & tinned)	34	274	4,910	385
Vegetables & Fruits	115	3,819	31,734	2,479
Fruit	34	447	3,230	252
Wine	2	110	1,450	112
Oil	1	34	880	69
Salt	1	50	740	58
Various Foodstuffs	9	436	2,300	179
Wood	41	1,825	8,430	659
Charcoal	47	1,341	12,656	989
Liquid Fuel & Lubricants	7	545	2,800	219
Various	30	1,086	6,854	535
Towing (breakdown)	1	50	140	11
Various (Rome area)++	323	6,713	35,100	2,742
Totals	670	18,120	118,006	9,209

* Estimated at the rate of 8 miles per gallon.
++ Includes haulage from railway stations in Rome to consignees.

Date: 22 August 1944

TRANSPORTATION SUB-COMMISSION

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Poultry	2	45	880	61
Eggs	2	75	900	78
Fish (fresh & tinned)	34	274	4,910	383
Vegetables & Fruits	115	3,819	31,754	2,479
Fruit	14	447	3,220	252
Wine	2	110	1,430	112
Oil	1	34	880	69
Salt	1	50	740	58
Various Foodstuffs	2	436	2,300	179
Wood	41	1,885	8,430	659
Charcoal	47	1,341	12,658	989
Liquid Fuel & Lubricants	7	545	2,809	219
Various	30	1,086	6,854	539
Towing (breakdown)	1	50	140	11
Various (Rome area)++	323	6,713	35,100	2,742
Totals	603	16,110	118,006	9,209

* Estimated at the rate of 8 miles per gallon.
++ Includes haulage from railway stations in Rome to consignees.

Date: 22 August 1944

TRANSPORTATION SUB-COMMISSION

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ANNEXE 32

LEGISLATIVE DIPLOMATIC DECREE DRAFT
ESTABLISHMENT OF THE NATIONAL AGENCY OF MOTOR TRANSPORTATION OF GOODS
(E.N.A.C.)

DECREE OF SAVOIA PRINCE OF PIEDMONT
LIEUTENANT GENERAL OF THE KINGDOM

By virtue of the authority delegated to us;
Having seen the Lieutenancy Decree Law 25 June 1944 no 151;
Having seen the R. Decree-Law 30 October 1943, no 1/8 and successive modifications;
Having seen the deliberation of the Council of Ministers;
Upon the proposal of the Minister Secretary of State for Communications;

WE HAVE ORDAINED AND PROMULGATE THE FOLLOWING:

Art. 1

For coordination of motor transportation for goods and for best utilization of motor transport intended for that use, the National Agency Motor Transportation of Goods (E.N.A.C) is constituted, an agency of public right under the supervision and control of the Ministry of Communications - Inspectorate General of Civilian Motorization and Transportation in Concession.

Art. 2

The attached statute establishing the powers, rights, duties and the duration of the Ente in accordance with the preceding article and regulating the administration thereof is approved.

Art. 3

All the owners of autotrains, trucks, #tercars and road tractors with trailers, destined for the transport of goods, as well as all persons who have in their possession for any reason whatsoever, vehicles of the above mentioned categories, are obliged to register with the E.N.A.C. and to observe its statute.

For that purpose they will present within fifteen days from the date of publication of the present Decree, request for registration to the Compartimental Inspectorates for Civilian Motorization and Transportation in Concession, which have jurisdiction for the territory.

Art. 4

From the date which shall be determined by appropriate Decree of the Ministry of Communications, it is forbidden for any person to effect or have effected with vehicles, even if they be their own property, transportation not disposed by the E.N.A.C.

The Ministry of Communications, however, has the option to release to the subscribed of the Ente, previous authorizations, revokeable at any time to effect directly transport of their own goods with their own vehicles for particular exigencies and for services of a continuous character.

In case the owner or possessor of a vehicle as in para 1 of this article cannot or does not wish to comply, he is obliged to make a written statement to the office of the Ente and to entrust to the same Ente the [illegible] vehicle in his possession.

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Art.

For coordination of motor transportation to goods and for best utilization of motor transport intended for that use, the National Agency for Transportation of Goods (E.N.A.C) is constituted as agency of public right under the supervision and control of the Ministry of Communications - Inspectorate for Control of Civilian Motorization and Transportation in Concession.

Art: 2

The attached statute establishing the scope, rights, duties and the duration of the Sate in accordance with the preceding article and regulating the administration thereof is approved.

Art. 3

All the owners of autotrains, trucks, stationcars and road tractors with trailers, destined for the transport of goods, as well as all persons who have in their possession for any reason whatsoever, vehicles of the above mentioned categories, are obliged to register with the E.N. .C. and to obtain its stamp.

For that purpose they will present within fifteen days from the date of publication of the present Decree, request for registration to the Compartimental Inspectorate for Civilian Motorization and Transportation in Concession, which have jurisdiction for the territory.

Art. 4

From the date which shall be determined by appropriate Decree of the Ministry of Communications, it is forbidden for any person to effect or have effected with vehicles, even if they be their own property, transportation not disposed by the E.N.A.C.

The Ministry of Communications, however, has the option to release to the benefit of the Sate, authorizations, revokable at anytime to effect directly transport of their own goods with their own vehicles for particular exigencies and for services of a continuous character.

In case the owner or possessor of a vehicle as in para 1 of this article cannot or does not wish to comply, he is obliged to make a written statement to the office of the Sate and to entrust to the same Sate the operation of vehicle or vehicles in his possession.

Art. 5

Except under conditions specified in the second paragraph of the preceding article, from the same date, whatsoever intends to effect transportation of goods, must make a regular request:

1.- To the Commissions as per art. 25 of the Statute, if the matter entails transportation affecting only one Province or two adjacent Provinces.
2.- To the Compartimental Inspectorates of Civilian Motorization, if the matter entails transportation affecting more than two Provinces of the same Compartment or two adjacent compartments.

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3.- To the General ~~Inspectorate of Civilian Motorization, of the latter entails~~ transportation effecting more than two Compartments.

It is up to above mentioned bodies to establish the order of precedence for transportation to ~~be effected~~ and to request the Directorate of the C.N.I.C. for execution thereof.

Art. 6

Failure to comply with the obligation of the Statute and violation of regulations of the present Decree are punishable by fine of from one thousand to fifteen thousand Lire.

In case of repeated offences or particularly serious offenses the confiscation of the vehicles may be ordered.

Art. 7

In case of violations of the present Decree, action will be taken in accordance with the terms of articles 122 of the Royal Decree Law of 8 December 1933, N° 1740, insofar as it is applicable.

Art. 8

For the functioning of the E.N.A.C., the Ministry of Communications is authorized:

a.- To approve, in agreement with the Minister of Finance, appropriate regulations for the employment, appointment, the economic treatment and discipline of the personnel of the Ente, to fix salaries of the administrative council and the supervisors.

b.- To make periodic review of an approve, in agreement with the Ministry of Industry, Labor and Commerce, the national rate for for motor transport.

c.- To approve the registration rates for each vehicle and the contribution to be paid to the E.N.A.C. for each Quintal-Kilometer of transportation effected.

d.- To issue regulations for the allocation and distribution of combustibles, fuels, tires and spare parts.

e.- To issue regulations which it may deem necessary to assure the regularity of transports.

Art. 9

The present Decree will go into effect upon the date of its publication in the Official Gazette of the Kingdom - special series.

We order to whomsoever be concerned to comply with the present Decree and to have it complied with as Law of the State.

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Articles 122 of the Royal Decree-Law of 8 December 1933, No 1740, insofar as it is applicable.

Art. 8

For the functioning of the E.N.A.C., the Ministry of Communications is authorized:

a.- To approve, in agreement with the Minister of Finance, appropriate regulations for the employment, appointment, the economic treatment and discipline of the personnel of the Ente, to fix salaries of the administrative council and the supervisors.

b.- To make periodic review of or approve, in agreement with the Ministry of Industry, Labor and Commerce, the national rate for for motor transport.

c.- To approve the registration rates for each vehicle and the contribution to be paid to the E.N.A.C. for each Quintal-Kilometer of transportation effected.

d.- To issue regulations for requisitions and distribution of combustibles, fuels, tires and spare parts.

e.- To issue regulations which in any case necessary to assure the regularity of transports.

Art. 9

The present Decree will go into effect upon the date of its publication in the Official Gazette of the Kingdom - special series.

No order to whosoever is concerned to comply with the present Decree and to have it complied with as Law of the State.

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STATUTE FOR THE INSTITUTION AND FUNCTIONING OF
THE ENTE NAZIONALE AUTOTRANSPORTATION OF GOODS

Chapter I
CONSTITUTION, PURPOSE AND DURATION

Art. I

The National Ente Autotrasportation of Goods (E.N.A.C.) is instituted under the surveillance of the Ministry of Communications General Inspectorate for Civilian motorization and/or Trasportation in Concession - with the rights and duties and obligations established by the present Statute.

Art. II

The Ente does not have profit as its aim, but has the purpose of promoting and controlling the transportation of goods with vehicles and constitutes at the same time, and assured guarantee of work for members.

It does not establish any financial relationship among the members and does not involve any of its members with responsibility of the others and of the Ente itself.

Art. III

The Ente has the following aims:

a. To have effected promptly by its own members, all and only those movements which are requested of it by the authority concerned.

b. To distribute equally among the members the above mentioned movements, to regulate and control the execution thereof in conformity with the regulations issued by the Ministry of Communications.

c. To coordinate themovements in such manneras to avoid as much as possible incomplete loadings andempty return trips.

d. To supervise the rates of transport and necessary regulations determined by the Ministry of Communications.

e. To provide for the distribution of fuel, lubricants, tiresand spare parts among the members, accordius to the methods imparted.

f. To promote collective insurance against civil responsibility, damages, thefts, fires of rolling stock and of goods transported.

g. To promote and favor in the technical field, all initiative which will improve the development of motor transportation of goods (repair shops, road transport, fuel distributors, etc.)

Art. IV

Upon request of the Ministry of Communications, the Ente will constitute within itself, separate sections for thetransport of identical goods which require special attention.

These sections may be detached in the territory of each province and in places where they will render themselves more useful.

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Art. V

The duration of the Ente isestablished for six months after the conclusion of the peace, except if extended by deliberation of the Minister of Communications.

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The Ente does not have profit as its aim, but has the purpose of promoting and controlling the transportation of goods with vehicles and constitutes at the same time, and assured guarantee of work for members.

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e. To provide for the distribution of fuel, lubricants, tiresand spare parts among the members, according to the methods imparted.

f. To promote collective insurance against civil responsibility, damages, thefts, fires of rolling stock and of goods transported.

g. To promote and favor in the technical field, all initiative which will improve the development of motor transportation of goods (repair shops, road transport, fuel distributors, etc.)

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These sections may be detached in the territory of each province and in places where they will render themselves more useful.

2918

Art. V

The duration of the Ente isestablished for six months after the conclusion of the peace, except if extended by deliberation of the Minister of Communications.

The Ente can be dissolved at any time by provision of said Minister.

Art. VI

All the owners of trucks, motorcars, autocoaches and road tractors with trailers destined for the transport of goods as well as all those who have in their possession for any reason whatsoever, autovehicles of the above mentioned categories for the transport of goods, are members of the Ente.

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The applications for inscription to the E.N.A.C. will be made on appropriate forms distributed at the "Ispettorati Compartimentali della Motorizzazione Civile e dei Trasporti in Concessione."

Chapter II
OBLIGATIONS OF THE INSCRIBED

Art. VIII

The members within the limits of their own activity and for the period of their inscription in the Ente, have the following obligations:

a. To carry out promptly all and only those lifts ordered by the Ente.
b. To observe closely the general conditions of the movements, preestablished schedules, and all the instructions which shall be issued by the Ente.
c. To stay within all the controls which the Ente or the "Ispettorato della Motorizzazione Civile e dei Trasporti in Concessione" orders.
d. To maintain in working order their own vehicles and to inform in due time the Provincial Directorate of the defects and damage and the length of time necessary for repairs.
e. To forward all the data relative to the transportation performed requested by the Ente.
f. To pay regularly the contributions for the operation of the Ente.
g. To inform the Ente of eventual transfers of ownership of their vehicles, specifying the particulars and the residence of the new proprietors.

The obligation in para g. above will remain even in case of dissolution or modification of the organizations already inscribed.

Art. IX

Any member shall not effect or have effected transport directly for his account or for third parties.

Such authorizations do not exempt the inscribed from the obligation to pay the Ente the contribution as per article 10.

Art. X

Each firm is obliged to pay to the Ente the following contributions:

a. Registration fee for each autovehicle.
b. Payment for each quintal-kilometer of transport effected. The amount of these payments shall be determined year by year by the Board of Directors of the Ente for the following year and shall be subject to the approval of the Minister of Communications.

Chapter III
ORGANS OF THE ENTE

Art. XI

The organs of the Ente are:

- Board of Directors
- Board of Supervisors

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Motorizzazione Civile e dei Trasporti in Concessione" orders.

d. To maintain in working order their own vehicles and to inform in due time the Provincial Directorate of the defects and damage and the length of time necessary for repairs.

e. To forward all the data relative to the transportation performed requested by the Ente.

f. To pay regularly the contributions for the operation of the Ente.

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Chapter III
ORGANS OF THE ENTE

Art. XI

The organs of the Ente are:

- Board of Directors
- Board of Supervisors

Art. XII

The Board of Directors is presided over by the President, and in case of impracticability or absence, by the Vice-President.

It is composed of:

One technical functionary andone administrative functionary of the "Ispettorato Generale delle Motorizzazione Civile e dei Trasporti".

One representative of the Ministery of Finance.

One representative of the Ministry of Industry, Commerce and Labor.

One State's attorney.

Three representatives of the firms inscribed in the Ente.

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Art. XIII

All powers of the ordinary and special administration of the Ente are conferred upon the Board of Directors as follows:

a. It fixes the administrative directives which the Ente must follow to ensure its operation.

b. It appoints and discharges the personnel and determines the provisions to be adopted in regard to them, with the observance of appropriate regulations approved by the Ministry of Communications in agreement with the Ministry of Finance.

c. It prepares, at the beginning of each fiscal year, the program of business activity of the Ente and the estimated balance to be submitted for the examination of the Ministries of Communications and Finance.

d. It prepares at the end of each fiscal year the financial statement to be submitted to the Ministries of Communications and Finance.

e. It proposes the changes in the rates to be submitted for approval of the Minister of Communications in agreement with the Minister of Industry Commerce and Labor.

f. It appoints the secretary of the Board, who is chosen from among the officials of the Ispettorato Generale delle Motorizzazioni Civile e dei Trasporti in Concessione".

g. It deliberates upon any other subject relative to the organization and development of the Ente.

The Board of Directors can delegate part of its rights and duties to the President or Vice President.

Art. XIV

The Board of Directors is assembled by the President by means of registered letter containing the agenda and the date of the meeting. The letter is sent at least 15 days before the date fixed for the meeting.

In case of urgent and exceptional matter, the meeting can be called within a shorter time and even by means of telegram.

The Board of Directors meets four times a year or any other time the President deems it necessary or upon request of at least four Board members or upon proposal of the Supervisors.

Art. XV

The Board is presided over by the President or Vice President.

For deliberations to be valid, the approval of the majority of those present is necessary. In case of a tie, the vote of the President prevails. The General Director may attend the meeting of the Board.

Art. XVI

THE PRESIDENT.- The Presidency of the Board of Directors is given to the Minister of Communications or by him delegation to the Under Secretary of State for railroads and for the "Motorizzazione Civile e Trasporti in Concessione".

The President:-

a. represents the Ente and has power of signature;
b. makes proposals about the organization of the Ente;
c. supervises the entire organization of the Ente;
d. exercises the rights and duties conferred upon him by the Board of Directors;
e. in exceptional and urgent cases, has the option to substitute himself for the Board of Directors, provided ratification by the Board itself is given at the first subsequent meeting.

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...ccessione".

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The President:-

a. represents the Ente and has power of signature;
b. makes proposals about the organization of the Ente;
c. supervises the entire organization of the Ente;
d. exercises the rights and duties conferred upon him by the Board of Directors;
e. in exceptional and urgent cases, has the option to substitute himself for the Board of Directors, provided ratification by the Board itself is given at the first subsequent meeting.

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Art. XVII

VICE-PRESIDENT.- The functions of the Vice President are entrusted to the General Director of the General Inspectorate of Civilian Motorization and Transport under Concession or one of his representatives.

The Vice-President:

a. substitutes in case of absence of the President and assists him in all his duties.
b. signs the acts of ordinary administration and those of more than ordinary administration according to the will of the Board.
c. exercises the rights and duties conferred upon him by the Board of Directors and the President.

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Art. XVIII

THE OTHER DIRECTORS.- The representative of the Ministry of Communications and of the other Ministries are appointed by Decree of the respective Ministers.
The State Attorney is appointed by provision of the Attorney General of State.
The representatives of the firms inscribed in the Ente are appointed by the Associazione di Categoria.
All the Directors remain in office for two years unless it is otherwise determined.

Art. XIX

BOARD OF SUPERVISORS.- The Supervisors are appointed for one four-month period, five for each period, three by the Ministry of Communications and the Minister of Finance. The Ministor of Communications and the Minister of Finance each shall appoint also an alternative Supervisor.
The functions of the Supervisors are the ordinary ones in matters of supervision.

Chapter IV
OFFICES OF THE AGENCY

Art. XX

Offices of the Agency are:

The Provincial Directions with seat in the Provincial Capitals.
The Compartmental Directions with seat at the Compartmental Inspectorates of Civilian Motorization and Transport under Concession.
The General Direction with seat at the General Inspectorates of Civilian Motorization and Transport under Concession.

Art. XXI

PROVINCIAL AND COMPARTMENTAL DIRECTORATES.

The Provincial Directorates organize the transport which interests only one Province or two adjacent Provinces. The Compartmental Directorates organize the transport which interests more than two Provinces of the same Compartment or two adjacent Compartments.
They Provide each in its area of jurisdiction, the following:

a. To have effected by the members the transport in the order which will be established by the competent Body as provided by Law;
b. To coordinate, control and distribute among the members and supervise transport in conformity with the purpose of the Ente established by Article 3 of the present Statute, as well as the disposition issued by Law and those which will be issued by the Ministry of Communications -General Inspectorate of Civilian Motorization and Transport under Concession.
c. To collect on behalf of the owner the price of the transport.
d. To collect the registration fees and the required payments per kilometer.
e. To distribute fuels, lubricants, tires and spare parts in conformity with the orders issued by the General Inspectorate of Civilian Motorization and Transport under Concession.
f. To enforce the provisions of the Compartmental Inspectorates of Civilian Motorization and Transports under Concession against the firms which fail to carry out the obligations as per article 8 of the present Statute.

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Chapter IV

OFFICES OF THE AGENCY

Art. XX

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They Provide each in its area of jurisdiction, the following:

a. To have effected by the members the transport in the order which will be established by the competent Body as provided by Law;

b. To coordinate, control and distribute among the members and supervise transport in conformity with the purpose of the Ente established by Article 3 of the present Statute, as well as the dispositions issued by Law and those which will be issued by the Ministry of Communications -General Inspectorate of Civilian Motorization and Transport under Concession.

c. To collect on behalf of the owner the price of the transport.

d. To collect the registration fees and the required payments per kilometer.

e. To distribute fuels, lubricants, tires and spare parts in conformity with the orders issued by the General Inspectorate of Civilian Motorization and Transport under Concession.

f. To enforce the provisions of the Compartmental Inspectorates of Civilian Motorization and Transports under Concession against the firms which fail to carry out the obligations as per article 8 of the present Statute.

Art. XXII

GENERAL DIRECTORATE.

The General Directorate:

a. Organizes the carrying out of movements of major importance which interests more than two Compartments, requested by the competent body as prescribed by Law.

b. Studies the traffic routes and promotes provisions to orient and establish them with pre-established itineraries with the purpose of constituting an organic network of transport, in harmony with the railroads in operation.

c.

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g. Promotes provisions intended to favor the construction of warehouses for good, garages, workshops, fuel distributors, etc., as well as the establishment of supply centers and road repair stations.

h. Promotes and favors types of collective insurance against civil responsibility, damages, thefts, fires of rolling stock and the goods transported.

i. Coordinates the activity of the individual services and superintends the general operation of the Ente and its technical functioning.

l. Imparts the directives for the execution of all the dispositions issued by the General Inspectorates of Civilian Motorization and Transport under Concession.

Art. XXIII

APPOINTMENT.

The Provincial Directors, the Compartmental Directors and the General Director of the Agency, even though remaining functionaries of the Ente, are appointed by the Minister for Communications.

Chapter V
PROVINCIAL COMMISSIONS

Art. XXIV

At the Provincial Directorates as per art. 21, are constituted Provincial Commissions for motor-transportation.

To such Commissions is assigned the task of establishing the priority of request for transportation in relation to the needs of the Province.

Art. XXV

The Provincial Commissions are composed of:

One representative of the Compartmental Inspectorate of Civilian Motorization and Transport under Concession.
The Provincial Director of the E...C.I. or one of the representatives.
One representative of the Provincial Council of Economics or rather of the Chamber of Industry, Commerce and Labor.
One representative of the Provincial Alimentation Section.

These members are appointed by the Board of Directors of the Ente, on proposal of the Prefects, and elect among their own members the President, who has the right of vote in case of a tie.

Chapter VI
PROVISIONING OF THE ENTE

Art. XXVI

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The Patrimony of the Ente is constituted:

Of the registration fees as per item a. of the preceding article 11.
Of the payments as per item b. of the same article 11.

Art. XXVII

The administration of the Ente is completely autonomous, except for the powers [illegible] by virtue of the pro-

The Provincial Directors, the Compartmental Directors and the General Director of the Agency, even though remaining functionaries of the Ente, are appointed by the Minister for Communications.

Chapter V
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To such Commissions is assigned the task of establishing the priority of request for transportation in relation to the needs of the Province.

Art. XXV

The Provincial Commissions are composed of:

One representative of the Compartmental Inspectorate of Civilian Motorization and Transport under Concession.
The Provincial Director of the F...C.I. or one of his representatives.
One representative of the Provincial Council of Economics or rather of the Chamber of Industry, Commerce and Labor.
One representative of the Provincial Administration Section.

These members are appointed by the Board of Directors of the Ente, on proposal of the Prefects, and elect among their own members the President, who has the right of vote in case of a tie.

Chapter VI
FUNCTIONING OF THE ENTE

Art. XXVI

The Patrimony of the Ente is constituted:

Of the registration fees as per item a. of the preceding article 11.
Of the payments as per item b. of the same article 11.

Art. XXVII

The administration of the Ente is completely autonomous, except for the powers of surveillance and control of the Ministry for Communications by virtue of the Provisions of the present Statute.

The discharge of such powers does not place any responsibility upon the State.

Art. XXVIII

The Ente is responsible for the execution of the transport according to the provisions of the civil code in force.

The inscribed, retaining the administration of their autovehicles as per Art. 8, are obligated by contract to the Ente for any violation of law affecting third parties.

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Whenever the inscribed, in cases provided by Art. 10, have entrusted the administration of the vehicles to the Ente, this latter is responsible for any violations.

For such purpose the Ente and be inscribed shall cover with insurance the risk of transportation for that part which respectively concerns them.

Art. [illegible]

Whenever the Ente assumes the management of autovehicles of the members, the expenses of administration shall be drawn from the amounts to be paid for transport carried out by such means.

Chapter VII

[illegible]

Art. XVI

The first fiscal year shall run to June 30, 1945.

The financial statement must be:

a. Reviewed by the Superintendency within one month from the close of the fiscal year.
b. Approved by the Board of Directors within two months from the close of the fiscal year.
c. Submitted for examination to the Ministries of Communications and Finance within three months from the close of the fiscal year.

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Declassified E.O. 12356 Section 3.3/NND No. 785016

The first fiscal year shall terminate June 30, 1945.

The financial statement must be:

a. Reviewed by the Supervisor within one month from the close of the fiscal year.

b. Approved by the Board of Labrevors within two months from the close of the fiscal year.

c. Submitted for examination to the Ministries of Communities and Finances within three months from the close of the fiscal year.

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Declassified E.O. 12356 Section 3.3/NND No. 775016

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of all truck owners that they will be issued petrol and permits of circulation at a control garage location. Contracts for haulage should be made with truck owners immediately upon physical presentation of their vehicles at the garage where fuel is centrally issued. No permits for trucks should be issued except from one centrally controlled point. The public Safety Officer should be the only person authorized to issue permits.

2. All trucks over one ton should be required to operate with work tickets (exceptions will be those vehicles that are so constructed as to be adapted to only specific uses such as telegraph line repair work, milk, etc.

3. By order of the Senior Civil Affairs Officer tariff rates should be established as per the attached appendix "A".

4. This rate is effective in Southern Italy and disparities will be avoided if it is immediately applied. If vehicles have to be sent South for fuel, the danger of their being confiscated by more Southern Regions for use of the high rate charges will be eliminated.

5. The Senior Civil Affairs Officer should contact at the earliest the Ispettorate delle Motorizzazione under Concessione (now section of the Ministry of Communications) and such other organizations as have been handling transportation movement control in the city. It will then be up to the Senior Civil Affairs Officer to determine amongst the persons that they may suggest and other who may be known to the Allies, which Italians should be put in charge of the Ufficio Trasporti of the town or City. When this conclusion has been reached the attached order (Appendix "B") should be issued to establish the Ufficio.

6. Instructions should be given to the Director of the Ufficio to get an adequate staff immediately of technicians to meet with the Ispettorate delle Motorizzazione to arrange for the licensing of all trucks. Trucks should be given first priority. The licensing should be done at the main garage location and only upon the physical presentation of the truck. Proper Italian Lira should be paid by the owner of the vehicle at the time of licensing and the Ufficio Trasporti will be responsible for seeing that a proper permit to circulate is on the truck (to be issued by Public Safety) and that the truck is provided either with a work ticket (daily) or an official certificate stating that the work ticket is not needed (this would only be for trucks of less than one ton load capacity or specially equipped vehicles). In the case of the latter the permit to circulate should indicate on it what type of work the vehicle is to do.

7. In order not to immobilize all vehicles at one it is suggested that the Ufficio Trasporti should prepare an order for the SHAEF's signature stating over what type trucks of the different capacities will be licensed and issued permits to circulate. Licensing should begin with the big load carriers under control first. Subsequent orders would be issued on vehicles from 2 to 4 tons and so on. It should be borne in mind that the above procedure (early in order to bring under Ufficio Trasporti control those vehicles that may not been able to immediately produce work tickets or permits to circulate.

8. After certain or all categories of vehicles have been ordered to report for permits and licensing and the time limit has elapsed, road blocks should then be set up with detachments to stop either certain capacity or all load carrying vehicles and these should be checked for licenses, permits and work tickets or certification that they are not needed. Vehicles that are not in order would be subject to confiscation or fine up to 50,000 Lire. In any event Military Government Courts and the Ufficio Trasporti should have a reserve pool of drivers to keep the vehicles rolling in the meanwhile.

9. The Ufficio [illegible] - 10 -

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HEADQUARTERS
ALLIED CONTROL COMMISSION
APO 394

Regional Control and Military Government Section

SUBJECT: Proposed plan of action for the Implementation of Civilian Transport Control when taking over a City or Town.

1. Upon the entrance of AMG into the City or Town, notification should be made to all truck owners that they will be issued permits of circulation at a central garage location. Contracts for haulage should be made with truck owners immediately upon physical presentation of their vehicles at the garage where fuel is centrally issued. No permits for trucks should be issued except from the centrally controlled point. The public Safety Officer should be the only person authorized to issue permits.

2. All trucks over ten tons should be required to operate with work tickets (exceptions will be those vehicles that are so constructed as to be adapted to only specific uses such as telegraph line repair work, milk, etc.

3. By order of the Senior Civil Affairs Officer tariff rates should be established as per the attached Appendix "A".

4. This rate is effective in Southern Italy and disparities will be avoided if it is immediately applied. If vehicles have to be sent South for fuel, the danger of their being confiscated by more southern Regions for use of too high rate charges will be eliminated.

5. The Senior Civil Affairs Officer should contact at the earliest the Ispettorato della Motorizzazione under Concessionaire (road section of the Ministry of Communications) and such other agencies as have been handling transportation movement control in the city. It will then be up to the Senior Civil Affairs Officer to determine amongst the persons that they may suggest and other who may be known to the Allies, which Italians should be put in charge of the Ufficio Trasporti of the town or City. When this conclusion has been reached the attached order (Appendix "B") should be issued to establish the Ufficio.

6. Instructions should be given to the Director of the Ufficio to get an adequate staff immediately of technicians who meet with the Ispettorato della Motorizzazione to arrange for the licensing of all trucks. Trucks should be given first priority. The licensing should be done at the main garage location and only upon the physical presentation of the truck. Proper Italian Taxes should be paid by the owner of the vehicle at the time of licensing and the Ufficio Trasporti will be responsible for seeing that a proper permit to circulate is on the truck (to be issued by Public Safety) and that the truck is provided either with a work ticket (daily) or an official certificate stating that the work ticket is not needed (this would only be for trucks of less than one ton load capacity or specially adapted vehicles). In the case of the latter the permit to circulate should indicate on it what type of work the vehicle is to do.

7. In order not to immobilize all vehicles at one it is suggested that the Ufficio Trasporti should prepare an order for the SCAO's signature stating over what days trucks of the different capacities will be licensed and issued permits to circulate. Licensing should begin with the big load carriers under control first. Subsequent orders would be

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issue permits.

2. All trucks over one ton should be required to operate with work tickets (exceptions will be those vehicles that are so constructed as to be adapted to only specific uses such as telegraph line repair work, milk, etc.

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3. By order of the Senior Civil Affairs Officer tariff rates should be established as per the attached Appendix "A".

4. This note is effective in Southern Italy and exceptions will be avoided if it is immediately applied. If vehicles have to be sent South for food, the danger of their being confiscated by more Southern Regions for use of the high rate charged will be eliminated.

5. The Senior Civil Affairs Officer should contact at the earliest the Depot Controller (Motorizzazione Militare Concessions (see section of the Ministry of Communications) and such other committee as have been handling transportation movement control in the city. It will then be up to the Senior Civil Affairs Officer to determine amongst the persons that they may suggest and other who may be known to the Allies, which Italians should be put in charge of the Ufficio Trasporti of the town or city. When this conclusion has been reached the attached order (Appendix "B") should be issued to reestablish the Ufficio.

6. Instructions should be given to the Director of the Ufficio to get an adequate staff immediately of technicians and meet with the Inspectorate Motorizzazione Militare to arrange for the licensing of all trucks. Trucks should be given first priority. The licensing should be done at the main depot location and only upon the physical presentation of the truck. Proper Italian taxes should be paid by the owner of the vehicle at the time of licensing and the Ufficio Trasporti will be responsible for seeing that a proper permit to circulate is on the truck (to be issued by Public Safety) and that the truck is provided either with a work ticket (daily) or an official certificate stating that the work ticket is not needed (this would only be for trucks of less than one ton load capacity or specially adapted vehicles). In the case of the latter the permit to circulate should indicate on it what type of work the vehicle is to do.

7. In order not to immobilize all vehicles at once it is suggested that the Ufficio Trasporti should prepare an order for the SCAO's signature stating over what days trucks of the different categories will be licensed and issued permits to circulate. Licensing should begin with the big load carriers under control first. Subsequent orders would be issued on vehicles from 2 to 4 tons and so on. It should be borne in mind that the above procedure is only in order to bring under Ufficio Trasporti control those vehicles that AMG has not been able to immediately control and issue permits and work tickets to.

8. After certain or all categories of vehicles have been ordered to report for permits and licensing and the time limit has elapsed, road blocks should then be set up with Carabinieri to stop either certain capacity or all load carrying vehicles and those should be checked for licenses, permits and work tickets or certification that they are not needed. Vehicles that are not in order would be subject to confiscation or fine up to 50,000 lire. In any event Military Government Court and the Ufficio Trasporti should have a reserve pool of drivers to keep the vehicles rolling in the meanwhile.

2. The Ufficio Trasporti [illegible] - 39 -

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9. The Ufficio Trasporti should promptly organise a strong Accounting Department which should take over the functions of collecting all amounts due for haulage done by truckers making overcharges and the Ufficio Accounting Department will deduct from the returns the cost of the gasoline issued to truckers by the Ufficio garage pumps (it should be noted here again that it is absolutely essential that the Ufficio should control all issue of petrol to civilian trucks) and repair and labor costs entailed and undertaken by the Ufficio will also be deducted.

10. In order to make the Ufficio Trasporti an operating concern with sufficient capital to carry out its responsibilities and functions, it will be necessary for said Ufficio Trasporti to charge to the truckers registered by them and operating under work tickets, a lira amount for each quintal-kilometer that the truckers move. The amount will be determined by totalling the overhead expenses of the Ufficio at the end of the month and prorating these expenses to the truckers in accordance with the number of quintal kilometers covered in the month by each trucker operating on the Ufficio work tickets.

11. In the early stages prior to the establishment of O.I.P. in the City, petrol will have to come from military supply. It may not be possible immediately to charge truckers for this petrol but as soon as the Ufficio Trasporti can possible undertake to do this it should be effected. When O.I.P. is established the Ufficio should draw bulk allotments from it, making payment for same and then charging the truckers for the amounts issued to them. If the issue of petrol is done from a central location as per instructions in para 1, it will not be necessary to make use of the standard coupons.

12. The Ufficio Trasporti should draft an order for the Senior Civil Affairs Officer's signature to state that these vehicles in the hands of private individuals notwithstanding the fact that they cannot prove right of ownership, will be allowed to circulate and the individuals concerned will be given a certificate stating they have permission to use the vehicles. The determination as to whom the property belongs will be made at a later date. The order should state furthermore that the people who receive permits to use these vehicles cannot sell the vehicles.

NOW: 13. SPARE PARTS - Tools and Equipment: (1) Motor Vehicle Spare Parts

a. It is most important that stocks of spare parts for Italian and non-Italian automobiles and trucks should be inspected as early as possible, listed if time permits and frozen. Tools such as jacks, pumps, wheel braces, ring wrenches, spanners, etc, should also be included in the freezing order.

b. Any garage equipment, particularly portable equipment such as electric and petrol tire pumps, battery chargers etc. should also be listed and frozen.

c. List of spare parts, tools and equipment showing names and addresses of garages etc. where they are stored should be forwarded immediately to the:

Transportation Sub-Commission, (Supply officer)
HQ. ACC.

Should a particularly large stock be found, a signal should be sent stating name, address and nature of stores so that action may be taken to inspect the stock and remove if considered advisable.

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ANNEX C

SHIPPING
ALLIED FORCE HEADQUARTERS
AF O 512

AG 565/051 25 August 1944

MEMORANDUM TO: All Concerned

SUBJECT : Italian Schooners

1. Under the authority of the SUPREME ALLIED COMMANDER, the MEDITERRANEAN SHIPPING BOARD is responsible for the proper control and operation of the Italian Schooner fleet.

2. This fleet includes all registered schooners of Italian nationality and the available tonnage totals approximately 60,000 tons.

NOTE: Unregistered schooners are not permitted to operate in the Mediterranean Area and are at all times liable to arrest by the naval authorities.

3. The MEDITERRANEAN SHIPPING BOARD has submitted the following recommendations for the future control, allocation and operation of the Italian Schooner fleet:

a. All schooners of 500 tons and upwards shall be allocated for employment to the Principal Sea Transport Officer as an addition to the Mediterranean coasting fleet, at present under his control for allocation to service needs. Available schooners of this class total some 4,000 tons dead-weight.

b. 125 schooners, totalling approximately 25,000 tons dead-weight shall be allocated for operation and maintenance by the Royal Army Service Corps. They will be employed, under the direction of G-4 (Mov & Tn) AFHQ, in the carriage of services traffic for the support of Allied naval, ground and air forces.

c. The present fleet of small schooners operated by N.O.I.C's for harbor work shall continue in their present employment. This fleet totals some 4,000 tons deadweight.

d. The balance of the schooners totalling some 27,000 tons deadweight will be employed to fulfill, as far as possible, the economic and civil needs for coastal traffic within the area, and shall be operated by a Schooner Control Board comprised of a representative of CO.GE.NA, a representative of MEDSO, and a representative of the Allied Control Commission.

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4. These recommendations are confirmed and take effect immediately.

5. a. The tonnage allocations set out in paragraph 3 will be [illegible] MEDITERRANEAN SHIPPING BOARD,

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MEDITERRANEAN SHIPPING BOARD is responsible for the proper control and operation of the Italian Schooner fleet.

2. This fleet includes all registered schooners of Italian nationality and the available tonnage totals approximately 60,000 tons.

NOTE: Unregistered schooners are not permitted to operate in the Mediterranean Area and are at all times liable to arrest by the naval authorities.

3. The MEDITERRANEAN SHIPPING BOARD has submitted the following recommendations for the future control, allocation and operation of the Italian Schooner fleet:

a. All schooners of 500 tons and upwards shall be allocated for employment to the Principal Sea Transport Officer as an addition to the Mediterranean coasting fleet, at present under his control for allocation to service needs. Available schooners of this class total some 4,000 tons dead-weight.

b. 135 schooners, totalling approximately 25,000 tons dead-weight shall be allocated for operation and maintenance by the Royal Army Service Corps. They will be employed, under the direction of G-4 (Mov & Tn) AFHQ, in the carriage of service traffic for the support of Allied naval, ground and air forces.

c. The present fleet of small schooners operated by N.C.I.C's for harbor work shall continue in their present employment. This fleet totals some 4,000 tons deadweight.

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d. The balance of the schooners totalling some 27,000 tons deadweight will be employed to fulfill, as far as possible, the economic and civil needs for coastal traffic within the area, and shall be operated by a Schooner Control board comprised of a representative of CC.AA.NA, a representative of MEDSO, and a representative of the Allied Control Commission.

4. These recommendations are confirmed and take effect immediately.

5. a. The tonnage allocations set out in paragraph 3 will be varied only on the recommendation of the MEDITERRANEAN SHIPPING BOARD.

b. Requests for the allocation of additional tonnage, permanently or for individual voyages will be submitted:

1. By the ROYAL NAVY and US NAVY to P.S.T.O.

2. By military branches and organizations to G-4 (Mov & Tn).

c. P.S.T.O. and G-4 (Mov & Tn) respectively will be responsible for checking the necessity and priority of such demands and for submitting them to the Board.

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c. Whenever any of the controlling authorities, detailed in paragraph 3, is unable to employ its allocation fully and commercially, the authority concerned will:

1. Wean tonnage is temporarily surplus to its requirements, offer the surplus list to the other authorities.

2. When tonnage becomes permanently surplus, return the surplus list to the MEDITERRANEAN SHIPPING BOARD for reallocation.

By command of General WILSON:

/s/ R. H. CHRISTIE
Colonel, AGD
Acting Adjutant General

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Declassified E.O. 12356 Section 3.3/NND No. 785016

Authority NND 785016 By [illegible] NARS, Date 12/30/08

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FOOD STATISTICS APPENDIX

TABLE I

BREAD RATION CARDS AS % OF TOTAL POPULATION
As of Dec. 1941, Feb. 1944, and Aug. 1944

Area	Bread Ration Cards (000) Dec. 41 (1)	Feb. 44 (2)	Aug. 44 (2)	Total Population (000) Dec. 41 (2)	Feb. 44 (2)	Aug. 44 (2)	Bread Rati Dec
Sicily	2,935	3,325	3,324	4,231	4,281	4,276	
Sardinia	790	362	898	1,134	1,142	1,198	
Region 7 (Toe)	1,406	1,744	1,600	1,897	1,926	1,926	
" 2 (Instep)	2,117	2,498	2,130	2,946	2,879	2,630	
" 3 (Naples)	3,200	3,612	3,393	3,868	4,040	3,946	
Total - Sicily, Sardinia & Mainland south of Napl-Bari northern boundaries	10,448	12,041	11,345	14,076	14,268	14,176	
Foggia	381		360	571	572	560	
Campobasso	132		195	414	404	390	
Region 4 (Lazio)	2,877		3,130	3,757		4,020	
" 5 (Abruzzi,Marche)	1,230		1,526	2,573		2,544	
" 6 (3)	1,491		1,614	2,305		2,305	
Total - Sicily, Sardinia & Mainland south of Pisa-Rimini Line	16,559		18,170	23,696		23,995	

(1) December, 1941 bread ration cards figuresrepresent average for period from 1 October, 1941 throu
December, 1941 total population represents total resident population as of 31 December 1941 per

(2) Figures are based on data furnished by Allied regional representatives.

(3) Region 8 as used herein includes only provinces south of Pisa-Rimini line; Lucca, Pistoia, and A

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FOOD STATISTICS APPENDIX

TABLE I

BREAD RATION CARDS AS % OF TOTAL POPULATION
As of Dec. 1941, Feb. 1944, and Aug. 1944

Bread Ration Cards (000)			Total Population (000)			Bread Ration Cards as % of Total Population		
Dec. 41 (1)	Feb. 44 (2)	Aug. 44 (2)	Dec. 41 (2)	Feb. 44 (2)	Aug. 44 (2)	Dec. 41	Feb. 44	Aug. 44
2,935	3,325	3,324	4,231	4,281	4,276	69	78	77
790	862	898	1,134	1,142	1,198	70	75	75
1,406	1,744	1,600	1,897	1,926	1,926	74	91	83
2,117	2,498	2,189	2,946	2,879	2,830	71	87	77
3,200	3,612	3,343	3,863	4,040	3,946	83	89	84
10,448	12,041	11,345	14,076	14,268	14,176	74	84	80
381		360	571	572	560	67		64
132		195	414	404	390	32		50
2,877		3,130	3,757		4,020	76		78
1,239		1,526	2,573		2,544	48		60
1,491		1,614	2,305		2,305	65		70
16,559		18,170	23,696		23,995	70		76

ction cards figures represent average for period from 1 October, 1941 through 31 March 1942.
opulation represents total resident population as of 31 December 1941 per Zone Handbooks.

cts furnished by Allied regional representatives.

includes only provinces south of Pisa-Rimini line; Lucca, Pistoia, and Apuania are omitted.

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TABLES 2-11

Imports, Reported Stocks, and Apparent Consumption
For Year Ended 31 July 1944

Statement of General Qualifications and Sources of data

Imports

1. Civilian supplies shipped for arrival each month are reported in long tons gross weight (usually manifest figures) by AFHQ, G-5 Section. Imports in accompanying exhibits have been derived from AFHQ figures by deducting estimated weight of containers and converting remainderinto metric tons.

2. Contaimons for imported subsistence supplies are estimated to constitute the following percentages of grossweightsreported by AFHQ:

Commodity	%
Wheat (bagged)	1/2
Flour	1
Soup, dehydrated	16-2/3
Milk, evaporated 20%)	15
Milk, powdered 25%)	
Vegetables, dried	3/4
Sugar	1
M & V Stew, etc.	25
Meats	30
Cheese (April	20
(July	16-2/3
Other foods	16-2/3

3. Reference to above tabulation of container weights showsthat containers vary from 1/2% (bagged wheat) to 30% (meat) of tonnagesreported by AFHQ and illustrates possible margin of error if AFHQ figures are used without adjustment to indicate subsistence actually made available for consumption.

4. Except as stated above no adjustment has been made for differences between AFHQ figures and quantities actually received. In this connection it is of interest that the June 1944 Report of Stock Movements (for warehouses operated by Food Sub-Commission) states that for all vessels which discharged in full between 1 March and 30 June 1944 the quantities of supplies received by Food Sub-Commission aggregated more than 97% of the manifest quantities reported by AFHQ as having been shipped.

Reported Stocks

1. Reported stocks are based on stock reports cabled from Sicily and Sardinia and mailed in from other locations. July report from Sicily has not

2. Containers for imported subsistence supplies are estimated to constitute the following percentages of gross weight reported by AFHQ:

Commodity		%
Wheat (bagged)		1/2
Flour		1
Soup, dehydrated		16-2/3
Milk, evaporated	20%)	15
Milk, powdered	25%)	
Vegetables, dried		3/4
Sugar		1
M & V Stew, etc.		25
Meats		30
Cheese	(April	20
	(July	16-2/3
Other foods		16-2/3

3. Reference to above tabulation of container weights shows that containers vary from 1/2% (bagged wheat) to 30% (meat) of tonnage reported by AFHQ and illustrates possible margin of error if AFHQ figures are used without adjustment to indicate subsistence actually made available for consumption.

4. Except as stated above no adjustment has been made for differences between AFHQ figures and quantities actually received. In this connection it is of interest that the June 1944 Report of Stock Movements (for warehouses operated by Food Sub-Commission) states that for all vessels which discharged in full between 1 March and 30 June 1944 the quantities of supplies received by Food Sub-Commission aggregated more than 97% of the manifest quantities reported by AFHQ as having been shipped.

Reported Stocks

1. Reported stocks are based on stock reports cabled from Sicily and Sardinia and mailed in from other locations. July report from Sicily has not yet been received (19 August 1944) and therefore it has not been possible to complete stocks or consumption figures for July.

2. Pursuant to request of AFHQ, G-5 Section reporting areas were instructed several months ago to submit reports including not only supplies in Economics & Supply Division warehouses but also estimated supplies in hands of Consorzio Agrario or other provincial authorities. Such procedure was necessary in order to obtain any useful information as to availability of imported supplies in the several areas by reason of the frequent practice of transferring large portions of supplies to Italian authorities directly from shipside. Accordingly much of basic data for Reported Stocks has had to be furnished by Italian sources. It is expected that this situation will soon become nearly universal in areas turned over to Italian Government.

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3. In view of frequent changes of areas administered and of field personnel and because of difficulty of communication it has been impossible to obtain stock reports from every area before tenth of following month. Except for Sicily and Sardinia reports have been required on a provincial basis so that benefit might be had from such reports as did arrive rather than having to wait for a regional report which could be prepared at regional headquarters only after reports from every province had been received. Sicily and Sardinia cable reports on a regional basis. All areas were requested to report stocks as of 10th, 20th, and last day of month.

4. Stock reports do not cover supplies in transit at month-end.

5. By reason of above facts the figures for reported stocks are not 100% accurate but represent best information available and probably are substantially correct.

Apparent Consumption

1. Figures for Apparent Consumption have been derived from those for imports and reported stocks by adding imports to reported stocks at beginning of each period and deducting reported stocks at end of such period.

2. If reported stocks gave effect to supplies in transit and were complete at end of each period the apparent consumption for such period would be precisely stated. As previously explained it has not been possible to attain such preciseness; accordingly in certain periods the apparent consumption is inaccurate even to the extent of being negative. However, this situation tends to adjust itself in the immediately succeeding periods and the figures for total consumption for year ended 31 July 1944 may be looked upon as being substantially correct, subject only to relatively minor differences affecting reported stocks as of 31 July 1944.

TABLE 2

WHEAT

Imports, Reported Stocks, and Apparent Consumption
For Year Ended 31 July 1944

2912

(Metric Tons - Net)

Period	Mainland	Sicily	Sardinia	Total
		Imports (1)		
Aug.-Dec.'43	5,560	2,625	1,755	9,940
Jan.-Mar.'44	62,602	27,539	11,928	102,069
	25,273	4,087	-	29,360

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ially correct.

Apparent Consumption

1. Figures for Apparent Consumption have been derived from those for imports and reported stocks by adding imports to reported stocks at beginning of each period and deducting reported stocks at end of such period.

2. If reported stocks gave effect to supplies in transit and were complete at end of each period the apparent consumption for such period would be precisely stated. As previously explained it has not been possible to attain such preciseness; accordingly in certain periods the apparent consumption is inaccurate even to the extent of being negative. However, this situation tends to adjust itself in the immediately succeeding periods and the figures for total consumption for year ended 31 July 1944 may be looked upon as being substantially correct, subject only to relatively minor differences affecting reported stocks as of 31 July 1944.

TABLE 2

WHEAT

Imports, Reported Stocks, and Apparent Consumption
For Year Ended 31 July 1944

2912

(Metric Tons - Net)

Period	Mainland	Sicily	Sardinia	Total
	Imports (1)			
Aug.-Dec. '43	5,569	2,625	1,755	9,949
Jan.-Mar. '44	62,601	27,539	11,928	102,068
April '44	25,273	4,087	-	29,360
May '44	34,152	6,096	7,612	47,860
June '44	43,500	-	-	43,500
July '44	18,801	9,243	8,447	36,491
TOTAL	209,987	49,590	29,742	289,219

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TABLE 2 - Continued: Reported Stocks (1)

Period	Mainland	Sicily	Sardinia	Total
31 March	2,884	13,458	-	16,342
30 April	18,782	6,833	-	25,615
31 May	21,797	2,995	8,466	33,258
30 June	17,712	460	562	18,734
31 July	3,501	425	8,300	12,226

Apparent Consumption (1)

Aug.-Dec.	'43	5,560	2,625	1,755	9,940
Jan.-Mar.	'44	59,747	14,061	11,928	85,736
April	'44	9,575	10,712	-	20,287
May	'44	51,137	3,934	(854)	60,217
June	'44	47,565	2,535	7,904	58,024
July	'44	33,012	9,278	709	42,999
TOTAL		206,306	49,165	21,442	276,993

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

TABLE 3

FLOUR

Imports, Reported Stocks, and Apparent Consumption
For Year Ended 31 July 1944

(Metric Tons - Net)

Period	Mainland	Sicily Imports (1)	Sardinia	Total
Aug.-Dec. '43	40,360	27,591	5,238	73,189
Jan.-Mar. '44	88,105	43,430	16,014	147,749
April '44	17,669	7,727	1,887	26,683
May '44	14,993	1,509	-	16,507
June '44	8,318	-	-	8,318
July '44	6,047	-	-	8,047
TOTAL	176,897	80,457	23,139	280,493

Reported Stocks (1)

Total				
31 March	26,803	28,490	8,935	64,228
30 April	29,821	19,534	8,555	51,910
31 May	26,547	7,076	2,000	35,623

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TOTAL	206,366	49,165	21,442	276,993

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

TABLE 3

FLOUR

Imports, Reported Stocks, and Apparent Consumption
For Year Ended 31 July 1944

(Metric Tons - Net)

Period	Mainland	Sicily: Imports (1)	Sardinia	Total
Aug.-Dec. '43	49,369	27,591	5,229	73,189
Jan.-Mar. '44	88,105	43,630	16,014	147,749
April '44	17,869	7,727	1,087	26,683
May '44	14,998	1,509	-	16,507
June '44	8,318	-	-	8,318
July '44	8,047	-	-	8,047
TOTAL	176,897	80,457	23,139	280,493

Reported Stocks (1)

1944

31 March	26,803	28,490	8,935	64,228
30 April	23,821	19,534	8,555	51,910
31 May	26,547	7,076	2,000	35,623
30 June	9,084	65	36	9,185
31 July	10,799	335	-	11,134

Apparent Consumption (1)

Aug.-Dec. '43	40,360	27,591	5,238	73,189
Jan.-Mar. '44	61,302	15,140	7,079	83,521
April '44	20,051	16,689	2,267	39,001
May '44	12,272	13,967	6,555	32,794
June '44	25,801	7,011	1,964	34,776
July '44	6,312	-	36	6,348
TOTAL	166,098	80,392	23,139	269,629

(1) See Statement of General Qualifications and Source of Data preceding Table2.

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TABLE 4

FLOUR EQUIVALENT (WHEAT & FLOUR)

Imports, Reported Stocks, and Apparent Consumption
For Year Ended 31 July 1944

(Metric Tons - Net)

Period		Mainland	Sicily	Sardinia	Total
			Imports (1)		
Aug.-Dec.	'43	45,364	29,954	6,818	82,136
Jan.-Mar.	'44	184,446	56,415	26,749	239,610
April	'44	38,215	11,435	1,857	53,107
May	'44	69,732	6,993	6,851	77,581
June	'44	47,468	-	-	47,468
July	'44	24,968	8,919	7,602	40,889
	TOTAL	365,796	125,036	49,907	540,790
			Reported Stocks (1)		
1944					
31 March		29,995	40,602	8,935	79,536
30 April		40,725	25,484	8,555	74,964
31 May		45,144	9,771	9,619	65,534
30 June		25,005	479	542	26,026
31 July		13,950	718	7,470	22,137
			Apparent Consumption (2)		
Aug.-Dec.	'43	45,364	29,954	6,818	82,135
Jan.-Mar.	'44	115,047	27,913	17,614	160,674
April	'44	28,486	26,383	2,267	57,079
May	'44	58,896	22,908	5,787	86,991
June	'44	66,627	8,292	9,077	86,996
July	'44	36,023	8,880	674	44,778
	TOTAL	351,846	124,370	42,437	518,653

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

(2) Figures for Flour Equivalent have been computed by converting wheat (Table #1) in to flour assuming that extraction rate is 90%, i.e. 90% of wheat becomes flour when milled. To the figures for flour equivalent thus obtained have been added the figures for flour (Exhibit #2) giving total flour equivalent shown above on this exhibit.

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	'44	24,760	8,319	7,602	40,689
	TOTAL	365,796	124,088	49,907	540,790

Reported Stocks (1)

1944

31 March	29,899	40,602	6,835	78,936
30 April	40,785	25,694	8,555	74,984
31 May	49,284	9,771	9,619	65,554
30 June	25,005	479	542	26,026
31 July	13,950	718	7,470	22,137

Apparent Consumption (1)

Aug.-Dec.	'43	45,564	25,934	6,918	82,135
Jan.-Mar.	'44	115,047	27,543	17,811	160,674
April	'44	28,489	24,323	2,267	57,079
May	'44	53,856	22,908	9,787	86,991
June	'44	68,627	9,282	8,077	86,986
July	'44	36,023	4,080	674	41,778
	TOTAL	351,846	124,570	42,437	518,653

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

(2) Figures for Flour Equivalent have been computed by converting wheat (Table #1) in to flour assuming that extraction rate is 90%, i.e. 90% of wheat becomes flour when milled. To the figures for flour equivalent thus obtained have been added the figures for flour (Exhibit #2) giving total flour equivalent shown abovein this exhibit.

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TABLE 5

SOUP DEHYDRATED

Imports, Reported Stocks, and Apparent Consumption
For Year Ended 31 July 1944

(Metric Tons - Net)

Period		Mainland	Sicily	Sardinia	Total
			Imports (1)		
Aug.-Dec.	'43	2,232	108	-	2,340
Jan.-Mar.	'44	11,587	3,781	761	16,129
April	'44	5,715	1,632	1,241	8,588
May	'44	2,867	993	577	4,437
June	'44	-	-	-	-
July	'44	-	-	-	-
	TOTAL	22,801	6,514	2,579	31,894
			Reported Stocks (1)		
1944					
31 March		7,288	1,456	108	8,852
30 April		11,282	4,797	32	16,051
31 May		14,540	1,660	1,024	17,444
30 June		13,966	2,000	850	16,816
31 July		12,912	1,200	946	15,058
			Apparent Consumption (1)		
Aug.-Dec.	'43	2,232	108	-	2,340
Jan.-Mar.	'44	4,499	2,835	653	7,477
April	'44	1,881	(1,709)	1,317	1,589
May	'44	(451)	3,910	(415)	3,044
June	'44	574	(720)	274	628
July	'44	1,054	700	4	1,758
	TOTAL	9,889	5,214	1,733	16,836

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

(2) Estimated.

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				31,694

Reported Stocks (1)

1944

31 March	7,388	1,456	106	8,952
30 April	11,282	4,797	32	16,651
31 May	14,540	1,880	1,024	17,444
30 June	13,966	2,000	850	16,816
31 July	12,912	1,300	846	15,058

Apparent Consumption (2)

Aug.-Dec.	'43	2,232	108	-	2,340
Jan.-Mar.	'44	1,490	2, 325	653	7,477
April	'44	1,981	(1,709)	1,617	1,889
May	'44	(421)	3,910	(415)	3,044
June	'44	371	(720)	474	623
July	'44	1,354	700	4	1,758
	TOTAL	9,489	5,214	1,733	16,836

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

(2) Estimated.

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TABLE 6

MILK

Imports, Reported Stocks, and Apparent Consumption
For Year Ended 31 July 1944

(Metric Tons - Milk)

Period		Mainland	Sicily	Sardinia	Total
		Imports (1)			
Aug.-Dec.	'43	969	881	17	1,867
Jan.-Mar.	'44	2,350	820	205	3,375
April	'44	391	12	88	491
May	'44	739	115	23	857
June	'44	1,159	-	15	1,174
July	'44	1,234	-	45	1,279
TOTAL		6,846	1,828	393	9,067
		Reported Stocks (1)			
1944					
31 March		2,784	253	96	3,133
30 April		2,369	929	259	3,557
31 May		2,444	850	168	3,462
30 June		2,852	640	186	3,678
31 July		2,598	396	186	3,174
		Apparent Consumption (1)			
Aug.-Dec.	'43	969	881	17	1,867
Jan.-Mar.	'44	(434)	467	169	172
April	'44	716	(564)	(135)	17
May	'44	694	214	184	1,092
June	'44	955	190	(69)	1,076
July	'44	1,196	250	25	1,479
TOTAL		4,648	1,598	197	5,683

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

(2) Imports of milk consist of evaporated milk, condensed milk, and powdered milk. Information as to quantities of each is not presently available from AFHQ monthly reports before June 1944.

(3) Containers for evaporated milk and condensed milk tend to constitute about 20% of the gross shipping weight while those for powdered milk average only 10%. For this memorandum containers have been assumed to be 15% of gross weight.

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Aug.-Dec.	'43	2,350	520	205	3,355
April	'44	391	42	68	391
May	'44	739	115	33	887
June	'44	1,175	-	25	1,165
July	'44	1,241	-	45	1,189
	TOTAL	6,446	1,523	383	8,357

1944

Reported Stocks (1)

31 March	2,724	352	36	3,183
30 April	2,369	728	660	3,057
31 May	2,...4	930	108	3,052
30 June	2,032	446	186	3,456
31 July	2,596	390	186	3,174

Apparent Consumption (1)

Aug.-Dec.	'43	969	801	17	1,367
Jan.-Mar.	'44	(441)	467	169	172
April	'44	716	(564)	(135)	17
May	'44	694	214	134	1,092
June	'44	955	198	(69)	1,082
July	'44	1,198	250	25	1,479
	TOTAL	4,042	1,598	197	5,683

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

(2) Imports of milk consist of evaporated milk, condensed milk, and powdered milk. Information as to quantities of each is not presently available from ARHQ monthly reports before June 1944.

(3) Containers for evaporated milk and condensed milk tend to constitute about 20% of the gross shipping weight while those for powdered milk average only 10%. For this memorandum containers have been assumed to be 15% of gross weight.

(4) Calorie values of the several types of milk vary greatly also as shown below:

	Approximate Calories per Ounce
Evaporated Milk	50
Condensed Milk	100
Powdered Whole Milk	150
Powdered Skim Milk	100

(5) In view of foregoing facts, the greatest care should be used in drawing any conclusions with respect to figures for milk.

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TABLE 7

VEGETABLES DRIED

Imports, Reported Stocks, and Apparent Consumption
For Year Ended 31 July 1944

(Metric Tons - Net)

Period		Mainland	Sicily	Sardinia	Total
		Imports (1)			
Aug.-Dec.	'43	1,488	-	-	1,488
Jan.-Mar.	'44	11,759	3,381	625	15,765
April	'44	4,041	915	509	5,465
May	'44	6,445	1,501	317	8,263
June	'44	11,069	-	399	11,468
July	'44	2,566	-	92	2,658
	TOTAL	37,368	5,797	1,972	45,137
		Reported Stocks (1)			
1944					
31 March		5,847	1,943	7	7,297
30 April		6,103	3,460	28	9,591
31 May		7,496	2,159	395	10,250
30 June		11,975	1,350	316	13,641
31 July		13,741	1,200	720	15,661
		Apparent Consumption (1)			
Aug.-Dec.	'43	1,488	-	-	1,488
Jan.-Mar.	'44	6,412	1,438	618	8,468
April	'44	3,285	(602)	518	3,201
May	'44	4,852	2,602	(50)	7,604
June	'44	6,790	809	478	8,077
July	'44	860	150	(312)	698
	TOTAL	23,627	4,597	1,252	29,476

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

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June	'44	11,061	-	99	2,658
July	'44	2,564	-	92	2,656
	TOTAL	37,368	5,737	1,972	45,137

Estonia Stocks (1)

1941

31 March	5,347	1,943	7	7,297
30 April	6,103	3,460	28	9,591
31 May	7,496	2,139	515	10,250
30 June	11,975	1,350	376	13,641
31 July	13,741	1,200	720	15,661

Apparent consumption (1)

Aug.-Dec.	'43	1,466	-	-	1,466
Jan.-Mar.	'44	6,412	1,438	618	8,468
April	'44	3,886	(692)	513	3,201
May	'44	4,352	2,802	(50)	7,604
June	'44	6,790	809	478	8,077
July	'44	800	150	(312)	638
	TOTAL	23,627	4,597	1,252	29,476

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

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TABLE 6

SUGAR

Imports, Reported Stocks, and Apparent Consumption
For Year Ended 31 July 1944

(Metric Tons - Net)

Period		Mainland	Sicily	Sardinia	Total
Imports (1)					
Aug.-Dec.	'43	-	5,618	101	5,620
Jan.-Mar.	'44	14,583	586	203	15,172
April	'44	-	-	-	-
May	'44	6,349	-	202	6,552
June	'44	-	-	-	-
July	'44	-	-	-	-
	TOTAL	20,932	5,905	506	27,343
Reported Stocks (1)					
1941					
31 March		5,824	904	-	6,728
30 April		5,280	215	104	5,499
31 May		9,554	527	30	10,121
30 June		5,232	526	12	5,769
31 July		3,565	500	11	4,089
Apparent Consumption (2)					
Aug.-Dec.	'43	-	5,519	101	5,620
Jan.-Mar.	'44	8,759	(519)	203	8,444
April	'44	614	689	(104)	1,229
May	'44	1,965	(312)	276	1,929
June	'44	4,327	7	18	4,352
July	'44	1,569	4	(2)	1,686
	TOTAL	17,363	5,495	492	23,260

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

May	'44	-	-	-	-
June	'44	-	-	-	-
July	'44	-	-	-	-
	TOTAL	28,896	3,905	506	27,345

Reserve Stocks (1)

1944					
			501	-	6,725
		5,832	215	144	5,488
31 March		5,480	197	30	10,122
30 April		5,564	238	12	5,769
31 May		5,697	302	21	5,983
30 June		5,969			
31 July					

Armed Ins Consumption (1)

		-	5,513	101	5,630
			(710)	209	5,444
Aug.-Dec.	'43	8,759	684	(104)	1,229
Jan.-Mar.	'44	644	(312)	276	1,929
April	'44	1,965	-	13	4,352
May	'44	4,387	-	(2)	1,686
June	'44	1,968	-		
July	'44			492	25,268
	TOTAL	17,945	5,405		

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

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TABLE 9

M & V STEW, ETC.

Imports, Reported Stocks, and Apparent Consumption
For Week Ended 31 July 1944

(Metric Tons - Net)

Period		Mainland	Sicily	Sardinia	Total
		Imports(1)			
Aug.-Dec.	'43	-	-	-	-
Jan.-Mar.	'44	6,242	3,164	-	9,406
April	'44	4,940	968	727	6,635
May	'44	5,741	1,210	366	7,317
June	'44	3,382	-	-	3,382
July	'44	4,371	-	-	4,371
	TOTAL	24,676	5,342	1,093	31,651
1944		Reported Stocks (1)			
31 March		3,175	5,535	-	8,710
30 April		5,251	-	-	5,251
31 May		7,613	3,490	132	11,235
30 June		10,011	3,500	437	13,948
31 July		11,650	2,465	297	13,812
		Apparent Consumption (1)			
Aug.-Dec.	'43	-	-	-	-
Jan.-Mar.	'44	2,957	(2,341)	-	616
April	'44	2,674	6,513	717	10,104
May	'44	3,399	(2,280)	234	1,353
June	'44	1,192	(10)	(305)	877
July	'44	3,567	1,035	140	4,802
	TOTAL	13,851	2,997	786	17,534

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

(2) "M & V Stew, Etc." group comprises meat and vegetable stew, hash, and chili con carne.

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July	'44	1,371	-	-	4,371
	TOTAL	24,004	5,348	1,003	31,351

1944 — Reported Stocks (1)

31 March	3,165	3,545	-	6,710
30 April	5,451	-	-	5,451
31 May	7,613	3,490	136	11,239
30 June	10,011	3,500	437	13,948
31 July	11,055	2,465	297	13,817

Apparent Consumption (1)

Aug.-Dec.	'43	-	-	-	-
Jan.-Mar.	'44	2,057	(2,961)	-	696
April	'44	2,674	5,523	717	10,104
May	'44	3,399	(2,266)	234	1,353
June	'44	1,194	(10)	(308)	876
July	'44	3,327	1,435	110	4,502
	TOTAL	13,851	2,897	786	17,534

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

(2) "M & V Stew, Etc." group comprises meat and vegetable stew, hash, and chili con carne.

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TABLE 10

MEATS

Imports, Reported Stocks, and Apparent Consumption
For Year Ended 31 July 1944

(Metric Tons - Net)

Period		Mainland	Sicily	Sardinia	Total
		Imports (1)			
Aug.-Dec.	'43	-	-	-	-
Jan.-Mar.	'44	-	-	-	-
April	'44	2,060	207	-	2,267
May	'44	3,070	454	1,189	4,713
June	'44	1,281	-	113	1,394
July	'44	2,056	-	-	2,056
TOTAL		8,467	661	1,302	10,430
		Reported Stocks (1)			
1944					
31 March		-	-	-	-
30 April		682	-	-	682
31 May		4,305	818	433	5,556
30 June		3,982	630	192	4,804
31 July		4,566	420	905	5,891
		Apparent Consumption (1)			
Aug.-Dec.	'43	-	-	-	-
Jan.-Mar.	'44	-	-	-	-
April	'44	1,448	207	1,189	2,844
May	'44	(603)	135	(320)	(788)
June	'44	1,604	(211)	241	1,634
July	'44	1,074	210	(13)	1,271
TOTAL		3,523	241	1,097	4,861

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

(2) "Meats" group comprises pork luncheon meat, sausage, and corned beef.

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Aug.-Dec. '45
Jan.-Mar. '44
April '44
May '44
June '44
July '44

TOTAL

Aug. '44

TOTAL

Aug. '44

TOTAL

(1) See Statement of Theoretical Qualifications and Sources of Data Preceding Table 2.

(2) "Meats" group comprises pork luncheon meat, sausage, and corned beef.

TABLE II

CHROME

Imports, Reported Stocks, and Apparent Consumption
For Year Ended 31 July 1944

(Metric Tons - Net)

Period		Mainland	Sicily	Sardinia	Total
		Imports (1)			
Aug.-Dec.	'43	240	-	-	240
Jan.-Mar.	'44	654	-	-	654
April	'44	1,179	-	-	1,179
May	'44	-	-	-	-
June	'44	-	-	-	-
July	'44	137	-	-	137
TOTAL		2,210	-	-	2,210
		Reported Stocks (1)			
1944					
31 March		7	-	-	7
30 April		47	3	-	50
31 May		165	2	-	167
30 June		121	-	-	121
31 July		165	-	-	165
		Apparent Consumption (1)			
Aug.-Dec.	'43	240	-	-	240
Jan.-Mar.	'44	647	-	-	647
April	'44	1,139	(3)	-	1,136
May	'44	(118)	1	-	(117)
June	'44	44	2	-	46
July	'44	75	-	-	75
TOTAL		2,027	-	-	2,027

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

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June	'44	-	-	-	137
July	'44	137	-	-	
TOTAL		2,210	-	-	2,210

Reported Stocks (1)

1944					
31 March		7	-	-	7
30 April		47	3	-	50
31 May		165	2	-	167
30 June		121	-	-	121
31 July		183	-	-	183

Apparent Consumption (1)

Aug.-Dec.	'43	240	-	-	240
Jan.-Mar.	'44	647	-	-	647
April	'44	1,109	(3)	-	1,136
May	'44	(118)	1	-	(117)
June	'44	44	2	-	46
July	'44	75	-	-	75
TOTAL		2,027	-	-	2,027

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

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TABLE 12

OTHER FOODS

Imports, Reported Stocks, and Apparent Consumption
For Year Ended 31 July 1944

(Metric Tons - Net)

Period		Mainland	Sicily	Sardinia	Total
		Imports (1)			
Aug.-Dec.	'43	2,343	1,243	-	3,589
Jan.-Mar.	'44	759	1,134	21	1,914
April	'44	64	-	31	95
May	'44	621	-	-	621
June	'44	780	-	-	780
July	'44	342	-	-	342
TOTAL		4,942	2,347	52	7,341
		Reported Stocks (1)			
1944					
31 March		-	147	-	147
30 April		436	6,685	-	7,121
31 May		-	1,271	-	1,271
30 June		1,440	660	-	2,100
31 July		1,721	625	-	2,346
		Apparent Consumption (1)			
Aug.-Dec.	'43	2,346	1,243	-	3,589
Jan.-Mar.	'44	759	987	21	1,767
April	'44	(372)	(6,336)	31	(6,679)
May	'44	1,057	5,414	-	6,471
June	'44	(660)	611	-	(49)
July	'44	81	35	-	76
TOTAL		3,221	1,722	52	4,995

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

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Aug.-Dec.	'43	2,640	1,248	-	3,889
Jan.-Mar.	'44	789	1,104	21	1,914
April	'44	44	-	51	95
May	'44	821	-	-	821
June	'44	780	-	-	780
July	'44	342	-	-	342
TOTAL		4,942	2,347	69	7,341

Reported Stroke (1)

1944

31 March	-	147	-	147
30 April	486	6,635	-	7,121
31 May	-	1,271	-	1,271
30 June	1,740	360	-	2,100
31 July	1,721	625	-	2,346

Apparent Consumption (1)

Aug.-Dec.	'43	2,646	1,248	-	3,889
Jan.-Mar.	'44	789	987	21	1,767
April	'44	(372)	(5,838)	31	(6,079)
May	'44	1,057	5,414	-	6,471
June	'44	(680)	611	-	(69)
July	'44	81	65	-	76
TOTAL		3,221	1,732	52	4,995

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

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TABLE 13

SUMMARY OF SUBSISTENCE INVOICES (1)

For Year Ended 31 July 1944

(Metric Tons - Net)

Commodity	Mainland	Sicily	Sardinia	Total
Wheat	203,887	49,530	29,742	283,219
Flour	173,899	80,487	25,139	280,493
Soup, Dehydrated	22,801	6,514	2,579	31,894
Milk	5,346	1,528	383	6,857
Vegetables, Dried	37,988	5,737	1,372	45,137
Sugar	20,982	5,306	506	27,345
M & V Stew, Etc.	24,903	5,362	1,086	31,351
Meats	5,489	661	1,242	10,392
Cheese	2,210	-	-	2,210
Other Foods	4,942	2,347	92	7,381
TOTAL	513,975	159,481	60,648	734,252

TABLE 14

SUMMARY OF SUBSISTENCE STOCKS (1)

As of 31 July 1944

(Metric Tons - Net)

Commodity	Mainland	Sicily	Sardinia	Total
Wheat	3,601	125	8,300	12,226
Flour	10,799	335	-	11,134
Soup Dehydrated	12,912	(2)1,600	546	15,056
Powdered)	1,448	170	65	1,683
Milk, Evaporated)	1,150	220	121	1,491
Vegetables, Dried	13,741	1,200	720	15,661
Sugar	3,869	500	14	4,383
M & V Stew, Etc.	11,055	2,465	297	13,817
Meats	4,966	420	205	5,591
Cheese	183	-	-	183
Other Foods	1,721	625	-	2,346
TOTAL	68,045	7,660	10,568	86,273

(1) See Statement of General Qualifications and Sources of Data, preceding Table 2.

(2) Estimated

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TABLE 16

Consumer Ration Scale in Southern Italy
Spring, 1943

Commodity	Grams per Person per Day	Remarks
Bread	160	Bread was made of 70% wheat flour and 30% corn flour. In parts of southern Italy, only 60% wheat was used as against 40% corn.
Pasta and Rice	90	
Meat	14g plus 3.c of sausage	For the ordinary consumer, meat was available only once a week, if then. It was supposed to be available two or three times a week to heavy workers.
Sugar	18	Extra rations of sugar were supposed to be made available to small children.
Eggs	1 per person per week	In the cities, the ordinary consumer was able to obtain only 1 or 2 eggs per month. Very heavy workers were supposed to be able to obtain their egg rations in government-operated cafeterias.
Milk	Available in small quantities for children, sick people, and expectant or nursing mothers.	

(Total calories of ration approximately 1060, calculated on basis of table.)

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Meat	1½ plus 0.8 of sausage	For the ordinary consumer, meat was available only once a week, if that. It was supposed to be available two or three times a week to heavy workers.
Sugar	1½	Extra rations of sugar were supposed to be made available to small children.
Eggs	1 per person per week	In the cities, the ordinary consumer was able to obtain only 1 or 2 eggs per month. Very heavy workers were supposed to be able to obtain their egg rations in government-operated cafeterias.
Milk	Available in small quantities for children, sick people, and expectant or nursing mothers.	

(Total calories of ration approximately 1060, calculated on basis of table.)

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TABLE 16

Consumer Ration Scale in Southern Italy
1 July 1944

Commodity	Grams per person per Day	Remarks
Bread	200	Made out of whole wheat flour.
Pasta	75	Made out of whole wheat flour.
Meat or meat and vegetable stew	13-1/3	
Sugar	8-1/3	
Dehydrated Soup	8-1/3	
Dried vegetables	13-1/3	
Olive Oil	10	
Milk	Available in small quantities for children, sick people, and expectant or nursing mothers.	

(Total calories of ration approximately 1,180.)

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Mixed vegetables	13-1/3
Olive Oil	10
Milk	Available in small quantities for children, sick people, and expectant or nursing mothers.

(Total calories of ration approximately 1,130.)

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TABLE 17

Ration Scales in Effect from 1 July 1944

1. The following Ration Scales were approved and were applied with effect from 1 July 1944 in Sicily, Sardinia and on the mainland of Italy to the south of the northern boundaries of the provinces of Naples and Campobasso.

A. Normal Consumer

	By Ration Card
Bread	200 grams per day
Pasta	350 grams per week

Or variation, not to exceed a basis of 240 grams of flour per day.

Milk	Dehydrated Soup	At the current month's scales
Sugar	Olive Oil	
Dried Veg.	M & V Stew	
Meat (Preserved)		
Other commodities as available		

B. Hospital Patients

By bulk authorization according to number of inmates.

Bread	350 grams per day
Pasta	100 grams per day
Sugar	30 grams per day
Evap. Milk	100 grams per day
Olive Oil	25 grams per day
Dried Veg.	100 grams per day
Dehy. Soup	100 grams per day
Bouillon	1 cube per day
M & V Stew OR	400 grams per week
Preserved Meat	200 grams per week

C. Public Security Agents, Prison Guards, Firemen, Guardia Forestale

Flour	280 grams	By bulk authorization or variation, not to exceed a total of 280 grams of flour per day)	Per Head per day
or Bread	350 grams		
Pasta	100 grams		
Soup	60 grams		

Sugar	Olive Oil	At the current monthly scales for normal consumers
Dried Veg.	M & V Stew	
Meat (Preserved)	Milk	
Other commodities as available		

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D. Prisoners in Penal Establishments

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Or variation, not to exceed a basis of 240 grms of flour per day.

Milk, Dehydrated Soup, Olive Oil, Sugar, Dried Veg., M & V Stew, Meat (Preserved), Other commodities as available } At the current month's scales

B. Hospital Patients

By bulk authorization according to number of inmates.

Bread	350 grms per day
Pasta	100 grms per day
Sugar	33 grms per day
Evap. Milk	100 grms per day
Olive Oil	25 grms per day
Dried Veg.	100 grms per day
Dehy. Soup	100 grms per day
Bouillon	1 cube per day
M & V Stew OR	400 grms per week
Preserved Meat	200 grms per week

C. Public Security Agents, Prison Guards, Firemen, Guardia Forestale

Flour 280 grms) or Bread 350 grms) Pasta 100 grms) Soup 60 grms) — By bulk authorization or variation, not to exceed a total of 330 grms of flour per day) — Per Head per day

Sugar, Olive Oil, Dried Veg., M & V Stew, Meat (Preserved), Italy, Other commodities as available } At the current monthly Scales for normal consumers

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D. Prisoners in Penal Establishments

	By bulk authorization according to number of inmates
Bread	300 grms per day
Dried Veg.	100 grms per day
Sugar	8.3 grms per day
Soup	100 grms per day
Bouillon	1 cube per day
Olive Oil	Current monthly normal consumer's scale

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E. Refugees in Camps Administered by AGC Refugee Branch

	By bulk authorisation
Bread	300 grms per person per day
Pasta	100 grms per person per day
Sugar	30 grms per person per day
Evap. Milk	100 grms per person per day
Dried Veg.	100 grms per person per day
Dehy. Soup	100 grms per person per day
Cheese/Meat	60 grms per person per day

F. Harvesters — Maximum 40 days, Issuable only during period of harvest

Bread	400 grms per person per day
Pasta	50 grms per person per day
Cheese	100 grms per person per day
Meat (Preserved)	60 grms per person per day
Pulses (or Soup)	100 grms per person per day
Olive Oil	20 grms per person per day

G. Heavy Workers, working directly for Armed Forces 100%, including Heavy Railway Workers

SCALE "A"

(a) The approved entitlement for this class is comprised as follows:

(1) Normal Consumer Scale (para. 1A) by ration cards.
(2) Midshift Meal viz: supplied by employing unit, on job.

Bread	1/3 lb. (150 grms)
Fresh Veg.	6 oz.
Dehy. Soup	0.8 oz.

(3) Supplementary Ration viz: by Supplementary Ration Card Scale "A"

Pasta	150 grms per week
Dehy. Soup	200 grms per week

(b) There is no increase in the overall quantity of rationed foods for this class. The quantities have been adjusted as between the normal consumer's scale and the supplementary ration card "A". As from the date of the adoption of these Ration Scales, 1 July 1944, the supplementary ration card was valid for the quantities indicated in sub-paragraph G(3) only.

H. Heavy Workers, working indirectly for the Armed Forces

SCALE "B"

(a) The approved rations for this class are comprised as follows:

(1) Normal Consumer Scale (para. 1A) by ration card.
(2) Supplementary Ration viz: by Supplementary Ration Card Scale "B"

Bread

0.4 0 9

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Olive Oil — 20 grams per person per day

G. Heavy Workers, working directly for Armed Forces
100%, including Heavy Railway Workers

SCALE "A"

(a) The approved entitlement for this class is comprised as follows:

(1) Normal Consumer Scale (para. 14) by ration cards.
(2) Midshift Meal viz: supplied by employing unit, on job.

Bread	1/3 lb. (150 grms)
Fresh Veg.	6 oz.
Dehy. Soup	0.8 oz.

(3) Supplementary Ration viz: by Supplementary Ration Card Scale "A"

Pasta	150 grams per week
Dehy. Soup	200 grms per week

(b) There is no increase in the overall quantity of rationed foods for this class. The quantities have been adjusted as between the normal consumer's scale and the supplementary ration card "A". As from the date of the adoption of these Ration Scales, 1 July 1944, the supplementary ration card was valid for the quantities indicated in sub-paragraph G(3) only.

H. Heavy Workers, working indirectly for the Armed Forces

SCALE "B"

(a) The approved rations for this class are comprised as follows:

(1) Normal Consumer Scale (para. 14) by ration card.
(2) Supplementary Ration viz: by Supplementary Ration Card Scale "B"

Bread	110 grms per day

(b) There is no increase in the overall quantity of rationed foods in this class. The quantities have been adjusted as between the normal consumer's ration card and the supplementary ration card Scale "B". As from 1 July 1944, the Scale "B" supplementary ration card will entitle the workers to the quantity indicated in para. H(2) only.

(c) The mid-shift meal, flour element, has been abolished for this class but employees will still have made available to them 0.8 oz. of dehydrated soup per entitled employee per shift. (Supply Officers please note).

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TABLE 18

FOOD RATION FOR ITALIAN WORKERS EMPLOYED BY THE ARMED FORCES.

SCALE "A"

Commodity	Old Scale (Daily) prior to 1 July 1944		New Scale (Daily)			
			Northern		Southern	
		Grams		Grams		Grams
Bread	Civ. Ration	200	Civ. Ration	200	Civ. Ration	200
	Mid. S. Meal	150	Mid. S. Meal	150	Mid. S. Meal	150
Pasta	Sup. Ration	100	Sup. Ration	100	Sup. Ration	21.4
					Civ. Ration	78.6
Soup	Mid. S. Meal	22.4	Mid. S. Meal	22.4	Mid. S. Meal	22.4
	Sup. Ration	28.6	Sup. Ration	28.6	Sup. Ration	28.6
Fresh Veg.	Mid. S. Meal	6 ozs.	Mid. S. Meal	6 ozs.	Mid. S. Meal	6 ozs.

SCALE "B"

Bread	Civ. Ration	200	Civ. Ration	200	Civ. Ration	200
	Mid. S. Meal	150	Mid. S. Meal	150	Sup. Ration	119
Pasta	Sup. Ration	50	Sup. Ration	50	Civ. Ration	78.5
Soup	Mid. S. Meal	22.4	Mid. S. Meal	22.4	Mid. S. Meal	22.4
Fresh Veg.	Mid. S. Meal	6 ozs.	Mid. S. Meal	6 ozs.	Mid. S. Meal	6 ozs.

NOTE:- Under the new scale Southern "B" ration the worker receives 40 gms. of bread per day less than before and 28.5 gms. of pasta per day more than before. 28.5 gms. of pasta converted into the equivalent bread equals 37.5 gms. bread, therefore the worker loses 2.5 gms. of bread per day. (Conversion effected on the basis of 95 gms. pasta equals 125 gms. of bread).

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Pasta	Sup. Ration	100	Sup. Ration	100	Sup.Ration	21.4		
					Civ.Ration	78.6		
Soup	Mid.S.Meal	22.4	Mid.S.Meal	22.4	Mid.S.Meal	22.4		
	Sup. Ration	28.6	Sup.Ration	28.6	Sup.Ration	28.6		
Fresh Veg.	Mid. S. Meal	6 ozs.	Mid.S.Meal	6 ozs.	Mid.S.Meal	6 ozs.		

SCALE "E"

Bread	Civ.Ration	200	Civ.Ration	200	Civ.Ration	200		
	Mid.S.Meal	150	Mid.S.Meal	150	Sup. Ration	119		
Pasta	Sup.Ration	30	Sup.Ration	30	Civ.Ration	78.5		
Soup	Mid. S. Meal	22.4	Mid.S.Meal	22.4	Mid.S.Meal	22.4		
Fresh Veg.	Mid.S.Meal	6 ozs.	Mid.S.Meal	6 ozs.	Mid.S.Meal	6 ozs.		

NOTE:- Under the new scale Southern "E" ration the worker receives 40 gms. of bread per day less than before and 28.6 gms. of pasta per day more than before. 28.6 gms. of pasta converted into the equivalent bread equals 37.5 gms. bread, therefore the worker loses 2.5 gms. of bread per day. (Conversion effected on the basis of 95 gms. pasta equals 125 gms. of bread).

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TABLE 12

EXPECTED IMPORTS OF FOOD - 1 JULY 1944 - 30 JUNE 45

	Shipments (long tons, gross)		Programme (Metric tons, net)		Allocation Requested (a) (Metric tons, net)				Probab
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Mainland									
Wheat	18,598	53,372	43,500	43,500	100,000	100,000	100,000	100,000	100,000
Sugar	-	(b)	2,000	2,000	4,700	2,000	2,000	2,000	2,000
Milk, dried	771(c)	(b)	(d)	600	1,410	1,410	1,410	1,410	1,410
Vegetables, dry	2,584	(b)	1,350(e)	4,950(e)	(f)	(f)	-	-	-
Soup, dehydrated	-	(b)	-	-	6,000	-	-	-	-
Meat, stews, etc.	9,194	(b)	(d)	-	-	-	-	-	-
Fats	-	-	-	-	2,250	2,250	2,250	2,250	2,250
Fish, dried salt	-	158	770	850	-	-	-	-	-
Total	31,167	53,530	46,120	51,900	114,360	105,660	105,660	105,660	105,660
Sicily									
Wheat	9,097	-	-	-	-	-	-	-	-
Sugar	-	2,687(b)	500	500	500	500	500	500	500
Milk, dry	-	(b)	(d)	150	150	150	150	150	150
Total	9,097	2,687	500	650	650	650	650	650	650
Sardinia									
Wheat	8,314	-	-	-	-	-	-	-	-
Sugar	-	(b)	150	150	200	200	200	200	200
Milk, dried	28	(b)	(d)	45	50	50	50	50	50
Vegetables, dry	520	-	-	-	-	-	-	-	-
Total	8,862	-	150	195	250	250	250	250	250

(a) Requests for allocations beginning November 1944 include amounts required for the area north of Pisa-Rimini. Such requirements are monthly, wheat 75,000, milk (dry) 810, and fats 2,250. In addition, 30-day stockpile has been requested - sugar 2,700, soup (dehy.) 6,000, and vegetables (dry) 6,800.
(b) Original request cancelled by LoC 420. The 2,687 tons sugar unloaded Palermo may be re-shipped for distribu according to original programme, which was same as that shown for Sept. and Oct.
(c) Includes dry milk equivalent of 769 tons evaporated milk.
(d) Original request cancelled by LoC 462.
(e) For area north of Pisa-Rimini line.
(f) Original request cancelled by LoC 553.

Economics & Supply
G-5, AFHQ. 25 Aug

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Declassified E.O. 12356 Section 3.3/NND No. 785016

TABLE 19

SECRET

ASSIGNED IMPORTS OF FOOD - 1 JULY 1944 - 30 JUNE 45

nts (from)	Programme (Metric tons, net)		Allocation Requested (a) (metric tons, net)				Probable Requests for Allocation (metric tons, net)			
ust.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
53,372	43,500	43,500	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
(i)	2,000	2,000	4,700	2,000	2,000	2,000	2,000	2,000	2,000	2,000
(b)	(d)	600	1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410
(b)	1,850(c)	4,950(c)	(f)	(f)	-	-	-	-	-	-
(h)	-	-	6,000	-	-	-	-	-	-	-
(b)	(d)	-	-	-	-	-	-	-	-	-
-	-	-	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250
158	770	850	-	-	-	-	-	-	-	-
55,530	48,120	51,900	114,360	105,660	105,660	105,660	105,660	105,660	105,660	105,660
-	-	-	-	-	-	-	-	-	-	-
2,687(i)	500	500	500	500	500	500	500	500	500	500
(b)	(d)	150	150	150	150	150	150	150	150	150
2,687	500	650	650	650	650	650	650	650	650	650
-	-	-	-	-	-	-	-	-	-	-
(b)	150	150	200	200	200	200	200	200	200	200
(t)	(d)	45	50	50	50	50	50	50	50	50
-	-	-	-	-	-	-	-	-	-	-
-	150	195	250	250	250	250	250	250	250	250

Beginning November 1944 include amounts required for the area north of Pisa-Rimini line.
Daily, wheat 75,000, meat (dry) 610, and rats 2,250. In addition, 30-day stockpiles have
000, soup (dehy.) 6,000, and vegetables (dry) 6,893.
by LsC 420. The 2,687 tons sugar unloaded Palermo may be re-shipped for distribution
mainland, which was done on that shown for Sept. and Oct.
et of 769 tons exported still.
by LsC 462.
d line.
by LsC 553.

Economics & Supply Division,
G-5, AFHQ. 25 August 1944.

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TABLE 20

FOOD CONSUMPTION, GRAMS PER CAPITA PER DAY, ITALY, 1937 - 39

Compartments	Wheat	Corn	Barley	Rye	Rice	Dry Legumes	Meat	Edible Offal	Manuf. Meat Produc
Piemonte	431	76	5	25.8	29.3	37.8	48.2	7.1	7.9
Liguria	465	28	5	1.1	13.7	51.5	49.9	6.6	5.2
Lombardia	355	184	5	25.5	45.5	25.5	45.8	7.7	11.8
Venezia Tridentina	444	181	9.9	35.1	19.7	57.5	42.5	6.8	10.7
Veneto	291	265	8	5.8	35.9	46.6	26.0	4.7	8.5
Venezia Giulia E Zara	302	180	7.7	31.3	30.4	41.6	47.1	7.4	10.4
Emilia	591	61	1.1	1.1	19.5	14.8	36.4	6.6	12.1
Toscana	556	49	1.4	6.0	15.9	32.9	40.0	5.5	5.8
Marche	606	57	-	-	13.4	30.1	27.1	5.8	13.7
Umbria	532	46	1.1	-	11.8	36.2	27.1	4.9	10.1
Lazio	488	76	5	3.3	17.8	30.4	40.6	6.0	8.2
Abruzzi E Molise	532	46	8	3.0	9.8	38.9	13.4	3.8	13.2
Campania	494	33	8	3.3	11.2	34.8	20.0	3.8	9.9
Puglie	562	2	15.6	-	11.0	56.1	15.9	2.2	3.3
Lucania	773	21	5.2	2.2	4.1	55.3	15.1	3.6	12.3
Calabria	550	29	1.6	6.0	8.2	45.8	12.6	2.7	8.8
Sicilia	646	2	-	3.0	7.9	66.3	13.2	1.6	2.5
Sardegna	610	12	32.2	9.0	5.5	46.6	26.9	4.1	9.0
Italy	486	67	2.8	9.1	21.1	38.7	31.6	5.1	6.0

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Table 20

FOOD CONSUMPTION, GRAMS PER CAPITA PER DAY, ITALY, 1937 - 39

Corn	Barley	Rye	Rice	Dry Legumes	Meat	Edible Offal	Manuf. Meat Products	Chickens Rabbits	Fish
76	5	25.8	29.3	37.8	48.2	7.1	7.9	12.3	14.2
28	5	1.1	13.7	51.5	49.9	6.6	5.2	12.9	22.7
184	5	25.9	45.5	25.5	45.8	7.7	11.8	11.5	11.5
151	9.2	35.1	19.7	57.5	42.5	6.3	10.7	10.7	10.1
265	8	5.8	35.9	46.6	26.0	4.7	8.5	7.9	13.4
180	7.7	31.3	30.4	41.6	47.1	7.4	10.4	11.8	25.8
61	1.1	1.1	19.5	18.8	36.4	6.6	12.1	9.6	15.6
49	1.4	6.9	13.9	32.9	40.0	5.5	5.8	11.0	19.5
57	-	-	13.4	30.1	27.1	5.8	13.7	7.7	23.8
46	1.1	-	11.8	36.2	27.1	4.9	10.1	7.7	12.3
76	5	3.3	17.8	30.4	40.6	6.0	8.2	9.3	21.9
46	8	3.0	9.9	38.9	18.4	3.8	13.2	5.8	18.1
33	8	3.3	11.2	34.8	20.0	3.8	9.9	6.8	22.2
2	14.6	-	11.0	50.1	15.9	2.2	3.3	5.8	22.2
21	5.2	2.2	4.1	55.3	15.1	3.6	12.3	4.9	8.8
23	1.6	6.0	3.2	45.3	12.6	2.7	8.8	5.2	20.3
2	-	3.0	7.9	60.3	13.2	1.6	2.5	6.0	21.9
12	32.9	9.0	5.5	46.6	26.9	4.1	9.9	6.3	21.1
67	2.8	9.1	21.1	30.7	31.6	5.1	6.0	8.9	17.9

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TABLE 20 CONT'D.

FOOD CONSUMPTION, GRAMS PER CAPITA PER DAY, ITALY, 1927 - 32

Compartments	Cheese	Milk	Eggs	Butter	Oil	Lard	Potatoes	Chestnuts
Piemonte	20.0	183.9	21.1	9.6	26.3	14.0	133.7	23.6
Liguria	20.8	138.4	20.8	4.4	26.3	8.5	155.1	36.4
Lombardia	23.3	178.6	20.6	9.0	19.7	20.3	73.4	12.1
Venezia Tridentina	21.1	182.5	20.6	12.1	12.9	17.5	302.2	16.2
Veneto	25.2	164.7	19.2	4.4	13.4	14.5	105.8	10.7
Venezia Giulia & Zara	9.9	68.8	20.3	2.7	9.6	17.3	241.9	6.0
Emilia	10.4	78.6	20.8	3.8	11.2	21.1	67.7	20.8
Toscana	11.6	80.3	20.8	2.7	24.9	10.1	108.5	27.9
Marche	15.6	107.1	20.6	3.8	19.5	22.5	91.9	7.4
Umbria	2.3	56.4	20.6	.8	23.6	16.4	78.6	13.2
Lazio	10.1	68.3	20.0	1.1	20.8	14.2	97.5	14.5
Abruzzi & Molise	7.7	44.1	20.0	.3	17.8	13.2	121.1	11.5
Campania	10.7	60.3	19.7	.9	14.9	10.1	176.7	21.9
Puglie	9.3	52.3	20.0	.3	31.5	3.3	49.6	4.4
Lucania	13.4	75.6	19.7	.3	19.2	12.3	97.0	19.7
Calabrie	7.4	41.9	19.7	.3	17.0	6.8	124.9	38.4
Sicilia	10.7	61.9	20.3	.3	23.8	2.5	36.7	8.5
Sardegna	11.2	63.5	20.0	.3	10.4	9.0	61.1	14.0
Italy	15.0	102.9	20.3	3.6	19.5	13.0	87.8	14.1

Note: These figures come from an unpublished study of Profs. Francioso, Livi, and Celotti. They are based essen on the national consumption figures developed by Prof. Barbori (of the Instituto Centrale di Statistica). data refer to human consumption only.

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TABLE 20 CONT'D.

CONSUMPTION, GRAMS PER CAPITA PER DAY, ITALY, 1937 - 39

Milk	Eggs	Butter	Oil	Lard	Potatoes	Chestnuts	Nuts	Dried Figs
163.9	21.1	9.6	26.3	14.0	133.7	23.6	5.5	1.1
138.4	20.0	4.4	26.3	8.5	155.1	36.4	3.0	1.1
178.6	20.6	9.0	19.7	20.3	73.4	12.1	1.6	1.1
102.5	20.6	12.1	12.9	17.5	302.2	16.2	2.5	1.1
168.7	19.2	4.4	13.4	14.5	105.8	10.7	1.9	1.1
68.0	20.5	2.7	9.6	17.3	241.9	6.0	2.5	1.1
78.6	20.8	.3	11.2	21.1	67.7	20.8	1.4	1.1
80.3	20.8	2.7	24.9	10.1	108.5	27.9	2.2	1.1
107.1	20.6	3.8	19.5	22.5	91.0	7.4	1.1	1.1
56.4	20.6	.8	23.6	16.4	78.6	13.2	2.5	3.6
65.3	20.0	1.1	20.8	14.2	97.5	14.5	3.0	1.9
44.1	20.0	.3	17.3	13.2	121.1	11.5	3.8	9.9
60.3	19.7	.3	14.9	10.1	178.7	21.9	10.4	9.6
52.3	20.0	.3	31.5	3.3	49.6	1.4	1.4	18.4
75.6	19.7	.3	19.2	12.3	97.9	19.7	2.7	9.9
41.9	19.7	.3	17.9	8.8	124.9	38.4	4.4	33.7
61.9	20.3	.3	23.8	2.5	36.7	8.5	4.9	5.5
63.5	20.0	.3	10.4	9.0	61.1	14.0	3.3	3.0
102.9	20.3	3.6	19.5	13.0	87.8	14.1	2.9	4.4

Unpublished study of Profs. Fraticosso, Livi, and Calcotti. They are based essentially figures developed by Prof. Barbera (of the Instituto Centrale di Statistica). All tion only.

APPENDIX

THE COST OF LIVING

A. The charts and tables below reproduce all the data currently available on the cost of living in liberated Italy. They include, for the capital cities of 24 provinces,

(1) the black market prices of

bread,
potatoes,
olive oil,
meat,
cheese,
milk, and
sugar;

(2) A calculation of the cost of purchasing the following budget of foods, at legal prices to the extent to which such foods were distributed under rationing programs, and at black market prices for the remainder:

		Quantity per person per month
Bread	Kg.	8.0
Pasta	"	.6
Potatoes	"	6.0
Meat	"	.4
Fish	"	.2
Cheese	"	.2
Olive oil	Litre	1.0
Sugar	Kg.	.2
Milk	Litre	.4

This budget, based upon a survey of working class food consumption in Naples last winter, is thought to be roughly representative of working class food purchases. It is not based upon calculation of an adequate diet, and it provides only about 1,500 calories per day.

(3) An index made from the calculations of the cost of buying the budget on the base: January 1944 - 100.

B. Fruits and vegetables used in large quantities by the entire population of liberated Italy are not included in the calculations because of the high degree of unreliability in the price data available for these items. Because of this omission, the expenditure figures do not represent typical food expenditure. In general, about 100 lire per month would have to be added to these figures in the large cities to obtain figures on typical food expenditure. The Naples figures follow:

	Expenditure per person per month in Naples	
	1943	1944

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milk, and
sugar;

(2) A calculation of the cost of purchasing the following budget of foods, at legal prices to the extent to which such foods were distributed under rationing programs, and at black market prices for the remainder:

		Quantity per person per month
Bread	Kg.	8.0
Pasta	"	.6
Potatoes	"	6.0
Meat	"	.4
Fish	"	.2
Cheese	"	.2
Olive oil	Litre	1.0
Sugar	Kg.	.2
Milk	Litre	.4

This budget, based upon a survey of working class food consumption in Naples last winter, is thought to be roughly representative of working class food purchases. It is not based upon calculation of an adequate diet, and it provides only about 1,500 calories per day.

(3) An index made from the calculations of the cost of buying the budget on the base: January 1944 - 100.

B. Fruits and vegetables used in large quantities by the entire population of liberated Italy are not included in the calculations because of the high degree of unreliability in the price data available for these items. Because of this omission, the expenditure figures do not represent typical food expenditure. In general, about 100 lire per month would have to be added to these figures in the large cities to obtain figures on typical food expenditure. The Naples figures follow:

	Expenditure per person per month in Naples	
	1943	1944
January	129	1,478
February	145	1,253
March	139	1,202
April	163	1,240
May	171	1,406
June	166	1,368
July	170	793
August	226	
September	464	
October	737	
November	858	
December	?	

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C. The data demonstrate that:

(1) The cost of living in Naples (the principal city of liberated Italy prior to the liberation of Rome) has been at least twice as high as that in any of the smaller provincial capitals outside the orbit of Naples, and that, at present, the cost of living in either Rome or Naples is about twice as high as in any of the other provincial capitals.

(2) Rome, like Naples, suffered its greatest price rise in the months immediately preceding Allied occupation. In the 6 months preceding Allied occupation of Rome, the cost of living in that city rose 6 fold, and in the 6 months preceding Allied occupation of Naples, the cost of living there rose over 4 fold. In both cases the increases in these 6-month periods accounted for the overwhelming portion of the total increase.

(3) For all cities for which July data is available, a substantial fall occurred in that month, the result of the increase in the bread ration and of the availability of food from the current harvest.

Expenditure per Person per Month for Purchase of Budgeted Foods

	1943	(in lire)			1944			
	Dec.	Jan.	Feb.	March	April	May	June	July
Roma	376	479	582	983	1286	2218	1724	1310
Napoli	-	1478	1253	1202	1240	1406	1368	793
Salerno	1099	-	-	-	-	-	-	-
Bari	348	569	531	629	694	736	742	-
Brindisi	327	456	-	-	-	-	-	-
Lecce	363	549	-	-	-	-	-	-
Taranto	352	662	-	-	-	-	-	-
Matera	162	240	-	273	316	361	309	191
Potenza	339	-	-	625	595	608	675	429
Catanzaro	413	-	-	-	659	603	632	-
Cosenza	-	-	-	-	-	-	-	-
Reggio Calabria	670	693	-	-	490	565	-	-
Agrigento	-	467	467	500	531	541	444	-
Caltanissetta	-	412	441	490	555	560	525	-
Catania	-	612	567	558	752	894	900	-
Enna	-	560	465	506	596	678	670	-
Messina	-	750	677	748	763	752	981	-
Palermo	-	680	550	578	685	740	777	-
Ragusa	-	559	521	600	753	824	710	-
Siracusa	-	573	609	641	759	802	786	-
Trapani	-	711	632	630	857	916	843	-

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harvest.

Expenditure per Person per Month for Purchase of Budgeted Foods

	1943	(in Lire) 1944						
	Dec.	Jan.	Feb.	March	April	May	June	July
Roma	376	479	582	983	1286	2218	1724	1910
Napoli	-	1478	1253	1202	1240	1406	1368	793
Salerno	1099	-	-	-	-	-	-	-
Bari	348	569	531	689	694	736	742	-
Brindisi	327	456	-	-	-	-	-	-
Lecce	363	543	-	-	-	-	-	-
Taranto	352	662	-	-	-	-	-	-
Matera	162	240	-	273	316	361	309	191
Potenza	339	-	-	625	595	808	675	429
Catanzaro	413	-	-	-	659	603	632	-
Cosenza	-	-	-	-	-	-	-	-
Reggio Calabria	670	693	-	-	490	565	-	-
Agrigento	-	467	467	500	631	541	114	-
Caltanissetta	-	412	441	490	555	560	525	-
Catania	-	612	567	558	752	894	900	-
Enna	-	560	465	506	596	678	670	-
Messina	-	750	677	748	763	752	981	-
Palermo	-	680	550	578	635	740	777	-
Ragusa	-	559	521	600	753	824	710	-
Siracusa	-	573	609	641	759	802	786	-
Trapani	-	711	632	630	857	916	843	-
Cagliari	199	237	371	480	451	-	-	-
Nuoro	275	371	542	410	512	-	-	-
Sassari	246	369	461	436	578	-	-	-

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Expenditure per person per Month for Purchase of Budgeted Foods
(Index: January 1944 = 100)

	1943 Dec.	1944 Jan.	Feb.	March	April	May	June	July
Roma	78.5	100.-	121.5	205.2	268.5	463.0	359.9	273.5
Napoli	-	100.-	85.4	81.9	86.5	95.8	93.2	54.0
Salerno	-	-	-	-	-	-	-	-
Bari	61.2	100.-	93.3	121.1	122.0	129.3	130.4	
Brindisi	71.7	100.-	-	-	-	-	-	-
Lecce	66.1	100.-	-	-	-	-	-	-
Taranto	53.2	100.-	-	-	-	-	-	-
Matera	67.5	100.-	-	113.8	131.7	150.4	128.8	79.6
Potenza	-	-	-	-	-	-	-	-
Catanzaro	-	-	-	-	-	-	-	-
Cosenza	-	-	-	-	-	-	-	-
Reggio Calab.	96.7	100.-	-	-	70.7	81.5	-	-
Agrigento	-	100.-	100.-					95.0
Caltanissetta	-	100.-	107.0	118.9	134.7	135.9	127.4	-
Catania	-	100.-	92.6	91.2	122.9	146.1	147.1	-
Enna	-	100.-	83.0	90.4	106.4	121.1	119.6	-
Messina	-	100.-	90.3	99.7	101.7	100.3	130.8	-
Palermo	-	100.-	80.9	85.0	100.7	108.8	114.3	-
Ragusa	-	100.-	93.2	107.3	134.7	147.4	127.0	-
Siracusa	-	100.-	106.3	111.9	132.5	140.0	137.2	-
Trapani	-	100.-	88.9	88.6	120.5	128.8	118.6	-
Cagliari	84.0	100.-	156.5	202.5	190.3	-	-	-
Nuoro	74.1	100.-	140.1	110.5	138.0	-	-	
Sassari	66.7	100.-	124.9	113.2	156.6	-	-	-

Bread, Retail Black Market Prices
(Monthly averages, Lire per kilogram)

	1943 Dec.	1944 Jan.	Feb.	March	April	May	June	July
Roma	25	30	35	50	60	125	90	100
Napoli	117	130	128	141	147	179	183	114
Salerno	117	-	-	-	-	-	-	-
Bari	31	46	50	75	80	83	75	-
Brindisi	28	38	-	-	50	-	-	-
Lecce	28	43	-	-	35	38	-	-
Taranto	23	35	-	-	-	-	-	-
Matera	13	20	-	60	61	55	50	
Potenza	21	-	-	35	40	43	45	-
Catanzaro	21	-	-	-	80	80	65	-
Cosenza	20	35	48	50	68	100	70	70
Reggio Calabria	64	78	-	-	-	75	-	-
Agrigento	-	35	37	41	60	60	64	

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Agrigento	-	100.-	100.-					95.0
Caltanissetta	-	100.-	107.0	118.9	134.7	135.9	127.4	-
Catania	-	100.-	92.6	91.2	122.9	146.1	147.1	-
Enna	-	100.-	83.0	90.4	106.4	121.1	119.6	-
Messina	-	100.-	90.3	99.7	101.7	100.3	130.8	-
Palermo	-	100.-	80.9	85.0	100.7	108.8	114.3	-
Ragusa	-	100.-	93.2	107.3	134.7	147.4	127.0	-
Siracusa	-	100.-	106.3	111.9	132.5	140.0	137.2	-
Trapani	-	100.-	88.9	88.6	120.5	128.8	118.6	-
Cagliari	84.0	100.-	156.5	202.5	190.3	-	-	-
Nuoro	74.1	100.-	140.1	110.5	138.0	-	-	
Sassari	66.7	100.-	124.9	110.2	156.6	-	-	-

Bread, Retail Black Market Prices
(Monthly averages, Lire per kilogram)

	1943	1944						
	Dec.	Jan.	Feb.	March	April	May	June	July
Roma	25	30	35	50	60	125	90	100
Napoli	117	130	128	141	147	179	183	114
Salerno	117	-	-	-	-	-	-	-
Bari	31	46	50	75	80	83	75	-
Brindisi	28	38	-	-	50	-	-	-
Lecce	28	43	-	-	35	38	-	-
Taranto	23	35	-	-	-	-	-	-
Matera	13	20	-	60	61	55	50	
Potenza	21	-	-	35	40	43	45	-
Catanzaro	21	-	-	-	80	80	85	-
Cosenza	20	35	48	50	68	100	70	70
Reggio Calabria	64	73	-	-	-	75	-	-
Agrigento	-	35	37	51	75	60	36	-
Caltanissetta	-	38	38	48	58	44	45	-
Catania	68	60	50	69	99	96	90	-
Enna	56	60	45	60	78	84	78	-
Messina	-	80	63	90	90	84	120	-
Palermo	-	59	41	60	85	85	81	-
Ragusa	-	58	60	83	116	118	83	-
Siracusa	-	67	68	77	103	113	82	-
Trapani	73	71	65	70	119	135	102	-
Cagliari	20	-	33	45	71	80	75	-
Nuoro	18	-	40	20	23	24	23	-
Sassari	18	-	35	28	28	38	62	-

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[illegible]
(Monthly averages, Lire per kilogram)

	1943 Dec.	1944 Jan.	Feb.	March	April	May	June	July
Roma	15	20	25	30	45	60	50	35
Napoli	24	41	37	39	43	50	40	-
Salerno	-	-	-	-	-	-	-	-
Bari	12	23	30	30	33	32	35	-
Brindisi	12	19	-	-	35	-	-	-
Lecce	23	-	-	-	-	-	-	-
Taranto	15	41	-	-	-	-	-	-
Matera	6	9	-	35	23	-	-	-
Potenza	12	-	-	30	26	25	30	-
Catanzaro	20	-	-	-	40	40	37	-
Cosenza	11	22	28	30	30	30	37	30
Reggio Calabria	31	30	-	-	-	-	-	-
Agrigento	-	-	-	-	-	-	-	-
Caltanisetta	-	-	-	-	-	-	-	-
Catania	-	-	-	-	-	-	-	-
Messina	-	-	-	-	-	-	-	-
Palermo	-	-	-	-	-	-	-	-
Ragusa	-	-	-	-	-	-	-	-
Siracusa	-	-	-	-	-	-	-	-
Trapani	-	-	-	-	-	-	-	-
Enna	-	-	-	-	-	-	-	-
Cagliari	-	-	-	-	-	-	-	-
Nuoro	18	-	55	25	35	35	-	-
Sassari	-	-	15	20	38	36	33	-

Olive Oil, Retail Black Market Prices
(Monthly averages, Lire per liter)

	1943 Dec.	1944 Jan.	Feb.	March	April	May	June	July
Roma	250	300	360	400	600	900	800	550
Napoli	196	200	197	248	244	233	269	310
Salerno	177	-	-	-	-	-	-	-
Bari	33	50	50	80	79	90	90	-
Brindisi	31	43	-	-	65	-	-	-
Lecce	35	46	-	-	70	70	-	-
Taranto	37	55	-	-	-	-	-	2399
Matera	33	42	-	50	66	73	60	55
Potenza	90	-	-	120	121	135	135	-
Catanzaro	33	-	-	-	60	60	92	-
Cosenza	57	68	95	113	120	120	150	150
Reggio Calabria	40	48	-	65	-	73	60	-

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Catanzaro	20	-	-	-	40	40	37	-
Cosenza	11	22	28	30	30	30	37	30
Reggio Calabria	31	30	-	-	-	-	-	-
Agrigento	-	-	-	-	-	-	-	-
Caltanisetta	-	-	-	-	-	-	-	-
Catania	-	-	-	-	-	-	-	-
Messina	-	-	-	-	-	-	-	-
Palermo	-	-	-	-	-	-	-	-
Ragusa	-	-	-	-	-	-	-	-
Siracusa	-	-	-	-	-	-	-	-
Trapani	-	-	-	-	-	-	-	-
Enna	-	-	-	-	-	-	-	-
Cagliari	-	-	-	-	-	-	-	-
Nuoro	18	-	55	25	30	35	-	-
Sassari	-	-	15	20	38	36	33	-

Olive Oil, Retail Black Market Prices
(Monthly averages, Lire per liter)

	1943	1944						
	Dec.	Jan.	Feb.	March	April	May	June	July
Roma	250	300	360	400	600	900	800	550
Napoli	196	200	197	248	244	233	269	310
Salerno	177	-	-	-	-	-	-	-
Bari	33	50	50	80	79	90	90	-
Brindisi	31	43	-	-	85	-	-	-
Lecce	35	46	-	-	70	70	-	-
Taranto	37	55	-	-	-	-	-	-
Matera	33	42	-	50	66	73	60	55
Potenza	90	-	-	120	121	135	135	-
Catanzaro	33	-	-	-	80	80	92	-
Cosenza	57	68	95	113	120	120	150	150
Reggio Calabria	40	48	-	65	-	73	60	-
Arigento	-	94	-	101	125	-	140	-
Caltanisetta	-	93	-	90	100	130	110	-
Catania	90	95	-	83	110	-	125	-
Enna	100	130	-	80	100	-	143	-
Messina	-	73	-	79	90	-	100	-
Palermo	-	135	-	103	118	140	159	-
Ragusa	-	95	-	78	103	-	120	-
Siracusa	-	70	-	93	114	120	120	-
Trapani	108	120	113	100	145	135	156	-
Cagliari	150	-	120	160	220	231	275	-
Nuoro	75	-	190	170	188	248	325	-
Sassari	55	-	130	148	197	209	310	-

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Meat, Retail Black Market P..ces
(Monthly averages, Lire per kilogram)

	1943	1944					
	Dec.	Jan.	Feb.	March	April	May	June	July
Roma	120	140	155	165	200	250	325	370
Napoli	180	270	223	253	306	288	285	280
Salerno	115	-	-	-	-	-	-	-
Bari	88	130	140	146	180	177	-	-
Brindisi	110	130	-	-	160	-	-	-
Lecce	96	132	-	-	125	148	-	-
Taranto	90	113	-	-	-	-	-	-
Matera	36	75	-	110	113	120	120	120
Potenza	77	-	-	120	119	119	123	-
Catanzaro	105	-	-	120	120	120	-	-
Cosenza	50	80	85	68	95	100	120	120
Reggio Calabria	-	-	-	-	-	-	-	-
Agrigento	-	95	-	140	140	120	120	-
Caltanissetta	-	106	-	135	144	125	121	-
Catania	100	90	-	90	98	100	100	-
Enna	70	80	-	101	114	122	111	-
Messina	-	110	-	123	140	135	145	-
Palermo	-	137	-	162	160	120	120	-
Ragusa	-	100	-	110	130	121	101	-
Siracusa	-	85	-	98	120	120	120	-
Trapani	-	108	-	121	162	120	120	-
Cagliari	60	-	60	73	73	94	118	-
Nuoro	33	-	70	49	45	49	55	-
Sassari	45	-	100	60	80	67	65	-

Cheese, Retail Black Market Prices
(Monthly averages, Lire per kilogram)

	1943	1944						
	Dec.	Jan.	Feb.	March	April	May	June	July
Roma	180	200	225	300	460	500	600	450
Napoli	172	275	350	350	411	-	357	400
Salerno	-	-	-	-	-	-	-	-
Bari	203	230	230	258	338	333	240	-
Brindisi	145	160	-	-	350	-	-	-
Lecce	160	288	-	-	200	150	-	-
Taranto	150	250	-	-	-	-	-	-
Matera	95	150	-	250	288	275	275	275
Potenza	153	-	-	250	281	298	305	298
Catanzaro	125	120	-	-	200	200	-	-
Cosenza	110	165	180	170	180	190	224	180
Reggio Calabria	144	161	-	-	-	-	-	-
		115	-	110	110	-	135	-

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Potenza	77	-	-	120	119	115	123	-
Catanzaro	105	-	-	120	120	120	-	-
Cosenza	50	80	85	68	95	100	120	120
Reggio Calabria	-	-	-	-	-	-	-	-
Agrigento	-	95	-	140	140	120	120	-
Caltanissetta	-	106	-	135	144	125	121	-
Catania	100	90	-	90	98	100	100	-
Enna	70	80	-	101	114	122	111	-
Messina	-	110	-	123	140	135	145	-
Palermo	-	137	-	162	160	120	120	-
Ragusa	-	100	-	110	130	121	121	-
Siracusa	-	85	-	98	120	120	120	-
Trapani	-	108	-	121	142	120	120	-
Cagliari	60	-	60	73	73	94	118	-
Nuoro	33	-	70	49	45	49	55	-
Sassari	45	-	100	60	80	67	65	-

Cheese, Retail Black Market Prices
(Monthly averages, Lire per kilogram)

	1943	1944						
	Dec.	Jan.	Feb.	March	April	May	June	July
Roma	180	200	225	300	460	500	600	450
Napoli	172	275	350	350	411	-	357	400
Salerno	-	-	-	-	-	-	-	-
Bari	203	230	230	258	338	333	240	-
Brindisi	145	160	-	-	350	-	-	-
Lecce	160	288	-	-	200	150	-	-
Taranto	150	250	-	-	-	-	-	-
Matera	95	150	-	250	288	275	275	275
Potenza	153	-	-	250	281	298	305	298
Catanzaro	125	120	-	-	200	200	-	-
Cosenza	110	165	180	170	180	190	224	180
Reggio Calabria	144	161	-	-	-	-	-	-
Agrigento	-	115	-	110	110	-	135	-
Caltanissetta	-	140	-	126	-	160	101	-
Catania	190	151	-	150	172	-	175	-
Enna	160	150	-	103	-	-	113	-
Messina	-	142	-	140	135	130	130	-
Palermo	-	124	-	137	123	150	107	-
Ragusa	-	105	-	95	-	-	117	-
Siracusa	-	120	-	129	-	200	132	-
Trapani	68	100	100	108	110	110	153	-
Cagliari	50	-	95	80	105	108	90	-
Nuoro	38	-	70	60	73	78	78	-
Sassari	45	-	70	58	80	-	70	-

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Milk, Retail Black Market Prices
(Monthly averages, Lire per liter)

	1943	1944					
	Dec.	Jan.	Feb.	March	April	May	June	July
Roma	12	15	18	21	25	40	40	30
Napoli	-	24	27	28	25	26	34	30
Salerno	-	-	-	-	-	-	-	-
Bari	-	12	-	-	20	18	17	-
Brindisi	13	16	-	-	20	-	-	-
Lecce	15	22	-	-	-	-	-	-
Taranto	17	25	-	-	-	-	-	-
Matera	7	10	-	11	12	12	12	14
Potenza	16	-	-	9	12	15	15	-
Catanzaro	14	-	-	-	15	15	15	-
Cosenza	11	12	12	13	16	16	16	16
Reggio Calabria	14	14	-	-	16	16	-	-
Agrigento	-	14	-	15	15	-	16	-
Caltanissetta	-	16	-	20	20	-	18	-
Catania	25	20	-	20	20	-	22	-
Enna	-	-	-	16	17	-	12	-
Messina	-	23	-	20	21	-	14	-
Palermo	-	12	-	12	13	-	13	-
Ragusa	-	14	-	12	14	-	14	-
Siracusa	-	12	-	13	14	-	14	-
Trapani	-	-	-	-	-	-	16	-
Cagliari	-	-	-	-	-	-	-	-
Nuoro	-	-	-	-	-	-	-	-
Sassari	-	-	-	-	-	-	-	-

Sugar, Retail Black Market Prices
(Monthly averages, Lire per kilogram)

	1943	1944					
	Dec.	Jan.	Feb.	March	April	May	June	July
Roma	150	200	220	250	300	400	350	350
Napoli	173	210	264	291	353	264	279	265
Salerno	-	-	-	-	-	-	-	-
Bari	158	200	200	188	173	173	160	-
Brindisi	103	135	-	-	180	-	-	-
Lecce	128	158	-	-	70	50	-	-
Taranto	137	138	-	-	-	-	-	-
Matera	-	-	-	175	175	175	168	160
Potenza	147	-	-	250	241	214	220	-
Catanzaro	143	-	-	-	150	150	183	-
Cosenza	153	250	375	400	400	400	320	300
Reggio Calabria	143	182	-	400	122	272	-	-
Agrigento	-	-	-	188	186	-	200	-
				215	236	-	263	-

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Catanzaro	14	-	-	-	15	15	15	-
Cosenza	11	12	12	13	16	16	16	16
Reggio Calabria	14	14	-	-	16	16	-	-
Agrigento	-	14	-	15	15	-	16	-
Caltanissetta	-	16	-	20	20	-	18	-
Catania	25	20	-	20	20	-	22	-
Enna	-	-	-	16	17	-	12	-
Messina	-	23	-	20	21	-	14	-
Palermo	-	12	-	12	13	-	13	-
Ragusa	-	14	-	12	14	-	14	-
Siracusa	-	12	-	13	14	-	14	-
Trapani	-	-	-	-	-	-	16	-
Cagliari	-	-	-	-	-	-	-	-
Nuoro	-	-	-	-	-	-	-	-
Sassari	-	-	-	-	-	-	-	-

Sugar, Retail Black Market Prices
(Monthly averages, Lire per kilogram)

	1943	1944						
	Dec.	Jan.	Feb.	March	April	May	June	July
Roma	150	200	220	250	300	400	350	350
Napoli	173	210	264	291	353	264	279	265
Salerno	-	-	-	-	-	-	-	-
Bari	158	200	200	188	173	173	160	-
Brindisi	103	135	-	-	180	-	-	-
Lecce	128	158	-	-	70	50	-	-
Taranto	137	138	-	-	-	-	-	-
Matera	-	-	-	175	175	175	168	160
Potenza	147	-	-	250	241	214	220	-
Catanzaro	143	-	-	-	150	150	183	-
Cosenza	153	250	375	400	400	400	320	300
Reggio Calabria	143	182	-	400	122	272	-	-
Agrigento	-	-	-	188	186	-	200	-
Caltanissetta	-	-	-	215	236	-	263	-
Catania	165	-	-	192	185	-	-	-
Enna	150	170	-	145	180	200	170	-
Messina	-	195	-	200	200	-	280	-
Palermo	-	150	-	158	222	-	238	-
Ragusa	-	-	-	163	214	-	275	-
Siracusa	-	-	-	180	198	-	200	-
Trapani	-	-	-	188	206	200	202	-
Cagliari	80	-	80	103	187	250	275	-
Nuoro	38	-	130	125	195	245	275	-
Sassari	40	-	150	181	233	283	230	-

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HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

CENTRAL ITALY

Report on the availability of electrical energy in Central Italy progressively for the six months ending Feb. 28th 1945.

Also estimated requirements of electrical energy for Military, essential Civilian and factory rehabilitation in Central Italy for the same period.

Prepared by the Electrical Division
Public Works and Utilities Sub-Commission
ALLIED CONTROL COMMISSION
26th August 1944

L.A. JENNY,
Lt.Colonel, C.E.,
Director.

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Declassified E.O. 12356 Section 3.3/NND No. 785016

for the same period.

Prepared by the Electrical Division
Public Works and Utilities Sub-Commission
ALLIED CONTROL COMMISSION
25th August 1944

L.A. JENNY,
Lt.Colonel, O.B.E.,
Director.

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W.M. LAPPER,
Lt.Colonel,
Chief Electrical Divn.

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TABLE " A "

Summary of Electrical plant and requirements

(1) Showing the demand for electrical energy in Central Italy which will be required for the Months of Sept. to Feb. inclusive for Military and essential civilian needs.

(2) Showing the effective output capacity of the available generating plant in Central Italy for the Months of Sept. 1944 to Feb. 1945 inclusive. This capacity is made up as follows:-

(a) Capacity of plant at present in operation

(b) Additional Capacity from repaired plant

(c) Additional Capacity from Transfer of plant

(d) Additional winter output due to rainfall

(3) The final line "deficit" indicates the amount of shortage in Kilowatts of output capacity if the factories listed on Table "C" are put into operation.

TABLE " A "

	1944				1945	
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
	KW	KW	KW	KW	KW	KW
(1) Estimated Demand	136,950	147,900	166,800	184,750	186,250	186,750
(2) Generating Plant Effective Output Capacity	58,000	76,000	88,000	114,000	155,000	154,000
(3) Deficit	78,950	71,900	78,800	70,750	31,250	32,750

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(c) Additional Capacity from Transfer of plant

(d) Additional winter output due to rainfall

(3) The final line "Deficit" indicates the amount of shortage in Kilowatts of output capacity if the factories listed on Table "G" are put into operation.

TABLE " A "

	1944				1945	
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
	KW	KW	KW	KW	KW	KW
(1) Estimated Demand	136,950	147,900	156,800	184,750	185,250	186,750
(2) Generating Plant Effective Output Capacity	58,000	76,000	58,000	114,000	155,000	154,000
(3) Deficit	78,950	71,900	78,800	70,750	31,250	32,750

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NOTE. Under the output capacity weight has been given to increased availability of water due to rainfall which will fall every beginning in March (see Table "E", page 6)

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HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

Report on the availability of Electric energy in Central Italy and reduction in generating capacity due to the destruction of plants by the enemy.

(1) The retreating enemy systematically destroyed by mining the Hydro Electric Generating Units, switchgear transformers and auxiliary equipment. This effectively destroyed many of the plants and as care was taken to destroy similar parts in each plant the rehabilitation work is necessarily slowed down. Considerable damage was also done to Transmission Lines and Sub Stations, much copper conductor was taken away and about 60% of the high voltage towers were brought down by mining.

(2) Many castings, forgings and machined parts will have to be made to carry out the repairs. These are in hand and good progress is being made but lack of electric energy for the steelworks and the many Machine Shops which it is desired to operate is causing the repair programme to be delayed.

(3) Out of the sixty important Hydro Electric Stations damaged by the enemy it is only possible to effect repairs to nineteen within the next six months. Of the other forty-four generating Stations thirty are totally destroyed and beyond repair and fourteen can be repaired during the next twelve months.

(4) At the present time there is available only 57,030 KW of output capacity, and this includes about 30,000 KW of steam plant in Rome which was undamaged by the enemy. The summer season output capacity in Central Italy, prior to the damage, was 862,000 KW so that with the present capacity standing at 57,030 KW there is 93% of the plant out of use due to enemy action at the present time.

(5) Briefly, therefore, the present position is as follows.

2894

(a)	Original Summer Output Capacity	862,000	KW
(b)	Present Output Capacity	57,030	KW
(c)	Loss due to enemy action	804,970	KW
(d)	Percentage loss	93	%

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each plant the rehabilitation work is necessarily slowed down. Considerable damage was also done to Transmission Lines and Sub Stations, much copper conductor was taken away and about 60% of the high voltage towers were brought down by mining.

(2) Many castings, forgings and machined parts will have to be made to carry out the repairs. These are in hand and good progress is being made but lack of electric energy for the steelworks and the many Machine Shops which it is desired to operate is causing the repair programme to be delayed.

(3) Out of the sixty important Hydro Electric Stations damaged by the enemy it is only possible to effect repairs to sixteen within the next six months. Of the other forty-four generating Stations thirty are totally destroyed and beyond repair and fourteen can be repaired during the next twelve months.

(4) At the present time there is available only 57,030 KW of output capacity, and this includes about 30,000 KW of steam plant in Rome which was undamaged by the enemy. The summer season output capacity in Central Italy, prior to the damage, was 862,000 KW so that with the present capacity standing at 57,030 KW there is 93% of the plant out of use due to enemy action at the present time.

(5) Briefly, therefore, the present position is as follows.

2894

(a)	Original Summer Output Capacity	862,000	KW
(b)	Present Output Capacity	57,030	KW
(c)	Loss due to enemy action	804,970	KW
(d)	Percentage loss	93	%

(6) With regard to the rehabilitation programme everything possible is being done to obtain additional output capacity by repairs to damaged plant and by transfer of plants, and the following Tables will show the details of the present generating capacity and the additions which may be expected during the next six months.

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TABLE " A "

7. Showing the output capacity of the Generating Stations operating in connection with the Grid System in Central Italy at 26th August 1944.

Name of Station (1)	Location of Station (2)	Output Capacity at 26th Aug. 44 KW (3)
Terni (Steel)	Terni	550
Terni (old)	Terni	200
Farindola	Pescara	450
Pulegnula	Macerata	700
Caracciai	Ascoli P.	450
Pedaso	Ascoli P.	1,100
Altolina	Perugia	600
9 Small Stat.	Umbr	730
Steam (Viscosa)	Rieti	650
Steam & Diesel	Rome	30,000
Vulci	Rome	1,100
Traponzo	Viterbo	550
S.Savino	do	750
Ficritella	do	750
Nera Montoro	Terni	7,850
Vesta	Rome	2,000
Arci	do	1,300
Subiaco	do	2,500
Scalelle	Frosinone	2,100
Comunacqua	do	2,500
Cardinale	Viterbo	40
Foroha	do	150
TOTAL Output Capacity		57,000

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(1)	(2)	(3)
Terni (Steel)	Terni	550
Terni (oil)	Terni	200
Farinola	Pescara	450
Bolognola	Macerata	700
Carassai	Ascoli P.	450
Pedaso	Ascoli P.	1,100
Altolina	Perugia	500
9 Small Stat.	Umes	730
Steam (Visconsa)	Rieti	650
Steam & Diesel	Rom.	30,000
Vulci	Rome	1,100
Trepenzo	Viterbo	550
S.Savino	do	750
Picritella	do	750
Nora Montoro	Terni	7,800
Vasta	Rome	2,000
Arci	do	1,000
Subiaco	do	2,500
Scalelle	Frosinone	2,100
Comunacqua	do	2,500
Cardinale	Viterbo	40
Forche	do	150
TOTAL Output Capacity		57,030

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TABLE " C "

6. Showing the output capacity of the Generating Plant connected to the Grid System which is now under repair and the anticipated date of completion.

Name of Station (1)	Location of Station (2)	Output Capacity KW (3)	Anticipated date of Completion (4)
Cervara	Terni	1,600	Aug. 31
Lardarello	Pisa	2,000	Aug. 31
Terquinia Paper Mill	Roma	200	Aug. 31
Terni Plate Mill	Terni	2,000	Aug. 31
Lardarello	Pisa	3,000	Sep. 30
Cervara	Terni	1,600	do
Jutificio Terni	Terni	1,100	do
Ceprano	Frosinone	9,000	Oct. 31
Cervara	Terni	1,600	do
Farfa II	Roma	4,200	Nov. 15
Cervara	Terni	1,600	Nov. 30
Ponte Fiume	Frosinone	3,200	Nov. 30
Canterno	Roma	10,000	Dec. 15
Cervara	Terni	1,600	Dec. 31
Galleto	Terni	35,000	Jan. 10
Castel Madama	Roma	4,000	Jan. 31
Mandela	Roma	4,000	do
Cervara	Terni	1,600	Jan. 31
TOTAL Output Capacity		88,300	

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Cervara	Terni	1,600	Aug. 31
Lardarello	Pisa	3,000	Aug. 31
Tarquinia Paper Mill	Rome	200	Aug. 31
Terni Plate Mill	Terni	2,600	Aug. 31
Lardarello	Pisa	3,000	Sep. 30
Cervara	Terni	1,600	do
Jutificio Terni	Terni	1,100	do
Ceprano	Frosinone	9,000	Oct. 31
Cervara	Terni	1,600	do
Farfa II	Rome	4,200	Nov. 15
Cervara	Terni	1,600	Nov. 30
Ponte Fiume	Frosinone	3,200	Nov. 30
Canterno	Rome	10,000	Dec. 15
Cervara	Terni	1,600	Dec. 31
Gallato	Terni	35,000	Jan. 10
Castel Nadema	Rome	4,000	Jan. 31
Manfiela	Rome	4,000	do
Cervara	Terni	1,600	Jan. 31
TOTAL Output Capacity		88,300	

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TABLE " D "

9. Showing the output capacity of the generating plant which is being moved to assist in the rehabilitation programme.

Name of Station receiving plant (1)	Location of Station (2)	Output Capacity KW (3)	Anticipated date of Completion (4)
Acquoria Vescovali set from Ceprano	Rome	3,500	Dec. 15
Pettorano 2 sets from Caracsal	L'Aquila	320	Jan. 10
Molina set from Guglionesi	L'Aquila	250	Jan. 10
Castellano set from Pedaso	Ascoli P.	2,250	Jan. 15
TOTAL Output Capacity		6,320	

In addition to the above programme of plant movement the following arrangements have been made.

2891

CALORE

A 8,000 KW set now being dismantled and repaired will be packed ready for shipment to destination unknown.

MATESE II

The 3,000 KW set brought over from Sicily by A.C.C. will not now be installed. This is being packed ready for shipment to destination unknown.

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Pettorano 2 sets from Caressai	L'Aquila	320	Jan. 10
Moline set from Guglionesi	L'Aquila	250	Jan. 10
Castellano set from Pedaso	Ascoli P.	2,250	Jan. 15
TOTAL Output Capacity		6,320	

In addition to the above programme of plant movement the following arrangements have been made.

2391

CALORE

A 8,000 KW set now being dismantled and repaired will be packed ready for shipment to destination unknown.

MATESE II

The 3,000 KW set brought over from Sicily by A.C.C. will not now be installed. This is being packed ready for shipment to destination unknown.

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TABLE " 2 "

10. Shewing the output Capacity at present, from repaired plants, by transfer of plants and the additional output to be expected during the winter months due to rainfall.

	Sept. KW	Oct. KW	Nov. KW	Dec. KW	Jan. KW	Feb. KW
Present output Capacity	57,030	57,030	57,030	57,030	57,030	57,030
Output capacity from repaired plants	6,800	16,500	23,100	41,500	78,700	88,300
Output capacity from transfer of plants	--	--	--	3,500	6,320	6,320
Output capacity from increase in water	--	9,000	18,000	25,000	30,000	20,000
TOTAL	63,830	84,530	98,130	127,030	172,050	171,650
Est minimum outage for breakdown and Repairs 10%	6,383	8,453	9,813	12,703	17,205	17,165
Effective						

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	57,030	57,030	57,030	57,030	57,030	57,030
Output capacity from repaired plants	6,800	18,500	23,100	41,500	78,700	88,300
Output capacity from transfer of plants	--	--	--	3,500	6,320	6,320
Output capacity from increase in water	--	9,000	18,000	25,000	30,000	20,000
TOTAL	63,830	84,530	98,130	127,030	172,050	171,650
Est minimum outage for breakdown and Repairs 10%	6,383	8,453	9,813	12,703	17,205	17,165
Effective output capacity	57,447	76,077	88,317	114,327	154,845	154,485
SAY	58,000	76,000	88,000	114,000	155,000	154,000

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11. Electricity requirements in Central Italy for Military and essential Civilian Need.

The total electricity available in Central Italy at the present time is 57,030 KW and this is divided between the various districts as follows.

Rome	Thermal	30,000	KW
	Hydro	8,200	KW
Terni		10,500	KW
Ancona		5,330	KW
Civitavecchia		3,000	KW
		57,030	KW

Dealing with each of these supplies separately and analysing the users of the electricity it is found that:

Rome: The situation in Rome is that the military needs are practically all being met, but that the essential civilian supply is still below requirements.
About 80% of the available energy is used for military and essential civilian services.
Many of the high Buildings depend on electrically driven pumps to lift water to the top flats. These and many small factories, essential to the life of the city, are still without Electricity. It is estimated that a minimum of 10,000 KW of additional energy is required to meet this need.
In addition to this the civilian requirements for lighting of homes and for domestic use are only supplied to the extent of 20% of actual needs and if this is to be ameliorated it is estimated that a further 20,000 KW of energy is required.

2889

Summary for Rome

(a) Military use	30%	of	Total	11,460	KW
(b) Essential Civilian	40%	"	"	15,280	KW

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	9,330	KW
Civitavecchia	3,000	KW
	27,030	KW

Dealing with each of these supplies separately and analysing the users of the electricity it is found that:

Rome: The situation in Rome is that the military needs are practically all being met, but that the essential civilian supply is still below requirements.
About 80% of the available energy is used for military and essential civilian services.
Many of the High Buildings depend on electrically driven pumps to lift water to the top flats. These and many small factories, essential to the life of the city, are still without Electricity. It is estimated that a minimum of 10,000 KW of additional energy is required to meet this need.
In addition to this the civilian requirements for lighting of homes and for domestic use are only supplied to the extent of 20% of actual needs and if this is to be ameliorated it is estimated that a further 20,000 KW of energy is required.

2889

Summary for Rome

(a) Military use	30%	of	Total	11,460	KW
(b) Essential Civilian	40%	"	"	15,280	KW
(c) Tramways classed as Military and essential Civilian	10%	"	"	3,820	KW
(d) Civilian use	20%	"	"	7,640	KW
	100%			38,200	KW

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Estimated additional Requirements for ROME

	Mil	
(a) Military use		
(b) Essential Civilian	10,000	KW
(c) Tramways	3,000	KW
(d) Civilian use	20,000	KW
Total Estimated additional requirements for Rome	33,000	KW

(If this supply were made available the total Electricity Demand for Rome would be 71,200 KW or approx 70% of the normal requirements at this season. This would fulfil the essential requirements. However, electricity would still have to be strictly rationed)

Terni: Investigation shows 25% of the available energy allocated to this area is taken by the military and essential civilian services. The Military use is for Steelworks, Factories, Hospitals and Billets directly under their control and the essential Civilian needs consist mainly of Water, Sewage, Hospitals, Flour Mills, Bakeries small essential workshops, and limited service of Electric Trams for taking workers to and from factories.

Summary for Terni

(a) Military use	75%	of	Total	7,875	KW
(b) Essential Civilian	15%	"	"	1,575	KW
(c) Tramways classed as Military and essential Civilian	5%	"	"	525	KW
(d) Civilian use	5%	"	"	525	KW
	100%			10,500	KW

2888

Ancona and Civitavecchia:

The Military and essential civilian use of Electricity at these places is similar to Terni and less than 5%

or approx 70% of the normal requirements at this season. This would fulfil the essential requirements. However, electricity would still have to be strictly rationed)

Terni: Investigation shows 95% of the available energy allocated to this area is taken by the military and essential civilian services. The Military use is for Steelworks, Factories, Hospitals and Billets directly under their control and the essential Civilian needs consist mainly of Water, Sewage, Hospitals, Flour Mills, Bakeries small essential workshops, and limited service of Electric Trams for taking workers to and from factories.

Summary for Terni

(a) Military use	75%	of Total	7,875 KW
(b) Essential Civilian	15%	" "	1,575 KW
(c) Tramways classed as Military and essential Civilian	5%	" "	525 KW
(d) Civilian use	5%	" "	525 KW
	100%		10,500 KW

2388

Ancona and Civitavecchia:

The Military and essential civilian use of Electricity at these places is similar to Terni and less than 5% is available for civilian use.

12. The following summary shows at a glance the division of the available electricity which is allocated by the Allied Force Local (Italian) Board, Electrical Committee, to the various districts.

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TABLE " F "

13. Showing the division of the available electricity in Central Italy. The allocation of this energy for the Military and essential civilian services is decided by the Local Resources Italian Board, Electrical Committee, which is composed of representatives of all the military agencies concerned. Strict rationing of the civilian supply is done by A.C.C. in order that Military demands may be met.

District to which the allotment is made	Military use KW	Essential Civilian KW	Civilian KW	Total for District KW
ROME	13,370 (35%)	17,190 (45%)	7,640 (20%)	38,200 (100%)
TERNI	8,090 (77%)	1,890 (18%)	520 (5%)	10,500 (100%)
ANCONA	4,270 (80%)	850 (15%)	210 (4%)	5,330 (100%)
CIVITAVECCHIA	2,400 (80%)	480 (15%)	120 (4%)	3,000 (100%)
TOTAL	28,130 (50%)	20,410 (35%)	8,490 (15%)	57,030 (100%)

2387

Tramway Demand has been divided between Military and essential civilian.

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which the allotment is made	use KW	civilian KW	KW	District KW
ROME	13,370 (35%)	17,190 (45%)	7,640 (20%)	38,200 (100%)
TERNI	8,090 (77%)	1,890 (18%)	520 (5%)	10,500 (100%)
ANCONA	4,270 (80%)	850 (16%)	210 (4%)	5,330 (100%)
CIVITAVECCHIA	2,400 (80%)	480 (16%)	120 (4%)	3,000 (100%)
TOTAL	28,130 (50%)	20,410 (35%)	8,490 (15%)	57,030 (100%)

2887

Tramway Demand has been divided between Military and essential civilian.

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14. Anticipated additional Military Requirements.

The military have already asked for an additional 4,000 KW of demand as soon as this can be made available. Furthermore, they will require further supplies for additional factories and workshops which will be operated under their direction. It is estimated therefore that the military will require an additional 15,000 KW in Central Italy.

15. Anticipated Factory Requirements.

This deals only with the rehabilitation of those specific factories which will assist the war effort and which will in most instances reduce the amount of shipping to this theater of operation.

	Tonnage Produced per Month	Import Tonnage Saved per Month	Kilowatts Required
a) Terni-Nera Montoro Ammonia Works			
Ammonia is urgently needed for 1) Refrigeration 2) 30 tons per month for Solvay Soda Works at Rosignano 3) Fertilizers	180	560	8,000
b) Aniene Caustic Soda and Chlorine Works			
At each plant: 1) Rome 2) Rosignano) 400 tons caustic soda plus 350 tons chlorine	1,500	1,300	6,500
c) Solvay Soda Works - Rosignano Area			
1) San Vincenzo) 100 Tons/day Caustic Soda 2) Ponte Ginori) 100 Tons/day Soda Ash	6,000	4,200	500

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of operation.

	Tonnage Produced per Month	Import Tonnage Saved per Month	Kilowatts Required
a) Terni-Nera Montoro Ammonia Works			
Ammonia is urgently needed for 1) Refrigeration 2) 30 tons per month for Solvay Soda Works at Rosignano 3) Fertilizers	120	360	3,000
c) Anfeno Caustic Soda and Chlorine Works			
At each plant: 1) Rome 2) Rosignano) 400 tons caustic soda plus 350 tons chlorine	1,500	1,300	6,500
c) Solvay Soda Works - Rosignano Area			
1) San Vincenzo) 100 Tons/day Caustic Soda 2) Ponte Ginori) 100 Tons/day Soda Ash	3,000	4,200	500
d) Cisa Viscosa			
1) Rieti) Fabric for 2) Rome) clothing	200	--	1,200
e) Cisa Viscosa			
Colle Statte) Carbon) Bisulfide	500	500	3,000

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	Tonnage Produced per Month	Imp. Tonnage Saved per Month	Kilowatts Required
f) Terni Steel Works			
1) Steel	9,000	9,000	4,000
2) Bosco Terni	500	500	500
g) Folgnica			
1) Cast Iron	600	600	400
h) Cement Mills			
1) Colle Ferro	10,000	7,500	2,500
2) Spoleto	8,000	8,000	2,000
3) Civitavecchia	6,000	6,000	2,000
i) Paper Mills			
1) Isola di Liri			3,000
2) Ceprano			600
3) Tivoli	350	350	500
4) Rome			700
j) Mining			
Spoleto Lignite Mines	20,000	20,000	1,200
k) Flour Mills	30,000	30,000	4,000
TOTAL	94,830	88,510	40,800

16. From the above analysis of the requirements of a few of the most important factories it will be seen that nearly ninety thousand tons of material can be produced in Italy from local resources and thus save an equivalent amount of shipping now being brought into this theater of operations.

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2) Spoleto)			2,500
3) Civitavecchia)	6,000	6,000	2,000
	6,000	6,000	2,000
i) Paper Mills			
1) Isola di Liri)			
2) Ceprano)			3,000
3) Tivoli)	350	350	800
4) Rome)			500
			700
j) Mining			
Spoleto Lignite Mines	20,000	20,000	1,200
k) Flour Mills			
	30,000	30,000	4,000
TOTAL	94,830	88,510	40,800

16. From the above analysis of the requirements of a few of the most important factories it will be seen that nearly ninety thousand tons of material can be produced in Italy from local resources and thus save an equivalent amount of shipping now being brought into this theater of operations.

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TABLE " G "

17. Summary of future anticipated demand for electric energy for the period 1 September 1944 to 28 February 1945.

Nature of Consumers	Kilowatt Demand	Need
Agriculture	3,600	(a) Essential civilian
Cast Iron Foundry	400	(a) Essential civilian (b) Saves shipping space
Cement Mills	6,300	(a) Military (b) Civilian rehabilitation (c) Saves shipping space
Ceramics and Glass	1,000	(a) Essential civilian
Chemicals	18,000	(a) Essential civilian (b) Saves shipping space
Clothing	200	(a) Essential civilian
Fabric	1,200	(a) Essential civilian
Flour Mills	4,000	(a) Essential civilian
Food (excluding Flour mills)	6,900	(a) Essential civilian
Hemp and Jute	650	(a) Essential civilian
Lumber	4,000	(a) Military (b) Essential civilian
Machinery Manufacturing	3,000	(a) Essential civilian
Military	15,000	(a) Workshops and factories

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Cast Iron Foundry	400	(a) Essential civilian (b) Saves shipping space
Cement Mills	6,500	(a) Military (b) Civilian rehabilitation (c) Saves shipping space
Ceramics and Glass	1,000	(a) Essential civilian
Chemicals	18,000	(a) Essential civilian (b) Saves shipping space
Clothing	200	(a) Essential civilian
Fabric	1,200	(a) Essential civilian
Flour Mills	4,000	(a) Essential civilian
Food (excluding Flour mills)	6,900	(a) Essential civilian
Hemp and Jute	650	(a) Essential civilian
Lumber	4,000	(a) Military (b) Essential civilian
Machinery Manufacturing	3,000	(a) Essential civilian
Military	15,000	(a) Workshops and factories
Mining	1,200	(a) Military (b) Essential civilian (c) Saves shipping space

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TABLE " G " (Contd.)

Nature of Consumers	Kilowatt Demand	Need
Paper Mills	5,000	(a) Essential civilian (b) Saves shipping
Printing	500	(a) Essential civilian
Public Institutions	6,000	(a) Essential civilian
Railways	15,000	(a) Military (b) Essential civilian
Rome	13,000	(a) Essential civilian
Rome	20,000	(a) Civilian
Steel Plant	4,000	(a) Military (b) Essential civilian (c) Saves shipping space
Steel Fabricators	500	(a) Military (b) Essential civilian
TOTAL	129,650	

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Public Institutions	6,000	(a) Essential civilian
Railways	15,000	(a) Military (b) Essential civilian
Rome	13,000	(a) Essential civilian
Rome	20,000	(a) Civilian
Steel Plant	4,000	(a) Military (b) Essential civilian (c) Saves shipping space
Steel Fabricators	500	(a) Military (b) Essential civilian
TOTAL	129,650	

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18. Details are given below on specific plants which would be capable of operating if electricity were available.

TERNI - NERA MONTORO AMMONIA WORKS

Plant Condition:

Good. Capable of limited output.

Product:

Ammonia and compounds. 90 Tons during September - November. 180 Tons during December - February.

Uses:

Essential civilian for

(a) Refrigeration

(b) Solvay Soda plant at Rosignano where caustic soda, soda ash and sodium bicarbonate are produced (Disposition of products of Rosignano plant given later).

(c) Fertilizer. (Four tons of fertilizer can be made from each ton of ammonium sulphate.

Necessary Raw Materials and their Sources:

(a) Coal, either imported or Sardinian.

(b) Pyrites (available in Tuscany)

(c) Limestone (available locally)

ANIENE CAUSTIC SODA and CHLORINE WORKS

Rome Plant

Plant Condition:

Good.

Products:

400 Tons/month Caustic Soda, plus
350 Tons/month of chlorine.

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December - February.

Uses:

Essential civilian for

(a) Refrigeration

(b) Solvay Soda plant at Rosignano where caustic soda, soda ash and sodium bicarbonate are produced (Disposition of products of Rosignano plant given later).

(c) Fertilizer. (Four tons of fertilizer can be made from each ton of ammonium sulphate.

Necessary Raw Materials and their Sources:

(a) Coal, either imported or Sardinian.

(b) Pyrites (available in Tuscany)

(c) Limestone (available locally)

ANIENE CAUSTIC SODA and CHLORINE WORKS

Rome Plant

Plant Condition:

Good.

Products:

400 Tons/month Caustic Soda, plus
350 Tons/month of chlorine.

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Uses:

Caustic Soda needed for essential civilian use for

(a) Manufacture of soap

(b) Refining of olive oil

(c) Manufacture of rayon

Chlorine and chlorine products needed for

(a) Water purification

(b) Textile bleaching

Necessary Raw Materials and their Sources:

(a) 200 Tons/Month imported sodium chloride.

(b) Limestone (available locally)

Rosignano Plant.

Plant Condition:

Partially damaged but capable of limited operation.

Products:

450 Tons/Month of Caustic Soda plus
350 Tons/Month of chlorine.

Uses:

Same as products of Rome plant

Necessary Raw Materials and their Sources:

(a) Sodium Chloride (available locally)

(b) Limestone (available locally)

SOLVAY SODA WORKS - ROSIGNANO AREA

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Products:

Essential civilian

(a) Caustic Soda) 3000 Tons/Month of each during October and November.
(b) Soda Ash) 6000 Tons/Month during December-February.

Uses:

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(b) Limestone (available locally)

Rosignano Plant.

Plant Condition:

Partially damaged but capable of limited operation.

Products:

450 Tons/Month of Caustic Soda plus
350 Tons/Month of chlorine.

Uses:

Same as products of Rosa plant

Necessary Raw Materials and their Sources:

(a) Sodium Chloride (available locally)

(b) Limestone (available locally)

SOLVAY SODA WORKS - ROSIGNANO AREA

Products:

2981

Essential civilian

(a) Caustic Soda) 3000 Tons/Month of each
) during October and November.
) 6000 Tons/Month during
(b) Soda Ash) December-February.

Uses:

Caustic Soda is used for

(a) Soap manufacture

(b) Olive oil refining

(c) Synthetic Fibers

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Uses:

Soda Ash is used for

(a) Glass and Ceramics

(b) Textiles

(c) Paper

(d) Caustic Soda and other chemicals

Necessary Raw Materials and their Sources:

(a) Sodium chloride (available locally)

(b) Limestone (available locally)

(c) Ammonia (available locally)

(d) Coke (from imported coal)
about 1500 Tons of coal per month.

Plant Condition:

Good.

CISA VISCOSA PLANTS AT ROME AND RIETI

Condition of Plants:

Good.

Products:

Rayon (continuous)

Ficoco (staple fiber)

Total production - 200 Tons/Month
beginning 1 November.

Uses:

Essential civilian-clothing

Necessary Raw Materials and their Sources:

(a) Caustic Soda (available locally)

(b) Carbon bisulfide (from Colle Statte plant)

(c) Sulphuric acid (available locally)

(d) Celluloss (must be imported, but some
available for initial operation)

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(c) Ammonia (available locally)

(d) Coke (from imported coal)
about 1500 Tons of coal per month.

Plant Condition:

Good.

CISA VISCOSA PLANTS AT ROME AND RIETI

Condition of Plants:

Good.

Products:

Rayon (continuous)

Fiocco (staple fiber)

Total production - 200 Tons/Month
beginning 1 November.

Uses:

Essential civilian-clothing

Necessary Raw Materials and their Sources:

(a) Caustic Soda (available locally)

(b) Carbon bisulfide (from Colle Statte plant)

(c) Sulphuric acid (available locally)

(d) Cellulose (must be imported, but some
available for initial operation)
Will have to import one ton of
cellulose per ton of finished product.

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CISA VISCOSA - COLLE STATTE

Condition of Plant:

Good.

Product:

Carbon bisulfide, 500 Tons/Month, beginning 1 September.

Uses:

Essential civilian for

(a) Preservation of grain

(b) Extraction of olive oil

(c) Manufacture of synthetic fiber

Necessary Raw Materials and their Sources:

(a) Sulphur (available locally)

(b) Charcoal (available locally)

TERNI STEEL WORKS

Condition of Plant:

Good

Products:

Steel and Iron ingots, steel castings, used in turn to make: Sheets, plate, sections, forgings , locomotive tires, in accordance with the following:

Month	Weight of ingots and castings in tons
Sept.	3,500
Oct.	3,500
Nov.	5,500
Dec.	5,500
Jan.	8,700
Feb.	8,700

Uses:

Military for construction and repairs
Essential civilian for rehabilitation

(c) Manufacture of synthetic fiber

Necessary Raw Materials and their Sources:

(a) Sulphur (available locally)

(b) Charcoal (available locally)

TERNI STEEL WORKS

Condition of Plant:

Good

Products:

Steel and Iron ingots, steel castings, used in turn to make: Sheets, plate, sections, forgings , locomotive tires, in accordance with the following:

Month	Weight of ingots and castings in tons
Sept.	4,500
Oct.	5,500
Nov.	5,500
Dec.	5,500
Jan.	6,700
Feb.	6,700

Uses:

Military for construction and repairs
Essential civilian for rehabilitation of heavy industries, and Electric Power Plants.

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Necessary Raw Materials and their Sources:

A large number of locally available raw materials are required. The imported materials necessary are:

(a) Coal 1900 Tons/Month

(b) Chromite 29 Tons/Month

(c) Magnesite 27 Tons/Month

(d) Chemotte 40 Tons/Month

CEMENT MILLS

Condition of Plants:

Generally good.

Uses:

Building material for military purposes, and for essential Civilian rehabilitation.

Product:

Cement in accordance with following:

Month	Weight of Cement in Tons
Sept.	12,000
Oct.	14,000
Nov.	20,000
Dec.	22,000
Jan.	24,000
Feb.	26,000

Necessary Raw Materials and their Sources:

(a) Shale (available locally)

(b) Limestone (available locally)

(c) Refractories (available locally)

(d) Coal (imported for Colle Ferro and Civitavecchia
(1) British or American Coal 3,500 Tons/Month
(2) Sardinian Coal 4,500 Tons/Month
[illegible] Sulcis and available.

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Condition of Plants:

Generally good.

Uses:

Building material for military purposes, and for essential Civilian rehabilitation.

Product:

Cement in accordance with following:

Month	Weight of Cement in Tons
Sept.	12,000
Oct.	14,000
Nov.	20,000
Dec.	22,000
Jan.	24,000
Feb.	26,000

Necessary Raw Materials and their Sources:

(a) Shale (available locally)

(b) Limestone (available locally)

(c) Refractories (available locally)

(d) Coal (imported for Colle Ferro and Civitavecchia
(1) British or American Coal 3,600 Tons/Month
(2) Sardinian Coal 4,500 Tons/Month

(e) Coal-Lignite at Spoleto and available.

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PAPER MILLS

Condition of Plants:

Good.

Products:

350 Tons/Month Newsprint,
beginning 1 September.

Uses:

Publishing

Necessary Raw Materials and their Sources:

(a) Cellulose (produced locally at plants)

(b) Straw (available locally)

(c) Sodium chloride (available locally)

SPOLETO LIGNITE MINE

Mine Condition:

Good.

Product:

Lignite Coal at the following rate:

Month	Tons Produced
Sept.	10,000
Oct.	13,000
Nov.	16,000
Dec.	20,000
Jan.	20,000
Feb.	20,000

Uses:

Production of manufactured gas and
electricity in Rome.
Steam production in industrial plants.

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Necessary Raw Materials:

None

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(a) Cellulose (p[illegible]

(b) Straw (available locally)

(c) Sodium chloride (available locally)

SPOLETO LIGNITE MINE

Mine Condition:

Good.

Product:

Lignite Coal at the following rate:

Month	Tons Produced
Sept.	10,000
Oct.	13,000
Nov.	16,000
Dec.	20,000
Jan.	20,000
Feb.	20,000

Uses:

Production of manufactured gas and electricity in Rome.
Steam production in industrial plants.

2377

Necessary Raw Materials:

None

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FLOUR MILLS

Condition of mills:

Good.

Product:

30,000 Tons flour/month

Uses:

Essential Civilian food

Necessary Raw Materials:

Local wheat

BOSCO TERNI

Condition of Plant:

Good.

Products:

500 Tons/Month
Fabricated steel

Uses:

Military (Bridge material)
Essential Civilian rehabilitation

Necessary Raw Materials:

Scrap steel
Acetylene
Oxygen
Coal (imported) for foundry.

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BOSCO TERNI

Condition of Plant:

Good.

Products:

500 Tons/Month
Fabricated steel

Uses:

Military (Bridge material)
Essential Civilian rehabilitation

Necessary Raw Materials:

Scrap steel
Acetylene
Oxygen
Coal (imported) for foundry.

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TABLE " H "

19. Showing the monthly requirements in Kilowatts for the demands listed in Table "G".

	Sept. KW	Oct. KW	Nov. KW	Dec. KW	Jan. KW	Feb. KW
Terni - Papigno Carbide Works	9,000	12,000	15,000	18,000	18,000	18,000
Terni Nera Montoro Ammonia Works	4,000	4,000	4,000	8,000	8,000	8,000
Aniene Caustic Soda and Chlorine Works (Rome & Rosignano)	6,500	6,500	6,500	6,500	6,500	6,500
Solvay Soda Works	0	250	250	500	500	500
Cisa Viscosa Works at Rome and Rieti	0	0	1,200	1,200	1,200	1,200
Cisa Viscosa Works at Colle Statte	3,000	3,000	3,000	3,000	3,000	3,000
Terni Steel Works	2,000	2,000	3,000	3,000	4,000	4,000
Terni Cast Iron Foundry	400	400	400	400	400	400
Cement Mills						
Colle Perro	0	0	1,000	1,500	2,000	2,500
Spoleto	1,000	1,500	2,000	2,000	2,000	2,000
Civitavecchia	2,000	2,000	2,000	2,000	2,000	2,000
Bosco Terni	500	500	500	500	500	500

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Carbide Works						
Terni Nera Montoro Ammonia Works	4,000	4,000	4,000	8,000	8,000	8,000
Aniene Caustic Soda and Chlorine Works (Rome & Rosignano)	6,500	6,500	6,500	6,500	6,500	6,500
Solvay Soda Works	0	250	250	500	500	500
Cisa Viscosa Works at Rome and Rieti	0	0	1,200	1,200	1,200	1,200
Cisa Viscosa Works at Colle Statte	3,000	3,000	3,000	3,000	3,000	3,000
Terni Steel Works	2,000	2,000	3,000	3,000	4,000	4,000
Terni Cast Iron Foundry	400	400	400	400	400	400
Cement Mills						
Colle Ferro	0	0	1,000	1,500	2,000	2,500
Scoleto	1,000	1,500	2,000	2,000	2,000	2,000
Civitavecchia	2,000	2,000	2,000	2,000	2,000	2,000
Bosco Terni	500	500	500	500	500	500
Paper Mills						
Isola di Liri	1,000	2,000	3,000	3,000	3,000	3,000
Cerrano	800	800	800	800	800	800
Roma	700	700	700	700	700	700
Tivoli	500	500	500	500	500	500

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TABLE " H " (Contd.)

	Sept. KW	Oct. KW	Nov. KW	Dec. KW	Jan. KW	Feb. KW
Mining	600	800	1,000	1,200	1,200	1,200
Flour Mills	4,000	4,000	4,000	4,000	4,000	4,000
Military	4,000	8,000	12,000	15,000	15,000	15,000
Rome: Essential) Civilian)	13,000	13,000	13,000	13,000	13,000	13,000
Civilian	10,000	15,000	20,000	20,000	20,000	20,000
Railways	--	--	5,000	15,000	15,000	15,000
Food, excluding flour mills	6,900	6,900	6,900	6,900	6,900	6,900
Public Institutions	6,000	6,000	6,000	6,000	6,000	6,000
Agriculture	3,600	3,600	3,600	3,600	3,600	3,600
Clothing	200	200	200	200	200	200
Printing	500	500	500	500	500	500
Hemp and Jute	650	650	650	650	650	650
Ceramics and Glass	1,000	1,000	1,000	1,000	1,000	1,000
Mechanical	3,000	3,000	3,000	3,000	3,000	3,000
Lumber	4,100	4,100	4,100	4,100	4,100	4,100
			[illegible]	127,750	129,250	129,750

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Rome:						
Essential) Civilian)	13,000	13,000	13,000	13,000	13,000	13,000
Civilian	10,000	15,000	20,000	20,000	20,000	20,000
Railways	--	--	5,000	15,000	15,000	15,000
Food, excluding flour mills	6,900	6,900	6,900	6,900	6,900	6,900
Public Institutions	6,000	6,000	6,000	6,000	6,000	6,000
Agriculture	3,600	3,600	3,600	3,600	3,600	3,600
Clothing	200	200	200	200	200	200
Printing	500	500	500	500	500	500
Hemp and Jute	650	650	650	650	650	650
Ceramics and Glass	1,000	1,000	1,000	1,000	1,000	1,000
Mechanical	3,000	3,000	3,000	3,000	3,000	3,000
Lumber	4,100	4,100	4,100	4,100	4,100	4,100
Total additional) needed)	79,950	90,900	109,800	127,750	129,250	129,750
Present Load	57,000	57,000	57,000	57,000	57,000	57,000
Total Demand	136,950	147,900	166,800	184,750	186,250	186,750
Generating Capacity	58,000	76,000	88,000	114,000	155,000	154,000
DEFICIT	78,950	71,900	78,800	70,750	31,250	32,750

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HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

Below is given:-

(a) Extract from minutes of Electrical Reconstruction Committee Italy.

(b) Copy of letter from Minister of Public Works.

(a) Resolution.

Having given due consideration to the present electricity supply position, affecting both military and essential civilian needs, and the possibility of early rehabilitation of electrical plant and equipment damaged by war action, this Committee recommends that steps be taken for the early importation of 60,000 KW of electrical generating plants for use in this Theater of Operations. In view of the urgency of the matter it is recommended that floating Power plants, if available, should be provided.

Il Ministro
dei Lavori Pubblici

7 Aug. 1944

N° 1099

Lt. Col. L.A. JENNY
Director, Public Works and Utilities
Sub-Commission A.C.C.

SUBJECT: Payment for Electrical Plant.

In view of the very serious shortage of electric power plants in Italy, and the need for importing such plants so as to serve military as well as highly essential civilian needs, the Ministry of Public Works has stated that, if such plants can be imported without delay, the Italian Government will assume the responsibility for:

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Declassified E.O. 12356 Section 3.3/NND No. 785016

(a) Resolution.

Having given due consideration to the present electricity supply position, affecting both military and essential civilian needs, and the possibility of early rehabilitation of electrical plant and equipment damaged by war action, this Committee recommends that steps be taken for the early importation of 60,000 KW of electrical generating plants for use in this Theater of Operations. In view of the urgency of the matter it is recommended that floating Power plants, if available, should be provided.

Il Ministro
dei Lavori Pubblici

7 Aug. 1944

N° 1099

Lt. Col. L.A. JENNY
Director, Public Works and Utilities
Sub-Commission A.C.C.

SUBJECT: Payment for Electrical Plant.

In view of the very serious shortage of electric power plants in Italy, and the need for importing such plants so as to serve military as well as highly essential civilian needs, the Ministry of Public Works has stated that, if such plants can be imported without delay, the Italian Government will assume the responsibility for:

a) The payment of rental for these plants during military operations, as well as the cost of operation, and

b) The ultimate acquisition of these plants after they are no longer needed by the Allied Armed Forces.

The Italian Government asks that the payment for the ultimate acquisition of such plants be arranged on a long term basis.

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THE MINISTER

Signed: Mancini

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HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

SOUTHERN ITALY

Report on the availability of electrical energy in Southern Italy progressively for the six months ending Feb. 28th 1945.

Also estimated requirements of electrical energy for Military, essential Civilian and factory rehabilitation in Southern Italy for the same period.

Prepared by the Electrical Division
Public Works and Utilities Sub-Commission
ALLIED CONTROL COMMISSION
26th August 1944

L.A. JENNY,
Lt.Colonel, C.E.,
Director.

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Declassified E.O. 12356 Section 3.3/NND No. 785016

Italy for the same period.

Prepared by the Electrical Division
Public Works and Utilities Sub-Commission
ALLIED CONTROL COMMISSION
26th August 1944

D.A. JENNY,
Lt.Colonel, C.E.,
Director.

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W.M. LAPSER,
Lt.Colonel
Chief Electrical Divn.

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Declassified E.O. 12356 Section 3.3/NND No. 785046

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HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

Report on the availability of electric energy in Southern Italy and reduction in generating Capacity due to the destruction of plants by the enemy.

(1) The enemy retreat through Southern Italy was much More rapid than Central Italy. In the first case the conditions were almost always fluid whereas in Central Italy a certain stationary period existed. It is for this reason together with the enemy's greatly improved organisation in demolition squads that the destruction in Southern Italy is considerably less than Central Italy.

(2) In considering the effective capacity of the generating facilities in Southern Italy the following important points should be noted:-

(a) 170,000 KW of the generating capacity is situated in the extreme South. It is known as the Sila Group of Hydro Electric Stations Located in Calabria.

(b) As there are only two high Voltage Transmission lines leading north from the Sila Group, each of 45,000 KW capacity the effective output from the group, apart from Calabria which is fed on a lower voltage system from the same group, is limited to the capacity of these lines and also to the capacity of the Transformers at the Sila Group.

(c) Electricity rationing schemes initiated by A.C.C. and now being handed over to the Italian Government keep the demand within the effective output of the generating plant. This rationing arrangement will have to be maintained until the electrical facilities in Central Italy have been restored and interconnection resumed.

(d) The greatest care is taken to see that the consumption of electricity in the Southern Italy area does not exceed the allowable water flow from the Reservoirs. The A.C.C. Southern Italy Electrical Engineer regulates

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(c) Electricity rationing schemes initiated by A.C.C. and now being handed over to the Italian Government keep the demand within the effective output of the generating plant. This rationing arrangement will have to be maintained until the electrical facilities in Central Italy have been restored and interconnection resumed.

(d) The greatest care is taken to see that the consumption of electricity in the Southern Italy area does not exceed the allowable water flow from the Reservoirs. The A.C.C. Southern Italy Electrical Engineer regulates this either by varying the consumption or to a certain extent by the use of the Capuano Steam plant.

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TABLE " A "

Summary of Electrical plant and requirements

(1) Total effective output capacity of generating plant in Southern Italy — 142,600 KW

(2) It is anticipated that the above output capacity will be increased during the winter months due to rainfall. (This does not include Sila group which is limited by Transmission Line capacity). — 10,000 KW

(3) The allocation of Electric power is made by the Allied force Local Resources (Italian) Board Electrical Committee to the various districts. The allotment for September being as follows.

TABLE " A"

District	Allotment in Kilowatts
District 1 UNES	1,500
District 2 Apulia Lucania	42,000
District 3 Campania	23,100
PBS Naples Santa Maria	33,000
ACC Calabria	11,000

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by the Allied Force Local Resources (Italian) Board Electrical Committee to the various districts. The allotment for September being as follows.

TABEL " A"

District	Allotment in Kilowatts
District 1 UNES	1,500
District 2 Apulia Lucania	42,000
District 3 Campania	23,100
FBS Narles Santa Maria	33,000
ACC Calaoria	11,000
Railways (DGMRS)	10,000
TOTAL Demand	120,600

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It is expected that this demand will increase during the winter months. Table "B" shows the effective output capacity to meet the demand during the months of Sept.1944 to Feb.1945 inclusive. The Italian Government will arrange to ration supplies to keep within this capacity.

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TABLE " B "

Showing the output capacity of the Generating Stations operating in connection with the Grid System in Southern Italy at 26th Aug. 1944.

Name of Station (1)	Location of Station (2)	Output Capacity at 26th Aug.44. KW (3)
Sila Group (H)	Calabria	105,000
Tusciano (H)	Salerno	4,200
Tenagro (H)	Salerno	2,200
Matese I (H)	Benevento	5,200
Capuano (S)	Naples	20,000
Volturno (T)	Naples	6,000
TOTAL Output Capacity		142,600

Matese I. Set is at present out of operation due to breakdown of Alternator repair will be completed at end of Sept.

Sila Group. The total Capacity of the Sila Group is 170,000 KW, the effective output however is less due to the following causes.

(a) Plant is run to suit Reservoir capacity

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Sila Group (H)	Calabria	105,000
Tusciano (H)	Salerno	4,200
Tanagro (H)	Salerno	2,200
Matese I (H)	Benevento	5,200
Capuano (S)	Naples	20,000
Volturno (T)	Naples	6,000
TOTAL Output Capacity		142,600

Matese I. Set is at present out of operation due to breakdown of Alternator repair will be completed at end of Sept.

Sila Group. The total Capacity of the Sila Group is 170,000 KW, the effective output however is less due to the following causes.

(a) Plant is run to suit Reservoir capacity
(b) Transmission Line Limitation
(c) Transformer Limitation.

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TABLE " C "

Showing the output capacity of the Generating Plant connected to the Grid System which is now <u>under repair</u> and the anticipated date of completion.

Name of Station (1)	Location of Station (2)	Output Capacity KW (3)	Anticipated date of Completion (4)
Capuano	Naples	10,000	Nov.
Calore	Avellino	5,000	Nov.
Aventino	Chiesti	4,200	Jan.
TOTAL Output Capacity		19,200	

TABLE " D "

Showing the output capacity of the generating plant which is being moved to assist in the rehabilitation programme.

Name of Station receiving plant (1)	Location of Station (2)	Output Capacity KW (3)	Anticipated date of Completion (4)
<u>Matese II</u> (set from Alto Belice Sicily 3,000 KW)	Benevento	(see Table D page.5. Central Italy Report)	
<u>Lete</u> (set from Matese I	Campobasso	5,200	Jan.

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Capuano Calore Aventino	Naples Avellino Chieti	10,000 5,000 5,200	Nov. Nov. Jan.
TOTAL Output Capacity		10,200	

TABLE " D "

Showing the output capacity of the generating plant which is being moved to assist in the rehabilitation programme.

Name of Station receiving plant (1)	Location of Station (2)	Output Capacity KW (3)	Anticipated date of Completion (4)
Matese II (set from Alto Belice Sicily 3,000 KW)	Benevento	(see Table D page.5. Central Italy Report)	
Lete (set from Matese I 5,200 KW)	Campobasso	5,200	Jan.
TOTAL Output Capacity		5,200	

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TABLE " E "

Showing the output Capacity at present, from repaired plants, by transfer of plants and the additional output to be expected during the winter months due to rainfall.

	Sept. KW	Oct. KW	Nov. KW	Dec. KW	Jan. KW	Feb. KW
Present output Capacity	142,600	142,600	142,600	142,600	142,600	142,600
Output capacity from repaired plants	--	--	15,000	15,000	19,200	19,200
Output capacity from transfer of plants	--	--	--	--	5,200	5,200
Output capacity from increase in water	--	3,000	5,000	8,000	10,000	8,000
TOTAL	142,600	145,600	163,600	165,600	177,000	175,000
Est minimum outage for breakdown and Repairs 10%	14,260	14,560	16,360	16,560	17,700	17,500
Effective output capacity	128,340	131,040	147,240	149,040	159,300	157,500

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Capacity	142,500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Output capacity from repaired plants	--	--	15,000	15,000	19,200	19,200
Output capacity from transfer of plants	--	--	--	--	5,200	5,200
Output capacity from increase in water	--	3,000	6,000	8,000	10,000	8,000
TOTAL	142,500	145,500	163,500	165,500	177,000	175,000
Est minimum outage for breakdown and Repairs 10%	14,250	14,560	16,350	16,560	17,700	17,500
Effective output capacity	126,340	131,040	147,240	149,040	159,300	157,500
SAY	128,000	131,000	147,000	149,000	159,000	158,000

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M I N I N G

A P P E N D I X - A.

PRINCIPAL MINES OF ITALY

1942

Source: Corpo Reale Delle Miniere

NAME OF MINE	PROVINCE - DISTRICT	YEAR'S 1942 PRODUCTION (metric tons)	NO. WAGE EARNERS
A N T I M O N Y			
1. Cetine (A.M.M.I.)	Siena - Chiusdino	190	151
2. Corti Rosse (A.M.M.I.)	Cagliari - Belbon	30 Sb 60%	305
3. Su Suergiu (A.M.M.I.)	Cagliari - Villacolto	210	310
A N T R A C I T E			
4. Colle Croce ed altre (Nazionale Cogne)	Aosta - Porta Littoria	12,002	760
5. Corongiu (Compagnie Venete Sarda)	Nuoro - Seni	500	230
A R S E N O P Y R I T E			
6. Cani (Rumianca)	Novara - Macugnaga	3,000 As mr. ton	950
A S B E S T O S			
7. Dosso Fransola ed altre (M.A.I.S.A.)	Sondrio - Lanzada	33	244
8. S. Vittore (Cave S. Vittore)	Torino - Balangero	1,162	303
A S P H A L T			
9. Tabuna	Ragusa - Ragusa	13,920	759 for 2 mines
B A R I T E			
10. M. Ega (Soc. Magnesio It.)	Cagliari - Narcao	-	2862

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A N T I M O N Y				
1.	Cetine (A.M.M.I.)	Siena - Chiusdino	290	151
2.	Corti Ponca (A.M.M.I.)	Cagliari - Belbon	30 Sb 10%	205
3.	Su Suergiu (A.M.M.I.)	Cagliari - Villasalto	210	310
A N T R A C I T E				
4.	Colle Croce ed altre (Nazionale Sogne)	Aosta - Pont Lettoria	12,002	760
5.	Corongiu (Compagnia Forzio Sarda)	Nuoro - Seni	400	370
A R S E N O P Y R I T E				
6.	Cani (Fumidanca)	Novara - Macugnaga	3,000 10 gr. ton	950
A S B E S T O S				
7.	Desso Trencia ed altre (M.A.I.S.A.)	Sondrio - Lanzada	33	244
8.	S. Vittore (Cave S. Vittore)	Torino - Balangero	1,162	393
A S P H A L T				
9.	Tabuna	Nuoro - Nuguda	13,920	759 for 2 mines
B A R I T E				
10.	M. Ega (Soc. Magnesio It.)	Cagliari - Narcao	-	2367
11.	Sarala' (Enrico Perris)	Nuoro - Tertenia	-	-
B A U X I T E				
12.	Mincio e Liverna (Bauxiti Istriane)	Pola - Pisino	3,570	164
13.	Scrobetti ed altre (Mineraria Triestina S.M.T.)	Pola - Pisino, Visignano ed altri	15,324	695

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NAME OF MINE	PROVINCE - COMUNE	MONTHLY 1942 PRODUCTION (metric tons)	NO. WAGE EARNERS
B O R I C A C I D			
28. Libiola e Castelnuovo (Soc. Miniere di Libiola)	Pisa - Tonsorance e Castelnuovo	500	650 for 2 mines
B R O M I N E			
29. Monticelli (Italo Bonvini)	Pisa - Montecatini Val di Cecina	7,294	60 for 2 mines
C A L A M I N E			
30. Campo Pisano (Soc. Montepona)	Cagliari - Iglesias	3,573 Zn 20%	850 for 3 mines
31. M. Carbonia E Marganai (A.M.M.I.)	Cagliari - Iglesias	43 Zn 50%	110 for 2 mines
32. Montevecchio (Soc. Montepona)	Cagliari-Iglesias	228 Zn 45%	650 for 2 mines
33. Piano ed altre (S.A.P.E.C.)	Bergamo - Como	565	972 for 3 mines
34. Seddas Moddizzis (Ercole Ampioni)	Cagliari - Iglesias	219 Zn 48%	218 for 2 mines
35. S. Giovanni (Soc. Pertusola)	Cagliari - Iglesias	130 Zn 50%	427 for 3 mines
C A S S I T E R I T E			
36. Canale Serci (A.M.M.I.)	Cagliari - Villacidro	6 Zn 60%	218
C L A Y			
37. Murelino (Soc. Ruminese)	Nuoro -	-	-
C O P P E R			

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M I N I N G

A P P E N D I X - A -

PRINCIPAL MINES OF ITALY

1946

Source: Corpo Reale Delle Miniere

NAME OF MINE	PROVINCE - COMUNE	MONTHLY 1943+ PRODUCTION (metric tons)	NO. MAGE EMPLOYS
A N T I M O N Y			
1. Cetine (A.M.M.I.)	Siena - Chiusdino	190	151
2. Gerti Rosse (A.M.M.I.)	Cagliari - Bulbon	30 Sb 60%	205
3. Su Suergiu (A.M.M.I.)	Cagliari - Villacalto	210	210
A N T H R A C I T E			
4. Colle Croce ed altre (Nazionale Cogne)	Aosta - Porta Littoria	12,002	760
5. Corongiu (Compagnie Vendita Sarda)	Nuoro - Seni	600	230
A R S E N O P Y R I T E			
6. Cari (Fumidosa)	Novara - Macugnaga	5,000 10 gr. ton	950
A S B E S T O S			
7. Dosso Fransoia ed altre (M.A.I.S.A.)	Sondrio - Mansdda	53	244
8. S. Vittore (Cave S. Vittore)	Torino - Balangero	1,162	303
A S P H A L T			
9. Tabuna	Ragusa - Ragusa	13,920	759 for 2 mines
B A R I T E			
10. M. Ega (Soc. Magnesio It.)	Cagliari - Narcao	-	95

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	7. Corti Rosas (A.M.M.I.)	Cagliari - Balbo	30 Sb 60%	205
	8. Su Suergiu (A.M.M.I.)	Cagliari - Villacalto	210	220
	ANTRACITE			
	4. Colle Croce ed altre (Nazionale Segna)	Ancona - Porto Littorio	12,002	760
	5. Corongiu (Compagnia Mineraria Sarda)	Nuoro - Seni	600	230
	ARSENOPYRITE			
	6. Seni (Funtanca)	Nuoro - Macomer	3,000 10 mr. ton	550
	AZZESTO			
	7. Dosso Francia ed altre (M.A.I.S.A.)	Sondrio - Lanzada	93	244
	8. S. Vittore (Cave S. Vittore)	Torino - Balangero	1,162	305
	ASPHALT			
	9. Tabuna	Nuoro - Nuoro	13,920	750 for 2 mines
	BARITE			
	10. M. Rua (Soc. Magnesio It.)	Cagliari - Narcao	-	2367
	11. Sarule' (Enrico Parvis)	Nuoro - Tortonia	-	-
	BAUXITE			
	12. Mincio e Livenza (Bauxiti Istriane)	Pola - Pisino	3,670	104
	13. Serobetti ed altre (Mineraria Triestina SAMI)	Pola - Pisino, Visignano ed altri	15,324	815

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NAME OF MINE	PROVINCE - COMUNE	MINERAL 1943+ PRODUCTION (metric tons)	NO. WAGE EARNERS
B A U X I T E (Cont'd)			
14. S.Giovanni Rotondo (Monteacuto?)	Foggia - S. Giovanni Rotondo	19,774 Al_2O_3 55% Si O_2 3,8	502
B I T U M I N O U S S H A L E			
15. Cirò (Miniere S.Romedio)	Trento - Tolo	619	53
B I T U M I N O U S S O I L S			
16. Publi (Ing. Dalle Ore)	Vicenza - Valdagno	1,554	273 for 2 mines
B L E N D E			
17. Argentiera (Soc.Commerciale)	Sassari - Sassari	444 Zn 58%	311 for 2 mines
18. CampoPisano (Soc. Monteponi)	Cagliari - Iglesias	520 Zn 50%	870 for 3 mines
19. Gennamari - Ingurtosu (Soc. Pertusola)	Cagliari - Arbus	584 Zn 62%	781 for 2 mines
20. Malfidano (Soc.Pertusola)	Cagliari - Flumini	565 Zn 59%	307 for 2 mines
21. Montenove (A.M.M.I.)	Bolzano-Vene in Passiria	510	537 for 2 mines
22. Montevecchio (Soc. It. Piombo e Zinco)	Cagliari - Guspinie Arbus	2,000	2,549 for 2 mines
23. Raibl (Cave del Predil Gruppo A.M.M.I.)	Udine - Tarvisio	2,600	957 for 2 mines
24. Rimo ed altre (S.A.P.E.T.)	Bergamo - Cerno	435	972 for 3 mines
25. Rosas (S.A. Rosas?	Cagliari - Narcao	40 Zn 50%	-
26. S. Giovanni (Soc.	Cagliari - Iglesias	310	407

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B I T U M I N O S I S C H I S T				
16. Pulli (Ing. Delle Ore)	Vicenza - Valdagno	1,554		970 per 2 mine
B L E N D E				
17. Argentiera (Soc.Commerciale)	Sassari - Sassari		Zn 16%	444 311 per 2 mine
18. Campo Pisano (Soc. Monteponi)	Cagliari - Iglesias	520	Zn 20%	520 520 per 3 mine
19. Gennamari - Iaguricau (Soc. Pertusola)	Cagliari - Arbus	594	Zn 6%	701 per 2 mine
20. Malfidano (Soc.Pertusola)	Cagliari - Fluminì	565	Zn 5%	307 per 2 mine
21. Montenove (A.M.M.I.)	Salmano-Vezzo in Pertica	510		327 per 2 mine
22. Montevecchio (Soc. It. Piombo e Zinco)	Cagliari - Guspinio Arbus	4,000		2,543 per 2 mine
23. Raibl (Cave del Predil Gruppo A.M.M.I.)	Udine - Tarvisio	2,600		957 per 2 mine
24. Riso ed Altre (S.A.P.E.M.)	Bergamo - Corna	435		972 per 3 mine
25. Rosas (S.A. Rosas)	Cagliari - Narcao	40	Zn 50%	-
26. S. Giovanni (Soc. Pertusola)	Cagliari - Iglesias	140	Zn 61%	127 per 3 mine
27. Su Zurfuru (Soc.Pertusola)	Cagliari - Fluminì	-		-

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NAME OF MINE	PROVINCE - COMMUNE	MONTHLY 1943 PRODUCTION (metric ton)	NO. WAGE EARNERS
B O R I C A C I D			
28. Larderello e Castelnuovo (Soc. Miniere di Larderello)	Pisa - Pomarance e Castelnuovo	500	650 for 2 mines
B R O M I N E			
29. Monticelli (Paolo Berrini)	Parma - Montechiarugolo	7,294	85 for 2 mines
C A L A M I N E			
30. Campo Pisano (Soc. Montepona)	Cagliari - Iglesias	3,573 Zn 20%	850 for 3 mines
31. M. Cani e Masua (A.M.M.I.)	Cagliari - Iglesias	13 Zn 50%	110 for 2 mines
32. Montepani (Soc. Montepani)	Cagliari-Iglesias	228 Zn 45%	650 for 2 mines
33. Riso ed altre (S.A.P.E.C.)	Bergamo - Corno	985	972 for 3 mines
34. Seddas Moddizzis (Eredi Asproni)	Cagliari - Iglesias	219 Zn 45%	218 for 2 mines
35. S. Giovanni (Soc. Pertusola)	Cagliari - Iglesias	130 Zn 50%	427 for 3 mines
C A S S I T E R I T E			
36. Canale Serci (A.M.M.I.)	Cagliari - Villacidro	6 Sn 60%	218
C L A Y			
37. Murelloo (Soc. Rumianca)	Nuoro -	-	-

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29. Monticelli (Italo Borrini)				for 2 mines
C A T A M I N E				
30. Campo Pisano (Soc. Montevecchi)	Cagliari - Iglesias	2,577 Zn 20%		850 for 3 mines
31. M. Coni P.Pneus (A.M.M.I.)	Cagliari - Iglesias	Zn 50%	15	110 for 2 mines
32. Montepani (Soc. Montepani)	Cagliari-Iglesias	Zn 45%	328	650 for 2 mines
33. Riso ed altre (S.A.P.E.C.)	Bergamo - Como		385	972 for 3 mines
34. Seddas Moddizzis (Fratelli Impronì)	Cagliari - Iglesias	Zn 45%	219	218 for 2 mines
35. S. Giovanni (Soc. Portuscola)	Cagliari - Iglesias	Zn 30%	130	427 for 3 mines
C A S S I T E R I T E				
36. Cunda Serci (A.M.M.I.)	Cagliari - Villacidro	Sn 60%	6	216
C L A I				
37. Murellao (Soc. Rumianca)	Nuoro -		-	-
				2866
C O P P E R				
38. Fenice Capanne(Montecatini)	Grosseto - Massa Marittima		-	400
39. Fontana Raminosa (Soc. Raminosa)	Nuoro - Gadoni	Cu 22%	45	270
40. Libiola(Miniere Libiola)	Genova-Sestri Levante		170	132
41. Su Duchesse (A.M.M.I.)	Cagliari -Domusnovas	Cu 4,5%	826	215

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MINE OR MINE	PROVINCE - COMUNE	ANNUAL 1963* PRODUCTION (metric tons)	NO. MINE EMPLOYEES
COPPER PYRITE			
42. Fabbrica (Brombilla)	Vercelli - Fraz. Valdobbia	345	54
43. Morin (Brombilla)	Aosta - Montjovet	1,040	105
44. Preslong (Nazionale Cogne	Aosta - Cllamont	166	299
BOCENIC BITUMINOUS COAL			
45. Bacu Abis (Carbonifera Sarda)	Cagliari - Carbonia	4,262	1,100
46. Gruppo di Cortoghiana (Carbonifera Sarda)	Cagliari - Carbonia	-	120
47. Gruppo Litterio (Carbonifera Sarda)	Cagliari - Carbonia	-	80
48. Gruppo di Serbariu (Carbonifera Sarda)	Cagliari - Carbonia	-	600
49. Gruppo di Sirai (Carbonifera Sarda)	Cagliari - Carbonia	-	350
50. Terras Collu (Montepond)	Cagliari - Carbonia	1,000	250
50½. Gruppo Arsa (A. Ca. I.)	Bela - Arsa & Albona	86,947	8,800
SALENE			
51. Arenas (Soc. Portuscle)	Cagliari - Fluminl	73 Pb 68%	312
52. Argentiera (Soc. Correboi)	Sassari-Sassari	67 Pb 57%	311 for 2 mines
53. Corrasi' S. Benedetto (a.M.M.I.)	Cagliari - Iglesias	40 Pb 56%	190
54. Gennamari - Ingurtosu (Soc. Portuscle)	Cagliari - Arbus	210 Pb 74%	731 for 2 mines
55. M. Agruxau (a.M.M.I.)	Cagliari - Iglesias	161	410

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Sarda)			
46. Gruppo di Corongiano (Carbonifera Sarda)	Cagliari - Carbonia	-	120
47. Gruppo Littorio (Carbonifera Sarda)	Cagliari - Carbonia	-	20
48. Gruppo di Barbusiu (Carbonifera Sarda)	Cagliari - Carbonia	-	600
49. Gruppo di Sirai (Carbonifera Sarda)	Cagliari - Carbonia	-	350
50. Terras Collu (Montepond.)	Cagliari - Carbonia	1,000	250
50½. Gruppo Aresa (A. Co. I.)	Bolo - Aresa & Albona	86,947	9,000
S A L E N E			
51. Aranas (Soc.Fortuscla)	Cagliari - Fiumini	Pb 05% 73	310
52. Argentiera (Soc. Corrochi)	Sassari-Sassari	Pb 97% 67	311 for 2 mines
53. Coremo' S. Benedetto (A.M.M.I.)	Cagliari - Iglesias	Pb 56% 40	130
54. Gennamari - Ingurtosu (Soc. Pertusola)	Cagliari - Arbus	Pb 74% 210	751 for 2 mines
55. M. Agruzzu (A.M.M.I.)	Cagliari - Iglesias	Pb ..% 161	410
56. Malfidano (Soc. Pertusola)	Cagliari - Fiumini	Pb 53,40% 59	307 for 2 mines
57. M. Canl e Masua (A.M.M.I.)	Cagliari - Iglesias	Pb 47% 15	110 for 2 mines
58. Montenove (A.M.M.I.)	Bolzano -Mese in Passiria	100	337 for 2 mines
59. Monteponi (Soc.Monteponi)	Cagliari - Iglesias	Pb 53% 665	650 for 2 mines

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NAME OF MINE	PROVINCE - COMMUNE	MONTHLY 1943 PRODUCTION (metric tons)	NO. MEN EMPLOYED
S A L E N S (Cont'd.)			
60. Montevecchio (Soc. It. Piombo e Zinco)	Cagliari - Guspini e Arbus	1,464 Pb 45%	2,545 for 2 mines
61. Nebida (Soc. Miniere di Nebida)	Cagliari - Iglesias	62 Pb 70%	190
62. Orbai (Vesseam)	Cagliari - Villamassargia	10 Pb 62%	136
63. Raibl (Cave del Predil Gruppo A.M.M.I.)	Udine - Tarvisio	235	957 for 2 mines
64. Riso ed altre (S.A.P.E.C.)	Bergamo - Gorno	42	972 for 3 mines
65. Rosas (S.a. Rosas)	Cagliari - Narcao	30 Pb 70%	-
66. Soddas Moddizzis (Eredi Asproni)	Cagliari - Iglesias	27 Pb 52%	218 for 2 mines
67. S.Giovanni (Soc. Pertusola	Cagliari - Iglesias	259 Pb 67%	427 for 3 mines
68. Su Zurturu (Soc. Pertusola)	Cagliari - Flumini	59 Pb 53.40%	307 for 2 mines
G A S			
69. Montechino e Velleia (Petroli d'Italia)	Piacenza - Groppovello e Monte dell'Olio	114	90 for 2 mines
70. Monticelli (Italo Borrini)	Parma - Montechiarugolo	63	65 for 2 mines
71. Salsomaggiore (Terme di Salsomaggiore)	Parma - Salsomaggiore	527	250 for 3 mines
72. Tramutola (A.G.I.P.)			

2865

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63. Radbi (Deve del Predil Gruppo A.M.M.I.)	Udine - Tarvisio	235		957 for 2 mines
64. Riso ed altre (S.A.P.E.P.)	Bergamo - Gorno	42		972 for 3 mines
65. Rosas (S.A. Rosas)	Cagliari - Narcao	39 Pb 7%		-
66. Soddus Nebbiosis (Sredi &proni)	Cagliari - Iglesias	27 Pb 69%		216 for 2 mines
67. S.Giovanni (Soc. Pertusola	Cagliari - Iglesias	259 Pb 67%		427 for 3 mines
68. Su Sururu (Soc. Pertusola)	Cagliari - Fluumini	59 Pb 55.40%		307 for 2 mines
G a S				
69. Montechino e Vallesia (Petroli d'Italia)	Piacenza - Groppardello e Monte dell'Olio	114		90 for 2 mines
70. Monticelli (Italo Borrini)	Parma - Montechiarugolo	63		65 for 2 mines
71. Selsomaggiore (Terme di Selsomaggiore)	Parma - Selsomaggiore	527		250 for 3 mines
72. Tremutole (A.G.I.P.)	Potenza - Tremutole	39,030 Ha		60 for 2 mines
73. Vallezza e Monterotondo (Petrolifera Italiana)	Parma - Fornovo, Tor- Sola, Ragonza	278		390 for 2 mines
G A S M E T H A N E				
74. Cavanella, Rosolina Ca' Capello ed altr.(Varie)	Rovigo - Lora ed altri	800		480

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NAME OF MINE	PROVINCE - COMMUNE	MONTHLY 1943 PRODUCTION (metric tons)	NO. MINE EMPLOYEES
G A S M E T H A N E (Cont'd)			
75. Conegliano, Mesoleo ed altre (Varie)	Belluno - Argento ed altri	400	260
G A S - N A T U R A L			
76. Piotrunola e Castel dell'Alpe(Idrocarburi Nazionali)	Firenze - Firenzuola	500	290
77. Solignani e Fiun di Casale (Prat.Ili Lazzi)	Bologna-Porretta Terme	250	110
G O L D			
78. Pestarena ed altre(a.m.d.I.)	Novara -Macugnaga	3,000 10 mo. ton	250
G R A P H I T E			
79. Ric Sicora (Calce e Grafite Val Chiusone)	Savona - Murialdo	99	26
80. Siassare (Talco e Grafite Val Chiusone)	Torino - S. Germano	45	52
I O D I N E			
81. Salsomaggiore (Terme di Salsomaggiore)	Parma-Salsomaggiore	2,322	250 for 3 mines
I R O N			
82. M. Canaglia(Soc. Ferromin)	Sassari-Sassari	370 Fe 41%	198
83. Miniere dell'Elba(Ferromin)	Livorno - Verti	42,795	799
84. M. Trudu(Soc.Ferromin)	Nuoro-Nuoro	-	-
85. Selaponi (Soc. Trudu)	Cagliari-Gonnosfanadiga	424 Fe 52%	97
86. S.Leone (Soc. Trudu)	Cagliari-Capoterra	468 Fe 54%	107

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G O L D

78. Pestarena ed altre(...M.I.)	Livorno -Arezzo	3,000 10 mi. non	.. ..	250

G R A F H I T E

79. Mio Sangone (Talco e Grafite Val Chis.mo)	Torino - Murisengo	99		26
80. Glassano (Talco e Grafite Val Chis.mo)	Torino - S. Germano	45		58

I O D I N E

81. Salsomaggiore (Terme di Salsomaggiore)	Parma-Salsomaggiore	2,922		250 for 3 mines

I R O N

82. M. Canaglia(Soc. Ferromin)	Sassari-Sassari	370 Fe 41%		198
83. Miniere dell'Elba(Ferromin)	Livorno - Varii	42,795		799
84. M. Trudu(Soc.Ferromin)	Sassari-Sassari	-		-
85. Seleponi (Soc. Trudu)	Cagliari-Carbonia-Iglesias	424 Fe 52%		97
86. S.Leone (Soc. Trudu)	Cagliari-Carbonia	466 Fe 54%		107

I R O N M A N G A N E S E

87. Il Passo (Ferromin)	Grosseto-M.Argentario	2,077		149

K A O L I N

88. M.Forroddu ed altre	Cagliari - Furtei e Serrenti	-		-
89. Sanioi e varie	Sassari - Nuro	-		-
90. Tornielle (Caolini d'Italia)	Grosseto-Roccastrada	1,600		70

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NAME OF MINE	PRODUCE	ANNUAL TONS PRODUCTION (metric tons)	PAGE NO.
_____	**_____**	**_____**	**_____**
L I M I T			
92. Joya Roconada (Coral)	Hotel - Joya	4,172	319
93. Rosanello o Cuna (Manila Vallarta)	Cruzero -Corazon	3,568	300
94. Esmeralda o Lucena (Costina)	Fierro -Esmeralda sal Aguila	3,508	302
95. Esmona (Coral)	Zumpido - Quinto	5,309	710
96. Esmeralda(Mantera de Cerp.)	Arroyo - Verdad	6,826	472
97. Casa Loro (Coral)	Zeruela - Chapa	3,204	296
98. Costalmuro-Allort Cerillo o Rosal (Minoreria Valentino)	Arroyo o Esmona - Cevallido o Fiesta Valentino	70,212	3,334
99. Collaseone (Coral)	Esmeralda - Collaseone	3,211	419
100. Colle Gallardo (Coral)	Fiesta - Coral	3,004	273
101. Puntarenas (Arroyo)	Coral-Montenegrillo	2,730	375
102. Guadalupe Cortezano (Termoelectrica Tuxpan)	Esmeralda - Montenegro	14,548	1,686
103. Lillianno o Deregallo (Limonita o Cerrito)	Steele - Castellino en Chapel	3,778	381
104. Matonne (L.I.M.S.A.)	Potrero	4,726	520
105. Montecitos (Coral, Industria Extractiva)	Cisne - Salvamento Arroyo	1,863	216
106. Monte Nevado (Leonardo d'Aequisto)	Fiumo -Valle del Nevado	3,721	124
107. Morganno (Coral)	Zeruela - Sicilia	28,809	2,465
108. Marco (Minisare Fosforo-Hijoso de Marco)	Steele - Marco	3,105	276
109. Plantation			

94. Perolerino e Edmondo (Lignite)	Firenze -Barberino del Mugello	3,592	302
95. Brenda (Terni)	Perugia - Orvieto	5,309	710
96. Cargineto(Miniere di Carp.)	Arezzo - Sovreglio	6,256	472
97. Casa Lete (Terni)	Perugia - Orvieto	3,284	276
98. Castelnuovo-Ribolari Castelle e Monsi (Miniere Valdarno)	Arezzo e Firenze - Bevagna e Pagliano Valdarno	78,212	3,354
99. Collazzone (Terni)	Perugia - Collazzone	3,241	419
100. Colle dell'Oro (Terni)	Terni - Terni	3,284	273
101. Dunarobba (Amerino)	Terni-Montecastrilli	2,730	375
102. Gualdo Cattaneo (Termoelettrica Umbra)	Perugia - Montefalco	11,540	1,626
103. Lilliano e Campelli (Lignite e derivati)	Siena - Castellina in Chianti	3,778	361
104. Morcone (L.I.M.S.A.)	Potenza	4,726	520
105. Montalfiret (Comm. Industrie Estrattive)	Siena - S.Giovanni d'Asso	1,663	216
106. Monte Nevoso (Leonardo d'Acquisto)	Pistoia -Villa del Nevoso	3,721	124
107. Morgnano (Terni)	Perugia - Spoleto	28,859	2,465
108. Murlo (Miniere Cenbo-olifere di Murlo)	Siena - Murlo	3,105	276
109. Pietrafitta (Minerarie Tresimeno)	Perugia -Pietrafitta	29,477	2364
110. Poggio Avone (Miniere Carboni)	Arezzo - Cavriglia	6,204	364
111. Pulli (Ing. Delle Ore)	Vicenza - Valdagno	997	276
112. Querata (S...M.I.L.- Gruppo A.L.I.)	Arezzo - Arezzo	4,125	397

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NAME OF MINE	PROVINCE - COMMUNE	MONTHLY 1943 PRODUCTION (metric tons)	NO. OF WAGE EARNERS
L I G N I T E (Contd)			
113. Ronciliere e Petrelo (Ind. Lotarini Piombino)	Siena - Torrita	5,693	360
114. Ribolla e Castelani (Montecatini)	Grosseto-Roccastrada	24,382	2,481
115. Rocanno di Sotto (Mineraria Tiberina)	Perugia - Terziano	3,843	367
116. Rupinata e Sorro e Cesal (Toscana Lignite)	Firenze -Figline Valdarno	4,347	265
117. Ruscio (Mineraria Umbra)	Perugia-Montelvagno	2,835	270
118. Sarzanello (Miniere e Cantieri)	La Spezia-Sarzana	2,470	350
119. S. Faustino(Masse Marittime)	Perugia-Masse Marittime	2,440	224
120. Val Gandino ed altre (Val Gradino ed altre)	Bergamo - Gandino, Lotte - Taleggio	10,222	696
M A G N E T I T E			
121. Cogne (Nazionale Cogne)	Aosta - Cogne	21,110	783
122. Traversella (F.I.A.T.)	Aosta -Traversella	2,297	266
M A G N E T I T E & P Y R I T E			
123. Nelo e Boro (Montecatini)	Aosta - Brosso	2,674	190
M A N G A N E S E			
124. Cerchiara (Ferromin)	La Spezia -Pignone	229	104
125. Gambatesa(Ferromin)	Genova - Ne'	2,526	291
126. La Face(Guido Mencinelli)	Campobasso -Boiano e Campochiaro	121 Mn 32%	234
127. Tre Monti (Manganesifera Italiana)	La Spezia e Genova - Maissana e Casarza Ligure	585	301

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116. Reginaldo (Toscana Nord)	Volterra		
117. Rumolo (Miniere di Umbria)	Perugia-Montalcino	2,935	270
118. Serrenella (Miniere di Marsiana)	La Spezia-Sarzana	2,479	353
119. S. Faustino (Miniere Marsiana)	Perugia-Monte Marsiana	2,410	224
120. Val Gandino ed altre (Val Gandino ed altre)	Bergamo - Gandino, Lecco - Cremona	10,222	696

M A G N E T I T E

121. Cogne (Reginaldo Cogne)	Aosta - Cogne	21,110	733
122. Traversella (F.I.A.T.)	Aosta -Traversella	2,297	286

M A G N E T I T E A P Y R I T E

123. Salo e Buco (Montecatini)	Aosta - Brusson	2,674	190

M A N G A N E S E

124. Cerchiara (Ferromin)	La Spezia -Pignone	429	104
125. Gambatesa(Ferromin)	Genova - Nervi	2,526	291
126. Le Spase(Guido Mancini-elli)	Carpeneto -Bolano e Campochiaro	121 (M.38%)	234
127. Tre Monti (Manganesifere Italiane)	La Spezia e Genova - Maissano e Massa Ligure	565	301

M E R C U R I

128. Abbadia (Minerarie M. Amiata)	Siena -Abbadia S. Salvatore	6,127	739
129. Abetina(Minerario Argus)	Siena -Piancastagnaio	1,086	333
130. Carpine Solfatero (Stab.Minerari Siele)	Siena -Piancastagnaio	2,469	554
131. Idria (Monte Amiata)	Gorizia - Idria	5,211	450

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NAME OF MINE	PROVINCE - COMMUNE	MONTHLY 1943 PRODUCTION (metric tons)	no MIN. WAGE EARNERS
M O L I B D E N I T E			
132. Riu Planu is Castungias (Soc. Cogne)	Cagliari-Gonnosfanadiga	2,5 M: 41%	423
N I C K E L P Y R I T E			
133. Calvani ed altre (Michelin Gruppo A.M.M.I.)	Novara - Valstrona	239	205
O I L			
134. Ripi (A.G.I.P.)	Frosinone - Ripi	127	60 for 2 mines
135. Selcamaggiore (Terme di Selcamaggiore)	Parma - Selcamaggiore	20	250 for 3 mines
136. Tabuna	Ragusa - Ragusa	426	759 for 2 mines
137. Tramutola (A.G.I.P.)	Potenza - Tramutola	2,527	60 for 2 mines
O I L G A S			
138. Podenzano e Pontevivo (A.G.I.P.)	Piacenza-Podenzano	1,011	420 for 2 mines
P E T R O L I U M			
139. Montechino e Velleia (Petroli d'Italia)	Piacenza - Groppardello e Monte dell'Olio	76	90 for 2 mines
140. Podenzano e Pontevivo (A.G.I.P.)	Piacenza-Podenzano	82	420 for 2 mines
141. Velleaza e Monterotondo (Petrolifera Italiana)	Parma - Fornovo, Taro, Sala, Regenza	370	390 for 2 mines
P I R I T E			

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O I L

134. Ripi (A.G.I.P.)	Frosinone - Ripi	127	60 for 2 mines
135. Selcmaggiore (Terme di Selcmaggiore)	Perma - Selcmaggiore	20	250 for 3 mines
136. Tebuno	Rogusa - Ragusa	426	759 for 2 mines
137. Trecastele (A.G.I.P.)	Potenza - Trecastele	2,327	61 for 2 mines

O I L G A S

138. Podenzano e Fontevivo (A.G.I.P.)	Piacenza-Podenzano	1,011	420 for 2 mines

P E T R O L I U M

139. Montechino e Velleia (Petroli d'Italia)	Piacenza - Groppovallo e Monte dell'Olio	74	90 for 2 mines
140. Podenzano e Fontevivo (A.G.I.P.)	Piacenza-Podenzano	82	420 for 2 mines
141. Vallezze e Monterotondo (Petrolifera Italiana)	Parma - Fornovo, Gero, Sala, Bogenzo	370	390 for 2 mines

P Y R I T E

142. Boccheggiano (Montecatini)	Grosseto - Montieri	13,475	2863 785
143. Calcarenico ed Andrulio (Montecatini)	Trento - Pergine, Vigolo e Vattaro	4,521	150
144. Camp Pisano (Soc. Monteponi)	Cagliari - Iglesias	950 S 47%	850 for 3 mines
145. Gavorrano (Montecatini)	Grosseto-Gavorrano	25,075	1,814

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NAME OF MINE	PROVINCE - COMMUNE	MONTHLY 1943 PRODUCTION (metric tons)	NO. WAGE EARNERS
P Y R I T E S (Cont'd)			
146. Il Frenco (Ministero Tirreno)	Grosseto - Ciglio	391	129
147. Niccioletta(Montecatini)	Grosseto - Massa Marittima	13,723	1,284
148. ReVi-Marconi(Marconi e C)	Grosseto - Gavorrano	2,950	484
149. Ritorno (S.I.M...)	Grosseto-Massa Marittima	380	172
150. Vallimpreina (Montecatini)	Belluno - Rivamonte	4,024	273
S A L G R O O K			
151. Buriano (Soc.Solvay)	Pisa - Montecatini Val di Cecina	35,000	160
152. Ponte Ginori o Querceto (Soc. Solvay)	Pisa - Montecatini Val di Cecina	25,000	150
153. Saline di Volterra (Monopoli di Stato)	Pisa - Volterra	1,700	70
S I D E R I T E I R O N C A R B O N A T E			
154. Alfredo (Ferromin)	Brescia - Bovegno	811	134
155. Berisella (Consorzio Berisella)	Bergamo - Schilpario	771	226
156. Menina (Ferromin)	Bergamo -Vilminore	553	213
157. Ortosolo ed altre (Ferriere Falck)	Bergamo -Schilpario	329	70
158. Pietra Costa(Ferromin)	Brescia - Malonno	1,707	149
159 Pisogne (Ferromin)	Brescia - Pisogne	720	125
160. S.Aloisio (Corio Tassara)	Brescia - Collio	1,314	158
161. Spiazzo (Ernesto Breda)	Bergamo -Schilpario	3,327	176

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149. Ritorto (S.E.I.-...)	Grosseto-Mason Marittimo	500	172
150. Vallimpiano (Montecatini)	Belluno - Pivamonte	4,024	278

SALTROCK

151. Buriano (Soc.Solvay)	Pisa - Montecatini Val di Cecina	35,000	180
152. Ponte Ginori e Querceto (Soc. Solvay)	Pisa - Montecatini Val di Cecina	25,000	150
153. Saline di Volterra (Monopoli di Stato)	Pisa - Volterra	1,700	90

SIDERITE IRON CARBONATE

154. Alfredo (Ferromin)	Brescia - Bovegno	811	134
155. Berisello (Consorzio Berisello)	Bergamo - Schilpario	771	326
156. Medina (Ferromin)	Bergamo -Villamora	559	219
157. Ortosolo ed altre (Ferriere Feltrin)	Bergamo -Schilpario	393	70
158. Potesa Coste(Ferromin)	Brescia - Malonno	1,797	149
159 Pisogne (Ferromin)	Brescia - Pisogne	729	195
160. S.Aloisio (Carlo Tassara)	Brescia - Collio	1,314	198
161. Spiazzo (Ernesto Breda)	Bergamo -Schilpario	3,327	175

SILVER

162. S'Acqua Bona (Giuseppe Cambaro)	Cagliari-Arbus e Flumini	-	-

SULPHUR

163. Cabernardi(Montecatini)	Ancona -Sassoferrato	3,402	1,199
164. Colle Croce Nera	Palermo - Lercara	200	302

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NAME OF MINE	PROVINCE - COMMUNE	MONTHLY 1943 PRODUCTION (metric tons)	NO. WAGE EARNERS
S U L P H U R (Cont'd)			
165. Condominio Beccarato	Enna - Aidone	296	150
166. Cozzodisi	Agrigento - Cesteltermini	759	559
167. Cozzotondo (Nelbone Luigi)	Caltanissetta - Milena	26	35
168. Floristella (Cirino Lo Meo)	Enna - Villarosa	334	197
169. Formigneno (Montecatini)	Pesaro - Cesena	552	251
170. Gessolungo (consorziale)	Caltanissetta - Caltanissetta	245	126
171. Giona (Michele (Giannusso)	Caltanissetta - Milocca	-	-
172. Giumentarello (Giovanni Ayala)	Enna - Calascibetta	98	85
173. Giumentaro - Capodarso	Enna - Enna	409	241
174. Grottacalda (Montecatini)	Enna - Piazza Armerina	1,020	711
175. Gruppo Gibiss	Agrigento - Agrigento	509	597
176. Gruppo Marmore (Duca Gualtieri e Chillenu Mario)	Enna - Centuripe	133	93
177. Isca della Palata (Soc. S.A.I.M.)	Avellino - Altaville Irpina	2,408 S-30%	309
178. Lucia	Agrigento - Favern	-	-
179. Montagna Aragona	Agrigento - Aragona	441	479
180. Pagliarello (Associazione Pagliarello)	Enna - Villarosa	74	61
181. Percozzone(Montecatini)	Ancona e Pesaro Sassoferrato e Pergola	1,179	309
182. Perticara (Montecatini)	Pesaro - Novafeltria	3,156	1,368

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	Meo)			
169.	Formigneno (Montecatini)	Pesaro - Cesena	552	251
170.	Gessolungo (consorziale)	Caltanissetta - Caltanissetta	245	126
171.	Gigna (Michele (Giannusso)	Caltanissetta - Milocca	-	-
172.	Giumentarello (Giovanni Ayala)	Enna - Calascibetta	93	85
173.	Giumentaro - Capodarso	Enna - Enna	409	241
174.	Grottacalda (Montecatini)	Enna - Piazza Armerina	1,029	711
175.	Gruppo Gibisa	Agrigento - Agrigento	509	597
176.	Gruppo Marmora (Duca Gualtieri e Chillenu Mario)	Enna - Centuripe	133	93
177.	Isca dello Palata (Soc. S.A.I.M.)	Avellino - Altavilla Irpina	2,408 S-30%	309
178.	Lucia	Agrigento - Favara	-	-
179.	Montagna Aragona	Agrigento - Aragona	441	479
180.	Pagliarello (Associazione Pagliarello)	Enna - Villarosa	74	61
181.	Percozzone(Montecatini)	Ancona e Pesaro Sassoferrato e Pergola	1,173	309
182.	Perticara (Montecatini)	Pesaro - Novafeltria	3,156	1,366
183.	Pintura (S.A. Pinturn)	Enna - Aidone	88	74
184.	Quattrofinaite Vassallo e Damuso	Agrigento - Grotte e Racalmuto	161	210
185.	Respica Cendrilli	Enna - Villarosa	88	74
186.	Saponaro (Di Francesco G.)	Caltanissetta - Caltanissetta	926	70
187.	S. Domenica (Francesco Vetta)	Cantanzaro - Melissa	-	102
188.	Stincone e Apaforte	Caltanissetta - S. Cataldo	553	430

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NAME OF MINE	PROVINCE - COMMUNE	MONTHLY 1943 PRODUCTION (metric tons)	NO. WAGE EARNERS
S U L F H U R (Cont'd)			
189. Testasecca (Vincenzo Testasecca)	Caltanissetta - Caltanissetta	890	68
190. Trabia e Tallarita	Caltanissetta - Riesi	1,170	1,161
191. Trabonella	Caltanissetta - Caltanissetta	636	580
192. Zimbalio e Donna Carlotta	Enna - Assoro	146	163
T A L C			
193. Fontane (Talco e Grafite Val Chisone)	Torino - Massello	-	-
194. Orani	Nuoro -	-	50
T I N			
195. M.Valerio (a.M.M.I.)	Livorno - Campiglia	21	479
WATERVAPOUR			
196. Larderello e Castelnuovo (Soc. Min. di Larderello)	Pisa - Pomarance e Castelnuovo	1,500	650 for 2 mines
Z I N C			
197. S'Acqua Bona (Giuseppe Gembaro)	Cagliari - Arbus e Flumini	-	-

*The Indicated monthly productions are referred to April 1943 for metallic mines; to June 1943 for solid fuels; to July 1943 for oil and gas.

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T A L C				
193. Fontana (Talco e Grafite Val Chisone)	Torino - Massello		-	-
194. Orani	Nuoro -		-	50
T I N				
195. M.Valerio (a.M.M.I.)	Livorno - Campiglia		21	479
W A T E R W A P O U R				
196. Larderello e Castelnuovo (Soc. Min. di Larderello)	Pisa - Pomerance e Castelnuovo		1,500	650 for 2 mines
Z I N C				
197. S'Acqua Bona (Giuseppe Gombaro)	Cagliari - Arbus e Fluminì		-	-

*The Indicated monthly productions are referred to April 1943 for metallic mines; to June 1943 for solid fuels; to July 1943 for oil and gas.

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SUPPLY ANNEX

TOTAL SHIPMENTS OF U.S. PROCURED COMMODITIES TO ITALY, SICILY AND SARDINIA SHIPPED 1 JULY 1943 THROUGH 30 JUNE 1944

TYPE	1 JULY 1943 TO 10 MAY 1944(1)			10 MAY 1944 TO 30 JUNE 1944			
Subsistence	Gross Long Tons	Ship Tons	Dollar (2) Value	Gross Long Tons	Ship Tons	Dollar Value	Gross Long Tons
Wheat	173,018	228,587	9,622,000	-	-	-	173,018
Flour	226,110	286,053	10,710,000	-	-	-	226,110
Beans & Peas dried	28,088	39,312	4,702,000	11,372	15,058	1,905,000	39,460
Sugar	6,132	7,657	537,000	-	-	-	6,132
Soap	10,232	55,272	12,253,000	-	-	-	10,232
Milk	7,805	10,385	1,538,000	425	750	148,000	8,230
Meat and/or Cheese	42,366	54,562	17,113,000	6,513	8,251	2,729,000	48,879
Total	523,301	681,828	65,034,000	18,310	24,065	4,782,000	542,111
Medical & Sanitation							
Basic Medical Units	1,609	5,066	1,358,000	-	-	-	1,609
Supplemental Tropical Units	10	23	97,000	-	-	-	10
Dyechlorinators	17	30	86,000	-	-	-	17
Q Sanitary Units	140	259	73,000	-	-	-	140
Other Medical, Veterinary and Sanitation Supplies (3)	118.3	283.4	292,000	11.4	22.3	6,000	129
Total	2,095.3	5,661.4	1,906,000	11.4	22.3	6,000	2,101
Fuel							
Coal	66,555	74,587	436,000	49,195	55,456	310,000	115,750
Petroleum (4)	-	-	-	-	-	-	-
	66,555	74,587	436,000	49,195	55,456	310,000	115,750
Agricultural Chemicals							
Ammonium Nitrate	1,071	2,402	106,000	1,749	2,165	99,000	3,820
Sulphate of Potash	986	1,100	35,000	-	-	-	986
Copper Sulphate (5)	2,715	2,650	277,000	-	-	-	2,715
Lead Arsenate	-	-	-	31	56	11,000	31
Other	-	-	-	.4	.4	1,000	-
Total	5,772	7,252	418,000	1,780.4	2,221.4	111,000	7,552

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SUPPLY ANNEX

MENTS OF U.S. PROCURED COMMODITIES TO ITALY, SICILY AND SARDINIA
SHIPPED 1 JULY 1943 THROUGH 10 JUNE 1944

43 TO 10 MAY 1944(1)			10 MAY 1944 TO 10 JUNE 1944			TOTAL		
Ship Tons	Dollar (2) Value		Gross Long Tons	Ship Tons	Dollar Value	Gross Long Tons	Ship Tons	Dollar Value
8,587	9,622,000		-	-	-	179,010	228,587	9,622,000
6,083	18,719,000		-	-	-	226,110	286,083	18,719,000
9,263	1,762,000		11,374	15,055	1,305,000	39,460	54,437	6,607,000
7,657	837,000		-	-	-	4,182	7,657	837,000
5,772	12,258,000		-	-	-	40,232	55,272	12,258,000
0,365	1,538,000		425	759	148,000	8,230	11,124	1,686,000
4,562	17,113,000		6,513	8,251	2,729,000	48,879	62,813	20,142,000
1,699	65,000,000		16,310	24,065	4,782,000	542,111	705,963	69,866,000
5,916	1,350,000		-	-	-	1,309	5,086	1,350,000
23	97,000		-	-	-	13	23	97,000
90	86,000		-	-	-	17	90	86,000
259	73,000		-	-	-	140	259	73,000
203.4	292,000		11.4	22.3	6,000	125.7	225.7	298,000
3,901.4	1,206,000		11.4	22.3	6,000	2,101.7	3,623.7	1,914,000
4,587	436,000		49,195	55,456	310,000	115,750	130,043	716,000
-	-		-	-	-	-	-	-
4,587	436,000		49,195	55,456	310,000	115,750	130,043	716,000
4,462	106,000		1,869	2,165	99,000	3,820	4,627	205,000
1,100	35,000		-	-	-	986	1,100	35,000
2,650	277,000		-	-	-	2,735	2,650	277,000
-	-		31	56	11,000	31	56	11,000
-	-		.4	.4	1,000	.4	.4	1,000
8,232	418,000		1,900.4	2,221.4	111,000	7,552.4	8,473.4	529,000

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REGION II

APRIL 4

MAY

REPORTS

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ANNEXES TO THE PUBIC SAFETY REPORT

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