Declassified E.O. 12356 Section 3.3/NND No. 785015

ACC

10000/136/453

TRANSPORTATION, S
SEPT. 1943 — JAN.

Declassified E.O. 12356 Section 3.3/NND No. 785015

10000/136/453

TRANSPORTATION, SUB-COMMITEE FUNCTIONS
SEPT. 1943 – JAN. 1946

Declassified E.O. 12356 Section 3.3/NND No. 785015

AC/4 [illegible]/L.

8th January 1946.

SUBJECT : COGENA case.

TO : Chief Legal Advisor.

The administration of occupational law is a function of Allied Military Government.

Rendition of assistance in the prosecution of a case by representatives of governmental agencies does not make the case the concern of such agencies. It is proper for a representative to report to his superiors concerning the nature of his employment, as such matter is collateral to, but not a part of the judicial proceeding.

Matters within the boundaries of the judicial proceeding itself remain the sole concern of Allied Military Government and must not be shared with such agencies.

Please bring this to the attention of Mr.Lopez, the prosecutor in the COGENA case.

ELLERY W. STONE
Rear Admiral, USNR
Chief Commissioner

5819/C

FEB 2 RECD

16.

Ref: 5807/53/MG. 25.February 1945.

SUBJECT: Report on Transportation, Super Garage.

TO : DCOS, Establishment Section.

1. I have read the report on transportation, Super Garage, by Major Downer and Major Moyle dated 2 February 1945. The report disturbs me profoundly because it is clear that there is still failure to realise the responsibility of the Allied Commission for the proper recording and maintenance of motor transport in the minds of officers at Headquarters. We have been severely criticised by ANAQ for neglect on these very points and this criticism, which is clearly deserved, is one of the reasons why the powers of requisitioning and hiring have been removed from the Commission. The apologia produced by Colonel Robertson (HQC/10/7 of 13 February 1945 addressed to you), although it answers one or two of the points raised by the reporting officers, makes me even more disturbed.

2. We must get our house in order in this most important matter. There is no doubt that this can be done and must be done but it requires ruthless action.

3. The first paragraph of the report shows that the unsatisfactory state of the records which existed five months ago has not yet been cleared up. I do not accept Colonel Robertson's explanation for this. I want the records brought up to date without delay and a list of cars assigned, permanently and daily, produced for my review. Even now I hear stories of misuse and wrongful retention of requisitioned cars. Colonel Robertson in part answers the criticisms in regard to the accounting for P.O.L. but I cannot think the inspecting officers would have made such comments if the system was crystal clear. It plainly is not and if the inspecting officers gained the impression that a man can get away without accounting for his petrol, he probably can do it. This must be put right.

4. The inspection reports of the vehicle maintenance speak for themselves. The percentage of cars inspected provides adequate data on which to base a report and you will notice that in two cases maintenance was most unsatisfactory. What action has been taken either to remove the officers in charge of the American WD vehicles and requisitioned cars or to see that they carry out their duties properly in the future? I accept the report of the inspecting officers in this respect and clearly disciplinary action is necessary.

5. Will you make it your personal duty with the HQ. Commandant to see that the situation at the Super Garage improves without delay.

3743

5807/53

Declassified E.O. 12356 Section 3.3/NND No. 785013

1. I have read the report on transportation, Super Garage, by Major Downer and Major Moyle dated 2 February 1945. The report disturbs me profoundly because it is clear that there is still failure to realise the responsibility of the Allied Commission for the proper recording and maintenance of motor transport in the minds of officers at Headquarters. We have been severely criticised by AFHQ for neglect on these very points and this criticism, which is clearly deserved, is one of the reasons why the powers of requisitioning and hiring have been removed from the Commission. The apologia produced by Colonel Robertson (HQC/10/7 of 13 February 1945 addressed to you), although it answers one or two of the points raised by the reporting officers, makes me even more disturbed.

2. We must get our house in order in this most important matter. There is no doubt that this can be done and must be done but it requires ruthless action.

3. The first paragraph of the report shows that the unsatisfactory state of the records which existed five months ago has not yet been cleared up. I do not accept Colonel Robertson's explanation for this. I want the records brought up to date without delay and a list of cars assigned, permanently and daily, produced for my review. Even now I hear stories of misuse and wrongful retention of requisitioned cars. Colonel Robertson in part answers the criticisms in regard to the accounting for P.O.L. but I cannot think the inspecting officers would have made such comments if the system was crystal clear. It plainly is not and if the inspecting officers gained the impression that a man can get away without accounting for his petrol, he probably can do it. This must be put right.

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5. Will you make it your personal duty with the HQ. Commandant to see that the situation at the Super Garage improves without delay.

3743

M. S. LUSH

Brigadier,
Chief of Staff.

MSL/JG.

Q

P.T.O.

Declassified E.O. 12356 Section 3.3/NND No. 785015

P.S.

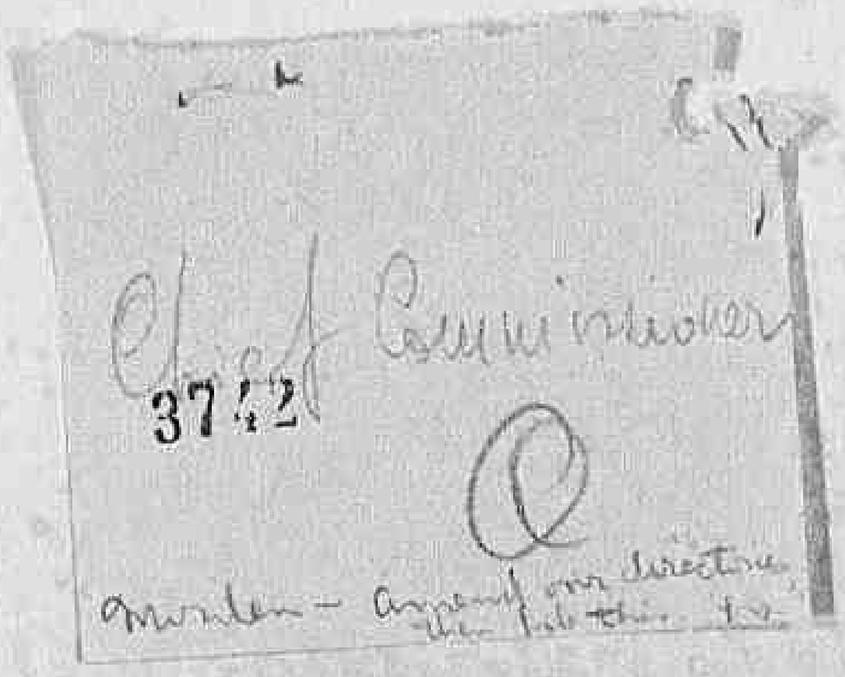
Since dictating the memorandum overleaf I have seen the HQ. Commandant and have visited the Super Garage. A change is needed in the officer in charge of the garage. When the Super Garage was handed over to the HQ. Commandant we agreed that he should be given a free hand in the choice of staff. He has asked for Captain NEDY but has not yet succeeded in having him assigned. If there is no serious objection to the appointment of this officer he should be assigned as soon as possible.

M. S. LUSH
Brig,
Ex.Com.

26.Feb.45.

Declassified E.O. 12356 Section 3.3/NND No. 785015

Declassified E.O. 12356 Section 3.3/NND No. 785015



Chief Communications

8 February 1945

HEADQUARTERS ALLIED COMMISSION

Telephone Number - Rome 489081

TRANSPORTATION SUB-COMMISSION DIRECTORY

	FLOOR	ROOM	TELEPHONE NUMBER INTERNAL	TELEPHONE NUMBER EXTERNAL
DIRECTOR				
Mr. Morritt H. Taylor	6	9	220	
DEPUTY DIRECTOR				
Colonel M.B. Thomas	6	13	376	
ADMINISTRATION DIVISION (Tn 1)				
Chief, Lt.Col. Walter P. Scoggins	6	18	482	
Clerks	6	17	390	
Accounts Branch				
Capt. C.S. Wyatt	7A	31		478305
Lt. M. Steinberg	7A	31		478305
W.O. A.A. Dichello	7A	39		478406
Clerks (Accounts)	7A	39		478406
Clerks (Statistics)	7A	68		478092
PLANNING STAFF (Tn 2)				
Major F.P. Richardson	6	38	513	
Mr. Charlie Ryan	6	38	513	
Mr. George Gross	Basement	2	566	
MOVEMENTS DIVISION (Tn 3)				
Chief, Lt.Col. M.C. Sieff	6	16	318	
Clerks	6	10	541	
Rail Branch				
Lt.Col. J.W. Baker	6	8	342	478704
Major C.P. Worthington	6	8	342	478704
Major J.F.M. Duthie	6	4	336	478701
Capt. I.F. Clinging	6	4	336	478701
Clerks	6	6		478903
Road Branch				
Lt.Col. J.H. Bordass	6	14		478303
Major C. Stait-Gardner	6	14		478303
Capt. H.J. Mansfield	6	12	547	
Capt. W. Ainsworth	(15th Army Group)			
Capt. J.F. Halsted	(5th Army)			
Clerks	6	10	541	
Shipping Branch				
Lt.Col. J.A. Balfour	7A	56	494	
Major A.M. McClure	7A	56,	494	
	7A	68	566	

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1-8-45 C11/13

Declassified E.O. 12356 Section 3.3/NND No. 785015

Mr. Maurice H. Hayes			9	220	
DEPUTY DIRECTOR					
Colonel M.P. Thomas	6		13	376	
ADMINISTRATION DIVISION (Tn 1)					
Chief, Lt.Col. Walter P. Scoggins	6		18	482	
Clerks	6		17	390	
Accounts Branch					
Capt. C.S. Wyatt	7A		31		478305
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Major C. Stait-Gardner	6		14		478303
Capt. R.J. Mansfield	6		12	547	
Capt. W. Ainsworth	(15th Army Group)				
Capt. J.F. Halsted	(5th Army)				
Clerks	6		10	541	
Shipping Branch					
Lt.Col. J.A. Balfour	7A		56	454	
Major A.M. McClure	7A		56	454	
Capt. R. Hoyle	7A		58	534	
Lt. J.H. Hazelton	7A		58	534	
Clerks	7A		54	562	

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(OVER)

Declassified E.O. 12356 Section 3.3/NND No. 785015

	FLOOR	ROOM	TELEPHONE NUMBER INTERNAL	EXTERNAL
RAIL DIVISION (Tn 4)				
Chief, Lt.Col. O.H. Lindberg	Min. of Communications			843238
Operations Branch				
Major W.G. Fletcher	"	"	"	
Major A.C. Ping	"	"	"	843209
Major P.G. Matson	"	"	"	843238
				843191-Ex.11
Civil Engineering Branch				
Major A.H. Street	"	"	"	843239
Major E.J. Molo	(On detachment)			
Major P.G. Buckley	Min. of Communications			843023
Mechanical Engineering Branch				
Major S.L. Baister	"	"	"	843403
Lt. R.C. Bowie	"	"	"	843191-Ex.48
Major E.N.B. Jeffrey	(On detachment)			
Lt. N.O. Philby	(On detachment)			
Supply Branch				
Major C.M. Long	Min. of Communications			843191-Ex.11
ROAD DIVISION (Tn 5)				
Chief, Colonel J.J. Carnes	6	22	378	
Clerks	6	20		478908
Operations Branch				
Administration Branch				
Major C.W.A. Popper	6	22	378	
Maintenance Branch				
Major H.M. Downer	3A	66	308	
Major D.C. Moyle	3A	66	308	
Major D.F.B. Bruce	3A	64	425	
Supply Branch				
Capt. W.G. Paterson	3A	62	407	
PORT & WAREHOUSE DIVISION (Tn 6)				
Chief, Mr. Charles C. Crooke	1A	78	394	
Operations Branch				
Mr. B. McDonnell (NZ)	1A	35	259	
Dr. G. Cazzaroli (Italian)	1A	35	259	
Port Branch				
Lt. G.W.E. Warley	1A	70	394	
Lt. A. Marina (Italian)	1A	70	394	
Mr. James B. Hurley	1A	64	347	
Warehouse Branch				
Major R.H. Klein	1A	66	408	478700

Declassified E.O. 12356 Section 3.3/NND No. 785015

Mechanical Engineering Branch				
Major S.L. Baistor	"	"	"	843403
Lt. R.C. Bowie	"	"	"	843191-Ex.48
Major E.N.E. Joffrey	(On detachment)			
Lt. N.C. Philby	(On detachment)			
Supply Branch				
Major C.M. Long	Min. of Communications			843191-Ex.11
ROAD DIVISION (Tn 5)				
Chief, Colonel J.J. Carnes	6	22	378	
Clerks	6	20		478908
Operations Branch				
Administration Branch				
Major C.W.A. Popper	6	22	378	
Maintenance Branch				
Major H.M. Downer	3A	66	308	
Major D.C. Moyle	3A	66	308	
Major D.T.B. Bruce	3A	64	425	
Supply Branch				
Capt. W.G. Peterson	3A	62	407	
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Chief, Mr. Charles C. Crooks	1A	78	394	
Operations Branch				
Mr. B. McDonnell (NZ)	1A	35	259	
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Mr. James B. Hurley	1A	64	347	
Warehouse Branch				
Major R.H. Klein	1A	66	408	478700

Declassified E.O. 12356 Section 3.3/NND No. 785015

Chief Commissioner

JAN 21 RECD

Ext. 376 HEADQUARTERS ALLIED COMMISSION MRT/eh
APO 394
TRANSPORTATION SUB-COMMISSION

AC EN MEMORANDUM)
)
NUMBER 1)

19 January 1945

RE-ORGANIZATION OF TRANSPORTATION SUB-COMMISSION, AC

1. With effect from the date of this memorandum, the Transportation Sub-Commission, AC, will be composed of a Director, Deputy Director, Planning Staff, and five divisions - Administration, Movements, Rail, Road, and Port and Warehouse. Their duties are set out in the following paragraphs. It is emphasized, however, that the duties are in all cases within the general framework of the Transportation Sub-Commission's responsibility and subject to any changes in policy that may be laid down by higher authority.

2. The Planning Staff will be responsible for all forward planning on transportation questions; it will advise and work closely with the Priorities Board (see Executive Order Number 4) and with the Movements Division.

3. The Administration Division will cover all internal administration, keeping of personnel records, assignments and transfers of personnel and central secretarial work. Its Accounting Branch will be responsible for accounting for all stores handled at AC warehouses, keeping records, etc. Its Statistical Branch will keep records of all movements by rail, road, sea and other means.

4. The Movements Division will ensure that the policy laid down by the Priorities Board is carried out; it will determine, in accordance with the bids made to it, what traffic is to be carried by rail, road, sea, including coastal, inland water transport, or other means, and how best this work can be coordinated with military movements; for this purpose it will have Rail, Road and Shipping Branches. The Movements Division will make out and circulate programs and be responsible for seeing that they are fulfilled or for notifying those concerned of changes of program. The Movements Division will not, however, be responsible for the technical aspect of the carrying agency's work which is the concern of the Rail, Road, and Port and Warehouse Divisions referred to below, and of the Shipping Sub-Commission.

3740 5. The Rail Division will be responsible for the technical aspect of the Italian Railways' work, for advising the Movements Division what can be carried by rail, of any changes in capacity, and for seeing that the program laid down is carried out in the best way possible. It will also plan and assist with the repair and reconstruction of all rail facilities including track, locomotives, rolling stock, stations, buildings, etc. It will work in close contact with the PMRS and the Italian State Railways.

Declassified E.O. 12356 Section 3.3/NND No. 782015

RE-ORGANIZATION OF TRANSPORTATION SUB-COMMISSION, AC

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6. The Road Division will be responsible for technical questions on all operation by road, for advising the Movements Division what can be carried by road, of any changes in capacity, and for seeing that the program laid down is carried out in the best way possible. It will also plan and assist with the repair and provision of road vehicles. It will be responsible for the raising of new road transport units. It will assist and render technical advice to the Italian road organizations.

7. The Port and Warehouse Division will be responsible for the technical aspect of port, warehouse and inland and coastal water

S-E-C-R-E-T

Declassified E.O. 12356 Section 3.3/NND No. 785015

transport work and for seeing that all installations are worked in the best way possible. Its responsibilities for warehouses will extend only to those warehouses which are used as incidental to transportation, e.g., at ports and at certain limited points in the interior. The Port and Warehouse Division will advise the Movements Division of port capacities for loading and discharging ships, and of any changes in capacity. It will plan and assist with the repair and construction of all facilities at ports, warehouses, and in connection with coastal and inland water transport. The division will work in close contact with the Shipping Sub-Commission.

8. When rail, road, port, shipping and other facilities are controlled by a military formation, the Movements Division will request an allotment of capacity from the competent military authority.

By command of Rear Admiral STONE:

MERRITT H. TAYLOR
Director
Transportation Sub-Commission

DISTRIBUTION "A"

Declassified E.O. 12356 Section 3.3/NND No. 785015

TRANSPORT APPENDIX

ANNEX A

APPENDIX "P" TO PLANNING DIRECTIVE NO. 7
DATED 26 SEPTEMBER 1943 (Issued by ACC under ACC/1014 26 Sep 44)

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 maintenances, 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:-

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(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

Declassified E.O. 12356 Section 3.3/NND No. 785015

sure 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 maintenances, operation and repair and the use of transport on highways except local bus and tramways.

(b) MAJOR FUNCTIONS.

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(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 and quickest turnround of all transportation systems as defined above.

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Declassified E.O. 12356 Section 3.3/NND No. 785015

ANNEX B

ALLIED FORCE HEADQUARTERS
APO 512

22 October 1943

GENERAL ORDERS)

NUMBER 60)

DEVELOPMENT AND OPERATION OF ALL ITALIAN RAILWAYS

1. Brigadier General CARL R. GRAY, JR., O-139452, 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 portions 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 dismosal 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 19, 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

Adjutant General

Declassified E.O. 12356 Section 3.3/NND No. 785015

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 portions which may from time to time be returned to civilian operation under the supervision of the Transportation Sub-Commission of the Allied Commission.

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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

Adjutant General

Declassified E.O. 12356 Section 3.3/NND No. 785015

ANNEX C

ALLIED FORCE HEADQUARTERS

APO 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 control* are laid down in Administrative Memorandum No. 13, this headquarters, dated 20 Oct 1942. 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. These 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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4. The responsibilities of the Director General, Military

Declassified E.O. 12356 Section 3.3/NND No. 785015

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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 control* are laid down in Administrative Memorandum No. 13, this headquarters, dated 10 Oct 1942. 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 (FLANBO) are given in Administrative Memorandum No. 67 this headquarters, cs. In this directive, FLANBO 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 FLANBO 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, cs.

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 "P". (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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civilian administration under the supervision of the Transportation Section, Allied Military Government, or the Internal Transportation Sub-Commission. (Reference is made to paragraph 1, General Orders No. 60, this headquarters, as).

6. In those parts of Italian territory where the railways are under the control of the Allied Forces, through their Movements and Transportation organizations the Internal Transportation Sub-Commission will detail personnel to be attached to the appropriate Military Movements and Transportation organizations. Such personnel of the Internal Transportation Sub-Commission will be commanded and administered through normal Allied Military Government or Allied Control Commission channels. Detailed allocation of staff will be made in accordance with direct arrangements between G-4 (Mov and Tn), this headquarters and the Internal Transportation Sub-Commission.

7. The responsibilities, so far as the subject of this directive is concerned of the personnel of the Transportation Sub-Commission referred to in paragraph 6 above, will be:

a. Liaison and cooperation with Movements and Transportation personnel of the Allied Military Forces.

b. To coordinate at the appropriate levels all demands made by the Allied Military Government, the Allied Control Commission and the Italian authorities, for movement designed to meet civil needs, and to establish relative priorities between those demands.

c. To represent such requirements to the Military Movements and Transportation staffs concerned, in order that those bids 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 Movement 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.

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[illegible], Allied Headquarters and the Internal Transportation Sub-Commission.

7. The responsibilities, so far as the subject of this directive is concerned of the personnel of the Transportation Sub-Commission referred to in paragraph 6 above, will be:

a. Liaison and cooperation with Movements and Transportation personnel of the Allied Military Forces.

b. To coordinate at the appropriate levels all demands made by the Allied Military Government, the Allied Control Commission and the Italian authorities, for movement designed to meet civil needs, and to establish relative priorities between those demands.

c. To represent such requirements to the Military Movements and Transportation staffs concerned, in order that these bids 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 Movement 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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Separate instructions will be issued as required.

By command of General EISENHOWER:

Ed. T. J. DAVIS,
Brigadier General, United States Army
Adjutant General.

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ANNEX D

Internal Transportation Sub-Commission, ACC
Attached Mov & Tn.,
AFHQ Advanced Administrative Echelon.

ACC Tn/3/4

10 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 meet 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 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.

Where 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 Car abinieri 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. 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 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

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21 to 30 December 43.
31 Dec to 9 Jan 44
10 Jan to 19 Jan 44
and so on

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Paras 6 (b) and (d) of Instruction No. 14. 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 AFHQ Adv. Adm. Sch., the allocation of the additional rail tonnage involved will be advised to the ACC or AMG 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 AMG officer responsible for making the bid and the appropriate Military Movements and Transportation office. (See App. B. of Instruction No. 14.

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In para 4 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. DISPOSITION AND FUNCTIONS OF ACC AND AMG TRANSPORTATION OFFICERS. Paras 8 (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. REGGIO	:	Capt. R.A. RYAN (A)
Mov. FOGGIE	:	Major W.R. BOWERS (B)
Mov. E. Italy BARI	:	(Major G.F. BUCKLEY (B) (Capt. S. HALL (A)
Mov. W. Italy) and) NAPLES Tn. P.B.S.)	:	Major W.N. VOIER (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.M. STREET (B)
HQ. Region 2	:	Major C.H. HOLLADAY (A) Capt. A.N. DE MARET (A)
HQ. Region 3	:	Duties to be covered by Major W.N. VOIER (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
AFHQ Adv. Adm. Echelon".

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4. DISTRIBUTION AND FUNCTIONS OF ACC AND AMG TRANSPORTATION OFFICERS. Paras 8 (e) 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. REGGIO	:	Capt. R.A. RYAN (A)
Mov. FOGGIE	:	Major V.R. EGYERS (B)
Mov. E. Italy BARI	:	(Major G.F. BUCKLEY (B) (Capt. S. HALL (A)
Mov. W. Italy) and) NAPLES Mn. F.R.S.)	:	Major W.N. YODER (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.

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HQ. Region 3	:	Duties to be covered by Major W.N. YODER (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
ACHQ Adv. Adm. Echelon".

Phone numbers:-

Colonel S.A. FITCH (Personal)	FLAMBO Extension 115
Officers	FLAMBO Extensions 251,250
Clerks	FLAMBO Extension 127

Telegraph Address:- MOV FLAMBO FOR FITCH

6. POINTS TO REMEMBER IN ARRANGING ALL RAIL MOVEMENTS.

(a) Railway rolling stock is in short supply. Railway wagons are not warehouses. Plan movements, therefore, so that prompt loading and unloading in relation to despatch and arrival are achieved. As a general principal no railway wagon should be kept under load prior to despatch or after arrival at destination for more than 12 hours.

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6 (contd)

(b) In planning the movement of large consignments do everything possible to arrange back loads to avoid empty 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 ACC or AMG consignments, particularly of foodstuffs, should also be guarded throughout, and it will be the responsibility of the ACC or AMG consignors to arrange guards or other security measures when considered to be necessary.

It will probably be found practicable to arrange for the local Carabinieri to provide the guards. As a further safeguard, arrangements should be made for railway wagons containing 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 HIGHWAY TRANSPORTATION TO AND FROM RAILWAY STATIONS. This will be the responsibility of the ACC and AMG 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 AMG officers concerned to arrange for the local civil authority to organize 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 organizations, including the number 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 RAIL 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 AMG and in respect of which no tariff charges to be paid:-

(i) Where Military Warrants (Forms AB 497a or 494a) suitably endorsed "ACC" or "AMG" 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 organizations.

(ii) where warrants are not being used the normal documentation procedure employed by the Italian Railway organization, with appropriate endorsements to show the agency for whom the traffic is being moved (ACC

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(ii) where warrants are not being used the normal documentation procedure employed by the Italian Railway organization, with appropriate endorsements to show the agency for whom the traffic is being moved (ACC or AMG) and that it is moving without payment of tariff charges, should be used.

(b) All rail movements referred to in (a) above should be carefully recorded by the ACC or AMG offices responsible for the arrangement for the movement.

(c) The requirements of (a) and (b) above have no application in respect of civil traffic moving on a commercial basis, under tariff charges. Such movements will be subject to the normal documentation and recording procedure of Italian Railway Administration.

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11. PERIOD FROM NOW UNTIL THE ORGANIZATION FOR OBTAINING RAIL MOVEMENT IS WORKING 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
MGS Adv. (2)
HQ. ACC. (Brindisi) (4)
HQ. AMG. (Palermo) (4)
HQ. AMG. (Naples) (4)
HQ. AMG. (Salerno) (4)
HQ. AMG. 15 Army Group Bari (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
DCMG (M)
D/COT
DGMPS
Mov East Italy
Mov West Italy
Mov Taranto
Mov Brindisi
Mov Bari
Mov Barletta
Mov Reggio
Mov Rd Ihead 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. AFHQ Administrative Instruction No. 14.

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Colonel,
Chief, of Internal Transportation Sub-Commission, A.C.C.

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HQ. ACC. (Brindisi) (4)
HQ. AMG. (Palermo) (4)
HQ. AMG. (Naples) (4)
HQ. AMG. (Salerno) (4)
HQ. AMG. 15 Army Group Bari (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
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Industry & Commerce
Public Works and Utilities
Fuel
Agriculture, Forestry & Fisheries
Labour
Interior
Public Safety
Postal Services

DISTRIBUTION FOR INFORMATION
DGMT (M)
D/CCT
DGMPS
Mov East Italy
Mov West Italy
Mov Taranto
Mov Brindisi
Mov Bari
Mov Barletta
Mov Reggio
Mov Rd lhead 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. AFHQ Administrative Instruction No. 14.

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ANNEX E

Internal Transportation Sub-Commission, ACC
c/o Mov & Tn.,
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. Amplificiations 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 facilitate the regulation of traffic, it has been decided by the Transportation Sub-Committee at AFHQ Adv Adm Echelon that a standard form of authorisation be adopted for the movement of all consignments despatched by ACC or AMG or 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 (e) 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 to date, is given below:-

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Internal Transportation Sub-Commission representatives

Capt A N De Maret (B)

Declassified E.O. 12356 Section 3.3/NND No. 785015

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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 facilitate the regulation of traffic, it has been decided by the Transportation Sub-Committee at AFHQ Adv Adm Echelon that a standard form of authorisation be adopted 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.

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373

Internal Transportation Sub-Commission representatives

Mov Reggio		Capt A N De Marat (B)
Mov Foggia		Major V R Bowers (B)
Mov E Italy Bari		Capt S Hall (A)
		Lieut Irvine Lynch (B)
Mov W Italy)		
and)	Naples	Major W N Yoder (A)
TN PBS)		
Region 2	Matera	Major C H Holleday (A)
Region 3	Naples	Major S L Baister (B)
ACC HQ	Brindisi	Capt A H Street (B)

Declassified E.O. 12356 Section 3.3/NND No. 785015

signed:
S. A. FITCH, Colonel
Chief of Internal Transportation Sub-Comm., ACC.

DISTRIBUTION:

MGS Adv. (2)
HQ ACC (Brindisi) (4)
HQ AMG (Palermo) (4)
HQ AMG (Naples) (4)
HQ AMG (Salerno) (4)
HQ ACC (Salerno) (4)
HQ AMG 15 Army Group, Bari (4)
AMG Supply & Economic 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
Foreign Trade
Industry & Commerce
Public Works and Utilities
Fuel
Agriculture, Forestry & Fisheries
Labour
Interior
Public Safety
Postal Services

Internal Transportation Sub-Commission representatives

Major W.R. Bowerst c/o Mov Foggia
Major W.N. Yoder
Major C.H. Holleday, c/o Region 2 Matera
Major S.L. Baister, c/o Region 3 Naples
Capt. A.N. de Maret, c/o Mov Reggio
Capt. S. Hall, c/o Mov E Italy, Bari
Capt. A.H. Street, HQ., ACC Brindisi
Lieut. Irvine Lynch, c/o Mov E Italy, Bari.

DISTRIBUTION FOR INFORMATION

DCMG (M)
D/COT
DCMPS
Mov E Italy
Mov W Italy
Mov Taranto
Mov Brindisi
Mov Bari
Mov Barletta
Mov Reggio
Mov Railhead Sub-Area
Mov Naples
Mov Naples
Mov Salerno
Mov Torre Annunziata
Mov Castellammare
Lt.Col. Wynne Davies
Gen. di Raimondo

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HQ AMG 15 Army Group, Bari (4)
AMG Supply & Economic 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
Foreign Trade
Industry & Commerce
Public Works and Utilities
Fuel
Agriculture, Forestry & Fisheries
Labour
Interior
Public Safety
Postal Services

Mov Brindisi
Mov Bari
Mov Barletta
Mov Reggio
Mov Railhead Sub-Area
Mov Naples
Mov Naples
Mov Palermo
Mov Torre Annunziata
Mov Castellammare
Lt.Col. Wynne Davies
Gen. di Raimondo

Internal Transportation Sub-Commission representatives

Major W.R. Bowerst c/o Mov Foggia
Major W.N. Yoder
Major C.H. Holladay, c/o Region 2 Matera
Major S.L. Baister, c/o Region 5 Naples
Capt. A.N. de Maret, c/o Mov Reggio
Capt. S. Hall, c/o Mov E Italy, Bari
Capt. A.H. Street, HQ., ACC Brindisi
Lieut. Irvine Lynch, c/o Mov E Italy, Bari.

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APPENDIX "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

3733

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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

3733

Signature of authorising officer _____
Designation _____
Date _____

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ANNEX F

BASIC SCHEDULE OF TRAINS FOR AMG/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
SICIGNANO - LAGONEGRO			Tri-weekly
AVELLINO - NOCERA			o) Bi-weekly
S.EUFEMIA - PATTITAGLIA			one daily
REGGIO - CATANZARO - METAPONTO - TARANTO		One daily	Tri-weekly
SIBARI - PAOLA			X) Tri-weekly
REGGIO - NICOTERA			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		
ALTAMURA - GRAVINA			Two daily
POTENZA - AVIGLIANO			Two daily

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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
SICIGNANO - LAGONEGRO			Tri-weekly
AVELLINO - NOCERA			°) Bi-weekly
S.EUFEMIA - BATTIPAGLIA			one daily
REGGIO - CATANZARO - METAPONTO - TARANTO		One daily	Tri-weekly
SIBARI - TACLA			X) Tri-weekly
REGGIO - NICOTERA			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		
ALTAMURA - GRAVINA			Two daily
POTENZA - AVIGLIANO			Two daily
POTENZA - CAVELLO			Tri-weekly
ATENA - MARSICO - NUOVO			Tri-weekly
LAGONEGRO - SPEZZANO			one daily

NOTE: °) Service to connect with the NAPLES - 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
APO 394

TRANSPORTATION FOR ACC & CIVILIAN FREIGHT - ITALIAN MAINLAND ONLY

Reference : ACC Tn/19/18
Date : 27 April '44.

ACC TN MEMORANDUM NO. 3.

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 25 April 44, to Adv. Adm. Echelon, AFHQ Administrative Instruction No. 14 dated 6 Dec 43.

(b) Revised control arrangements will be effective from 0001 hours 12 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, 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. 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 Acquefredda in Potenza Province
and (e) Rail line; Sapri to S. Nicolas Varco(near Battipaglia in Salerno Province
and (f) Rail line; Nova Siri to Pasilio(near Metaponto)in Matera Province.

II. Bari Division - Capo Compartimento at Bari.

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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 25 April 44, to Adv. Adm. Echelon, AFHQ Administrative Instruction No. 14 dated 6 Dec 43.

(b) Revised control arrangements will be effective from 0001 hours 12 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, 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. 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 Varco(near Battipaglia in Salerno Province
and (f) Rail line; Nova Siri to Basilio(near Metaponto)in Matera Province.

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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. (d) above.
and (l) Matera, except line noted as in para I. (f) above.
and (m) Foggia, except Troia & Bovino stations on Foggia-Benevento line, which are under Naples Division.
and (n) Rail line from Termoli north, along each 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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III. Naples Division - Capo Compartimento at Naples
Includes all of following Provinces:-
(q) Naples (r) Benevento (s) Avellino (t) Salerno-
except as noted in I. (e) above.
(u) Stations Troia & Bovino in Foggia Province, see para II(m) above.

4. Procedure for obtaining Movement of ACC Traffic (vide para 2 (a)).
Procedure is based on a "bidding system". The agency through which a bid is submitted is determined by railway sections over which goods must pass and geographical boundaries of the Italian railway divisions.
(a) Bid through HQ Transportation Sub-Commission, ACC.
(i) All traffic on the east to west routes via Potenza and via Foggia or vice versa.
(ii) All traffic between any two stations on the Naples (FSR) Division.
(iii) All traffic required to move from one FSR Division to another.
(iv) Bids will be submitted on form TSC/3 (copy attached), and will be made from despatching and, NOT receiving end. Where confirmation of requirement of commodity and ability to accept is necessary from receiving Region or ACC HQ, this must be obtained before bid is submitted.
(v) Bids from Regions will be passed through Regional Commissioner, or his delegated representative.
(vi) Sub-Commissions requiring movement will arrange for bids to be submitted by the ACC Officers in the Province from which the traffic will originate as laid down in para 4 (a) (iv).
(vii) Bids must reach Transportation Sub-Commission, ACC APO 394 not later than 0900 hours each FRIDAY; copy being sent to ACC Transportation Sub-Commission Officer concerned, where traffic originates in Reggio or Bari divisional areas.
(viii) Quantities of each bid, to be despatched commencing the following MONDAY week, must NOT exceed the amount which can be loaded within that seven-day period.
(ix) To avoid back logs, all accepted traffic should be despatched within the seven-day period for which it has been accepted. Any traffic not despatched, or if only part of bid is accepted, fresh bid must be made for balance, if movement is required.
(x) Acceptance or rejection of bids, i.e., decision of Transportation Sub-Committee, HQ, AAI, will be advised to each bidder as soon as possible. Originator's serial number of bid, as shown by him on Form TSC/3 will be used as reference.

(b) Bid through ACC Transportation Officers (Transportation Sub-Commission).
Reggio and Bari Area.
(i) Between any two stations in Bari (FSR) Division, including Sud-Est system, except those NW of Barletta or N of Rocchetta, and stations on routes named in sub-para 4 (a) (i) above.
(ii) Between any two stations in Reggio (FSR) Division.
Bids will be submitted to ACC Transportation Sub-Commission [illegible] Bari division), to

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(i) All traffic on the east to west routes via Potenza and via Foggia or vice versa.

(ii) All traffic between any two stations on the Naples (ISR) Division.

(iii) All traffic required to move from one ISR Division to another.

(iv) Bids will be submitted on form TSO/3 (copy attached), and will be made from despatching end, NOT receiving end. Where confirmation of requirement of commodity and ability to accept is necessary from receiving Region or ACC HQ, this must be obtained before bid is submitted.

(v) Bids from Regions will be passed through Regional Commissioner, or his delegated representative.

(vi) Sub-Commissions requiring movement will arrange for bids to be submitted by the ACC Officers in the Provinces from which the traffic will originate as laid down in para 4 (a) (iv).

(vii) Bids must reach Transportation Sub-Commission, ACC AFO 394 not later than 0900 hours each FRIDAY; copy being sent to ACC Transportation Sub-Commission Officer concerned, where traffic originates in Reggio or Bari divisional areas.

(viii) Quantities of each bid, to be despatched commencing the following MONDAY week, must NOT exceed the amount which can be loaded within that seven-day period.

(ix) To avoid back logs, all accepted traffic should be despatched within the seven-day period for which it has been accepted. Any traffic not despatched, or if only part of bid is accepted, fresh bid must be made for balance, if movement is required.

(x) Acceptance or rejection of bids, i.e., decision of Transportation Sub-Committee, HQ, AAI, will be advised to each bidder as soon as possible. Originator's serial number of bid, as shown by him on Form TSC/3 will be used as reference.

(b) Bid through ACC Transportation Officers (Transportation Sub-Commission).

Reggio and Bari Area.

(i) Between any two stations in Bari (ISR) Division, including Sud-Est system, except those NW of Barletta or N of Rocchetta, and stations on routes named in sub-para 4 (a) (i) above.

(ii) Between any two stations in Reggio (ISR) Division.

(iii) Bids will be submitted to ACC Transportation Sub-Commission Officer (Reggio or Bari, according to ISR Division), to reach him by 0900 hours each MONDAY, for consignments to be despatched during seven-day period commencing following Monday. Provisions of sub-paras 4 (a) (iv & v) will apply.

(iv) Bids will be collated by ACC Transportation Sub-Commission Officers. ACC Supply and other officers concerned will meet ACC Transportation Sub-Commission Officers on Monday and decide which bids are to be included in loading programme, and assess priorities. Programme will be framed within tonnage limits allocated by "Movements" (Military)

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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 ISR. 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 4 (a) & (b) and 5 will apply.

5. Procedure for obtaining Movement of Italian Civilian Freight Traffic (vide para 2 (b)).

(a) Civilian consignors will apply to local ISR 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 Monday meetings, at Reggio and Bari (or for Naples ISR Area by ACC Representative Region III), as referred under para 4 (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.

3731 (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.

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[illegible], Civil System, paras 4 (a) & (c) and 5 will apply.

5. Procedure for obtaining Movement of Italian Civilian Freight Traffic (vide para 2 (b)).

(a) Civilian consignors will apply to local ISR 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 Monday meetings, at Reggio and Bari (or for Naples ISR Area by ACC Representative Region III), as referred under para 4 (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.

373 (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.

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 Compartments.

(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"; [illegible] but all such wagons shall bear ACC official

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(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 Capo Compartimento.

(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).

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 commencingMONDAY 22 MAY44. As from that date, all outstanding freight traffic bids, whether ACC or civilien, and any unexecuted forms of authorisation become NULL and VOID. Therefore, all such traffic affected must be re-bid for in accordance with procedure outlined above.

By command of Lieutenant General MASON MACFARLANE:

L.E. VINING,
Lieut-Colonel,R.E.,
A/Director, Transportation Sub-Commission, A.C.C.

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L.E. VINING,
Lieut-Colonel,R.E.,
A/Director, Transportation Sub-Commission, A.C.C.

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ALLIED CONTROL COMMISSION - TRANSPORTATION SUB-COMMISSION

(See reverse for instructions) A.F.O. 394 FORM TSC/3

BID - REQUEST FOR TRANSPORTATION - BID

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 Port 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 _____

Off-loading station _____ Province _____

ACC (or AMG) 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:

3729 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 DETERMINE 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 certification.

CERTIFICATION

[illegible] shown; that Bid meets

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Consignor _____

ACC (or AMG) officer to contact _____

Has transportation to loading station and loading labour been arranged? _____

Loading station (precise R.R. station or Port 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 _____

Off-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:

3729

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 DETERMINE 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 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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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. Representative 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 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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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. Representative 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 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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DISTRIBUTION: A.F.H.Q., B.N.A.F.

A.F.H.Q., B.N.A.F.
Main H.Q., A.C.C. Naples
" " " " (Economic Section)
Rear H.W., A.C.C., Salerno
H.W., No. 1 District
H.Q., No. 2 District
H.Q., No. 3 District.
Commanding General, P.B.S.
H.Q., Region 1 Sicily
" " 2 Bari (15 for distribution to Prov. Supply Officers.)
" " 3 Naples (15) For distribution to Prov. Supply Officers.
" " 4 Naples (15) " " " " " " Inc. 5&8 Armies.
" " 5 Campobasso (15)
" " 6 Sardinia (2)
" " 7 Calabria (15)

Movements, H.Q., A.A.I., for distribution as under:- (25)

Mov E Italy
Mov W Italy
Mov Taranto
Mov Bari
Mov Barletta
Mov Brindisi
Mov Reggio
Mov Foggia
Mov A.A.I.
Mov Railhead Sub-Area (Vesto).
Mov Rear 8 Army
Mov Main 8 Army
Mov Crotone
Mov Torre Annunziata
Mov Castellamare
Mov Naples
Mov Salerno
Mov No. 3 District

Transportation Officer P.B.S., Naples
P.C.M.R.S. Naples (6)
Shipping Sub-Commission, A.C.C.
Food Sub-Commission, A.C.C. (4)
Industry & Commerce Sub-Commission, A.C.C. (4)
Public Works Sub-Commission, A.C.C. (4)
Agriculture Sub-Commission, A.C.C.(4)
Civilian Clothing Sub-Commission, A.C.C.(2)
Displaced Persons Sub-Commission, A.C.C.(2)
Education Sub-Commission, A.C.C.
Electric Power Sub-Commission, A.C.C.(2)
Finance Sub-Commission, A.C.C.
Industrial Planning Staff.
Labour Sub-Commission, A.C.C.
Legal Sub-Commission, A.C.C.
Monuments & Fine Arts Sub-Commission, A.C.C.
Operations & Security Intelligence.
Public Health Sub-Commission, A.C.C. (2)
Telecommunications & Postal Sub-Commission, A.C.C. (2)
Coal Section, H.Q., A.A.I. (Rear Admech)
Petroleum Section, H.Q., A.A.I. (Rear Admech). (2)
ACC Transportation Officer, c/o Mov Reggio (4)
Mov Foggia Sub-Area (4)
Mov Brindisi (4)
Mov East Italy (4)
Region 4 Naples
Region 6 Sardinia

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" " 2 Bari (15 for distribution to Prov. Supply Officers.)
" " 3 Naples (15) For distribution to Prov. Supply Officers.
" " 4 Naples (15) " " " " " " Inc.5&8 Armies.
" " 5 Campobasso (15)
" " 6 Sardinia (2)
" " 7 Calabria (15)

Movements, H.Q., A.A.I., for distribution as under:- (25)

Mov E Italy	Mov Railhead Sub-Area (Vesto).
Mov W Italy	Mov Rear 8 Army
Mov Taranto	Mov Main 8 Army
Mov Bari	Mov Crotone
Mov Barletta	Mov Torre Annunziata
Mov Brindisi	Mov Castellamare
Mov Reggio	Mov Naples
Mov Foggia	Mov Salerno
Mov A.A.I.	Mov No. 3 District

Transportation Officer P.B.S., Naples
D.G.M.R.S. Naples (6)
Shipping Sub-Commission, A.C.C.
Food Sub-Commission, A.C.C. (4)
Industry & Commerce Sub-Commission, A.C.C. (4)
Public Works Sub-Commission, A.C.C. (4)
Agriculture Sub-Commission, A.C.C.(4)
Civilian Clothing Sub-Commission, A.C.C.(2)
Displaced Persons Sub-Commission, A.C.C.(2)
Education Sub-Commission, A.C.C.
Electric Power Sub-Commission, A.C.C.(2)
Finance Sub-Commission, A.C.C.
Industrial Planning Staff.
Labour Sub-Commission, A.C.C.
Legal Sub-Commission, A.C.C.
Monuments & Fine Arts Sub-Commission, A.C.C.
Operations & Security Intelligence.
Public Health Sub-Commission, A.C.C. (2)
Telecommunications & Postal Sub-Commission, A.C.C. (2)
Coal Section, H.Q., A.A.I. (Rear Admech)
Petroleum Section, H.Q., A.A.I. (Rear Admech). (2)
ACC Transportation Officer, c/o Mov Reggio (4)
Mov Foggia Sub-Area (4)
Mov Brindisi (4)
Mov East Italy (4)
Region 4 Naples
Region 6 Sardinia

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Undersecretary of State for Italian Railways & Highways, Naples (4)

C.A.C. H.Q., A.A.I.	D.C.A.C. H.Q., A.A.I. (Rear Admech).
D.Q.M.G. (M) H.Q., A.A.I.	G-4 (4) " " "
"Q" (4) " "	D.C.C.T. (2) " "
	D.D. Tn.

H.Q., A.A.I. (3) (for favour of issue to AMG Armies).
H.Q., 8 Army.
Commanding General 5 Army
Lt.Col. O.H. Lindberg, (Tn. S.C. Representative at H.Q., A.C.C. Regional Palermo).

Declassified E.O. 12356 Section 3.3/NND No. 785015

ANNEX 1

HEADQUARTERS
ALLIED CONTROL COMMISSION
R.C. & M.G. SECTION
APO 394

Ref/142/4/CA

11 February 1944

SUBJECT: Organization and Operation of Road Haulage Transport

TO: HQ. Retion 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. Tptn. Sub-Commission so as to arrive later than 21 Febr. 1944.

NORMAN E. FISKE
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.

Declassified E.O. 12356 Section 3.3/NND No. 785013

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. Tptn. Sub-Commission so as to arrive later than 21 Febr. 1944.

NORMAN E. FISKE
Colonel, Cavalry,
Deputy Executive
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HEADQUARTERS
ALLIED CONTROL COMMISSION
INTERNAL TRANSPORTATION SUB-COMMISSION
APO 394

10 February 1944

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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 Boundry

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 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 (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 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 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 organisation, with provision for [illegible] as necessary, will be issued.

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(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) Fertilisers 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 (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 consignor (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 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 so 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 organization existing in his Province and assist them in re-establishing that organization in order that it may operate under his supervision.

(ii) Where no civilian Road Haulage organization 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 organization to handle Road Transport.

(iii) Through the civilian road haulage organization 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 garaged in one building; they can remain with their respective owners and still constitute a pool.

(iv) To ensure that the civilian road haulage organization established, under (i) or (ii) above, organizes 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 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 handed to consignor.
(c) One copy to be carried by the driver, signed by the consignee and returned by the driver to the transport organization.

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 advice to HQ. ACC (Internal Transportation Sub-Commission) as to their requirements.

(vii) Arrangements will be made with the appropriate authorities

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(ii) Where no civilian Road Haulage organization 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 organization 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 garaged in one building; they can remain with their respective owners and still constitute a pool.

(iv) To ensure that the civilian road haulage organization established, under (i) or (ii) above, organizes 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 section is necessary.

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(a) One copy to remain in the hands of the civilian transport organization.
(b) One copy to be handed to consignor.
(c) One copy to be carried by the driver, signed by the consignee and returned by the driver to the transport organization.

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 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 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 organization.

(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 organize these moves and utilize the most convenient Provincial Road Haulage Transport Organization or Organizations. The Regional Road Haulage Transport Control Officer, acting with the opposite numbers in adjacent regions, will establish thru-rates for inter-regional movements. (Regional officers may also establish inter-provincial thru-rates 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 organizations, 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., AFHQ, Advance Administration Echelon, 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; Cosenza 10 trucks; and Catanzaro 10 trucks (Region II); Naples area 80 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 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 [illegible] and from warehouses to distributing centres.

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will establish thru-rates for inter-regional movements. (Regional officers may also establish inter-provincial thru-rates 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.

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(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 organizations, 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., AFHQ, Advance Administration Echelon, 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; Cosenza 10 trucks; and Catanzaro 10 trucks (Region II); Naples area 30 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.

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(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 organizations, as outlined in para. I, 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 organization 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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ANNEX I

MINISTRY OF COMMUNICATIONS

Rome, Aug. 12th, 1944
N. U. L.

SUBJECT: Interministerial Decree May 31th, 1944.
Official Gazzette No. 44 of 8 Aug. 44

TO : All Prefects

The charges for motor freight haulage have been fixed by Inter-Ministerial decree published upon the Official Gazzette of 8 August 1944.

Said charges appear upon two tables attached to the above decree and they are intended for indivisable 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/ GERASOMA

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. 1456, reporting regulations on prices of non-alimentary products and sources,

having seen the Min[illegible]

Declassified E.O. 12356 Section 3.3/NND No. 785015

[illegal] and ministerial decree of 8 August 1941.

Said charges appear upon two tables attached to the above decree and they are intended for indivisable 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/ CERASCNA

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. 1456, 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,

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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The present decree becomes effective the day of its publication in the Official Gazette of the Kingdom, special series.

Palermo, May 31, 1944

The Minister of Industry, Commerce and Labor di Napoli

The Minister of Communications

Motor Freight haulage rates at full load for freight to be transported on loading platform of the truck. (One loading, one unloading.)

Tariff charge is by indivisible quintal, (income tax and transportation tax not included).

TABLE 1

Distance in Kms.			Truck & Trailers		Trucks			Motor-cycles	
			Heavy	Medium	Heavy	Medium	Light	Van	Tri-cars
Fr.	1	to 5	8.70	9.85	11.00	12.15	15.95	15.05	23.75
"	6	" 10	9.25	10.45	12.15	13.60	23.20	21.45	42.15
"	11	" 15	10.15	11.60	13.35	15.05	30.45	27.80	60.25
"	16	" 20	12.15	14.80	15.95	19.10	37.65	34.20	78.55
"	21	" 30	15.05	17.95	20.00	24.35	52.15	46.95	115.05
"	31	" 40	18.55	21.75	24.90	29.85	66.65	59.20	
"	41	" 50	22.30	26.65	32.15	36.50	81.15	72.45	
"	51	" 60	24.35	32.45	34.80	44.65			
"	61	" 70	26.35	36.50	37.45	50.15			
"	71	" 80	28.40	40.55	40.00	55.65			
"	81	" 90	30.45	44.65	42.60	61.15			
"	91	" 100	32.45	48.70	45.20	66.65			
"	101	" 110	34.50	" "	47.80	" "			
"	111	" 120	36.50	" "	50.40	" "			
"	121	" 130	38.55	" "	53.00	" "			
"	131	" 140	40.60	" "	55.85	" "			
"	141	" 150	42.50	" "	58.25	" "			
Beyond 150 Kms per Km quint. whole distance			£0,2833 for the covered						
Beyond 100 Kms per Km quint. whole distance			£0,1870 for the covered						
Beyond 150 Kms per km quint. whole distance			£0,3886 for the covered						
Beyond 100 Kms per Km quint. whole distance			£0,6665 for the covered						
Beyond 50 Kms per Km quint. whole distance			£1,523 for the covered						
Beyond 50 Kms per Km quint. whole distance			£1,449 for the covered						
Beyond 30 Kms per Km quint. whole distance			£3,635 for the covered						

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Motor Freight haulage rates at full load for freight to be transported on loading platform of the truck. (One loading, one unloading.)

Tariff charge is by indivisible quintal, (income tax and transportation tax not included).

TABLE 1

Distance in Kms.	Truck & Trailers		Trucks			Motor-cycles	
	Heavy	Medium	Heavy	Medium	Light	Van	Tri-cars
Fr. 1 to 5	8.70	9.85	11.00	12.15	15.95	15.05	23.75
" 6 " 10	9.25	10.45	12.15	13.60	23.20	21.45	42.10
" 11 " 15	10.15	11.60	13.35	15.05	30.45	27.80	60.25
" 16 " 20	12.15	14.80	15.95	19.10	37.65	34.20	78.55
" 21 " 30	15.05	17.95	20.00	24.35	52.15	46.95	115.05
" 31 " 40	18.55	21.75	24.90	29.85	66.65	59.20	-
" 41 " 50	22.30	26.65	32.15	36.50	81.15	72.45	-
" 51 " 60	24.35	32.45	34.80	44.65	-	-	-
" 61 " 70	26.35	36.50	37.40	50.15	-	-	-
" 71 " 80	28.40	40.55	40.00	55.65	-	-	-
" 81 " 90	30.45	44.65	42.60	61.15	-	-	-
" 91 " 100	32.45	48.70	45.20	66.65	-	-	-
" 101 " 110	34.50	-	47.80	-	-	-	-
" 111 " 120	36.50	-	50.40	-	-	-	-
" 121 " 130	38.55	-	53.00	-	-	-	-
" 131 " 140	40.60	-	55.65	-	-	-	-
" 141 " 150	42.50	-	58.25	-	-	-	-
Beyond 150 Kms.	£0,2833 per Km quint. for the whole distance covered						
Beyond 100 Kms	£0,4670 per Km quint. for the whole distance covered						
Beyond 150 Kms	£0,3886 per Km quint. for the whole distance covered						
Beyond 100 Kms	£0,6665 per Km quint. for the whole distance covered						
Beyond 50 Kms	£1,923 per Km quint. for the whole distance covered						
Beyond 50 Kms	£1,442 per Km quint. for the whole distance covered						
Beyond 30 Kms	£3,835 per Km quint. for the whole distance covered						

Payment for empty return trips can be made only if said empty return has been duly authorised by appropriate authorities and if this can be proved by showing the trip ticket.

Only under the above conditions will empty return trips be paid for and then in accordance with the above charges less 40%.

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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 indivisable 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	6.60	7.40	8.15	10.70	10.10	15.95
" 6 " 10	6.20	7.00	8.15	9.55	15.55	14.49	28.25
" 11 " 15	6.80	7.80	8.95	10.10	20.45	18.55	40.45
" 16 " 20	8.15	9.95	10.70	12.80	25.25	22.95	52.70
" 21 " 30	10.10	12.05	13.40	15.35	35.00	31.50	77.00
" 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	46.60	-

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	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 30 quintals
Medium truck and trailer- " " " " " up to 30 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.

...set out in Table I are applied.

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Distance in Kms.	Truck & Trailers		Trucks			Motor-cycles	
	Heavy	Medium	Heavy	Medium	Light	Van	Tri-cars
Fr. 1 to 5	5.85	6.60	7.40	8.15	10.70	10.10	15.95
" 6 " 10	6.20	7.00	8.15	9.55	15.55	14.40	28.25
" 11 " 15	6.80	7.80	8.95	10.10	20.45	18.55	40.45
" 16 " 20	8.15	9.95	10.70	12.80	25.25	22.95	52.70
" 21 " 30	10.10	12.05	13.40	15.35	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	48.60	-

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	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.

3. Whenever, because of the nature of the freight or for other reasons, the entire load capacity of the vehicle cannot be utilized or 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 I will be applied reduced by 40%.

7. When the vehicle carries freight belonging to several persons with varied 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 quintal kms 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:

L. 150 - for heavy truck and trailer
" 85 - " medium " " "
" 70 - " heavy trucks
" 40 - " medium "
" 25 - " light "

9. The length of the service must be calculated 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 Gazzette; in the other cases the contracts will be valid until one month after said publication.

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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:

L. 130 - for heavy truck and trailer
" 65 - " med'm " " "
" 70 - " heavy trucks
" 40 - " medium "
" 25 - " light "

9. The length of the service 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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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	4	148	500	39
Flour	14	644	1,380	147
Flour (other kinds)	3	127	280	60
Potatoes	8	135	1,420	111
Meat & Livestock	1	6	400	31
Poultry	2	45	820	64
Eggs	2	75	900	70
Fish (fresh & tinned)	34	274	4,910	383
Vegetables & Fruits	115	3,819	31,734	2,479
Fruit	14	447	3,230	252
Wine	2	110	1,430	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	1,541	12,658	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	659	18,[illegible]10	118,006	9,269

\+ 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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Flour	14	644	1,880	60
Flour (other kinds)	3	127	880	111
Potatoes	8	135	1,420	31
Meat & Livestock	1	6	400	64
Poultry	2	45	820	70
Eggs	2	75	900	383
Fish (fresh & tinned)	34	274	4,910	2,479
Vegetables & Fruits	115	3,819	31,734	252
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Various Foodstuffs	9	436	2,300	659
Wood	41	1,825	8,430	989
Charcoal	47	1,541	12,658	219
Liquid Fuel & Lubricants	7	545	2,800	535
Various	30	1,086	6,854	11
Towing (breakdown)	1	50	140	2,742
Various (Rome area)++	323	6,713	35,100	
Totals	659	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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ANNEX K

LEGISLATIVE LIEUTENANCY DECREE DRAFT
ESTABLISHMENT OF THE NATIONAL AGENCY MOTOR TRANSPORTATION OF GOODS
(E.N.A.C.)

UMBERTO OF SAVOIA PRINCE OF PIEMONTE
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 2/8 and successive modifications;
Having seen the deliberation of theCouncil of Ministers;
Upon the proposal of the Minister Secretary of State for Communications;

WE HAVE SANCTIONED AND PROMULGATE THE FOLLOWING:

Art. 1

For coordination of motor transportation fo 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 scope, 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, motorcars 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 inscribed of the Ente, authorizations, revokable 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 [illegible] a written statement to the office of the Ente and to entrust to the same Ente the

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Having seen the deliberation of the Council of Ministers:
Upon the proposal of the Minister Secretary of State for Communications:

WE HAVE SANCTIONED AND PROMULGATE THE FOLLOWING:

Art. 1

For coordination of motor transportation of 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.

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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.

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372 The Ministry of Communications, however, has the option to release to the inscribed of the Ente, authorizations, revokable 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 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 Inspecturates 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, if the latter~~ entails transportation affecting more than two Compartments.

It is up to above mentioned bodies to establish the order of precedance for transportation to ~~be effected and to request the Directorate~~ of the E.N.A.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 counsel 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 aporove 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 Gazzette 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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We order to whosoever be 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 Autotransportation of Goods (E.N.A.C.) is instituted under the surveillance of the Ministry of Communications General Inspectorate for Civilian motorization and/for Transportation 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 responsability of the others and of the Ente itself.

Art. III

The Ente has the following aims:

a. To have affected 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 menneras 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, 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.)

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.

Art. V

...tion of the Ente isestablished for six months after the conclusion of the ...communications.

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a. To have effected promptly by its own members, all and only those movements which are requested of it by the authority concerned.

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c. To coordinate themovements in such manneres to avoid as much as possible incomplete loadings andempty return trips.

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e. To provide for the distribution of fuel, lubricants, tiresand spare parts among the members, according to the methods imparted.

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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.

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, autotrains 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, autovehiclesof the above mentioned categories for the transport of goods, are members of the Ente.

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Art. VII

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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a. To carry out promptly all and only those lifts ordered by the Ente.
b. To observe closely the general conditionsof 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 theEnte 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 thefollowing 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

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 della Motorizzazione Civile e dei Trasporti".
One representative of the Ministry 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 specid administretion of theEnte 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 Minister of Communications in agreement with the Minister 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 theexamination 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 della Motorizzazione Civile e dei Trasporti in Concessione".

g. It delibberates 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

TheBoard is presided over by the Presidentor Vice President.

For deliberations to be veilid, 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 themeeting of the Board.

Art. XVI

THE PRESIDENT.- The Presidency of the Board of Directors is given to the Minister of Communications or by hisdelegation to the Under Secretary of Stateor 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 theEnte;
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

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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 della Motorizzazione Civile e dei Trasporti in Concessione".

g. It deliberates upon any other subject relative to the organization and development of the Ente.

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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 ofordinary 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 two by the Minister of Finance. The Minister 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 Provinces 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 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 Transprt under Concession.

f. To enforce the provisions of the Compartmental Inspectorates of Civilian

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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 these 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 Transprt under Concession.

f. To enforce the provisions of the Compartmental Inspectoratesof 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 estabilize 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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c. 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.

d. Promotes and favors types of collective insurance against civil responsibility, damages, thefts, fires of rolling stock and the goods transported.

e. Coordinates the activity of the individual services and superintends the general operation of the Ente and its technical functioning.

f. 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 andthe 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 R.A.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
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 completly aoutonomous, except for the powers

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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

3715 The administration of the Ente is completly acutonomous, 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 responsability 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 theadministration 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 inscrited, in cases provided by Art. 10, have enstrusted the administration of the vehicles to the Ente, this latter is responsible for any violations.

For such purpose the Ente and be inscribed shall sover with insurance the risk of transportation for that part which respectively concerns them.

Art. XXIX

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

STATEMENT

Art. XXX

The first fiscal year shall terminate June 30, 1945.

The financial statement must be:

a. Reviewed by the Supervisors within one month from the close of the fiscal year,
b. Approval 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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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 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 these 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 Southen Italy and disparities 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 too high rate charges will be eliminated.

5. The Senior Civil Affairs Officer should contact at the earliest the Ispettorato della Motorizzazione under Concessione (road section of the Ministry of Communications) and such other consorzils 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 Allied, 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 and 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 shouldbe 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 to load capacity or specially adapted vehicles). In the case of the latter the permit to circulate should indicate on it what type of work thevehicle is to do.

7. In order not to immobilize all vehicles at one it is suggested that the [illegible] Trasporti should prepare an order for the [illegible]

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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 licenzed 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 isonly in order to bring under Ufficio Trasporti control those vehicles that AMG has not been able to immediately contract and issue permits and work tickets to.

8. After certain or all capacities 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 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 Court and the Ufficio Trasporti should have a reserve pool of drivers to keep the vehicles rolling in the meanwhile.

9. The Ufficio Trasporti di

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9. The Ufficio Trasporti shouldpromptly organize 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 undertaiken 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 Lire 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 C.I.P. in thecity, 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 C.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. Theorder should state furthermore that the people who receive permits to use these vehicles cannot sell the vehicles.

NOTE: 13. SPARE PARTS, Tools and Equipment: (1) Automobile Manufactu

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, lug 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 charges etc. should also be listed and frozen.

c. List of spare parts, tools and equipment showing names and addresses of garage etc. where they are stored should be forwarded immediately to the:

Transportation Sub-Commission, (Supply Officer)
Hq. ASC.

Should a particularly large stock be found, a signal should be sent stating name, address and nature of spares so that action may be taken to inspect the stock and re-

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Should a particularly large stock be found, a signal should be sent stating name, address and nature of spares so that action may be taken to inspect the stock and remove if considered advisable.

d. A list of the depots of Fiat and Lancia also the agents in the principal towns in Occupied Italy is attached.

GARAGES.- All the principal garages should be requisitioned at once. This has been overlooked to often in the past and valuable maintenance facilities are turned into troop billets, storage depots etc., leaving ACC no suitable place to repair vehicles. Not only does ACC need these garages but all personnel and tools and equipment. These should be organized and put to work on ACC vehicles as soon as this can be arranged.

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ANNEX L

SHIPPING

ALLIED FORCE HEADQUARTERS

AP O 512

AG 563/051 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 MEDBO, 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 varied only on the recommendation of the MEDITERRANEAN SHIPPING BOARD.

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SUBJECT : [illegible]

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 MEDBO, 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 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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d. Whenever any of the controlling authorities, detailed in paragraph 3, is unable to employ its allocation fully and economically, the authority concerned will:

1. When tonnage is temporarily surplus to its requirements, offer the surplus lift to the other authorities.

2. When tonnage becomes permanently surplus, return the surplus lift 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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By command of General WILSON:

/s/ R. H. CHRISTIE
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Acting Adjutant General

Declassified E.O. 12356 Section 3.3/NND No. 785015

Declassified E.O. 12356 Section 3.3/NND No. 785015

MISSING ISSUES
NOT AVAILABLE

FILMED AS FOUND
IN COLLECTION

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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)			Total Population (000)			Bread Ratio
	Dec. 41 (1)	Feb. 44 (2)	Aug. 44 (2)	Dec. 41 (2)	Feb. 44 (2)	Aug. 44 (2)	Dec.
Sicily	2,935	3,325	3,324	4,231	4,281	4,276	
Sardinia	790	862	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	2,180	2,946	2,879	2,830	
" 3 (Naples)	3,200	3,612	3,343	3,868	4,040	3,946	
Total - Sicily, Sardinia & Mainland south of Naples-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 (Abrazzi, Marche)	1,230		1,526	2,573		2,544	
" 8 (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 figures represent average for period from 1 October, 1941 through December, 1941 total population represents total resident population as of 31 December 1941 per Zon

(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 Apus

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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	1,714	1,600	1,897	1,926	1,926	74	91	83
	2,117	2,498	2,180	2,946	2,879	2,830	71	87	77
	3,200	3,612	3,343	3,868	4,040	3,946	83	89	84
Sardinia	10,448	12,041	11,345	14,076	14,268	14,176	74	84	80
th of rthern									
	381		360	571	572	560	67		64
	132		195	414	404	390	32		50
	2,877		3,130	3,757		4,020	76		78
,Marche)	1,230		1,526	2,573		2,544	48		60
	1,491		1,614	2,305		2,305	65		70
Sardinia	16,559		18,170	23,696		23,995	70		76
th of ne									

l bread ration cards figuresrepresent average for period from 1 October, 1941 through 31 March 1942.
l total population represents total resident population as of 31 December 1941 per Zone Handbooks.

based on data furnished by Allied regional representatives.

sed herein includes only provinces south of Pisa-Rimini line; Lucca, Pistoia, and Apuania are omitted.

TABLES 2-14

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. Containers 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 yet been received (19 August 1944) and therefore it has not been possible to complete stocks or consumption figures for July.

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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. Containers 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.

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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 reportsincluding not only supplies in Economics & Supply Division warehouses but also estimated suppliesin 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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5. By reason of above facts the figuresfor 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 suppliesin 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, andApparent Consumption
For Year Ended 31 July 1944

(Metric Tons - Net)

Period	Mainland	Sicily	Sardinia	Total
	Imports (1)			
Aug.-Dec. '43	5,560	2,625	1,755	9,940
Jan.-Mar. '44	62,601	27,539	11,928	102,068
April '44	25,273	4,087	-	29,360
May '44	54,152	6,096	7,612	67,860
June '44	43,500	-	-	43,500
July '44	18,801	9,243	8,447	36,491
TOTAL	209,887	49,590	29,742	289,219

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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.

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(Metric Tons - Net)

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TABLE 2

WHEAT

Imports, Reported Stocks, andApparent Consumption
For Year Ended 31 July 1944

(Metric Tons - Net)

Period	Mainland	Sicily	Sardinia	Total
	Imports (1)			
Aug.-Dec. '43	5,560	2,625	1,755	9,940
Jan.-Mar. '44	62,601	27,539	11,928	102,068
April '44	25,273	4,087	-	29,360
May '44	54,152	6,096	7,612	67,860
June '44	43,500	-	-	43,500
July '44	18,801	9,243	8,447	36,491
TOTAL	209,887	49,590	29,742	289,219

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TABLE 2 - Continued: Reported Stocks (1)

Period	Mainland	Sicily	Sardinia	Total
31 March	2,384	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	59,717	14,081	11,928	85,726
April	'44	9,375	10,712	-	20,087
May	'44	51,137	9,934	(854)	60,217
June	'44	47,585	2,535	7,904	58,024
July	'44	33,012	9,278	709	42,999
TOTAL		206,386	49,165	21,442	276,993

(1) See Statement of General Qualifications and Sources of Data preceeding 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	43,690	16,014	147,749
April '44	17,069	7,727	1,887	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

1944 Reported Stocks (1)

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	3,064	65		

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Jan.-Mar.	'44	59,717	14,081	1,755	9,940
April	'44	9,375	10,712	11,928	85,726
May	'44	51,137	9,934	-	20,087
June	'44	47,585	2,535	(854)	60,217
July	'44	33,012	9,278	7,904	58,024
				709	42,999
	TOTAL	206,386	49,165	21,442	276,993

(1) See Statement of General Qualifications and Sources of Data preceeding 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	43,630	16,014	147,749
April	'44	17,069	7,727	1,887	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	29,821	19,534	8,555	51,910
31 May	26,547	7,076	2,000	35,623
30 June	9,064	65	36	9,165
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	16,683	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 Qualifcations and Sources of Data preceeding 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	82,135
Jan.-Mar.	'44	144,446	68,415	26,749	239,610
April	'44	39,815	11,405	1,887	53,107
May	'44	63,735	6,995	6,851	77,581
June	'44	47,468	-	-	47,468
July	'44	24,968	8,319	7,602	40,889
	TOTAL	365,796	125,088	49,907	540,790
			Reported Stocks (1)		
1944					
31 March		29,399	40,602	8,935	78,936
30 April		40,725	25,684	8,555	74,964
31 May		46,164	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	45,364	29,954	6,818	82,135
Jan.-Mar.	'44	115,047	27,813	17,814	160,674
April	'44	28,489	26,323	2,267	57,079
May	'44	58,296	22,908	5,787	86,991
June	'44	68,627	9,292	9,077	86,996
July	'44	36,023	8,080	674	44,778
	TOTAL	351,846	124,370	42,437	518,653

(1) See Statement of General Qualifcations 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 abovesn this exhibit.

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July	'44	47,468		"		77,581
	'44	24,968		8,319	7,602	47,468
	TOTAL	365,796		125,088	49,907	40,889
						540,790

Reported Stocks (1)

1944

31 March	29,399	40,602	8,935		78,936
30 April	40,725	25,684	8,555		74,964
31 May	46,164	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	45,364	29,954	6,818		82,135
Jan.-Mar.	'44	115,047	27,813	17,814		160,674
April	'44	28,489	26,323	2,267		57,079
May	'44	58,296	22,908	5,787		86,991
June	'44	68,627	9,292	9,077		86,996
July	'44	36,023	8,080	674		44,778
	TOTAL	351,846	124,370	42,437		518,653

(1) See Statement of General Qualifcations 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	11,887	3,781	761	16,429
April '44	5,815	1,632	1,241	8,688
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	7,388	1,456	108	8,952
30 April	11,222	4,797	32	16,051
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 (1)		
Aug.-Dec. '43	2,232	108	-	2,340
Jan.-Mar. '44	4,499	2, 325	653	7,477
April '44	1,991	(1,709)	1,317	1,589
May '44	(451)	3,910	(415)	3,044
June '44	574	(720)	174	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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April	'44	5,815	1,682	1,241	8,6[illegible]
May	'44	2,867	993	577	4,437
June	'44	-	-	-	-
July	'44	-	-	-	-
	TOTAL	22,801	6,514	2,579	31,694

Reported Stocks (1)

1944

31 March	7,388	1,456	108	8,952
30 April	11,222	4,797	32	16,051
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 (1)

Aug.-Dec.	'43	2,232	108	-	2,340
Jan.-Mar.	'44	4,499	2,325	653	7,477
April	'44	1,961	(1,709)	1,317	1,589
May	'44	(451)	3,910	(415)	3,044
June	'44	574	(120)	174	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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TABLE 6

MILK

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	969	881	17	1,867
Jan.-Mar. '44	2,330	820	205	3,355
April '44	291	12	88	391
May '44	739	115	33	887
June '44	1,153	-	15	1,168
July '44	1,264	-	25	1,189
TOTAL	6,646	1,828	383	8,857
1944		Reported Stocks (1)		
31 March	2,794	353	36	3,183
30 April	2,369	929	259	3,557
31 May	2,414	830	108	3,352
30 June	2,832	640	186	3,458
31 July	2,598	390	186	3,174
		Apparent Consumption (1)		
Aug.-Dec. '43	969	881	17	1,867
Jan.-Mar. '44	(464)	467	169	172
April '44	716	(564)	(135)	17
May '44	694	214	184	1,092
June '44	935	190	(63)	1,062
July '44	1,198	250	25	1,473
TOTAL	4,048	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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Period	Mainland	Sicily	Sardinia	Total
Imports (1)				
Aug.-Dec. '43	969	881	17	1,867
Jan.-Mar. '44	2,330	820	205	3,355
April '44	291	12	88	391
May '44	739	115	33	887
June '44	1,153	-	15	1,168
July '44	1,264	-	25	1,189
TOTAL	6,646	1,828	383	8,857
1944				
Reported Stocks (1)				
31 March	2,794	353	36	3,183
30 April	2,369	929	259	3,557
31 May	2,411	830	108	3,352
30 June	2,832	640	186	3,458
31 July	2,598	390	186	3,174
Apparent Consumption (1)				
Aug.-Dec. '43	969	881	17	1,867
Jan.-Mar. '44	(464)	467	169	172
April '44	715	(564)	(135)	17
May '44	694	214	184	1,092
June '44	935	190	(63)	1,062
July '44	1,198	250	25	1,473
TOTAL	4,048	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.

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(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) Caloric 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	128

(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	539	5,495
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	5,347	1,943	7	7,297
30 April	6,103	3,460	28	9,591
31 May	7,696	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	2,802	(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 preceeding Table 2.

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Imports (1)

Aug.-Dec.	'43	1,488	-	-	1,488
Jan.-Mar.	'44	11,759	3,381	625	15,765
April	'44	4,041	915	539	5,495
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	5,347	1,943	7	7,297
30 April	6,103	3,460	28	9,591
31 May	7,696	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	2,802	(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 8

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	-	5,519	101	5,620
Jan.-Mar. '44	14,589	386	203	15,172
April '44	-	-	-	-
May '44	6,349	-	202	6,551
June '44	-	-	-	-
July '44	-	-	-	-
TOTAL	20,932	5,905	506	27,343
Reported Stocks (1)				
1944				
31 March	5,324	904	-	6,728
30 April	5,280	215	104	5,499
31 May	9,564	527	30	10,121
30 June	5,237	520	12	5,769
31 July	3,569	500	14	4,083
Apparent Consumption (1)				
Aug.-Dec. '43	-	5,519	101	5,620
Jan.-Mar. '44	8,759	(513)	203	8,444
April '44	644	689	(104)	1,229
May '44	1,965	(312)	276	1,929
June '44	4,327	7	18	4,352
July '44	1,668	23	(2)	1,686
TOTAL	17,363	5,405	492	23,260

(1) See Statement of General Qualifications and Sources of Data preceding Table 2.

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Aug.-Dec.	'43	-	5,519	101	5,620
Jan.-Mar.	'44	14,583	386	203	15,172
April	'44	-	-	-	-
May	'44	6,349	-	202	6,551
June	'44	-	-	-	-
July	'44	-	-	-	-
TOTAL		20,932	5,905	506	27,343

Reported Stocks (1)

1944				
31 March	5,824	904	-	6,728
30 April	5,280	215	104	5,499
31 May	9,564	527	30	10,121
30 June	5,237	520	12	5,769
31 July	3,569	500	14	4,083

Apparent Consumption (1)

Aug.-Dec.	'43	-	5,519	101	5,620
Jan.-Mar.	'44	8,759	(518)	203	8,444
April	'44	644	689	(104)	1,229
May	'44	1,965	(312)	276	1,929
June	'44	4,327	7	18	4,352
July	'44	1,668	20	(2)	1,686
TOTAL		17,363	5,405	492	23,260

(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 Year 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	717	6,645
May	'44	5,761	1,210	366	7,337
June	'44	3,592	-	-	3,592
July	'44	4,371	-	-	4,371
	TOTAL	24,906	5,362	1,083	31,351
1944			Reported Stocks (1)		
31 March		3,185	5,525	-	8,710
30 April		5,251	-	-	5,251
31 May		7,613	3,490	132	11,235
30 June		10,021	3,500	437	13,948
31 July		11,055	2,465	297	13,817
			Apparent Consumption (1)		
Aug.-Dec.	'43	-	-	-	-
Jan.-Mar.	'44	3,057	(2,361)	-	696
April	'44	2,874	6,513	717	10,104
May	'44	3,399	(2,280)	234	1,353
June	'44	1,194	(10)	(305)	879
July	'44	3,327	1,035	140	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. 4 group comprises meat and vegetable stew, hash, and

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Period		Mainland	Sicily	Sardinia	Total
			Imports(1)		
Aug.-Dec.	'43	-	-	-	-
Jan.-Mar.	'44	6,242	3,164	-	9,406
April	'44	4,940	988	717	6,645
May	'44	5,761	1,210	366	7,337
June	'44	3,592	-	-	3,592
July	'44	4,371	-	-	4,371
	TOTAL	24,906	5,362	1,083	31,351
1944			Reported Stocks (1)		
31 March		3,185	5,525	-	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		11,055	2,465	297	13,817
			Apparent Consumption (1)		
Aug.-Dec.	'43	-	-	-	-
Jan.-Mar.	'44	3,057	(2,361)	-	696
April	'44	2,874	6,513	717	10,104
May	'44	3,399	(2,280)	234	1,353
June	'44	1,194	(10)	(305)	879
July	'44	3,327	1,035	140	4,502
	TOTAL	13,851	2,897	786	17,534

(1) See Statement of General Qualific ations 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	2,080	207	1,129	3,416
May	'44	3,070	454	113	3,637
June	'44	1,281	-	-	1,281
July	'44	2,058	-	-	2,058
TOTAL		8,489	661	1,242	10,392
		Reported Stocks (1)			
1944					
31 March		-	-	-	-
30 April		632	-	-	632
31 May		4,305	319	433	5,057
30 June		3,982	630	192	4,804
31 July		4,966	420	205	5,591
		Apparent Consumption (1)			
Aug.-Dec.	'43	-	-	-	-
Jan.-Mar.	'44	-	-	-	-
April	'44	1,448	207	1,129	2,784
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	1,037	4,801

(1) See Statement of General Qualifications and Sources of Data preceeding Table 2.

(2) "Meats" group comprises pork luncheon meat, sausage, and corned beef.

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Jan.-Mar.	'44	-	-	-	-
April	'44	2,080	207	1,129	3,416
May	'44	3,070	454	113	3,637
June	'44	1,281	-	-	1,281
July	'44	2,058	-	-	2,058
TOTAL		8,489	661	1,242	10,392

Reported Stocks (1)

1944				
31 March	-	-	-	-
30 April	682	-	-	682
31 May	4,305	319	433	5,057
30 June	3,982	630	192	4,804
31 July	4,966	420	205	5,591

Apparent Consumption (1)

Aug.-Dec.	'43	-	-	-	-
Jan.-Mar.	'44	-	-	-	-
April	'44	1,448	207	1,129	2,784
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	1,037	4,801

(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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TABLE 11

CHEESE

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		183	-	-	183
		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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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	183	-	-	183

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 preceeding 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	789	1,104	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	2,546	1,243	-	3,589
Jan.-Mar. '44	789	957	21	1,767
April '44	(372)	(6,538)	31	(6,879)
May '44	1,057	5,414	-	6,471
June '44	(660)	611	-	(49)
July '44	61	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	2,343	1,243	-	3,589
Jan.-Mar.	'44	789	1,104	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

Apperent Consumption (1)

Aug.-Dec.	'43	2,346	1,243	-	3,589
Jan.-Mar.	'44	789	957	21	1,767
April	'44	(372)	(6,538)	31	(6,879)
May	'44	1,057	5,414	-	6,471
June	'44	(660)	611	-	(49)
July	'44	61	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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TABLE 13

SUMMARY OF SUBSISTENCE IMPORTS (1)

For Year Ended 31 July 1944

(Metric Tons - Net)

Commodity	Mainland	Sicily	Sardinia	Total
Wheat	209,867	49,590	29,742	289,219
Flour	176,297	80,457	23,139	280,493
Soup, Dehydrated	22,801	6,514	2,579	31,894
Milk	6,646	1,828	383	8,857
Vegetables, Dried	37,368	5,797	1,972	45,137
Sugar	20,932	5,905	506	27,343
M & V Stew, Etc.	24,906	5,362	1,083	31,351
Meats	8,489	661	1,242	10,392
Cheese	2,210	-	-	2,210
Other Foods	4,942	2,347	52	7,341
TOTAL	515,078	158,461	60,698	734,237

TABLE 14

SUMMARY OF SUBSISTENCE STOCKS (1)

As of 31 July 1944

(Metric Tons - Net)

Commodity	Mainland	Sicily	Sardinia	Total
Wheat	3,501	425	8,300	12,226
Flour	10,799	335	-	11,134
Soup Dehydrated	12,912	(2)1,500	646	15,058
owdered)	1,448	170	65	1,683
Milk,Evaporated)	1,150	220	121	1,491
Vegetables, Dried	13,741	1,200	720	15,661
Sugar	3,569	500	14	4,083
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	65,045	7,660	10,568	83,273

(1) See Statement of General Qualifications and Sources of Data, preceding Table 2.

(2) Estimated.

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Milk	5,646	1,828	383	8,857
Vegetables, Dried	37,368	5,797	1,972	45,137
Sugar	20,932	5,905	506	27,343
M & V Stew, Etc.	24,905	5,362	1,083	31,351
Meats	8,489	661	1,242	10,392
Cheese	2,210	-	-	2,210
Other Foods	4,942	2,347	52	7,341
TOTAL	515,078	158,461	60,698	734,237

TABLE 14

SUMMARY OF SUBSISTENCE STOCKS (1)

As of 31 July 1944

(Metric Tons - Net)

Commodity	Mainland	Sicily	Sardinia	Total
Wheat	3,501	425	8,300	12,226
Flour	10,799	335	-	11,134
Soup Dehydrated	12,912	(2)1,500	846	15,058
owdered)	1,448	170	65	1,683
Milk,Evaporated)	1,150	220	121	1,491
Vegetables, Dried	13,741	1,200	720	15,661
Sugar	3,569	500	14	4,083
M & V Stew, Etc.	11,055	2,465	297	13,817
Meats	4,986	420	205	5,591
Cheese	183	-	-	183
Other Foods	1,721	625	-	2,346
TOTAL	65,045	7,660	10,568	83,273

(1) See Statement of General Qualifications and Sources of Data, preceding Table 2.

(2) Estimated.

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TABLE 15

Consumer Ration Scale in Southern Italy
Spring, 1943

Commodity	Grams per Person per Day	Remarks
Bread	150	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	14½ plus 5.8 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.
Suger	18	Extra rations of suger 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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Paste and Rice	90	
Meat	14½ plus 5.8 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.
Suger	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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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	78½	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 1,130.)

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	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 1,130.)

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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	550 grams per week

Or variation, not to exceed a basis of 240 grms of flour per day.

Milk, Dehydrated Soup, Sugar, Olive Oil, Dried Veg., M & V Stew, Meat (Preserved) — At the current month's scales
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	33 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 380 grams of flour per day	Per Head per day
or Bread	350 grams		
Pasta	100 grams		
Soup	60 grams		

Sugar, Olive Oil, Dried Veg., M & V Stew, Meat (Preserved), Milk — At the current monthly Scales for normal consumers
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	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	33 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 380 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

	By bulk authorization according to number of inmates
Bread	300 grams per day
Dried Veg.	100 grams per day
Sugar	8.3 grams per day
Soup	100 grams 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 ACC Refugee Branch

By bulk authorization

Bread	300 grams per person per day
Pasta	100 grams per person per day
Sugar	50 grams per person per day
Evap. Milk	100 grams per person per day
Dried Veg.	100 grams per person per day
Dehy. Soup	100 grams per person per day
Cheese/Meat	60 grams per person per day

F. Harvesters — Maximum 40 days, Issuable only during period of Harvest

Bread	400 grams per person per day
Pasta	50 grams per person per day
Cheese	100 grams per person per day
Meat (Preserved)	60 grams per person per day
Pulses (or Soup)	100 grams per person per day
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. 1A) by ration cards.
(2) Midshift Meal viz: supplied by employing unit, on job.

Bread	1/3 lb. (150 grams)
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 grams 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	110 grams per day

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Pasta	50 grams per person per day
Cheese	100 grams per person per day
Meat (Preserved)	60 grams per person per day
Pulses (or Soup)	100 grams per person per day
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. 1A) by ration cards.
(2) Midshift Meal viz: supplied by employing unit, on job.

Bread	1/3 lb. (150 grams)
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 grams 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 110 grams 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		New Scale (Daily) 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	110
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 effectedon the basis of 95 gms. pasta equals 125 gms. of bread).

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	Mid. S. Meal	150	Mid. S. Meal	150	Mid. S. Meal	150	
Pasta	Sup. Ration	100	Sup. Ration	100	Sup. Ration Civ. Ration	21.4 78.6	
Soup	Mid. S. Meal Sup. Ration	22.4 28.6	Mid. S. Meal Sup. Ration	22.4 28.6	Mid. S. Meal Sup. Ration	22.4 28.6	
Fresh Veg.	Mid. S. Meal	6 ozs.	Mid. S. Meal	6 ozs.	Mid. S. Meal	6 ozs.	

SCALE "B"

Bread	Civ. Ration Mid. S. Meal	200 150	Civ. Ration Mid. S. Meal	200 150	Civ. Ration Sup. Ration	200 110	
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 equivelent bread equals 37.5 gms. bread, therefore the worker loses 2.5 gms. of bread per day. (Conversion effectedon the basis of 95 gms. pasta equals 125 gms. of bread).

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TABLE 19

EXPECTED IMPORTS OF FOOD - 1 JULY 1944 - 30 JUNE 45

	Shipments (Long tons, gross)		Programme (Metric tons, net)		Allocation Requested (a) (Metric tons, net)				Prob
	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	100,00
Sugar	-	(b)	2,000	2,000	4,700	2,000	2,000	2,000	2,00
Milk, dried	771(c)	(b)	(d)	600	1,410	1,410	1,410	1,410	1,41
Vegetables, dry	2,544	(b)	1,850(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	2,25
Fish, dried salt	-	158	770	850	-	-	-	-	-
Total	31,107	53,530	48,120	51,900	114,360	105,660	105,660	105,660	105,66
Sicily									
Wheat	9,097	-	-	-	-	-	-	-	-
Sugar	-	2,687(b)	500	500	500	500	500	500	50
Milk, dry	-	(b)	(d)	150	150	150	150	150	15
Total	9,097	2,687	500	650	650	650	650	650	65
Sardinia									
Wheat	8,314	-	-	-	-	-	-	-	-
Sugar	-	(b)	150	150	200	200	200	200	20
Milk, dried	28	(b)	(d)	45	50	50	50	50	5
Vegetables, dry	90	-	-	-	-	-	-	-	-
Total	8,432	-	150	195	250	250	250	250	25

(a) Requests for allocations beginning November 1944 include amounts required for the area north of Pisa-Rim
Such requirements are monthly, wheat 75,000, rice (dry) 810, and fats 2,250. In addition, 30-day stock
been requested - sugar 2,700, soup (dehy.) 6,000, and vegetables (dry) 6,800.
(b) Original request cancelled by LAC 420. The 2,687 tons sugar unloaded Palermo may be re-shipped for dist
according to original programme, which was same as that shown for Sept. and Oct.
(c) Includes dry milk equivalent of 789 tons evaported milk.
(d) Original request cancelled by LAC 462.
(e) For use north of Pisa-Rimini line.
(f) Original request cancelled by LAC 559.

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TABLE 19

SECRET

EXPECTED IMPORTS OF FOOD - 1 JULY 1944 - 30 JUNE 45

Shipments (Long tons, gross)		Programme (Metric tons, net)		Allocation Requested (a) (Metric tons, net)				Probable Requests for Allocation (Metric tons, net)			
July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
18,598	53,372	43,500	43,500	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
-	(b)	2,000	2,000	4,700	2,000	2,000	2,000	2,000	2,000	2,000	2,000
771(c)	(b)	(d)	600	1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410
2,544	(b)	1,850(e)	4,950(e)	(f)	(f)	-	-	-	-	-	-
-	(b)	-	-	6,000	-	-	-	-	-	-	-
9,194	(b)	(d)	-	-	-	-	-	-	-	-	-
-	-	-	-	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250
-	158	770	850	-	-	-	-	-	-	-	-
31,107	53,530	48,120	51,900	114,360	105,660	105,660	105,660	105,660	105,660	105,660	105,660
9,097	-	-	-	-	-	-	-	-	-	-	-
-	2,687(b)	500	500	500	500	500	500	500	500	500	500
-	(b)	(d)	150	150	150	150	150	150	150	150	150
9,097	2,687	500	650	650	650	650	650	650	650	650	650
8,314	-	-	-	-	-	-	-	-	-	-	-
-	(b)	150	150	200	200	200	200	200	200	200	200
28	(b)	(d)	45	50	50	50	50	50	50	50	50
90	-	-	-	-	-	-	-	-	-	-	-
8,432	-	150	195	250	250	250	250	250	250	250	250

(a) Allocations beginning November 1944 include amounts required for the area north of Pisa-Rimini line.
Shipments are monthly, wheat 75,000, milk (dry) 810, and fats 2,250. In addition, 30-day stockpiles have
been - sugar 2,700, soup (dehy.) 6,000, and vegetables (dry) 6,800.

(b) Request cancelled by LAC 420. The 2,687 tons sugar unloaded Palermo may be re-shipped for distribution
to original programme, which was same as that shown for Sept. and Oct.

(c) Evaporated milk equivalent of 789 tons evaporated milk.

(d) Request cancelled by LAC 462.

(e) North of Pisa-Rimini line.

(f) Request cancelled by LAC 559.

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 Products
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	31.8	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	9.0	38.9	18.4	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	58.1	15.9	2.2	3.3
Lucania	773	21	5.2	2.2	4.1	55.3	15.1	3.6	12.3
Calabrie	530	23	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	32.9	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

Wheat	Corn	Barley	Rye	Rice	Dry Legumes	Meat	Edible Offal	Manuf. Meat Products	Chickens Rabbits	Fish
431	76	5	25.8	29.3	37.8	48.2	7.1	7.9	12.3	14.2
465	28	5	1.1	13.7	51.5	49.9	6.6	5.2	12.9	22.7
355	184	5	25.5	45.5	25.5	45.8	7.7	11.8	11.5	11.5
444	181	9.9	35.1	19.7	57.5	42.5	6.8	10.7	10.7	10.1
291	265	8	5.8	35.9	46.6	26.0	4.7	8.5	7.9	13.4
302	180	7.7	31.8	30.4	41.6	47.1	7.4	10.4	11.8	25.8
591	61	1.1	1.1	19.5	14.8	36.4	6.6	12.1	9.6	15.6
556	49	1.4	6.0	15.9	32.9	40.0	5.5	5.8	11.0	19.5
606	57	-	-	13.4	30.1	27.1	5.8	13.7	7.7	23.8
532	46	1.1	-	11.8	36.2	27.1	4.9	10.1	7.7	12.3
488	76	5	3.3	17.8	30.4	40.6	6.0	8.2	9.3	21.9
532	46	8	3.0	9.0	38.9	18.4	3.8	13.2	5.8	18.1
494	33	8	3.3	11.2	34.8	20.0	3.8	9.9	6.8	22.2
562	2	15.6	-	11.0	50.1	15.9	2.2	3.3	5.8	22.2
773	21	5.2	2.2	4.1	55.3	15.1	3.6	12.3	4.9	8.8
530	23	1.6	6.0	8.2	45.8	12.6	2.7	8.8	5.2	20.3
646	2	-	3.0	7.9	66.3	13.2	1.6	2.5	6.0	21.9
610	12	32.9	9.0	5.5	46.6	26.9	4.1	9.0	6.3	21.1
486	67	2.8	9.1	21.1	38.7	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, 1937 - 39

Compartments	Cheese	Milk	Eggs	Butter	Oil	Lard	Potatoes	Ches
Piemonte	20.0	163.9	21.1	9.6	26.3	14.0	133.7	2
Liguria	20.8	138.4	20.8	4.4	26.3	8.5	155.1	3
Lombardia	23.3	178.6	20.6	9.0	19.7	20.3	73.4	1
Venezia Tridentina	21.1	182.5	20.6	12.1	12.9	17.5	302.2	1
Veneto	25.2	164.7	19.2	4.4	13.4	14.5	105.8	1
Venezia Giulia E Zara	9.9	68.8	20.8	2.7	9.6	17.3	241.9	
Emilia	10.4	78.6	20.8	3.8	11.2	21.1	67.7	2
Toscana	11.8	80.8	20.8	2.7	24.9	10.1	108.5	2
Marche	15.6	107.1	20.6	3.8	19.5	22.5	91.0	
Umbria	9.3	56.4	20.6	8	23.6	16.4	78.6	1
Lazio	10.1	63.3	20.0	1.1	20.8	14.2	97.5	1
Abruzzi E Molise	7.7	44.1	20.0	3	17.8	13.2	121.1	1
Campania	10.7	60.3	19.7	3	14.0	10.1	176.7	2
Puglie	9.3	52.3	20.0	3	31.5	3.3	49.6	
Lucania	13.4	75.6	19.7	3	19.2	12.3	97.0	1
Calabrie	7.4	41.9	19.7	3	17.0	8.8	124.9	3
Sicilia	10.7	61.9	20.3	3	23.8	2.5	36.7	
Sardegna	11.2	63.8	20.0	3	10.4	9.0	61.1	1
Italy	15.0	102.9	20.3	3.6	19.5	13.0	87.8	1

Note: These figures come from an unpublished study of Profs. Franciosa, Livi, and Galcotti. They are based ess on the national consumption figures developed by Prof. Barberi (of the Instituto Centrale di Statistica). data refer to human consumption only.

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TABLE 20 CONT'D.

FOOD CONSUMPTION, GRAMS PER CAPITA PER DAY, ITALY, 1937 - 39

Cheese	Milk	Eggs	Butter	Oil	Lard	Potatoes	Chestnuts	Nuts	Dried Figs
20.0	163.9	21.1	9.6	26.3	14.0	133.7	23.6	5.5	1.1
20.8	138.4	20.8	4.4	26.3	8.5	155.1	36.4	3.0	1.1
23.3	178.6	20.6	9.0	19.7	20.3	73.4	12.1	1.6	1.1
21.1	182.5	20.6	12.1	12.9	17.5	302.2	16.2	2.5	1.1
25.2	164.7	19.2	4.4	13.4	14.5	105.8	10.7	1.9	1.1
9.9	68.8	20.8	2.7	9.6	17.3	241.9	6.0	2.5	1.1
10.4	78.6	20.8	3.8	11.2	21.1	67.7	20.8	1.4	1.1
11.8	80.8	20.8	2.7	24.9	10.1	108.5	27.9	2.2	1.1
15.6	107.1	20.6	3.8	19.5	22.5	91.0	7.4	1.1	1.1
9.3	56.4	20.6	8	23.6	16.4	78.6	13.2	2.5	3.6
10.1	63.3	20.0	1.1	20.8	14.2	97.5	14.5	3.0	1.9
7.7	44.1	20.0	3	17.8	13.2	121.1	11.5	3.8	9.9
10.7	60.3	19.7	3	14.0	10.1	176.7	21.9	10.4	9.6
9.3	52.3	20.0	3	31.5	3.3	49.6	4.4	1.4	18.4
13.4	75.6	19.7	3	19.2	12.3	97.0	19.7	2.7	9.9
7.4	41.9	19.7	3	17.0	8.8	124.9	38.4	4.4	33.7
10.7	61.9	20.3	3	29.8	2.5	36.7	8.5	4.9	5.5
11.2	63.8	20.0	3	10.4	9.0	61.1	14.0	3.3	3.0
15.0	102.9	20.3	3.6	19.5	13.0	87.8	14.1	2.9	4.4

rom an unpublished study of Profs. Franciosa, Livi, and Galeotti. They are based essentially
sumption figures developed by Prof. Barbori (of the Instituto Centrale di Statistica). All
consumption 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
January	129	1,478

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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
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	856	
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	689	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	-
Cagliari	199	237	371	480	451	-	-	-
Nuoro	275	371	542	410	512	-	-	-
Sassari	246	368	463	426				

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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	689	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	-
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	31.9	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	98.7	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	87.6	120.5	128.8	118.6	-
Cagliari	84.0	100.-	150.5	202.5	190.3	-	-	-
Nuoro	74.1	100.-	146.1	110.5	138.0	-	-	-
Sassari	66.7	100.-	124.9	118.2	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	50
Potenza	21	-	-	35	40	43	45	-
Catanzaro	21	-	-	-	80	80	85	-
Cosenza	20	35	46	50	68	100	70	70
Reggio Calabria	64	78	-	-	-	75	-	-

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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	84.6	120.5	128.8	118.6	-
Cagliari	84.0	100.-	156.5	202.5	190.3	-	-	-
Nuoro	74.1	100.-	146.1	110.5	138.0	-	-	-
Sassari	66.7	100.-	124.9	118.2	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	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	51	75	60	36	-
Caltanissetta	-	30	38	48	58	44	45	-
Catania	68	60	50	69	99	96	90	-
Enna	56	60	45	60	78	84	78	-
Messina	-	80	62	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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Pomatoes, Retail Black Market Prices
(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	-	-	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	-	-	-	60	60	92	-

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Taranto								
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	-	-	55	25	35	35	-	-
Nuoro	18	-	15	20	38	36	33	-
Sassari	-	-						

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	-	-	-	60	60	92	-
Cosensa	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	281	275	-
Nuoro	75	-	190	170	188	248	325	-
Sassari	55	-	130	148	197	209	310	-

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Meat, Retail Black Market Prices
(Monthly averages, Lire per kilogram)

	1943 Dec.	1944 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	121	-
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 Dec.	1944 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	-
Catanzaro	125	120	-	-	200	200	-	-
Cosenza	110	165	180	170	180	190	220	180
Reggio Calabria	144	161	-	-	-	-	-	-

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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	121	-
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	-
Catanzaro	125	120	-	-	200	200	-	-
Cosenza	110	165	180	170	180	190	220	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	-
Caltanissetta	-	-	-	215	236	-	263	-
Catania	165	-	-	192	185	-	-	-

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Potenza	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	-
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. 785015

...Oct. 20th 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

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L.A. JENNY,
Lt.Colonel, C.E.,
Director.

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 "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	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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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 "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	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 3695	78,950	71,900	78,800	70,750	31,250	32,750

NOTE. Under the output capacity weight has been given to increased availability of water due to rainfall which will fall away beginning in March (see Table "E", page 6)

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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 six-teen 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.

(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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(1) [illegible] 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 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.

(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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(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 " X "

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
Bolognola	Macerata	700
Carassai	Ascoli P.	450
Pedaso	Ascoli P.	1,100
Altolina	Perugia	600
9 Small Stat.	Umes	730
Steam (Viscosa)	Rieti	650
Steam & Diesel	Rome	30,000
Vulci	Rome	1,100
Traponzo	Viterbo	550
S.Savino	do	750
Fioritella	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
Forche	do	160
TOTAL Output Capacity		57,030

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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
Bolognola	Macerata	700
Carassai	Ascoli P.	450
Pedaso	Ascoli P.	1,100
Altolina	Perugia	600
9 Small Stat. Steam (Viscosa)	Unes	730
Steam & Diesel	Rieti	650
Vulci	Rome	30,000
Traponzo	Rome	1,100
S.Savino	Viterbo	550
Fioritella	do	750
Nera Montoro	do	750
Vesta	Terni	7,850
Arci	Rome	2,000
Subiaco	do	1,300
Scalelle	do	2,500
Comunacqua	Frosinone	2,100
Cardinale	do	2,500
Forche	Viterbo	40
	do	160
TOTAL Output Capacity		57,030

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TABLE " C "

8. 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
Larderello	Pisa	3,000	Aug. 31
Tarquinia Paper Mill	Rome	200	Aug. 31
Terni Plate Mill	Terni	2,000	Aug. 31
Larderello	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
Galleto	Terni	35,000	Jan. 10
Castel Madama	Rome	4,000	Jan. 31
Mandela	Rome	4,000	do
Cervara	Terni	1,600	Jan. 31
TOTAL Output Capacity		88,300	

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(1)	Station (2)	KW (3)	Completion (4)
Cervara	Terni	1,600	Aug. 31
Larderello	Pisa	3,000	Aug. 31
Tarquinia Paper Mill	Rome	200	Aug. 31
Terni Plate Mill	Terni	2,000	Aug. 31
Larderello	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
Galleto	Terni	35,000	Jan. 10
Castel Madema	Rome	4,000	Jan. 31
Mandela	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 Carassai	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.

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 [illegible]

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Plant (1)	Station (2)	KW (3)	Completion (4)
Accuoria Vescovali set from Ceprano	Rome	3,500	Dec. 15
Pettorano 2 sets from Carassai	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.

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 " B "

10. 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	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~~

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	KW	KW	KW	KW	KW	KW
Present output Capacity	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.

Summary for Rome

(a) Military req... 20% of Total 11,460 KW

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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.

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

(a) Military use	Nil	
(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 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

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.

36 92) The following summary shows at a glance the division of the

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(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 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

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.

368/21 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 (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%)

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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 (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%)

3687 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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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 2) Ponte Ginori 100 Tons/day Caustic Soda 100 Tons/day Soda Ash	6,000	4,200	500
d) Cisa Viscosa 1) Rieti 2) Rome Fabric for clothing	200	---	1,200
e) Cisa Viscosa Colle Statte Carbon Bisulfide	500	500	3,000

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	Tonnage Produced per Month	Import 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) Polonica			
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	8,000	6,000	2,000
i) Paper Mills			
1) Isola di Liri			3,000
2) Ceprano			800
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	40,600

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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h) Cement Mills			
1) Colle Ferro)	10,000	7,500	2,500
2) Spoleto)	8,000	8,000	2,000
3) Civitavecchia)	8,000	6,000	2,000
i) Paper Mills			
1) Isola di Liri)			3,000
2) Ceprano)	350	350	800
3) Tivoli)			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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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	6,500	(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

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Agriculture	3,600	(a) Essential civilian
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 Febricators	500	(a) Military (b) Essential civilian
TOTAL	129,650	

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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 Febricators	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 (Sisposition 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 Toscany)

(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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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 (Sisposition 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 Toscany)

(c) Limestone (available locally)

ANIENE CAUSTIC SODA and CHLORINE WORKS

Rome Plant

Plant Condition:

Good.

Products:

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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

Products:

Essential civilian

(a) Caustic Soda) 3000 Tons/Month of each
) during October and November.
) 6000 Tons/Month during
(b) Soda Ash) December-February.

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Uses:

Caustic Soda is used for

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(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

Products:

Essential civilian

(a) Caustic Soda) 3000 Tons/Month of each
) during October and November.
) 6000 Tons/Month during
(b) Soda Ash) December-February.

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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)

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

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Necessary Raw Materials and their Sources:

(a) Sodium chlorides (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)

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

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Uses:

Military for construction and repairs
Essential civilian for rehabilitation

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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

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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) Chamotte 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 3,600 Tons/Month
(2) Sardinian Coal 4,500 Tons/Month

(e) Coal-Lignite at Spoleto 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.

Necessary Raw Materials:

None

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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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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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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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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 Ferro	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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	KW	KW	KW	KW	KW	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 Ferro	0	0	1,000	1,500	2,000	2,500
3675 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
Paper Mills						
Isola di Liri	1,000	2,000	3,000	3,000	3,000	3,000
Ceprano	800	800	800	800	800	800
Rome	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 Juts	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

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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 Juts	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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a) The payment of rental for these plants during

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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.

THE MINISTER

Signed: Mancini

Declassified E.O. 12356 Section 3.3/NND No. 785013

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

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L.A. JENNY,

Declassified E.O. 12356 Section 3.3/NND No. 785015

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

3673

L.A. JENNY,
Lt.Colonel, C.E.,
Director.

W.M. LAPPER,
Lt.Colonel
Chief Electrical Divn.

Declassified E.O. 12356 Section 3.3/NND No. 785015

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. [illegible] Southern Italy Electrical Engineer regulates

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(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.

TABEL " 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
Railways (DGMRS)	10,000

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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.

TABEL " 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
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 "E" 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.

= 2 =

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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
Tanagro (H)	Salerno	2,200
Matese I (H)	Benevento	5,200
Capuano (S)	Naples	20,000
Volturno (D)	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.

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of Station (1)	of Station (2)	at 26th Aug.44. KW (3)
Sila Group (H)	Calebria	105,000
Tusciano (H)	Salerno	4,200
Tanagro (H)	Salerno	2,200
Matese I (H)	Benevento	5,200
Capuano (S)	Naples	20,000
Volturno (D)	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 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)
Capuano	Naples	10,000	Nov.
Calore	Avellino	5,000	Nov.
Aventino	Chieti	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)
Matese II (set from Alto Belice Sicily 3,000 KW)	Benevento	(see Table D page.5. Central Italy Report)	
Isto	Campobasso	5,200	Jan.

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Name of Station (1)	of Station (2)	Capacity KW (3)	date of Completion (4)
Capuano	Naples	10,000	Nov.
Calore	Avellino	5,000	Nov.
Aventino	Chieti	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)
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	6,000	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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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	6,000	8,000	10,000	8,000
TOTAL	142,600	145,600	163,600	165,600	177,000	179,000
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
3608 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

1943

Source: Corpo Reale delle Miniere

NAME OF MINE	PROVINCE - COMUNE	MONTHLY 1943+ 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 Rosas (A.M.M.I.)	Cagliari - Balboa	30 Sb 60%	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 Cogne)	Aosta - Porta Littoria	12,002	760
5. Corongiu (Compagnia Veneto Sarda)	Nuoro - Semi	600	230
A R S E N O P Y R I T E			
6. Cani (Rumianca)	Novara - Macugnaga	3,000 10 gr. ton	950
A S B E S T O S			
7. Dosso Francia ed altre (M.A.I.S.A.)	Sondrio - Lanzada	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			
	Cagliari - Narcao	-	-

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		COMUNE	(metric tons)	LAVORI
	A N T I M O N Y			
1.	Cetine (A.M.M.I.)	Siena - Chiusdino	190	151
2.	Corti Rosas (A.M.M.I.)	Cagliari - Balboa	30 Sb 60%	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 Cogne)	Aosta - Porta Littoria	12,002	760
5.	Corongiu (Compagnia Veneto Sarda)	Nuoro - Seni	600	230
	A R S E N O P Y R I T E			
6.	Cani (Rumianca)	Novara - Macugnaga	3,000 10 gr. ton	950
	A S B E S T O S			
7.	Dosso Prassia ed altre (M.A.I.S.A.)	Sondrio - Lanzada	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	-	-
11.	Sarala' (Enrico Pernis)	Nuoro - Tertenia	-	-
	B A U X I T E			
12.	Mincio e Livenza (Bauxiti Istriane)	Pola - Pisino	3,570	164
13.	Scrobetti ed altre (Mineraria Triestina SAMT)	Pola - Pisino, Visignano ed altri	15,324	836

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NAME OF MINE	PROVINCE - COMUNE	MONTHLY 1943+ PRODUCTION (metric tons)	NO. WAGE EARNERS
B A U X I T E (Cont'd)			
14. S.Giovanni Rotondo (Montecatini?)	Foggia - S. Giovanni Rotonda	13,774 Al_2O_3 55% Si O_2 3,8	592
B I T U M I N O U S S H A L E			
15. Ciro' (Miniera S.Romedio)	Trento - Taio	619	53
B I T U M I N O U S S C H I S T			
16. Pulli (Ing. Dalle Ore)	Vicenza - Valdagno	1,554	278 for 2 mines
B L E N D E			
17. Argentiera (Soc.Correboi)	Sassari - Sassari	444 Zn 58%	311 for 2 mines
18. CampoPisano (Soc. Monteponi)	Cagliari - Iglesias	520 Zn 50%	850 for 3 mines
19. Gennamari - Ingurtosu (Soc. Pertusola)	Cagliari - Arbus	584 Zn 62%	781 for 2 mines
20. Malfidano (Soc.Pertusola)	Cagliari - Fluminì	565 Zn 59%	307 for 2 mines
21. Montenève (A.M.M.I.)	Bolzano-Mose in Passiria	510	387 for 2 mines
22. Montevecchio (Soc. It. Piombo e Zinco)	Cagliari - Guspinie Arbus	2,000	2,545 for 2 mines
23. Raibl (Cave del Predil Gruppo A.M.M.I.)	Udine - Tarvisio	2,600	957 for 2 mines
24. Riso ed altre (S.A.P.E.Z.)	Bergamo - Corno	135	972 for 3 mines
25. Rosas (S.A. Rosas?	Cagliari - Narcao	40 ZN 50%	-
26. S. Giovanni (Soc.	Cagliari - Iglesias	140	427

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15. Ciro' (Miniera S.Romedio)	Trento - Taio	619		55
B I T U M I N O U S S C H I S T				
16. Pulli (Ing. Dalle Ore)	Vicenza - Valdagno	1,554		278 for 2 mines
B L E N D E				
17. Argentiera (Soc.Correbol)	Sassari - Sassari	441 Zn 58%		311 for 2 mines
18. CampoPisano (Soc. Montesponi)	Cagliari - Iglesias	520 Zn 50%		850 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. Monteneve (A.M.M.I.)	Bolzano-Mose in Passiria	510		337 for 2 mines
22. Montevecchio (Soc. It. Piombo e Zinco)	Cagliari - Guspinie Arbus	2,000		2,545 for 2 mines
23. Raibl (Cave del Predil Gruppo A.M.M.I.)	Udine - Tarvisio	2,600		957 for 2 mines
24. Riso ed altre (S.A.P.E.Z.)	Bergamo - Corno	435		972 for 3 mines
25. Rosas (S.A. Rosas?	Cagliari - Narcao	40 ZN 50%		-
26. S. Giovanni (Soc. Pertusola)	Cagliari - Iglesias	140 ZN 61%		427 for 3 mines
27. Su Zurfuru (Soc.Pertusola)	Cagliari - Flumini	-		-

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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 (Italo Borrini)	Parma - Montechiarugolo	7,294	65 for 2 mines
C A L A M I N E			
30. Campo Pisano (Soc. Montecani)	Cagliari - Iglesias	3,573 Zn 20%	850 for 3 mines
31. M. Cani E Nesua (A.M.M.I.)	Cagliari - Iglesias	43 Zn 50%	110 for 2 mines
32. Monteponi (Soc. Monteponi)	Cagliari-Iglesias	228 Zn 45%	650 for 2 mines
33. Riso ed altre (S.A.P.E.Z.)	Bergamo - Corno	583	972 for 3 mines
34. Seddas Moddizzis (Eredi Asproni)	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 Sn 60%	218
C L A Y			
37. Nurellao (Soc. Rumianca)	Nuoro -	-	-

COPPER

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29. Monticelli (Italo Borrini)	Parma - Montechiarugolo	7,294		65 for 2 mines
C A L A M I N E				
30. Campo Pisano (Soc. Monteponi)	Cagliari - Iglesias	3,573 Zn 20%		850 for 3 mines
31. M. Cani E Nasua (A.M.M.I.)	Cagliari - Iglesias	43 Zn 50%		110 for 2 mines
32. Monteponi (Soc. Monteponi)	Cagliari-Iglesias	228 Zn 45%		650 for 2 mines
33. Riso ed altre (S.A.P.E.Z.)	Bergamo - Gorno	583		972 for 3 mines
34. Seddas Moddizzis (Eredi Asproni)	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 Sn 60%		218
C L A Y				
37. Nurellao (Soc. Ruminaeu)	Nuoro -	-		-
C O P P E R				
38. Fenice Capanne(Montecatini)	Grosseto - Massa Marittima	-		400
39. Funtana Raminosa (Soc. Raminosa)	Nuoro - Cadoni	45 Cu 22%		270
40. Libiola(Miniera Libiola)	Geneva-Sestri Levante	170		132
41. Sa Duchessa (A.M.M.I.)	Cagliari -Barusnovas	826 Cu 4,5%		215

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NAME OF MINE	PROVINCE - COMUNE	MONTHLY 1943+ PRODUCTION (metric tons)	NO. WAGE EARNERS
COPPER PYRITE			
42. Fobbriche (Brambilla)	Vercelli -Riva Valdobbia	595	54
43. Morin (Brambilla)	Aosta - Mongiove	1,040	105
44. Preslong (Nasionale Cogne	Aosta - Ollomont	168	299
EOCENIC BITUMINOUS COAL			
45. Bacu Abis (Carbonifera Sarda)	Cagliari - Carbonia	4,262	1,100
46. Gruppo di Cortoghiana (Carbonifera Sarda)	Cagliari - Carbonia	-	120
47. Gruppo Litterie (Carbonifera Sarda)	Cagliari - Carbonia	-	80
48. Gruppo di Serberiu (Carbonifera Sarda)	Cagliari - Carbonia	-	600
49. Gruppo di Sirai (Carbonifera Sarda)	Cagliari - Carbonia	-	350
50. Terras Collu (Monteponi)	Cagliari - Carbonia	1,000	250
50½. Gruppo Arsa (A. Ca. I.)	Pola - Arsa & Albona	86,947	8,800
GALENE			
51. Arenas (Soc.Pertusola)	Cagliari - Flumini	73 Pb 65%	312
52. Argentiera (Soc. Correboi)	Sassari-Sassari	67 Pb 57%	311 for 2 mines
53. Coremo' S. Bendetto (A.M.M.I.)	Cagliari - Iglesias	40 Pb 56%	130
54. Gennamari - Ingurtosu (Soc. Pertusola)	Cagliari - Arbus	210 Pb 74%	781 for 2 mines
55. M. Agruxau (A.M.M.I.)	Cagliari - Iglesias	161 Pb 66%	410

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EOCEMIC BITUMINOUS COAL			
45. Bacu Abis (Carbonifera Sarda)	Cagliari - Carbonia	4,282	1,100
46. Gruppo di Cortoghiana (Carbonifera Sarda)	Cagliari - Carbonia	-	120
47. Gruppo Littorie (Carbonifera Sarda)	Cagliari - Carbonia	-	80
48. Gruppo di Sarbariu (Carbonifera Sarda)	Cagliari - Carbonia	-	600
49. Gruppo di Sirai (Carbonifera Sarda)	Cagliari - Carbonia	-	350
50. Terras Collu (Monteponi)	Cagliari - Carbonia	1,000	250
50½. Gruppo Arsa (A. Ca. I.)	Pola - Arsa & Albona	86,947	8,800
GALENE			
51. Arenas (Soc.Pertusola)	Cagliari - Flumini	73 Pb 65%	312
52. Argentiera (Soc. Correboi)	Sassari-Sassari	67 Pb 57%	311 for 2 mines
53. Coremo' S. Bendetto (A.M.M.I.)	Cagliari - Iglesias	40 Pb 56%	130
54. Gennamari - Ingurtosu (Soc. Pertusola)	Cagliari - Arbus	210 Pb 74%	781 for 2 mines
55. M. Agruxau (A.M.M.I.)	Cagliari - Iglesias	161 Pb 68%	410
56. Malfidano (Soc. Pertusola)	Cagliari - Flumini	59 PB 53.40%	307 for 2 mines
57. M. Cani e Masua (A.M.M.I.)	Cagliari - Iglesias	15 Pb 47%	110 for 2 mines
58. Monteneve (A.M.M.I.)	Bolzano -Moso in Passiria	100	337 for 2 mines
59. Monteponi (Soc.Monteponi)	Cagliari - Iglesias	665 PB 53%	650 for 2 mines

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NAME OF MINE	PROVINCE - COMMUNE	MONTHLY 1943 PRODUCTION (metric tons)	NO. WAGE EARNERS
G A L E N E (Cont'd.)			
60. Montevecchio (Soc. It. Piombo e Zinco)	Cagliari - Guspini e Arbus	1,464 PN 65%	2,545 for 2 mines
61. Nebida (Soc. Miniere di Nebida)	Cagliari - Iglesias	82 Pb 70%	190
62. Orbai (Vassena)	Cagliari - Villamassargia	10 Pb 62%	138
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.Z.)	Bergamo - Gorno	42	972 for 3 mines
65. Rosas (S.A. Rosas)	Cagliari - Narcao	30 Pb 70%	-
66. Seddas Moddizzis (Eredi Asproni)	Cagliari - Iglesias	27 Pb 53%	218 for 2 mines
67. S.Giovanni (Soc. Pertusola	Cagliari - Iglesias	259 Pb 67%	427 for 3 mines
68. Su Zurfuru (Soc. Pertusola)	Cagliari - Flumini	59 Pb 53.40%	307 for 2 mines
G A S			
69. Montechino e Velleia (Petroli d'Italia)	Piacenza - Gropparello 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.)	Potenza - Tramutola	99,630 m³	60

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62. Orbai (Vasseene)	Cagliari - Villamassargia Pb 62%	10	138
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.Z.)	Bergamo - Gorno	42	972 for 3 mines
65. Rosas (S.A. Rosas)	Cagliari - Narcao Pb 70%	30	-
66. Seddas Moddizzis (Eredi Asproni)	Cagliari - Iglesias Pb 53%	27	218 for 2 mines
67. S.Giovanni (Soc. Pertusola	Cagliari - Iglesias Pb 67%	259	427 for 3 mines
68. Su Zurfuru (Soc. Pertusola)	Cagliari - Fluumini Pb 53.40%	59	307 for 2 mines

C A S

69. Montechino e Velleia (Petroli d'Italia)	Piacenza - Gropparello 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.)	Potenza - Tramutola	39,630 Ha	60 for 2 mines
73. Vallezza e Monterotondo (Petrolifera Italiana)	Parma - Fornovo, Taro , Sala, Bagenza	278	390 for 2 mines

G A S M E T H A N E

74. Cavanella, Rosoline Ca' Capello ed altre(Verie)	Rovigo - Lora ed altri	800	480

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NAME OF MINE	PROVINCE - COMMUNE	MONTHLY 1943 PRODUCTION (metric tons)	No. WAGE EARNERS
G A S M E T H A N E (Cont'd)			
75. Consandolo, Masola ed altre (Varie)	Ferrara -Argenta ed altri	400	260
G A S - N A T U R A L			
76. Pietramala e Castel dell'Alpe(Idrocarburi Nazionali)	Firenze - Firenzuola	580	230
77. Salgastri o Pian di Casale (Fratelli Lazzi)	Bologna-Porretta Terme	250	110
G O L D			
78. Pestarena ed altro(A.M.M.I.)	Novara -Macugnaga	3,000 10 gr. ton	950
G R A P H I T E			
79. Ric Siogna (Talco e Grafite Val Chisone)	Savona - Murialdo	99	26
80. Siassera (Talco e Grafite Val Chisone)	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 - Verii	42,795	799
84. M. Truda(Soc.Ferromin)	Sassari-Sassari	-	-
85. Salaponi (Soc. Preda)	Cagliari-Gonnosfanadiga	424 Fe 52%	97
86. S.Leone (Soc. Preda)	Cagliari-Caposserra	468 Fe 54%	107

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GAS - NATURAL

76.	Pietramala e Castel dell'Alpe(Idrocarburi Nazionali)	Firenze - Firenzuola	580	230
77.	Selgestri e Piau di Casale (Fratelli Lazzi)	Bologna-Porretta Terme	250	110

GOLD

78.	Pestarena ed altre(A.M.M.I.)	Novara -Macugnaga	3,000 10 gr. ton	950

GRAPHITE

79.	Rio Siogna (Talco e Grafite Val Chisone)	Savona - Murialdo	99	26
80.	Siassera (Talco e Grafite Val Chisone)	Torino - S. Germano	45	52

IODINE

81.	Salsomaggiore (Lorno di Salsomaggiore)	Parma-Salsomaggiore	2,622	250 for 3 mines

IRON

82.	M. Canaglia(Soc. Ferromin)	Sassari-Sassari	370 Fe 41%	198
83.	Miniere dell'Elba(Ferromin)	Livorno - Varii	42.795	799
84.	M. Truda(Soc.Ferromin)	Sassari-Sassari	-	-
85.	Salaponi (Soc. Ireia)	Cagliari-Gonnosfanadiga	424 Fe 52%	97
86.	S.Leone (Soc. Breda)	Cagliari-Caposerra	468 Fe 54%	107

IRON MANGANESE

87.	Il Passo (Feromin)	Grosseto-M.Argentario	2,077	149

KAOLIN

88.	M.Forceddu ed altre	Cagliari - Furtei e Serrenti	-	-
89.	Sanaci e varie	Sassari - Mara	-	-
90.	Torniella (Caolini d'Italia)	Grosseto-Roccastrada	1,600	70

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NAME OF MINE	PROVINCE - COMMUNE	MONTHLY 1943 PRODUCTION (metric tons)	NO. WAGE EARNERS
L E A D			
91. S'Acqua Bona (Giuseppe Gombaro)	Cagliari-Arbus e Flumini	-	-
L I G N I T E			
92. Aspra Roccantica (Terni)	Rieti - Aspra	4,172	313
93. Baccinello e Cana (Miniere Valdarno)	Grossete -Scansano	3,368	380
94. Barberino e Lumona (Soterna)	Firenze -Barberino nel Mugello	3,502	302
95. Branca (Terni)	Perugia - Gubbio	5,309	710
96. Carpinete(Miniere di Carp.)	Arezzo - Cavriglia	6,286	472
97. Casa Lote (Terni)	Perugia - Gubbio	3,204	276
98. Castelnuovo-Alleri Gaville e Bossi (Mineraria Valdarno)	Arezzo e Firenze - Cavriglia e Figline Valdarno	70,212	3,354
99. Collazzone (Terni)	Perugia - Collazzone	3,211	419
100. Colle dell'Oro (Terni)	Terni - Terni	3,004	273
101. Dunarobba (Aurora)	Terni-Montecastrilli	2,780	375
102. Gualdo Cattaneo (Termoelettrica Umbra)	Perugia - Montefalco	14,548	1,686
103. Lilliano e Campelli (Ligniti e derivati)	Siena - Castellina in Chianti	3,778	381
104. Mercure (L.I.M.S.A.)	Potenza	4,726	520
105. Montelifre' (Comm. Industrie Estrattive)	Siena - S.Giovanni d'Asso	1,863	216
106. Monte Nevoso (Leonardo d'Aequisto)	Fiume -Villa del Nevoso	3,721	124
107. Morgnano (Terni)	Perugia - Spoleto	28,889	2,465
108. Murlo (Miniere Carbo-[illegible]fere di Murlo)	Siena - Murlo	3,105	276
		28,477	920

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92. Aspra Roccantica (Terni)	Rieti - Aspra	4,172	313
93. Baccinello e Cane (Miniere Valdarno)	Grosseto -Scansano	3,368	380
94. Barberino e Lumene (Soterna)	Firenze -Barberino nel Mugello	3,502	302
95. Brenca (Terni)	Perugia - Gubbio	5,309	710
96. Carpinete(Miniere di Carp.)	Arezzo - Cavriglia	6,286	472
97. Casa Loto (Terni)	Perugia - Gubbio	3,204	276
98. Castelnuovo-Allori Gaville e Rossi (Mineraria Valdarno)	Arezzo e Firenze - Cavriglia e Figline Valdarno	70,212	3,354
99. Collazzone (Terni)	Perugia - Collazzone	3,211	419
100. Colle dell'oro (Terni)	Terni - Terni	3,004	273
101. Dunarobba (Aurora)	Terni-Montecastrilli	2,780	375
102. Gualdo Cattaneo (Termoelettrica Umbra)	Perugia - Montefalco	14,548	1,686
103. Lilliano e Campelli (Ligniti e derivati)	Siena - Castellina in Chianti	3,778	381
104. Mercure (L.I.M.S.A.)	Potenza	4,726	520
105. Montelifre' (Comm. Industrie Estrattive)	Siena - S.Giovanni d'Asso	1,863	216
106. Monte Nevoso (Leonardo d'Asquisto)	Fiume -Villa del Nevoso	3,721	124
107. Morgnano (Terni)	Perugia - Spoleto	28,889	2,465
108. Murlo (Miniere Carbonifere di Murlo)	Siena - Murlo	3,105	276
109. Pietrafitta (Mineraria Trasimeno)	Perugia -Pietrafitta	29,477	920
110. Poggio Avane (Miniere Carboni)	Arezzo - Cavriglia	6,204	364
111. Pulli (Ing. Dallo Ore)	Vicenza - Valdagno	997	278
112. Quarata (S.A.M.I.L.- Gruppo A.L.I.)	Arezzo - Arezzo	4,123	397

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NAME OF MINE	PROVINCE - COMMUNE	MONTHLY 1943 PRODUCTION (metric tons)	NO. WAGE EARNERS
LIGNITE (Cont'd)			
113. Ranellone e Petrolo (Ind. Laterizi Riunite)	Siena - Torrita	5,831	360
114. Ribolla e Casteani (Montecatini)	Grosseto-Roccastrada	24,922	2,481
115. Romeno di Sotto (Mineraria Tiberina)	Perugia - Torgiano	3,823	367
116. Rupinata e Monte e Cozzi (Tosoma Secto)	Firenze -Figline Valdarno	4,317	265
117. Ruscio (Mineraria Umbra)	Perugia-Monteleone	2,925	270
118. Sarzanello (Minieri e Carboni)	La Spezia-Sarzana	2,470	950
119. S. Faustino (Monte Martano)	Perugia-Massa Martana	2,440	224
120. Val Sovilmo ed altre (Val Sovilmo ed altre)	Bergamo - Gandino, Leffe + Casnigo	10,222	696
MAGNETITE			
121. Cogne (Anonima Cogne)	Aosta - Cogne	21,110	783
122. Traversella (I.M.I.)	Aosta -Traverselle	2,297	286
MAGNETITE-BARYTE			
123. Baio e Pora (Montecatini)	Aosta - Brosso	2,674	190
MANGANESE			
124. Cerchiara (Piccardi)	La Spezia -Pignone	229	134
125. Cambetese (Pregolin)	Genova - Ne'	2,526	291
126. Le Fosse (Guido Mancinelli)	Genova -Busalla e Campochiaro	121 Mn 32%	234
127. Tre Monti (Manganesifera Trentina)	La Spezia e Genova - Maissana e Casarza	585	301

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115. Rosano di Satto (Mineraria Tiberina)	Perugia - Torgiano	3,823	367
116. Rupinata e Borro e Cozzi (Toscana Sacto)	Firenze -Figline Valdarno	4,317	265
117. Ruscio (Mineraria Umbra)	Perugia-Monteleone	2,925	270
118. Sarzanello (Modena e Pantoni)	La Spezia-Sarzana	2,470	950
119. S. Fiorello (Italian Mercury)	Perugia-Massa Martana	2,440	224
120. Val Cavino ed altre (Val Cavino ed altre)	Bergamo - Gandino, Lerfe - Oneniga	10,222	696

MAGNETITE

121. Cogne (Miniere di Cogne)	Aosta - Cogne	21,110	783
122. Traversella (I.M.I. S.)	Aosta -Traversella	2,297	286

MAGNETITE-PYRITE

123. Baio e Rose (Montecatini)	Aosta - Brosso	2,474	190

MANGANESE

124. Cerchiara (Lavarini)	La Spezia -Pignone	229	104
125. Gambatesa(Ferrero)	Genova - Ne'	2,526	291
126. La Foce(Guido Mancinelli)	Campobasso -Boiano e Campochiaro	121 Mn 32%	234
127. Tre Monti (Manganesifera Italiana)	La Spezia e Genova - Maissana e Casarza Ligure	585	301

MERCURY

128. Abbadia (Mineraria M. Amiata)	Siena -Abbadia S. Salvatore	6,127	730
129. Abetina(Mineraria Amiata)	Siena -Piancastagnaio	1,086	333
130. Cerpine Solfatare (Steb.Minerar. 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 NO. WAGE EARNERS
M O L I B D E N I T E			
132. Riu Planu is Castangias (Soc. Cogne)	Cagliari-Gonnesfanadiga	2,5 Mo 41%	429
N I C K E L P Y R I T E			
133. Alvani ed altre (Michelin Gruppo A.M.M.I.)	Novara - Valstrona	233	205
O I L			
134. Ripi (A.G.I.P.)	Frosinone - Ripi	127	60 for 2 mines
135. Salsomaggiore (Terme di Salsomaggiore)	Parma - Salsomaggiore	20	250 for 3 mines
136. Tabuna	Ragusa - Ragusa	428	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 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 Velloia (Petroli d'Italia)	Piacenza - Gropparello e Monte dell'Olio	76	90 for 2 mines
140. Podenzano e Fontevivo (A.G.I.E.)	Piacenza-Podenzano	82	420 for 2 mines
141. Vallezza e Montarotondo (Petrolifera Italiana)	Parma - Fornovo, Taro, Sala, Baganza	370	390 for 2 mines
P Y R I T E			
142. Boccheggiano (Monte-	Grossetto - Montieri	13,475	788

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133. Alvani di Olivi (Michelio Gruppo A.M.M.I.)	Roveta - Valsefone	233	205
OIL			
134. Ripi (A.G.I.P.)	Frosinone - Ripi	127	60 for 2 mines
135. Salsomaggiore (Terme di Salsomaggiore)	Parma - Salsomaggiore	20	250 for 3 mines
136. Tebuna	Ragusa - Ragusa	428	759 for 2 mines
137. Tramutola (A.G.I.P.)	Potenza - Tramutola	2,527	60 for 2 mines
OIL GAS			
138. Podenzano e Fontevivo (A.G.I.P.)	Piacenza-Podenzano	1,011	420 for 2 mines
PETROLIUM			
139. Montechino e Vellola (Petroli d'Italia)	Piacenza - Gropparello e Monte dell'Olio	76	90 for 2 mines
140. Podenzano e Fontevivo (A.G.I.E.)	Piacenza-Podenzano	62	420 for 2 mines
141. Vellezza e Monterotondo (Petrolifera Italiana)	Parma - Fornovo, Taro, Sala, Bagenza	370	390 for 2 mines
PYRITE			
142. Boccheggiano (Montecatini)	Grossato - Montieri	13,475	788
143. Calcaranica ed Andreollo (Montecatini)	Trento - Pergine, Vigolo e Vattaro	4,521	150
144. Camp Pisano (Soc. Monteponi)	Cagliari - Iglesias	950 @ 47%	850 for 3 mines
145. Gavorrano (Montecatini)	Grossato-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 (Cont'd)			
146. Il Franco (Mineraria Tirrena)	Grosseto - Giglio	391	129
147. Niccioletta(Montecatini)	Grosseto - Massa Marittima	19,723	1,284
148. Ravi-Marchi(Marchi e C)	Grosseto - Gavorrano	2,950	404
149. Ritorto (S.T.I.M.A.)	Grosseto-Massa Marittima	580	172
150. Vallimperina (Montecatini)	Belluno - Rivamonte	4,024	273
S A L T R O C K			
151. Buriano (Soc.Solvay)	Pisa - Montecatini Val di Cecina	35,000	180
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	90
S I D E R I T E IRON CARBONATE			
154. Alfredo (Ferromin)	Brescia - Bovegno	811	134
155. Barisella (Consorzio Barisella)	Bergamo - Schilperio	771	226
156. Manina (Ferromin)	Bergamo -Vilminore	558	213
157. Ortosolo ed altre (Ferriere Falck)	Bergamo -Schilperio	323	70
158. Petesa Costa(Ferromin)	Brescia - Malonno	1,707	149
159 Pisogne (Ferromin)	Brescia - Pisogne	720	195
160. S.Adisio (Carlo Tassara)	Brescia - Collio	1,314	158
161. Spiazzo (Ernesto Breda)	Bergamo -Schilperio	3,327	175

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148. Revi-Marchi(Marchi e C)	Grosseto - Cavorrano	2,950	404
149. Ritorto (S.T.I.M.A.)	Grosseto-Masas Marittima	580	172
150. Vallimperina (Montecatini)	Belluno - Rivamonte	4,024	273
S A L T R O C K			
151. Buriano (Soc.Solvay)	Pisa - Montecatini Val di Cecina	35,000	180
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	90
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. Barisella (Consorzio Barisella)	Bergamo - Schilperio	771	226
156. Marina (Ferromin)	Bergamo -Vilminore	558	213
157. Ortoscio ed altre (Ferriere Falck)	Bergamo -Schilperio	323	70
158. Petasa Costa(Ferromin)	Brescia - Malonno	1,707	149
159 Pisogne (Ferromin)	Brescia - Pisogne	720	195
160. S.Aldsio (Carlo Tassara)	Brescia - Collio	1,314	158
161. Spiazzo (Ernesto Breda)	Bergamo -Schilperio	3,327	175
S I L V E R			
162. S'Acqua Bona (Giuseppe Camboro)	Cagliari-Arbus e Flumini	-	-
S U L P H U R			
163. Cabernardi(Montecatini)	Ancona -Sassoferrato	3,402	1,199
164. Colle Croce Nord	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 Baccarato	Enna - Aidone	236	150
166. Cozzodisi	Agrigento - Casteltermini	759	559
167. Cozzotondo (Nalbone Luigi)	Caltanissetta - Milena	26	35
168. Floristella (Cirino Lo Meo)	Enna - Villarosa	334	197
169. Formignano (Montecatini)	Pesaro - Cesena	552	251
170. Gessolungo (consorziale)	Caltanissetta - Caltanissetta	245	126
171. Gioia (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 Gibisa	Agrigento - Agrigento	509	597
176. Gruppo Marmore (Duca Guelfieri e Chillenu Mario)	Enna - Centuripe	133	93
177. Isca della Palata (Soc. S.A.I.M.)	Avellino - Altaville Irpina	2,408 S-30%	303
178. Lucia	Agrigento - Favarn	-	-
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	1,368
183. Pintura (S.A. Pinturn)	Enna - Aidone	88	74
		161	210

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	Luigi)		20	35
168.	Floristella (Cirino Lo Meo)	Enna - Villarosa	334	197
169.	Formignano (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 Gibise	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 - Altavilla Irpina	2,408 S-30%	303
178.	Lucia	Agrigento - Favarn	-	-
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	1,368
183.	Pintura (S.A. Pinturn)	Enna - Aidone	88	74
184.	Quattrofinaite Vassallo e Dammuso	Agrigento - Grotte e Racalmuto	161	210
185.	Respica Cendrilli	Enna - Villaro sa	88	74
186.	Saponaro (Di Francesco G.)	Caltanissetta - Caltanissetta	926	70
187.	S. Domenica (Francesco Vetta)	Cantenzaro - 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
SULPHUR (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
TALC			
193. Fontane (Talco e Grafite Val Chisone)	Torino - Massello	-	-
194. Orani	Nuoro -	-	50
TIN			
195. M.Valerio (A.M.M.I.)	Liverno - Campiglia	21	479
WATERVAPOUR			
196. Larderello e Castelnuovo (Soc. Min. di Larderello)	Pisa - Pomarance e Castelnuovo	1,500	650 for 2 mines
ZINC			
197. S'Acqua Bona (Giuseppe Gambaro)	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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191. Traborella	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.)	'Liverno - Campiglia	21	479
WAA T E R V A P O U R			
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 Gambaro)	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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393.0983

SECRET

SUPPLY APPENDIX

TOTAL SHIPMENTS OF U.S. PROCURED COMMODITIES TO ITALY, SICILY AND SARDINIA
SHIPPED 1 JULY 1943 THROUGH 10 JUNE 1944

ITEM	1 JULY 1943 TO 10 MAY 1944(1)			10 MAY 1944 TO 10 JUNE 1944			
	Gross Long Tons	Ship Tons	Dollar (2) Value	Gross Long Tons	Ship Tons	Dollar Value	Gross Long Tons
Subsistence							
Wheat	173,018	228,587	9,622,000	-	-	-	173,018
Flour	226,110	286,053	18,719,000	-	-	-	226,110
Beans & Peas dried	28,688	39,382	4,702,000	11,372	15,055	1,905,000	39,460
Sugar	6,182	7,657	837,000	-	-	-	6,182
Soup	40,232	55,272	12,253,000	-	-	-	40,232
Milk	7,805	10,385	1,538,000	425	759	148,000	8,230
Meat and/or Cheese	42,366	54,562	17,419,000	6,513	8,251	2,729,000	48,879
Total	523,801	681,898	65,084,000	18,310	24,065	4,782,000	542,111
Medical & Sanitation							
Basic Medical Units	1,809	5,066	1,358,000	-	-	-	1,809
Supplemental Tropical Units	10	23	97,000	-	-	-	10
Hypochlorinators	17	30	86,000	-	-	-	17
QM Sanitary Units	140	259	73,000	-	-	-	140
Other Medical, Veterinary and Sanitation Supplies (3)	114.3	203.4	292,000	11.4	22.3	6,000	125
Total	2,090.3	5,601.4	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	1,971	2,462	106,000	1,849	2,165	99,000	3,820
Muriate of Potash	936	1,100	35,000	-	-	-	936
Copper Sulphate (5)	2,715	2,650	277,000	-	-	-	2,715
Lead Arsenate	-	-	-	31	56	11,000	31
Other	-	-	-	.4	.4	1,000	.4
Total	5,622	6,212	418,000	1,880.4	2,221.4	111,000	7,502

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SUPPLY APPENDIX

TOTAL SHIPMENTS OF U.S. PROCURED COMMODITIES TO ITALY, SICILY AND SARDINIA SHIPPED 1 JULY 1943 THROUGH 10 JUNE 1944

	1 JULY 1943 TO 10 MAY 1944(1)			10 MAY 1944 TO 10 JUNE 1944			TOTAL		
	Gross Long Tons	Ship Tons	Dollar (2) Value	Gross Long Tons	Ship Tons	Dollar Value	Gross Long Tons	Ship Tons	Dollar Value
	173,018	228,587	9,622,000	-	-	-	173,018	228,587	9,622,000
	226,110	286,053	18,719,000	-	-	-	226,110	286,053	18,719,000
	39,460	54,437	4,702,000	11,372	15,055	1,905,000	39,460	54,437	6,607,000
	6,182	7,657	837,000	-	-	-	6,182	7,657	837,000
	40,232	55,272	12,253,000	-	-	-	40,232	55,272	12,252,000
	8,230	11,144	1,598,000	425	759	148,000	8,230	11,144	1,686,000
	48,879	62,813	17,413,000	6,513	8,251	2,729,000	48,879	62,813	20,142,000
	542,111	705,963	65,084,000	18,310	24,065	4,782,000	542,111	705,963	69,866,000
	1,809	5,086	1,358,000	-	-	-	1,809	5,086	1,358,000
	10	23	97,000	-	-	-	10	23	97,000
	17	30	86,000	-	-	-	17	30	86,000
	140	259	73,000	-	-	-	140	259	73,000
	114.3	203.4	292,000	11.4	22.3	6,000	125.7	225.7	298,000
	2,090.3	5,601.4	1,906,000	11.4	22.3	6,000	2,101.7	5,623.7	1,912,000
	6,555	74,587	436,000	49,195	55,456	310,000	115,750	130,043	746,000
	-	-	-	-	-	-	-	-	-
	6,555	74,587	436,000	49,195	55,456	310,000	115,750	130,043	746,000
	1,971	2,462	106,000	1,849	2,165	99,000	3,820	4,627	205,000
	986	1,100	35,000	-	-	-	986	1,100	35,000
	2,715	2,650	277,000	-	-	-	2,715	2,650	277,000
	-	-	-	31	56	11,000	31	56	11,000
	-	-	-	.4	.4	1,000	.4	.4	1,000
	5,672	6,212	418,000	1,880.4	2,221.4	111,000	7,552.4	8,433.4	529,000

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NARS, Date 12-18-75

SECRET

Shipments (Cont'd)

	1 JULY 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	1,511	5,696	6,917,000	-	-	-	1,511
Matches	65	184	23,000	20	62	7,000	85
Newsprint	2,147	3,355	148,000	275	461	18,000	2,422
Miscellaneous Paper	228	296	61,000	36.3	46.5	13,000	264
Cotton & Paper Flour Sacks	42	79	45,000	72	151	9,000	114
Soap	4,052	3,951	521,000	-	-	-	4,052
Tarpaulins	2	5	3,000	2.7	7.7	3,000	4
Twill	3	7	2,000	-	-	-	3
Roofing	791	984	44,000	-	-	-	791
Coal & Other Mining Supplies and Equipment	308	386	75,000	10.5	10.1	3,000	318
Cigarette Supplies	170	344	227,000	135	124	116,000	305
Seed Beans	195	216	62,000	-	-	-	195
Copper Wire	2.6	3.2	5,000	2.3	4.1	2,000	4
Automobiles	-	-	-	7.3	71	8,000	7
Total	9,516.6	15,506.2	8,133,000	561.1	937.4	179,000	10,077
GRAND TOTAL	607,634.9	783,004.6	75,977,000	49,957.9	82,702.1	5,328,000	677,592

NOTES: (1) It should be noted that the present method of analysis of shipping reports has been in operation only si... February. Consequently, the information as to shipments made prior to 10 February is subject to adjust... 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 transpor... first inland depot. In some instances exact net quantities are not yet known and costs have been estim... from gross quantities.

(3) It should be noted that present and future shipments of medical items to this theater will be spot items... needed. It is unlikely that more basic units will be requisitioned. Included in the shipments 10 May ... shipped to 10 June is 10 gross tons and 19.7 ship tons of medical supplies for which no dollar value ha...

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Shipments (Cont'd)

1 JULY 1943 TO 10 MAY 1944			10 MAY 1944 TO 10 JUNE 1944			TOTAL		
Gross Long Tons	Ship Tons	Dollar Value	Gross Long Tons	Ship Tons	Dollar Value	Gross Long Tons	Ship Tons	Dollar Value
1,511	5,696	6,917,000	-	-	-	1,511	5,696	6,917,000
65	184	23,000	20	62	7,000	85	246	30,000
2,147	3,355	146,000	275	461	18,000	2,422	3,816	166,000
228	296	61,000	36.3	46.5	13,000	264.3	342.5	74,000
42	79	45,000	72	151	9,000	114	230	54,000
4,052	3,951	521,000	-	-	-	4,052	3,951	521,000
2	5	3,000	2.7	7.7	3,000	4.7	12.7	6,000
3	7	2,000	-	-	-	3	7	2,000
791	984	44,000	-	-	-	791	984	44,000
308	386	75,000	10.5	10.1	3,000	318.5	396.1	78,000
170	344	227,000	135	124	116,000	305	468	343,000
195	216	62,000	-	-	-	195	216	62,000
2.6	3.2	5,000	2.3	4.1	2,000	4.9	7.3	7,000
-	-	-	7.3	71	8,000	7.3	71	8,000
9,516.6	15,506.2	8,133,000	561.1	937.4	179,000	10,077.7	16,443.6	8,312,000
607,634.9	783,864.6	75,977,000	69,957.9	82,702.1	5,388,000	677,592.8	866,506.7	81,365,000

ted that the present method of analysis of shipping reports has been in operation only since the first of quently, the information as to shipments made prior to 10 February is subject to adjustment as more accurate btained from a further analysis of prior shipments.

mated cost not including overseas shipping cost or, in most instances, domestic transportation costs beyond pot. In some instances exact net quantities are not yet known and costs have been estimated by conversion ities.

ted that present and future shipments of medical items to this theater will be spot items requisitioned as unlikely that more basic units will be requisitioned. Included in the shipments 10 May to 10 June and Total une is 10 gross tons and 19.7 ship tons of medical supplies for which no dollar value has been included.

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NOTES (Cont'd): The spot requisitions are made up of many items for which prices must be obtained individ statistics are compiled the dollar value will be added to future reports and a footnote m 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 theater quired to meet relief needs. No record of this distribution is as yet available here.

(5) A change has been made from the previous month's report to correct an excess of 360 gross tons, and 36,000 dollar value reported in error on 10 April to 10 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 many items for which prices must be obtained individually. As soon as ...tistics are compiled the dollar value will be added to future reports and a footnote made. It is im-...acticable to attempt an estimated dollar value to include in this report.

...l petroleum products were shipped as military supplies and distributed in the theater to the extent re-...ired to meet relief needs. No record of this distribution is as yet available here.

...change has been made from the previous month's report to correct an excess of 360 gross long tons, 336 ship ...ns, and 36,000 dollar value reported in error on 10 April to 10 May report.

...il Affairs Committee, Supply Sub-Committee, CCAC (S) 1/23.

...information available to ACC on shipments to Italy.

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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

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	25.726	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	5.477.198			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	140.050
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	13,1	
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	2.810
5. Flax - fibre	3.578	25.010	6,0	12.810
- seed	4.189	15.274	14,5	2.660
6. Other Crops	1.054			167.246
	172.889			
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

	Actual - 1936			Estimates - 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
	389.780	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		
Crops						
	636.983	5.178.310	8,1	513.850	3.948.350	7,7
	546.660	2.693.400	4,9	481.800	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
	26.282	317.532	12,8	31.726	351.321	11,1
		822.040	13,1		649.710	10,4
	67.354	27.580	-	62.410	34.640	-
		21.369	1,9		20.595	1,6
	10.736	38.744	3,6	12.830	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	36.466	13,7
	172.889			187.246		
m Basis						
ear planting	1.251.477	67.169.300	53,6	1.167.500	57.223.500	49,0
r planting	464.317	5.753.200	12,3	450.700	6.602.150	14,6
	174.084	9.309.900	53,4	253.600	8.332.400	32,8
for 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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Estimate of Agricultural Production, 1945 Season
Tuscany, Emilia and the Mainland to the South, and the Islands
Tree Crops

Crops	Actual - 1936			Es
	Area in Hectares		Total Production in Quintals	To
	Specialized	Promiscuous		
I Vines	674.408	2.119.244		
1. Grapes			40.866.510	
2. Wine			24.933.660	
II Olive Trees	767.238	1.322.348		
1. Olives			8.262.980	
2. Oil			1.276.240	
III Citrus Fruits				
1. Oranges	26.464	21.673	3.616.270	
2. Tangerines	2.503	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	1.669.546	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	782.768	372.680	
VI Dried Fruits				
1. Almonds	165.021	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	1.186.856	2.761.860	

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Estimate of Agricultural Production, 1945 Season
Tuscany, Emilia and the Mainland to the South, and the Islands
Tree Crops

Agricultural
Appendix A-2

Crops	Actual - 1936		Estimates - 1945
	Area in Hectares		
	Specialized	Promiscuous	Total Production in Quintals	Total Production in Quintals
	674.408	2.119.214		
pes			40.866.510	42.230.000
e			24.933.660	25.159.000
rees	767.238	1.322.348		
rcs			8.262.980	10.654.000
			1.276.240	1.682.000
Fruits				
ges	26.464	21.673	3.616.270	3.172.100
erines	2.503	22.322	599.090	558.920
ns	22.185	21.697	2.837.070	2.986.530
Citrus Fruits	3.671	1.110	251.240	270.220
s Fruits				
les	7.120	1.357.062	1.747.669	1.144.300
s	3.487	1.669.546	1.263.650	1.042.000
ces - Pomegranates	146	119.673	88.630	88.100
us Fruits				
ries	1.349	938.347	517.330	497.000
hes	15.524	936.788	989.080	1.168.500
cots	1.990	315.845	206.430	228.500
s	2.464	782.768	372.680	398.200
uits				
nds	165.021	752.722	1.611.850	1.817.800
	1.036	611.995	350.930	347.600
l Nuts	28.647	46.916	258.690	190.210
b Beans	8.214	114.960	577.440	507.150
uit Trees				
	40.916	1.186.856	2.761.860	2.822.200

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0383

Estimates of Requirements of Fertilizers and Parasiticides, Season 1944-45
Tuscany, Emilia, and the Mainland to the South, and the Islands

Crops	Fertilizer Requirements						Parasiticide R
	Phosphate		Nitrates		Potassium		Parasiticides
	Super Phosphate 14/16%	Fertilized Areas	Expressed in Ammonium Nitrate 33/35%	Fertilized Areas	Expressed in Potassium Salt 40/42%	Fertilized Areas	Copper Sulphate / Sulphate: Plain / Sulphate: Copper / Iron Sulpha
	ql.	%	ql.	%	ql.	%	ql. / ql. / ql. / ql.
A. Cereals							
1. Wheat	2.829.900	25.0	776.710	37.7	...		... / = / = / =
2.3.4. Rye, Barley, Oats	27.000	1.4	6.300	2.2	=		... / = / = / =
5. Rice	29.400	95.4	5.946	96.9	...		... / = / = / =
6. Corn	844.500	36.1	121.575	44.2	...		... / = / = / =
	3.730.800	23.6	900.531	34.3	2.750	...	(1)... / = / = / =
B. Dried Legumes & Other Food Crops							
1. Horse Beans	1.824.933	96.6	=	0	...		= / = / = / =
2. Other Legumes	718.400	48.3	=	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	76.7	+		+ / ... / ... / ...
	3.754.900	69.4	218.484	22.1	26.062	1.3	17.420 / ... / ... / ...
C. Industrial Crops							
1. Sugar Beet	177.600	100.0	39.660	100.0	+		= / = / = / =
2. Tobacco	103.960	100.0	24.650	100.0	+++		= / = / = / =
3. Hemp	256.800	89.2	40.854	99.2	+		= / = / = / =
4. Cotton	12.400	45.2	1.690	45.2	=		= / = / = / =
5. Flax	=	0	720	10.2	=		= / = / = / =
6. Other Crops	=	0	=	0	...		= / = / = / =
	550.760	82.9	107.574	87.1	37.063	15.6	= / = / = / =
D. Forage Crops- Meadows							
1. Not 1st yr. plt	1095.500	25.6	42.750	8.1	+		= / = / = / =
2. 1st yr. plt	312.353	17.2	2.700	1.3	+		= / = / = / =
3. Annl.-forage	248.000	30.0	22.050	19.3	...		= / = / = / =
4. Intstt. for "	180.000	21.2	50.850	40.0	=		= / = / = / =
	1795.853	23.8	118.350	12.2	6.750	0.2	= / = / = / =

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S.C.S.

Ectimates of Requirements of Fertilizers and Parasiticides, Season 1944-45
Tuscany, Emilia, and the Mainland to the South, and the Islands

Appendix B

Fertilizer Requirements					Parasiticide Requirements				
te	Nitrates		Potassium		Parasiticides				Insecticides
rtilized Areas	Expressed in Ammonium Nitrate 33/35%	Fertilized Areas	Expressed in Potassium Salt 40/42%	Fertilized Areas	Copper Sulphate	Sulphate Plain	Sulphate Copper	Iron Sulphate	(see foot notes)
%	ql.	%	ql.	%	ql.	ql.	ql.	ql.	
25.0	776.710	37.7	...		...	=	=	=	
1.4	6.300	2.2	=		...	=	=	=	
95.4	5.946	96.9	...		...	=	=	=	
36.1	121.575	44.2	...		...	=	=	=	
23.6	900.531	34.3	2.750	...	(1)...	=	=	=	(d+++)(e++)(h+++)
96.6	=	0	...		=	=	=	=	(h+)
48.3	=	0	...		=	=	=	=	(h+)
62.7	129.867	62.7	++		++	=	=	=	
60.6	20.401	68.3	+		++	=	=	=	
59.4	68.216	76.7	+		+	...	...	...	(c++)(d++)(f++)
69.4	218.484	22.1	26.062	1.3	17.420	...	...	...	
100.0	39.660	100.0	+		=	=	=	=	(d++)
100.0	24.650	100.0	+++		=	=	=	=	
89.2	40.854	99.2	+		=	=	=	=	
45.2	1.690	45.2	=		=	=	=	=	
0	720	10.2	=		=	=	=	=	
0	=	0	...		=	=	=	=	
82.9	107.574	87.1	37.063	15.6	=	=	=	=	
25.6	42.750	8.1	+		=	=	=	=	
17.2	2.700	1.3	+		=	=	=	=	
30.0	22.050	19.3	...		=	=	=	=	
21.2	50.850	40.0	=		=	=	=	=	
23.8	118.350	12.2	6.750	0.2	=	=	=	=	(cont. on next page)

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C 9 6 3

Estimates of Requirements of Fertilizers, etc. - continued

E. Tree Crops		(≠)		(≠)		(≠)	754.250	350.570	79.470	+++	(h
1. Vines	166.000	5.3	3.150	1.0	...		44.170	=	=	=	
2. Olives	260.067	8.8	55.884	11.4	+		...	=	=	+	(a
3. Citrus Fruits	133.767	31.6	34.780	32.9	++		31.690	=	=	+	(a
4.5 Other "	56.600	21.5	6.552	27.9	...		=	=	=	...	
6.7 Dried "	14.000	1.4	2.205	1.4	...		830.110	350.570	79.470	9.760	
	630.434	7.4	102.571	7.0	21.500	0.6	847.530	350.570	79.470	9.760	
Grand Total	10.462.747	28.3	1.147.510	24.5	94.125	0.6					

Notes

(≠) The percentage is referred only to the specialised area.
(1) The negligable quantities of disinfectant used for the seed has been considered with that needed for the "B" crops.

=	Zero
...	Small, negligable 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 Disulfide	"	5.620
(i)	Formicide	"	230
(l)	Polysulphides	"	610

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Estimates of Requirements of Fertilizers, etc. - continued

A)		(A)		(A)	754.250	350.570	79.470	+++ (h+)
.3	3.150	1.0	...		44.170	=	=	=
.8	55.884	11.4	+		...	=	=	+ (a+++)(g+++)(l+)
.6	34.780	32.9	++		31.690	=	=	+ (a+)(b+++)(c+++)(d++)(i++)
.5	6.552	27.9	...		=	=	=	...
.4	2.205	1.4	...					
.4	102.571	7.0	21.500	0.6	830.110	350.570	79.470	9.760
.3	1.447.510	24.5	94.125	0.6	847.530	350.570	79.470	9.760

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that needed for the "B" crops.

antity

....	ql.	3.500
.....	"	1.720
. .....	"	2.343
.....	"	4.055
.....	"	61
.....	"	46
.....	"	1.055
.....	"	5.620
.....	"	230
.....	"	610

S E C R E T

INDUSTRIAL APPENDIX

PROGRAMME FOR THE REHABILITATION
OF ITALIAN INDUSTRY

I N T R O D U C T I O N

This first instalment of the programme covers only the following essential industries of Italy:

Soap production
Paper production
Textiles
Tobacco and Matches
Fertilizers

and contains a memorandum on the present productive possibilities of the Italian Steel Industry.

These industries have been selected as representative of industries contributing to the basic essential needs of any civilized community. Soap has been selected as being of prime importance to the community's standard of health, paper as representative of an essential product whose local manufacture can seriously contribute to an alleviation of the strain on shipping space, textiles have been included with a view to reflecting the extent of the rehabilitation problem as a result of war damage, and of Italy's present unbalanced economy without her industrial northern regions, tobacco and matches for the important part they play - as monopoly commodities - in the Governmental financial structure, fertilizers as a reflection of the amount of work already accomplished in the field of rehabilitation, and as illustrative of one of the major basic industries, the products of which will play such a fundamental part in increasing the volume of locally produced food.

It will be found that each industrial section is subdivided into 8 parts.

Part I is introductory and gives on the broadest lines the general problems involved in the rehabilitation of the industry in question and the production possibilities.

Part II which was prepared by the Commerce Sub-Commission gives the necessary statistical data enumerating the minimum essential civilian needs of the product for a population of 25,000,000 and a justification for the inclusion of the end products of the particular industry in the category "essential".

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Textiles
Tobacco and Matches
Fertilizers

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Part III indicates the production potential in detail of the industry in the territory covered by the programme, i.e. all the mainland of Italy lying south of the Pisa-Rimini line and the islands of Sicily and Sardinia.

Part IV indicates the production potential of the necessary raw materials and subsidiary industries which contribute to the production of the end product covered by the particular section.

Part V embraces supporting factual data for the production estimates in parts III and IV. In most instances it also

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includes full details concerning the major production unit of the industry involved, and the facts enumerated in this part are to be read as conclusive evidence that the estimated production is capable of actual achievement if the programme is implemented in its entirety.

Part VI is devoted to qualifying the position with regard to past requisitions and the requisitions that are in process of preparation in order that, through their fulfillment, the entire programme may be implemented.

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 resultant 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 dimunition of availability of electric motive power, great care has been given to obtaining 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.

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.

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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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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 234 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 avilable 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 entire 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 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 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.

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PART II - REQUIREMENTS AND JUSTIFICATION

A. Bases and justification.-

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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.

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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 C-54 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 C-54 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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A. Bases 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 requirement for 12 months.

(1)	Allied Forces	3,600 tons
(2)	Civilian minimum needs	45,000 "
(3)	Italian armed forces	1,692 "
	Total:	50,292 tons

C - No toilet or baby soap is included in the above estimates. If possible to produce a soap of finer quality than the above coarse type, assuming an average family of 4 persons and the limitation of such soap to baby uses by a low percentage ration, 10% of the above civilian needs would be the requirement for toilet soap or 4,500 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 3,600 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

27,000 tons

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Total: 50,292 tons

C - No toilet or baby soap is included in the above estimates. If possible to produce a soap of finer quality than the above coarse type, assuming an average family of 4 persons and the limitation of such soap to baby uses by a low percentage ration, 10% of the above civilian needs would be the requirement for toilet soap or 4,500 tons per year.

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f) bone grease and tallow.

The total production of fatty material is approximately

27,000 tons

g) Caustic soda - See Appendix "A" - 6,000 tons.
h) Carbon bisulphide - 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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PART IV - SUPPORTING DATA (contd)

Locality	Name	Maximum production capacity in M. tons per month
Sicily		
Province Messina	Vaccarino Giovanni	100
" "	Vaccarino Giovanni	100
" Palermo	Micale Francesco	200
" Catania	Anfuso	200
		600 M. tons
Sardinia		
Province Cagliari	La Fantole	50
" Nuoro	Deriu Portigali	50
" Sassari	Maseddu	100
		200 M. tons
Mainland (West Coast)		
Province Naples	De Salvi Romeo	200
" Naples	Ing. Giuliana A.	200
" Naples	Connevale	100
		500 M. tons
Province Rome	Mira Lanza	800
" Rome	Zarelli	700
		1,500 M. tons
(East Coast)		
Province Bari	Cleifici It. Meridion	600
" Bari	Lmdolfo	400
" Bari	Lonigro	200
" Bari	Borelli	150
" Brindisi	L'Abbate	100

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"	Catania	Aruso	200
			600 M. tons

Sardinia

Province	Cagliari	La Fantola	50
"	Nuoro	Deriu Bortigali	50
"	Sassari	Masuddu	100
			200 M. tons

Mainland (West Coast)

Province	Naples	De Salvi Romeo	200
"	Naples	Ing. Giuliana A.	200
"	Naples	Cannavale	100
			500 M. tons
Province	Rom	Mira Lanza	800
"	Rome	Zarelli	700
			1,500 M. tons

(East Coast)

Province	Bari	Cleifici It. Meridion	600
"	Bari	Lmdolfo	400
"	Bari	Lonigro	200
"	Bari	Borelli	150
"	Brindisi	L'Abbate	100
"	Lecce	Magli, Supersmo	250
			1,700 M. tons

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Total yearly capacity:

54,000 M. tons.

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PART V - SUPPORTING DATA.

In this total, figures concerning 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 Florance is still in the fighting zone but in view of the already known excess of possible production, it is not considered necessary to the emergency programme that these factories in the forward area need be immediately reactivated.

B - Raw Materials.

a) Sansa

The quantity of the "sansa" depends upon the new olive crop and is estimated for this year at about

500,000 M. tons

The "sansa" contains as an average 8% 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 oil", 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 "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 materialsrecovered, during the refining process of the different qualities of olive oil, as stated above, the follow-

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The total amount of "fatty acids" available for soap manufacture therefore, is:

23,500 M. tons.

In addition to the fatty materialsrecovered, during the refining process of the different qualities of olive oil, as stated above, the following quantities of fats were produced yearly south/of the Pisa-Rimini line:

a) bone-grease	1,600 M. tons
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 60%), 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 on a poor farm, 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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B - Raw Materials (contd)

Therefore it is estimated that if the Rossignano 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 prewar production), thus making available for the peasants 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 bisulphide

The quantity of carbon bisulphide needed for processing the "sanse" is estimated at

3,500 M. tons

Plants to produce carbon bisulphide are being reactivated. 3,500 M. tons can be produced in the year 1945. Provided this programme is realised in time it can be considered that the "sanse" will 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

6,000 M. tons

corresponding to a monthly requirement of 500 M. tons. This quantity can be produced by the Rossignano-Solvay plant, provided this can be reactivated.

A report on the proposed programme for the manufacture of caustic soda at the above plant is attached as Appendix "A".

D - FUEL

The fuel chiefly used is "exhausted sanse" (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 sanse" a quantity of

3,000 M. tons

of Sardinian coal is needed.

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A report on the proposed programme for the manufacture of caustic soda at the above plant is attached as Appendix "A".

D - FUEL

The fuel chiefly 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

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3,000 M. tons

of Serdinian coal is needed.

E - ELECTRIC POWER

Electric power requirements are almost negligible. The electric power absorbed is from 30 to 50 KW., corresponding to an average consumption of 100 KWH per 1 M. ton of soap.

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PART VI - REQUISITIONS

a) As the figures set forth in Part V show and assuming that carbon bisulphide, and caustic sode production be realised according to estimates, 50,000 M. tons of so ap can be scheduled for production. Therefore no further requisitions need be lodged for outside supplies of soap.

PART VII - EFFECT ON SHIPPING SITUATION

The realisation 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 50,000 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 covered from local resources and existing plant capacity, provided that the carbon bisulphide plants and the caustic sode Rosginene-Solvay plant be reactivated by January 1945.

2) The success of the above programme depends chiefly on the transportation of the "sansa" 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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SECTION I. SOAP

APPENDIX A

SUBJECT: REPORT ON 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 Caubergh. He is an engineer and administrator of high quality and attends all Solvay interests in Italy, e.g., Societa Chimica dell'Aniene 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 reactivation of Italian industry. The synthetic textile industry (e.g. rayon and fiocco) alone consumed 20% 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 333 U.S. Engineer Regiment, Company B, under Captain Moorehead.

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 railroad 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 cooperation 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 500 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,

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b. Two cast iron pipe lines, respectively 25 and 39 km. in length and 350 and 400 mm. in diameter, connect Rosignano and Ponte Ginori, where some 80 salt wells supply the brine needed for the process. About 1.6 km. of these pipe lines have been badly damaged or destroyed, especially at points where the pipes cross rivers and ravines on 10 to 12 demolished highway bridges. Further, there is extensive damage to the electrically-driven pumping units

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which move the brine to Rosignano. Normally, about 116,000 cu.m. of saturated brine solution was sent to Rosignano per month. The life expectancy of these salt beds is stated to be many years.

Stocks of cast iron pipe adequate to effect at least temporary repairs are available and sufficient pumping units can be reassembled by a cannibalization program to ensure a continuous flow of brine to Rosignano in amount required by the reduced program set forth below. About three to four months are deemed necessary for this repair program.

c. Electric power: Sufficient electric power can be generated in modern equipment at Rosignano from Sardinian coal to meet all needs of that plant. However, 200 KW of electric power must be made available at Ponte Ginori for brine pumping (and 200 KW at the S. Vincenzo quarries). The provision of that power, formerly derived from Larderello, has been studied and it is expected that it will become available when the plant is ready to resume operations.

d. One ton of ammonia per day must be provided for continuous production of caustic soda and soda ash. This material is critically short and only enough exists in stock at the plant to ensure operation one minimum program for 35 days. Ammonia was formerly procured from the Terni group works at Nera Montoro, and it is hoped that a resumption of production at that plant in some five to six months when electric power again becomes available will ensure a continuous supply of ammonia. In the meantime, it is proposed to meet this deficiency by supplying 4 tons of ammonium sulfate per day.

e. Coal requirements for a minimum program are given at 210 tons Sardinian (or 150 tons imported steam coal) and 40 tons of good coke per day. Requisitions for coal and coke are in the course of preparation. The coke is an essential in producing the necessary burnt lime and carbon dioxide, and no other material may serve as a substitute.

3. Average prewar monthly production for the three products of this works was:

Soda Ash	10,000 m. tons
Caustic Soda	3,000 m. tons
Sodium Bicarbonate	900 m. tons

During the year 1943, production was reduced considerably, wherein the able Belgian manager on the scene employed many devices to achieve a general plant slowdown with a view to minimizing the production that might become available to the Germans. In January 1944, the plant finally suspended all operations and has remained idle ever since. War damage is estimated by the management at about 10-15% of the value of the plant and is confined largely to the pipe lines, power lines, piers, bridges, [illegible]

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3. Average prewar monthly production for the three products of this works was:

Soda Ash	10,000 m. tons
Caustic Soda	6,000 m. tons
Sodium Bicarbonate	900 m. tons

During the year 1943, production was reduced considerably, wherein the able Belgian manager on the scene employed many devices to achieve a general plant slowdown with a view to minimizing the production that might become available to the Germans. In January 1944, the plant finally suspended all operations and has remained idle ever since. War damage is estimated by the management at about 10-15% of the value of the plant and is confined largely to the pipe lines, power lines, steam boilers, chimney and the like and all repairable without importations from abroad.

4. Management and Labor: The management of this works is of the highest quality and may be depended upon to carry forward needed repairs and return the plant to operation with the minimum of outside assistance and delay.

Normally the plant employed 2500/3000 workmen and about 250 office and administrative personnel. A modern village, replete with schools for workers' children and vocational schools for present and potential workers, churches, hospital, shops for community needs, etc., has been built by

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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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(1) Soda Ash (in silos) approx.	1500 tons
(2) Caustic Soda	2000 tons
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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.

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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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(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 5e. 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 18/20 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.

(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.

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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.

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(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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8. Conclusions: The reactivation of this works is essential to re-starting Italian industry and supply elemental wants of the Italian people, especially for soap and edible oils. It is the decided policy of the Industry Sub-Commission to do all possible to facilitate the reactivation of this plant with the following steps:

a. Restoration of railway service between Rosignano and S. Vicenzo for movement of limestone to the works.
b. Restoration of two pipelines and pumping equipment for salt brine from Monte Cinori to Rosignano.
c. Supply of 200 KW electric power each to Monte Cinori and S. Vincenzo.
d. Supply of 1 ton of ammonia or 4 tons ammonium sulfate per day.
e. Supply of about 300 m. tons of Sardinian coal per day.
f. Supply of about 40 m. tons of metallurgical coke per day.
g. Supply of steel black plate from Terni for caustic soda drums.
h. Preserve the plant, equipment and raw materials against dispersal by requisition and military occupation with attendent plant disruption as far as possible. Particularly, the cast iron pipe for pipeline repair must be preserved.
i. It is estimated that the initial program of production can make available about 55,000 m. tons of caustic soda during 1945.

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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 fiocco. 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, Torrenieri, Siena	2,400
c. L'Insulare, S.P.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.

3647 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 [illegible]

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3647 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.

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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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 8000 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 8000 m. tons of carbon bisulfide, as against a present production of nil.

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SECTION I SOAT

APPENDIX C

Societa Umbra Prodotti Chimici, Collestatte (Terni)

Manufacture of Carbon Bisulphide. Plant Manager and Director Dott. Guido Sesti.

A. This is a modern works with eight electrically heated retorts. Its normal production was about 8000 m. tons per year of carbon bisulphide 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 CISA VISCOSA. 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 bisulfide 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 CISAVISCOSA 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 0.89. 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 5000 Kg. Carbon Bisulphide per day.

(2) Charcoal driers are six in number and each heated with 3 carbon electrodes and draw 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

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(1) Retorts. used vertical, concentric carbon electrodes each, and each retort draw 550 KVA at Cos ϕ of 0.89. 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 5000 Kg. Carbon Bisulphide per day.

(2) Charcoal driers are six in number and each heated with 3 carbon electrodes and draw 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 " " " " " " "

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(6) Seven steam heated distillation and condenser units for carbon bisulphide.
(7) Purified product storage for 100.000 litres.

C. Raw Material Requirements.

(1) 800 KW electrical power overall need 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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D. Stocks on Hand:

(1) Carbon Bisulphide crude 350 - 380 m. tons.
(2) All other materials in negligible quantities.

E. Recommendations.

Carbon bisulphide 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 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

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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 Meridionali, 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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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 imparted.

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:

1. In Detail — Type	Quantity: Tons (Government)	Tons (Civilian)
Newsprint		18,000
Printing Paper:		
a. for periodicals in rolls		5,000
b. " " flat bed		500
c. " books and magazines		8,500
d. " school books		2,500
e. " illustrations		1,000
f. roofing paper		3,000
g. miscellaneous	6,300	5,500
Writing Paper:		
a. letter paper		3,000

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e. " illustrations		1,000
f. roofing paper		3,000
g. miscellaneous	6,300	5,500
Writing Paper:		
a. letter paper		3,000
b. envelope paper		2,000
c. miscellaneous		5,000
Office Supplies:		
a. registers, etc.		2,000
b. letters copy books		150
c. block notes, etc.		500
d. steno books		3,000
e. mimeograph		900
f. manifold		700
g. blotting paper		300
h. miscellaneous	900	7,000

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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 small 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	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

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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Sacks and Bags:		
a. kraft, for making cement sacks, etc.		9,600
b. paper for small 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	6,300	26,000
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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.

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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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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 ..... 22,600 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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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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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
Prov. Macerata				

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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				
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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
Prov. Macerata				
Cartiera Miliani, Pioraco	10	3,000	-	-
Prov. Foggia				
Cartiera dell'Ist. Poligrafico dello Stato, Foggia	15	4,500	-	-
Total		21,000		15,900

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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:

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

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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.

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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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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
Cartiera Boimond, Isola del Liri	900 "
Cartiera Viscogliosi, Isola del Liri	400 "
Cartiera Visocchi & Arata, Ceprano	1,300 "
Cartiera Miliani, Picraco	700 "
Cartiera dell'Istituto Poligrafico dello Stato, Foggia	600 "

This plant has not its own hydroelectric power but thanks to the improved electric power situation on the southeastern coast the required 600 KW have already been allocated.

Cartiera Tiburtina, Tivoli 800 KW

From the required 800 KW, 300 KW are produced by means of their own coal power station and 500 KW have been already allocated for 6 hours daily.

Cartiera Nomentana, Rome 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.

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Cartiera Meridionali, Isola del Liri	2,200 KW
Cartiera Boimond, Isola del Liri	900 "
Cartiera Viscoglicsi, Isola del Liri	400 "
Cartiera Visocchi & Arata, Ceprano	1,300 "
Cartiera Miliani, Pioraco	700 "
Cartiera dell'Istituto Poligrafico dello Stato, Foggia	600 "

This plant has its own hydroelectric power but thanks to the improved electric power situation on the southeastern coast the required 600 KW have already been allocated.

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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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III. 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 these commodities is a chemical process, only becoming textile when it is used in subsequent manufacturing, it has been treated

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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.

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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 separately 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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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.

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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		
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(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 "
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(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 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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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

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5. For the purpose of textile distribution the population may be broken down as follows:

Men	8,500,000
Women	9,000,000
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	25,000,000

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3. Woolen Industry.

36[illegible]

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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PROVINCE	FIRM	ADDRESS	SPINDLES	LOOMS	ANNUAL YARN POTENTIAL IN LBS.	ANNUAL POTENTIAL
Sardinia		Macomer	-	37	Nil	
Salerno	Michele Napoli	Baronissi	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	860	15	- (4)	
Salerno	Gaetano Notari	Vietri sul Mare	900	19	- (4)	
Salerno	Angelo Liguori	Pelezzano	300	4	- (4)	
Campobasso	Loreto Marino	Trivento	300	1	- (4)	
Frosinone	S. Domenico	Isola Liri	1,260	16	20,000 (1)	
Catanzaro	Fratelli Leo	Marinelli	200	1	- (4)	
Bari	Lanificio Latterulo	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	Laziale	Tivoli	300	4	- (4)	
Roma	S. Bonaventura	Frascati	300	4	- (4)	
		TOTAL		167	228,000 (1)	8
Miscellaneous for whom data are not available				108	-	1
				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 usual and work only spasmodically.
(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
Michele Napoli	Baronissi	480	10	- (4)	40,000
Enrico Barone	Polla	200	3	- (4)	12,000
Aniello Barone	Polla	260	4	- (4)	20,000
Biagio Liguori	Polla	360	7	- (4)	30,000
Venanzio Guida	Lagonegro	400	9	- (4)	40,000
Pietro Guida	Lagonegro	860	15	- (4)	50,000
Gaetano Notari	Vietri sul Mare	900	19	- (4)	90,000
Angelo Liguori	Pelezzano	300	4	- (4)	20,000
Loreto Marina	Trivento	300	1	- (4)	5,000
S. Domenico	Isola Liri	1,260	16	20,000 (1)	20,000
Fratelli Leo	Marinelli	200	1	- (4)	5,000
Lanificio Lattarulo	Cioia del Colle	1,080	5	- (4)	20,000
Ippolito & Pisari	Isola del Liri	1,680	15	208,000 (1)	-
Lanificio Ponte Felcino (3)	Ponte Felcino	550	8	- (4)	60,000
Luna Emilio	Rieti	360	1	- (4)	6,000
A. Marinozzi	Rieti	400	4	- (4)	38,000
Laziale	Tivoli	300	4	- (4)	25,000
S. Bonaventura	Frascati	300	4	- (4)	25,000
		TOTAL	167	228,000 (1)	806,000
for whom data are not available			108	-	194,000 (2)
			275		1,000,000

t production expressed in lbs.
imated only, the relatively small loom output is due to the fact that these firms are usually antiquated work only spasmodically.
account taken of damaged machinery whose repair is problematical.
potential not estimated--assumed all consumed in piece production.

4. The following observations are made on the above table:-
a) Generally speaking the small spinning and weaving units are self-contained, 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 putput 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 prodiction 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

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PROVINCE	FIRM	ADDRESS	OPERATIVES	SPINDLES	LOOMS	ANNUAL YARN PRODUCTION (in lbs.)	ANNUAL PIECE PRODUC. (in yds)

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who cater for the wool producer's unmanaged allowance of 2 lbs. 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.

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Potential Industrial Yarn Production	-	1,225,000
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COTTON SPINNING

3639

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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COTTON WEAVING

PROVINCE	FIRM	ADDRESS	OPERATIVES	SPINDLES	LOOMS	ANNUAL YARN PRODUC. (in Lbs.)	ANNUAL PIECE GOODS PRODUC. (in yds.)
Salerno	Man.Cotoniere Meridionali	Angri	900	-	1,650		25,000,000
Salerno	" "	Fratte di Salerno	500	Finishing Dyeing & Printing only	-	-	-
Salerno	" "	Fratta Maggiore	250	-	350	-	2,500,000
Bari	Steolicchio Vincenzo	Andria	12	-	8	-	65,000
Bari	Scoppio Michele	Bari	50	-	73	-	500,000
Bari	Lanificio Lattarulo	Gioia del Colle	25		42		250,000
Ancona	Mondarini Leonildo	Falconara.	14	-	12	-	80,000
Ancona	Latini Ciccinto	Tesi	55	-	52	-	300,000
Ascoli	Toss.Macc.Iononi Muzio	Flomo	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	-	88	-	600,000
Benevento	Perlinghieri SA	-	15	-	48	-	300,000
Perugia	Ceccari Vincenzo	Foligno	15	-	53	-	350,000
			48	-	70	-	500,000

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		Ierno			only			
Salerno	" "	Fratta Maggiore	250	-		350	-	2,500,000
Bari	Steolic-chio Vincenzo	Andria	12	-		8	-	65,000
Bari	Scoppio Michele	Bari	50	-		73	-	500,000
Bari	Lanificio Lattarulo	Gioia del Colle	25			42		250,000
Ancona	Nondarini Leonildo	Falco-nara.	14	-		12	-	80,000
Ancona	Latini Giacinto	Tesi	55	-		52	-	300,000
Ascoli	Toss.Macc. Ioroni Muzio	Flomo	38	-		22	-	130,000
Ascoli	Buglia Aurelio	S.Bene-detto	34	-		35	-	220,000
Chieti	Ind.Tes-sile A-bruzzese	Lanciano	30	-		64	-	400,000
Arezzo	Colazzi & Cappelletti	S.Giovan-ni Val-darno	45	-		88	-	600,000
Bene-vento	Perlin-ghieri SA	-	15	-		48	-	300,000
Perugia	Ceccari Vincenzo	Foligno	15	-		53	-	350,000
Teramo	Migliora-ti 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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PRIVINCE	FIRM	ADDRESS	OPERATIVES	SPINDLES	LOOMS	ANNUAL YARN PRODUC. (in lbs)	ANNUAL PIECE GDS PRODUC. (in yds)
Napoli	Lanza Umberto	Ottaviano	25	-	75	-	550,000
"	Nappo	"	18	-	9	-	65,000
"	Man.Tess. Vesuviana	S.Giuseppe Vesuviano	25	-	48	-	300,000
"	Loppo Salvatore	"	18	-	33	-	190,000
"	Galdi Francesco	Terzigno	18	-	33	-	190,000
"	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
"	Famia Domenico	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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"	Galdi Francesco	Terzigno	18	-	33	-	190,000
"	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
"	Famia 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

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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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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.

(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 [illegible]

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	" Thread "	90,000	
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2. Primary Raw Materials.

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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wool, about half of which will go to the producer under the amassment 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, overcoatings 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) amassment 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.

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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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ia, 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 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 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, Cascntino), 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 (Pontefelcino, Vietri sul Mare, Baronissi, Polla Lagonegro, Gioia del Colle).
(iv) It should be noted that there is no woolen spinning or weaving in Sicily, our [illegible]

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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 (Roma, Maconer (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 (Hougot) make, and of antiquated type, especially in the smallest plants.

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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 Sardo).

Condition. Buildings and Pl...

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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).

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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. Now 1940.

(ii) 37 heavy wide looms independently drive, total capacity 1000 meters per day, single shift.

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(iii) ~~Winding and Warping Frames~~) adequate to loom
(iv) Finishing Machinery) 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 difficulticsanticipated. 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.

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(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.

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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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Potential Production: 180,000 to 200,000 lbs. per annum.

Types of Cloth: Papermakers felt.

Plant: (i) Two turbines totalling 128 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 $48^{s}/56^{s}$ 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.

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(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 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.

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3633 (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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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 Manifatturo 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

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.

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Marche	122	-	141
Tuscany (Prov. of Arezzo only)	88	-	75
Total	3,686	120,476	4,360+

(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

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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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363 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-) dycing, printing,) finishing.)
Frattamaggiore - Weaving - in course of rehabilitation
Naples - spinning and weaving - rehabilitation a long term policy.
Piedimonte - spinning - destroyed.

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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

Fuel Requirements: Negligible.

Power Requirements: Dependent upon public utility service which has been completely wrecked.

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(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: 15,608 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

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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(. .) The factory is situated near the railway station of Scoleto, 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 indigeneous 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 7,488,000 lbs. " months pro-
29 July 959,040 " Egyptian duction
for Manifatture Cotoniere Meridionali)(See Appendix "E").

3632

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(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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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 isproposed 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 mm, 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	fe[illegible] various widths

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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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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:

3631

(a) Amount of employment given and its effect upon the Italian economic and political life, and

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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.

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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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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

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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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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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			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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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 45,000,000 kgs. of fiocco (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	Fiocco
(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) Fiocco (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 plant of

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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) Fiocco (staple fibre)
(b) Rayon (continuous filament)

3629 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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(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					

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1942	Rome	Rieti	Aprilia	Totals	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.

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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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B. RAYON (contd)

salt (NACL)	0.3 tons
coal (Sardinian)	6.1 tons
Electric power (KWH)	4000

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 11,322 tons of cellulose will have to be imported from abroad.

The 7,578 tons of caustic soda can be locally produced if the programme for the rehabilitation of the soda solvey 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 17,538 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 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

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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 11,322 tons of cellulose will have to be imported from abroad.

The 7,578 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 17,538 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 IN PARTS III AND IV

(a) ROME:

This plant suffered only mildly from aerial bombing, and that exclusively to rayon spinning equipment. Ficcco 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 measusre 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 asAppendix 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 ia appended as Appendix A2.

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(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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(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 (B) 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

Sincere 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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HEADQUARTERS
ALLIED CONTROL COMMISSION
INDUSTRY SUB-COMMISSION
APO 394

APPENDIX A2.

WEM/rj

Tel. 556

21 July 1944

Ref. ACC/5596/IND

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 severely damaged, chiefly by German demolitions. It is under control of PBS 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 con-

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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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(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 curren' breakers.
(34) Much shafting, pulleys, multi-sheave drive wheels.
(35) Stocks of leather and rubber endless U-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 rayong 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 seriosly damaged but believed to be repairable, a third is complete-

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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.
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(40) Large number of rayon spinning pumps.
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(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 seriasly 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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D. Comments and Recommendations.

(1) This plant is too badly damaged 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 Rieti 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. ficcce and 10.000 Kg. rayon per day.

B. Plant and Equipment.

(1) Nine caustic steeping tanks and hydraulic presses with a capecity of 3.000 Kg. of initial cellulose per press per day. Hydraulic pumps and motors must be brought from Naples.
(2) Twelve large Pensotti 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 28 Kg/cm sq.
  (b) Four low pressure boilers; two B & W and two Angelo-Puttney, each 6/7 tons steam per

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B. Plant and Equipment.

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(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-Buttner, each 6/7 tons steam per hour at 16 Kg/cm. sq.
  (c) Two Franco Tosi steam turbo-generators which top the steam to 3 Kg/cm. sq.
    1350 KW high pressure 28 Kg/cm. sq.
    900 KW low " 16 " " "

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These two units formerly produced 85% 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: 23 tons.
(5) Salt: 350 tons.
(6) Lignite: 300 tons.

D. The Company has advanced a plan of operations that initially embreces 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 filement) 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 ray on filament are stated to be:

78 m. tons cellulose
51 m. tons caustic soda
22 m. tons carbon bisulphide

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130.000 KWH Electric Power (250 KW)

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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
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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(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 month's 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. 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 Novalmeccanica, 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 5000/9000 Kg. Rayon filament and 5000/6000 Kg. ficcco per day.

C. All Italian rayon (continuous filament) was sold through a cartel known as "It. rejon", MILANO.

A cartel known as "Italviscosa", Milano, sold the ficcco output of Snia Viscosa, Cisa Viscose and Chatillon, and accounted for 95% of Italian ficcco 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.

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Rome Telephone Cisa Viscosa 62909
Via Dei Sabini.

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APPENDIX E

TEXTILE REQUIREMENTS FOR CIVILIAN POPULATION, SPECIFICATIONS, JUSTIFICATION AND INDIVIDUAL ALLOTMENTS.

Item & Specification	Justification	Recommended requirement per Individual
(a) Flannel approximate construction 44x38 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 mens 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 women) 3 yds per garment	1 1/3 "
	-Men (2/5 per man)	

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(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

~~281,000,000~~ 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 (2 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.P. 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.

11,915,000 yds.
To be used for;
-Two piece men's suits
2/5 suit per men . . . . . 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 over-coating 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 women)
3 yds per garment . . . . . 1 1/3 "
-Men (2/5 per man)
3 yds per garment . . . . . 1 1/3 "

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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 manipula ted 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.

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.

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22/24 oz.		
Overcoating 27/28 oz. 54" wide, wool or manipula ted 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 "
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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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Item and Specification	Justification	Recommended requirement per individual
(e) 36" wide, 3½/4 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 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 an d 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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	1 yd per garment	½ "
(f) Utility fabrics 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 woman 2½ yds per garment.	9 "
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	- 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 "

3622

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Specification	Individual 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 proofed 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 8/9 oz.	2 per man 3½ yds per shirt	210,000 yds
Tropical shorts, 54" wide cotton gabardine	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

3621

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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 8/9 oz.	2 per man 3½ yds per shirt	210,000 yds
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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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Cotton yarn	socks 2 pr per man 1/4 lb per pair	175,000 lbs.

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SECTION 3 - TEXTILES

APPENDIX "D"

HEADQUARTERS
ALLIED CONTROL COMMISSION
ECONOMIC SECTION
APO 394

EEFK/edg

Ref. ACC/5157/IC

29 May 1944
Amended to
28 Aug.1944

SUBJECT: Production of Cotton Goods in Liberated Italy.

SURVEY OF THE MANIFATTURE COTONIERE MERIDIONALI

REFERENCES 1. Reference is made to this HQ even numbers of 11 Feb '44 and 20 Mar. '44, and to Calairgram 8 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, nemely 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, ANGRI 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, ANGRI, 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.

3620

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

Declassified E.O. 12356 Section 3.3/NND No. 785015

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3620

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 Banco di Sicilia,

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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 8/10,000,000 metres per annum (or 33-1/3% of potential), of which 20% approximately was going to the Italian War Minstry 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.

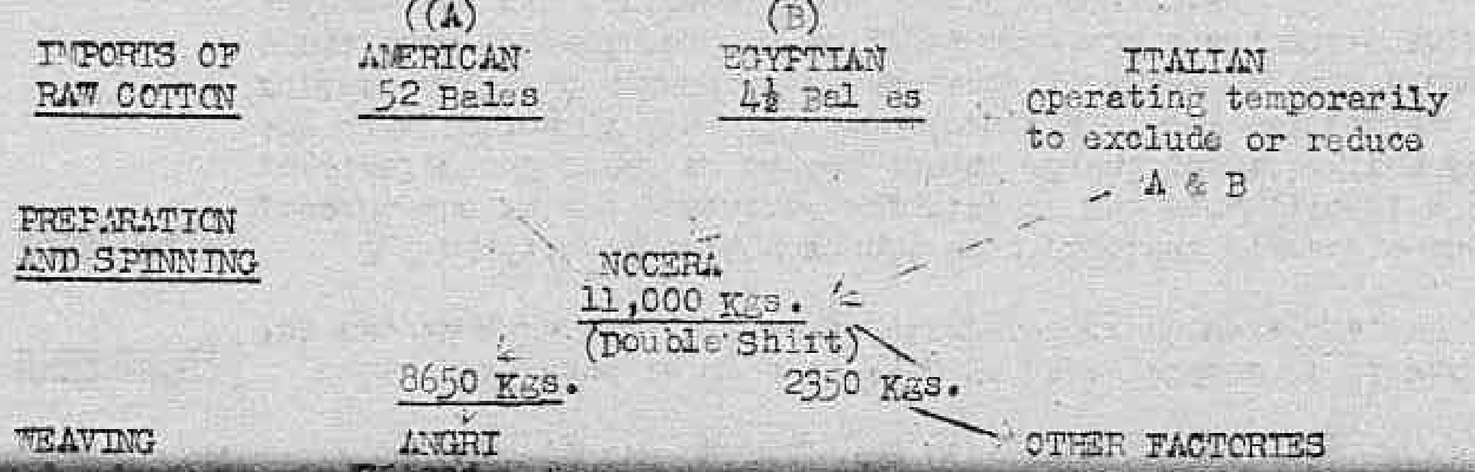
9. When the latter does arrive output will be increased almost to capacity. This will enable production to be maintained for 1-2 months, when imports of American or Egyptian cotton will be necessary to carry over until the 1944 Itd ian crop can be gathered and delivered though this can only be regarded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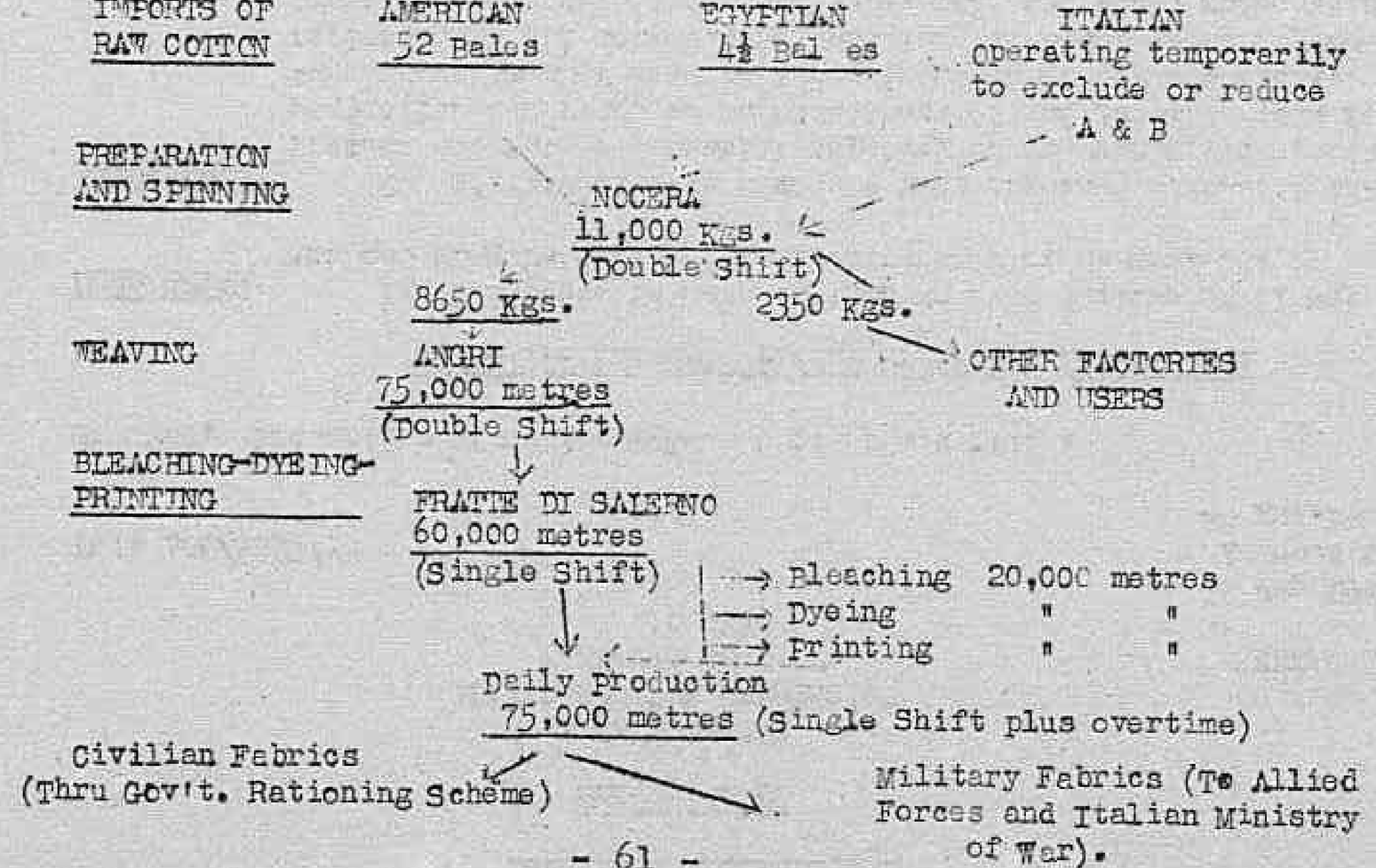

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M.C.M. II. RAW COTTON REQUIREMENTS.

1. The Spinning plant at NOCERA INTERIORE 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 "

3619

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

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to the best advantage, it is 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 "

3619
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. Fortunately 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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2. The machinery installed deals with the raw cotton from the bale to the finished yarn ready for werping or the shuttle. The plant was constructed with a view to the productionof an average count of 28s, and therefore, on account of the size and geuge 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 Crichton opener	45"	" "
2 Scutchers with 2 beaters	45"	" "
7 Scutchers (single)	45"	" "
2 Rag Machines		S. Brokks
1 Garnetting Machine		
1 Willey		Hannoversche 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 delivers	Nasmith
6 Drawing Frames	Alsacienne
14 " "	Platt Brothers
20 " " (106 Deliveries)	

d) Slubbing Frames (

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3. MACHINERY:

a) Preparation

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

d) Slubbing Frames (

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

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e) Intermediates

14	Intermediate	Marzoli 1940/41
8	"	Alsacienne 190 [illegible]09
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
6	" "	Dobson 1900
2	" "	Alsacienne 1908
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
188		72916

3618

i) Winding & Doubling

At present there are only 3 doubling frames, used chiefly for foldingyarns 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.

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12	"	"	Reiter 1908/09
64			

g) Jack Frames

6	Jack Frames		Marzoli 1940
6	"	"	Dobson 1900
2	"	"	Alsacienne 1908
1	"	"	" 1898
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i) Winding & Doubling

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

3	Doubling frames	Brooks Dow 1906
3	Twin Thread Cheesers	Schlafhorst &Koelliker
29	Tubular Cord twisters	Various
1	Weft rewinder	Leeson

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 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 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:

a) Winding — Maker & Year
10 Frames x 200 spindles — Ruti — -

b) Beam Warping (English system)
15 x creels x 600 bobbins — " — 1906
18 warping mills — " — -

c) Warp Sizing & Drawing
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 Kgs.
(b) Warping 4450 Kgs.
(c) Sizing 2220 Kgs. (2 shifts necessary)
(d) Knotting 2280 Kgs. (" " ")

f) Weaving. Reed Picks

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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 preperation 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 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 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:

a) Winding
10 Frames x 200 spindles — Maker & Year: Ruti - -

b) Beam Warping (English system)
18 V creels x 600 bobbins — 1906
18 warping mills — -

c) Warp Sizing & Beaming
3 machines — " 1907/20/25

d) Knotting
2 Automatic warp knotters — Barber & Coleman -
1 Model 5 E -
1 Model 4 E -

e) Production per 8½ hr shift of (a - d) above:-

(a) Winding 4450 Kg.
(b) Warping 4470 Kg.
(c) Sizing 2240 Kg. (2 shifts necessary)
(d) Knotting 2250 Kg. (" " ")

f) Weaving

	Reed Space	Picks per min.	Maker & Date	
27 looms	85 cm.	159	Bohemia	Date & Unknown
1 "	95 cm.	159	Maker	Unknown
2 "	100 cm.	159	"	"
888 "	105 cm.	159	"	"
69 "	112 cm.	159	"	"
1 "	115 cm.	159	"	"
45 "	125 cm.	159	"	"
26 "	135 cm.	118	"	"

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(f) cont'd.

1059 automatic weft changing looms

Weaving	Reed Space	Picks per min.	Maker & Date
454 looms	108 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. Somberger 1943
6	135		
36 dobby looms			

1651 total looms

g) 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	"	"	"
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 from the looms at ANGRI.

3. It may be noted that, although not adapted for

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24	127	"	1942
2	208	"	1942
30		H. Sumberger	1943
6	135		
36	dobby looms		

1651 total looms

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

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

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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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4. MACHINERY

As the plant is very extensive and is of a nature such as to require few if any replacements or speres, (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 "
3 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	Conschovitz
3 Tenters	Edmeston-Soldorf
3 Cal enders	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 - Pontedera
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 & Merceli
4 Brushing "	Moltrone
2 Winding "	-
2 Tentering "	Zittauer-Mather &Platt
4 Etching "	Mather & Platt
9 Printing "	" " 1922
1 " "	Gadet "
	Andre Kechting "

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1	Singeing Machine	Mather & Platt 1922
1	" "	Dehaitre "
12	Washing "	Mather & Platt "
3	Horizontal Bleachers	" " "
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Various rolling machines and hydraulic presses.

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

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

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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 an 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 have escaped serious damage, and M.C.M. are engaged in repairing and over-

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FRATTA-MAGGIORE --	250	" (not yet in operation)

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M.C.M. VIII FRATTAMAGGIORE

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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 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 looted.

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

3. Preparatory machinery, winding, warping, and sizing, has been almost completely destroyed. It will therefore be necessary to deliver warps ready beamed 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 PIEDIMONTE AND NAPLES (Poggioreale)

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.

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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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. ADAMS
Colonel, CE
Executive Officer,
Economic Section.

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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 80% 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

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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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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 Kg.	Cigars Kg.	Tobacco for Pipe and Cigarettes Kg.	Snuff Tobacco 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 consititute 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 $\frac{1}{2}$ 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:

	Pipe & Cigarette Tobacco	Snuff Tobacco	Total

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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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	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 these machines prevents increased production.

Chiaravalle	16 machines
Naples (Factories of S. Pietro Martire & Sez. 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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Chiaravalle	16 machines
Naples (Factories of S. Pietro Martire & Sez. 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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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 Attaina 1945 at P	
	Snuff	Pipe Tobacco	Cigars	Cigarettes	Total	Snuff	Pipe Tobacc
Bari	-	7.6	21.3	200.0	228.9	-	14.0
Cagliari	4.0	-	9.0	50.0	63.0	4.0	43.0
Catania	-	10.3	10.5	43.0	63.8	-	3.0
Chiaravalle	4.2	-	27.0	160.0	191.2	-	-
Lecce	3.5	-	-	46.0	49.5	3.5	-
Napoli SS. A e Sez. di Cava	-	-	59.6	-	59.6	-	-
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
Roma	-	-	-	131.5	131.5	-	-
Tons	16.1	138.4	133.0	901.0	1.188.5	11.9	116.0

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
va	-	-	59.6	-	59.6	-	-	50.0	-	50.0
. Scafati	-	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.

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.	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		Estimated stock
" Lecce	6.500	-	-	6.500		" "
" 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	440	-	-	440		
" " Perugia	900	-	-	900		
S. Giorgio	-	700	-	700		
Mag. Tab. Greg. Ancona						No advices
" " " Cagliari	400					

Monthly consumption is 500 tons cigarette tobacco and 335 tons 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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"	Catania	59	28	-	87	
"	Cava					No advices
"	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	Estimated stock
"	Lecce	6.500	-	-	6.500	" "
"	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	440	-	-	440	
" "	Perugia	900	-	-	900	
" "	S. Giorgio	-	700	-	700	
Mag. Tab. Greg.	Ancona					No advices
" " "	Gallipoli	400	-	-	400	Estimated stock
" " "	Lecce	9.676	-	-	9.676	
" " "	Scafati	-	40	50	90	
	Totals	20.049	6.838	171	27.058	835

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

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It has not been considered useful, for production in 1945, to calculate on replacement of the 49 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 so far 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 kilograms.)

Factory	Cigarette Paper in Spools of 1560 Meters (1)	Carton Card on Spools (2)	Packing Paper for Cigars, Cigarettes and Tobacco (3)	Packing Paper for Tobacco in Continuous Lengths (4)
	Kg.	Kg.	Kg.	Kg.
Bari	81,000	324,000	33,456	21,840
Cagliari	18,000	72,000	18,624	67,680
Catania	18,000	72,000	8,716	4,680
Chiaravalle	7,500	30,000	13,152	-
Lecce	48,000	192,000	15,360	-
Napoli SS.A. e Sez. Cava	-	-	28,800	-
Napoli S.P.M. e Sez. Scafati	30,000	120,000	18,720	74,100
Palermo	30,000	120,000	12,472	13,260
Roma	51,000	204,000	16,320	-
	283,500	1,134,000	165,620	181,560

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Factory	Cigarette Paper in Spools of 1560 Meters (1)	Carton Card on Spools (2)	Packing Paper for Cigars, Cigarettes and Tobacco (3)	Packing Paper for Tobacco in Continuous Lengths (4)
	Kg.	Kg.	Kg.	Kg.
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Cagliari	18,000	72,000	18,624	67,680
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Palermo	30,000	120,000	12,472	13,260
Roma	51,000	204,000	16,320	-
	283,500	1,134,000	165,620	181,560

Hemp Bands for Cigarette Machines

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 improvised with repaired bands while capacity was sought for local production. The machinery necessary for the fabrication of these hemp bands is particularly complicated, and although research still proceeds, it is considered inadvisable to consider as practical any other course than importation for the 1945 manufacturing program. It is understood that these belts 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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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
Catania	67	57,000	1,440
Chiaravalle	6.5	5,500	(not known, but small)
Lecce	90	110,000	300
Naples	80	160,000	1,200
Palermo	145	300,000	684
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.

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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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Naples	80	160,000	1,200
Palermo	115	300,000	684
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.

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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.

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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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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 D.B.	56 x 3820	600
	23 x 2300	600
Excelsior D.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.
Elongations, 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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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.
Elongations, 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

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Carton Card for Cigarette Production

Plant	Monthly Production of Cigaretts 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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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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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

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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

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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 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.

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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 Industric 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.

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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 Putigano (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)	"	

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years 1938 to 1943 inclusive.

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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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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	211.8	
Amorphous	24.0	
Potassium Chlorate	1.155.6	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	337.8	
Starch	514.4	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.

3608 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 Avellino production
Item 12 of Annex A - Cotton Thread for 'Cerini' production at Ceprariano

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Zinc Oxide	340.1	Produced in North Italy, north of Pisa-Rimini line
Manganese Peroxide	7.0	
Sodium Silicate	337.8	
Starch	514.4	Could only be produced in Italy at the expense of food
Gum (Arabic or Manila)	379.0	
Paraffin	228.0	
Stearine	3.162.0	

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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 Avellino production
Item 12 of Annex A - Cotton Thread for 'Corini' 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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PART VI REQUISITIONS

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.

PARTVII EFFECT ON SHIPPING SITUATION

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 VIII INCREASE OF PRODUCTION THROUGH IMPLEMENTATION OF PROGRAM

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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List of Raw Materials Required for One Year's Work

Broken Down by Plants

	Putignano (Pisano)									Benevento		
	Svedesi Safety	Solferati Sulphur	Empoli	Forterme	Fucecchio	Perugia	Jesi	Fondi	Napoli	Marsiglia	De Nigris	F
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	
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	
4. Potassium Chlorate	24.8	35.0	4.6	3.1	2.3	–	14.2	0.5	23.8	2.6	2.6	
5. Zinc White (Zinc Oxide)	2.2	9.8	1.3	0.9	6.3	–	3.8	0.14	7.6	0.7	0.7	
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	
8. Sodium Silicate	–	14.0	1.8	1.2	8.6	–	5.2	0.2	–	1.0	1.0	
9. Starch	16.0	8.4	1.1	0.7	5.4	5.4	3.3	0.15	9.3	0.6	0.6	
10. Gum (Arabic or Manila)	4.4	–	–	–	–	12.5	–	–	21.0	–	–	
11. Paraffin	22.8	–	–	–	–	–	–	–	–	–	–	
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	
15. Straw Paper for Match Boxes	–	280.0	36.0	24.0	202.5	–	110.2	4.0	–	20.0	20.0	
16. Straw Wrapping Paper (for packages of 100 boxes)	28.0	24.0	3.1	2.1	14.8	2.2	9.2	0.35	14.3	1.7	1.7	
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	
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	
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	

(a) Italy
(b) Possibly Montecatini, Bussi
(c) Italy - Cotoniere Mor
(d) Italy - Lignite

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List of Raw Materials Required for One Year's Work

Broken Down by Plants

Annex A

	Putignano (Pisano)		Empoli	Pontorme	Fucecchio	Perugia	Jesi	Fondi	Napoli	Benevento			Volgwarnera	S. Giovanni Gemini	Total	
	Svedesi Safety	Solforati Sulphur								Marsiglia	De Nigris	Fucci				
	-	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	21.18	
oric	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	
	3.2	14.0	1.6	1.2	8.3	11.0	5.1	0.2	11.3	1.0	1.0	0.5	0.25	0.03	58.68	(a)
	24.8	35.0	4.6	3.1	2.3	-	14.2	0.5	23.8	2.6	2.6	1.3	0.7	0.065	115.5	(b)
de)	2.2	9.8	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	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	
ur in																
	-	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	
	16.0	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	
n)	4.4	-	-	-	-	12.5	-	-	21.0	-	-	-	-	-	37.9	
	22.8	-	-	-	-	-	-	-	-	-	-	-	-	-	22.8	
	-	-	-	-	-	5.3	-	-	38.6	-	-	-	-	-	43.9	(c)
	-	-	-	-	-	120.2	-	-	196.0	-	-	-	-	-	316.2	
	2600.0	3150.0	400.0	280.0	2025.0	-	1237.5	45.0	-	225.0	225.0	122.5	67.5	4.5	10382.0	(a)
h																
	-	280.0	36.0	24.0	202.5	-	110.2	4.0	-	20.0	20.0	10.0	6.0	0.5	713.2	(a)
(for																
oxes)	28.0	24.0	3.1	2.1	14.8	2.2	9.2	0.35	14.3	1.7	1.7	0.85	0.5	0.05	102.75	(a)
Boxes	28.8	-	-	-	-	-	-	-	-	-	-	-	-	-	28.8	(a)
ch Box																
	11.2	-	-	-	-	-	-	-	-	-	-	-	-	-	11.2	(a)
for																
	-	-	-	-	-	60.9	-	-	150.0	-	-	-	-	-	210.9	(a)
for																
	-	-	-	-	-	24.5	-	-	145.0	-	-	-	-	-	169.5	(a)
	-	-	-	-	-	0.8	-	-	3.6	-	-	-	-	-	4.4	(a)
	2.8	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	11.89	(a)
	304.0	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	1902.0	(d)
	48.0	84.0	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, Bussi
(c) Italy - Cotoniere Meridionali, Naples & Salerno
(d) Italy - Lignite

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

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 Roma-Pescara line all plants, with the exception of the Orbetello plant, are very badly damaged or destroyed owing to war action and [illegible] can be made at present as to their use for 1945.

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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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330.000 M. tons per year,

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

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 Scarlino-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
Tommaso Natale	2,500	30,000
Milazzo	1,500	18,000
Licata	2,000	24,000
Bicocca	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

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Licata	2,000	24,000
Bicocca	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
Protici	1,500	18,000
Pontecagnano	2,000	24,000
Rome - Tuscolana	1,500	18,000
	Total	330,000 M. tons

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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-Tuscolana plants will be ready by 1 January 1945.

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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 the zone. 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 K 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 60%).

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 rock (220,000 M. tons) be imported.

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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 60%).

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.

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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 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 northern areas. This would substantially reduce imports of grain in Italy for the year 1945.

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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)
Tarquinia	(" Viterbo)
Oschiri	(Sardinia)

The Bussi-, Papigno- and Tarquinia-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)

3605

A. Bases and Justification

Nitrogenous fertilizers: Application of [illegible]

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

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

3605 A. Bases and Justification

Nitrogenous fertilizer: Application of 66 lbs. per acre on 1,094,000 acres of grain (less than 20% of total acreage) increases yield of grain 130,000 to 197,000 M. tons. Minimum requirement to be fulfilled is 50% of 1938-1941 three years average spring application. Approximately 10% of total at rate of 100 lbs. per acre to 500 acres of vegetables (10,000 M. tons per month yield). Approximately 3% at rate of 100 lbs. per acre for 25,000 acres of hemp, increasing yield between 1,100 M. tons to 1,500 M. tons of hemp. High nitrogen ammonium nitrates save 50% of cargo and storage space. Italian stocks have been used up, domestic production cannot supplement supply for the 12 months' period indicated.

Due to some availability in the local production of nitrogenous

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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 33% ammonium nitrate and capable of replacing the latter is 117,000 M. tons for 12 months.

B. Requirements

Material	Yearly average during 1938-1941 in M. tons	Estimated requirements for 1945 (south of Pisi-Rimini line) M tons
Ammonium sulphate	350,000	117,000

PART III. PRODUCTION POTENTIAL OF END PRODUCT

The production potential of ammonium sulphate in 1945 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 (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 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	Consumption

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Material	Annual average during 1938-1941 in M. tons	Estimated requirements for 1945 (south of Pisi-Rimini line) M tons
Ammonium sulphate	350,000	117,000

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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	10,800	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	48,600	25,200	604,800	19,600,000

Consumption per 1 M. ton ammonium sulphate: 4,500 KWH.

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Coal

Coal requirements for production of ammonium sulphate are small. For the quantity of 45,000 M. tons of ammonium sulphate are needed:

3,000 M. tons of coal.

PART VI. REQUISITIONS

According to figures supplied by Commerce Sub-Commission in Part II, ammonium sulphate requirements for the year 1945 are:

117,000 M. tons

The production 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 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 Oschiri and 5,600 KW at Nera Montoro, will beavailable 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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The production 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 reactivated plants will save

45,000 M. tons

of shipping tonnage.

CONCLUSIONS

a) Ammonium sulphate production of 45,000 M. tons/yearly, corresponding to50% 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 Oschiri and 5,600 KW at Nera Montoro, will beavailable 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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SECTION 6.

MEMORANDUM ON:

ITALIAN STEEL INDUSTRY (LIBERATED ITALY)

The following major Iron and Steel Plants are located in liberated Italy, south of the Pisa-Rimini line:

(1) ILVA - PIOMBINO
(2) LA MAGONA D'ITALIA - PIOMBINO
(3) TERNI SOC. PER L'INDUSTRIE E L'ELETTRICITA' STABILIMENTO SIDERURGICI
(4) ILVA - BAGNOLI
(5) ILVA - TORRE ANNUNZIATA
(6) S.A. ACCIAIERIE E FERRIERE PUGLIESI - BARI & GIOVENAZZO

Of the above plants ILVA - TORRE ANNUNZIATA is in partial operation producing steel sections for Army requirements. The S.A. ACCIAIERIE E FERRIERE PUGLIESI at GIOVINAZZO is also operating producing steel sections for the Director of Works.

Both these units are relatively small. Of the remaining units only the large plant at Terni is in any kind of condition to operate in a relatively short period of time, and even then would require power not yet available.

The plant at Terni, with the exception of the power plant, escaped serious damage from bombing and demolition, but certain items of plant, notably the electric steel furnaces, some of the forging presses and some of the rolling mill equipment were removed North by the Germans. The potential of the plant, however, is still about 60% of the original capacity but the firm will be unable to manufacture any quantity of alloy or high quality steels which were normally made in electric furnaces. This plant is not laid out for the mass production of medium and low carbon materials but covers a wide range of steel and engineering products. They have a well equipped steel foundry and machine shops, together with extensive shops devoted to the production of gun ammunition and weapons of war.

The plant of ILVA at BAGNOLI and at PIOMBINO are heavily damaged, the first by German demolition squads and the second at Allied bombing. Of the two plants, the works at BAGNOLI are by far the most modern and have themselves already carried out certain repairs. When in running order this plant would be capable of producing all types of steel sections and semi-finished materials including coke, pig iron and by products, such as fertilisers and cement.

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It is the decision of the Industry Sub-Commission that the plant at Piombino should be cannibalised to strengthen the unit at Bagnoli. The two works are similar in scope, and produce the same type of finished materials. Both have blast furnaces, coke ovens, steelworks and rolling [illegible]

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(2) LA MAGONA D'ITALIA - PIOMBINO
(3) TERNI SOC. PER L'INDUSTRIE E L'ELETTRICITA'
STABILIMENTO SIDERURGICO
(4) ILVA - BAGNOLI
(5) ILVA - TORRE ANNUNZIATA
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3603

It is the decision of the Industry Sub-Commission that the plant at Piombino should be cannibalised to strengthen the unit at Bagnoli. The two works are similar in scope, and produce the same type of finished materials. Both have blast furnaces, coke ovens, steelworks and rolling mills, - many items of the plant although not identical are similar and complementary to each other. Both are on the coast and the necessary movement of machinery and raw materials could be carried out by water. The plant at Piombino could also be utilised to replace damaged parts at ILVA, TORRE ANNUNZIATA and increase the output. The Tinplate and Sheet Plant of La Magona D'Italia, Piombino, has been so heavily damaged by Allied aerial bombardment that nothing short of completely rebuilding the plant would suffice. Many sections of this plant are old and most of the equipment would have difficulty in competing with the latest British or American practice. In addition, the present site of the works is bad and water is found 1 metre below the surface, necessitating expensive foundations for the buildings and machinery. It is submitted that the rehabilitation of this

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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 Giovinezzo and Terre Annunziata.
(2) Assist in every way the Terni plant to get into operation and then expand its production. This will call for the restarting 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 Ilva, Bagnoli 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, FALCONCA, for the production of ingot moulds, cast iron rolls, and general consumable items of auxiliary plant used inthe steelworks.

(2) CANTIERI 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 Nevalmeccanica

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and then expand its production. This will call for the restarting 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.

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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 Navalmeccanice and the machine tool plant of Pancini 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 10,000 workmen, with indirect employment to 9,000 more, and would produce after one years working 30,000 tons of steel per month.

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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 Terni 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.C.C. and the Italian Government. It is suggested that the Italian Government could control and allocate raw materials from central stockpiles and the finished materials could 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

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APPENDICES ATTACHED

Appendix A. Report on Ilva Steel Plant, Piombino.
" B. Report on Soc. Le Magone d'Italia, Piombino.
" C. Report on Terni Soc. per l'Industria e l'Elettricita Stabilimento Siderurgici.
" D. Report on Ilva Steel Plant, Bagnoli.
" E. Report on Ilva Steel Plant, Torre Annunziata.
" F. Report on S.A. Acciarie e Ferriere Pugliesi, Bari.
" G. Report on S.A. Acciarie e Ferriere Pugliesi, Giovinazzo.

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APPENDIX A.

REPORT ON ILVA STEEL PLANT, PIOMBINO

GENERAL.

This plant is situated within the Port Area of Piombino and covers a large area of some 1.000.000 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, beams, 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:-

1500 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 damaged 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 Germmens, 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 floorand 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.

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cake, motor fuel, ammonia, tar, fertiliser, pig iron, steel ingots, finished steel rails, beams, sections and re-inforcing rods.

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800 tons of ingots.

The plant has been heavily damaged by aerial bombardment - the damaged 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 heevily 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.

3. ORE HANDLING PLANT. Most of this plant has been badly damaged and it is impossible to repair without many 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 Tilting Furnaces together with a 600 ton Hot Metal Mixer have been taken away by the Germans.

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The shop structure is reasonably good, and overhead cranes and charging gear are in fair condition. Fresh roof sheeting will be necessary.

5. ROLLING MILLS: The company has several rolling mills. These mills cover a wide range. Only one unit has been removed by the Germans (the most modern) and generally speaking the remainder can be repaired.

The mill details are as follows:

a) 1000 m/m Blooming Mill, steam driven, soaking pits and auxiliaries, slightly damaged.
b) 650 m/m Train, connected to 1000 m/m Mill drive. Old machinery, but in good condition.
c) 650 m/m Mill. The most modern unit has been removed to Germany.
d) 550 m/m Mill. The mill train and housings are in good condition; the driving motor has suffered a direct hit and has been demolished.
e) 500 m/m Mill. The Rolling Mill and drive are in fairly good condition.
f) 300 m/m Mill. This unit is in good condition with the exception of the housing tops, which are missing.
g) 500 m/m; 320 m/m, and 250 m/m Looping Mill for small rounds. This equipment has suffered some damage but can be repaired. The plant was built in 1937 and laid down for the production of reinforcing rods.

Generally speaking, all the above equipment can be put to work after a period of reconstruction, which would not call for any large amount of new materials. The first step to be taken would be the collection of all the roof sheeting now lying over the plant and using this to re-cover the roof. This will clear up the shop floor and enable work to be started on the repair to machinery.

6. MACHINE SHOP: The machine shop still possesses the bare essentials to run the plant. There are 4 good roll turning lathes, and many items of heavy plant, including planing machines, lathes, drills, etc., for general maintenance. Unfortunately a large bomb crater in the middle of the shop floor has damaged the shop structure.

7. POWER PLANT: The company has two power units. The newer unit has had the turbines taken away by the Germans and can be ruled out. In the old power house however there is a Steam Turbo-Generator 3000 KW and a smaller unit Steam Turbo-generator 1500 KW. Both these units are in good condition, but the boilers would have to be converted to oil firing before they could be used.

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8. AUXILIARY SERVICES: All auxiliary services are in bad condition. There is no possibility of any blast furnaces or coke ovens and the standby producers would have to be altered to burn either

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3601

8. AUXILIARY SERVICES: All auxiliary services are in bad condition. There is no possibility of any blast furnace or coke oven gas and the standby producers would have to be altered to burn either coal or lignite. The removal of three bi electric generators of a total of 21.500 KW has effectively stopped any operations on a large scale until these are replaced or an alternative supply arranged.

CONCLUSIONS AND RECOMMENDATIONS.

1. This plant has been so heavily damaged by bombing and by German depredations that a possibility of the plant restarting in a short period of time is out of the question.

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2. The management of the firm were asked to put forward a programme for the rehabilitation of the plant covering a period of one year. It is suggested that this plan be considered with care, because the potential products of this unit will be a necessity to the industrial and civil rehabilitation of Italy.

3. Some 25% of the plant is capable of a short term policy of salvage and it is suggested the consideration be given to the firm's proposals based on the use of local iron ore and lignite.

4. Advantage should be taken to cannibalise this unit in terms of machinery to strengthen the plants at Bagnoli and Torre-Annunziata.

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Name of facility to strengthen the plants at Bagnoli and Torre-Annunziate.

APPENDIX B

REPORT ON SOC. "L.A. MAGONA" D'ITALIA

PIOMBINO

REPORT.

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 rated 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 down 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 Piombino. There is no doubt that the works are in a very bad state, and 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. 18th, when a devastating 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.

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

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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 an almost complete loss. Some of the mill driving motors are in reasonable condition. The transformer sub-station is reasonably intact, the power supply came in from Larderello, and the adjacent ILVA plant. All services such as water

supply, power and other auxiliaries are broken down and could not be operated.

Within the works there are many large stocks of finished and semi-finished steel in the form of ingots, sheet bars, black plate and tin plate. Not much requisition has been carried out by the Allies on these stocks due probably to the difficulty of obtaining access to the works caused by the wreckage.

CONCLUSIONS AND RECOMMENDATIONS.

1. The state of this plant and equipment is such as to make it impossible to carry out any kind of rehabilitation.

2. This fact is well realised by the plant manager, who expressed the view that the only way to resurrect this plant was to build an entirely new unit on a fresh site.

3. The stocks of sheet bar would probably be useful to D.W. for use in the tin plate plant at Castellammare.

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APPENDIX C

REPORT ON TERNI SOC. PER L'INDUSTRIE E L'ELETTRICITA STABILIMENTO SIDERURGICI

REPORT.

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 wasin the form of better quality alloy materials, such as nickel steel and stainless quality.

The concern 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 big deposits some 20 KM to the north. Some idea can be gained from the fact that they used 500.000 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 adequate 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, steam brackets, etc. also turbine frames and casings for the hydroelectric 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 was in the order of 130 tons weight; pieces weighing up to 50 tons each were common practice. This department has suffered no serious dam-

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2. PLATE MILL. This plant is old but useful for the production of medium ship plates. It is driven by a 1700 H.I. water turbine and is a 3 high mill with lifting tables. It can handle plates of 3 metres width x 10 metres length. A useful unit should ship plates be required.

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3. HEAVY FORGE: This is a very large and extensive plant comparable in scope and size to any similar unit in the world. It has 8 heavy hydraulic presses ranging in size from 12,000 tons capacity down to 2,000 ton capacity. The largest overhead crane has a lift of 300 tons and can handle the heaviest of ingots. Several of the presses including the largest are of British design, constructed at Terni. In addition, there are presses for the bending and forming of heavy ships armour plate. This plant is capable of forging heavy 16" guns, heavy marine propeller shafts, turbine rotors and heavy forgings for the transmission to Germany. It is possible that these parts are still within the district.

4. ARMOUR PLATE MILL. In an extension of the forge there is an old armour plate mill driven by a 3500 H.P. motor connected to a water turbine. This plant is suitable only for the production of heavy armour plate. It was laid down in 1906 and is of French construction (Schneider Creusot). The plant is in good condition.

5. STEEL FURNACE PLANT. Adjacent to the forge and armour plate mill is the second of the firm's steel plants. It consisted originally of three 25 ton Electric Arc Furnaces and two 90 ton Siemens Open Hearth Furnaces. These furnaces are fed by 8 gas producers for burning lignite.

The 3 electric furnaces have been removed to Germany, but the Siemens furnaces remain and are in good condition. This plant is firstly for the production of steel ingots for further manipulation in the forge and armour plate mill.

6. GUN HEAT TREATMENT PLANT. This is a special plant for hardening gun forgings or long marine shafting. It consists of vertical furnaces (electric) and quench tanks. It has been partially damaged by bombs and also certain items of equipment have been removed. This is a special plant designed to link into the firm's gun manufacture programme.

7. SHELL FORGING PLANT: This plant was installed for the production of medium and small artillery shell forgings. It consists of 2 mechanical shell forging presses and 5 hydraulic shell forging presses together with all the necessary furnace equipment and other auxiliaries. The Hydraulic pumping plant has been partially dismantled for removal but most of the items still remain on the site. The output of this plant was 150,000 shell forgings per month.

8. MEDIUM FORGE. This plant has been almost completely dismanted and the parts are alleged to be strewn all over the district. Some of the items have been taken to North Italy and Germany and at the present moment it is not possible to say what can be saved. The management are hopeful of re-erecting one press of 1000 tons capacity. Originally the plant consisted of:

(a) Two 1000 ton presses.
(b) One 1500 ton press.
(c) Two 600 ton presses.

The hydraulic pumping plant is partially intact. This plant

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(a) Two 1000 ton presses.
(b) One 1500 ton press.
(c) Two 600 ton presses.

The hydraulic pumping plant is partially intact. This plant originally made small and medium sized forgings of many different types.

9. TYRE MILL. There is an old tyre rolling mill of British design and construction in existence together with a1000 ton press for punching the blanks. One hydraulic pump out of atotal of three is capable

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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 loco and wagon tyres.

10. SILICA 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 or 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 Galleto 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 work's 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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14. PLATE MILL. The plate mill had an output of some 2000 tons per month of black-plate is at present dismantled. It could, however, be fairly easily re-erected should it be necessary. The driving motor and furnaces are in sound condition.

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15. ELECTRIC ORE SMELTING FURNACES: At the extreme 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. TIN PLATE MILL: One 8 stand Tin Plate Mill about 25 years old is in an operable condition; the drive end 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 tinning 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 blocktin to process this 2000 tons of sheets and save imports into Italy. It is known that AMOS is importing large quantities of tin plate for food canning purposes.

17. GUN TURNING PLANT: This is a large shop especially laid out 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 on 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 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 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.

REMARKS: The works are at present being used by 86 Area as a B.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 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.

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REMARKS: The works are at present being used by 86 Area as a B.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 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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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 restarted 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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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	800	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	500	750	750	750	750	750	750	750
Section irons rolling mill	Beams, angles, billets, round irons	2000	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, spikes	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

PRODUCTS	QUANTITY IN TONS												
	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
Ingots	8000	8000	11500	11500	15000	15000	15000	15000	15000	15000	15000	15000	159.000
ous castings	120	120	120	120	120	120	120	120	120	120	120	120	1.440
ious special tings, pipes & cial parts for es, ingot moulds	600	600	600	600	800	1000	1350	1350	1350	1350	1350	1350	12.300
Sheets	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	14.000
el, magnetic & cial thin sheets	800	1200	1200	1600	1600	1600	1600	1600	1600	1600	1600	1600	17.600
and black sheets	500	500	500	750	750	750	750	750	750	750	750	750	8.250
s, angles, bill-, round irons	2000	3000	3000	3000	6000	6000	6500	6500	6500	6500	6500	6500	62.000
ad irons	200	200	200	300	300	300	300	300	300	300	300	300	3.300
s for locomo-s, vehicles and ways	250	500	700	700	700	700	700	700	700	700	700	700	7.750
ts, bolts, stay-s, spikes	300	450	450	450	450	450	450	450	450	450	450	450	5.250
(a)													
roof girders, s, stoves & r works	150	150	150	150	150	150	150	150	150	150	150	150	1.800
bricks	300	300	300	300	300	300	300	300	300	300	300	300	3.600
ools	2	3	3	3	3	3	3	3	3	3	3	3	35

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II 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	6,200	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 cal the dolomite).

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II 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	38,950
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	480
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	84,800
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

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

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We need phosphoric pig iron to produce pig iron pipes.

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

APPENDIX B

REPORT ON ILVA STEEL WORKS - BAGNOLI

GENERAL.

This concern is a large steelworks of the most modern design 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 UnitedStates. Its 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 Ores.
4. Siemens Martin Open Hearth Steel Plant.
5. Thomas Steel Plant.
6. Electric Furnace Steel Plant.
7. 1150 M/M Blooming Mill.
8. 920 M/M Rail and Section Mill.
9. 750 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 German 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; and 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, calling for 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.

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2. Blast furnaces. Three blast furnaces, Italian design and construction. All elevating gear has been damaged. The firm's repre-

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ain of the United States. Its main items of plant and equipment are as follows:

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2. Blast furnaces. Three blast furnaces, Italian design and construction. All elevating gear has been damaged. The firm's representatives consider one complete unit can be salvaged by a process of cannibalization. Three furnaces worked on imported North Africa ores and were designed for an output of 1200 tons per day.

3. Sintering plant. This unit is reasonably intact, its rated output is 1200 tons per day.

4. Siemens Martin Open Hearth Steel plant. This consisted of 5-70 ton furnace with one hot metal mixer. Two of these furnaces might be rebuilt, but overhead tipping-crane, structure of the building and charging machines are extensively damaged. The gas producers

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were alleged to be intact. At least 12 months work to put this plant in order.

5. Thomas steel plant. This consists of 4 Converters each designed for 30 tons per hour each. Only one of these converters ever worked, as the plant had only just been completed at the moment when it was wrecked. It might be possible to get one of these converters working in a period of 6 months.

6. Electric furnace steel plant. This has been thoroughly wrecked, and even if power could be made available it can be written off for a long period.

7. Rolling mills. These have been thoroughly damaged by explosive charges, and the roof beams and trusses dropped onto the mill floor. The housing of the 1150 m/m mill was intact but the ingot turning manipulators had been destroyed by explosive charges. The gear boxes of the run-out tables had been wrecked. Damage of varying degree had also been done to the other mills, as interconnected and each a part of the final 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 steam raising 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 580,000,000 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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Conclusions and recommendations

1. Any possibility of short term reconstruction is out of the question.

2. A reconstruction policy would call for the expenditure of a large sum of money and the importation of heavy replacement parts which would have an extended delivery date (even if they were available on the world market). The fact that the plant is of German origin would complicate this problem.

3. The large stocks (20,000 tons) of ingots and blooms should, if at all possible, be put to use, either on other plants in liberated Italy or in the U.K. or U.S.A.

4. Another tangible asset available for immediate use is some hundreds of expensive forged steel rolls of various sizes, and ancillary equipment for the mills. They are of no use where they are, other plants could probably utilise a portion of this equipment.

5. The firm's chief metallurgist (Prof. Ing. CYRIL REKAR) who accompanied us round the plant gave the impression of being a man of wide experience in the steel trade and of a go-ahead outlook.

6. It is suggested that should any policy for the reconstruction and rehabilitation of this plant be undertaken, enormous quantities of coal will required to be imported from either U.K. or U.S.A.

7. Considerable shipping space will also be required for the importation of the necessary raw materials in the form of iron ores.

8. Any reconstruction would also require large quantities of oxygen. It is well-known that supplies of oxygen in liberated Italy now and in the near future are very short.

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SECRET

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
Blast 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
Electric Furnaces	Calcium Carbide	450	450	450	450	450	450	450	450	450	450
	Ferro Alloys	–	–	–	–	–	–	–	–	–	600
Dolomite Kilns	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	3800	3800	9000
Scrap		–	–	–	–	–	–	–	1500	2000	2000
Plaster		150	150	150	150	150	150	150	150	300	300
Dolomitestone		500	500	500	500	500	500	500	500	500	500
Fireclay from Sardinia		500	500	500	500	500	500	500	500	500	500
Coke of the Gas Producers		200	200	200	200	2300	2800	2800	2800	3000	3000
Coal from Sardinia		–	–	–	–	200	200	200	300	300	400
Electrical Energy (bought)		1000x 24x31	1000x 24x28	1000x 24x31	1000x 24x31	1000x 24x31	1000x 24x30	1000x 24x31	1000x 24x31	1000x	–
Importations:											
Coal for Coke Ovens		–	–	–	–	–	–	–	10000	10000	10000
Coal (Splint) for Steel works		–	–	–	–	–	–	700	1800	3000	3000
Nafta		–	–	–	–	–	–	700	700	1200	1200
Coal (long-flame) for f.f.fire br.		250	250	250	250	250	250	250	250	250	250

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PROGRAM OF THE PRODUCTION & CONSUMPTION OF RAW MATERIALS PER MONTH IN TONS — "ILVA" BAGNOLI

PERIOD 1945

PRODUCTS	Jen.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Totals
ke	-	-	-	-	-	-	-	7500	7500	7500	7500	7500	37500
tch-Tar	-	-	-	-	-	-	-	300	300	300	300	300	1500
lphate of Ammonia	-	-	-	-	-	-	-	120	120	120	120	120	6000
g Iron	-	-	-	-	-	-	-	-	7500	7500	7500	7500	30000
anulated Slag	-	-	-	-	-	-	-	-	3000	3000	3000	3000	12000
gots	-	-	-	-	-	-	-	9000	9000	9000	9000	9000	45000
lled bars, rails, annels, etc.	-	-	-	-	-	-	7000	7000	7000	7000	7000	7000	42000
ment	3000	3000	3000	3000	3000	3000	3000	3000	6000	6000	6000	6000	48000
lcium Carbide	450	450	450	450	450	450	450	450	450	450	450	450	5400
rro Alloys	-	-	-	-	-	-	-	-	-	600	600	600	1800	
lomite	250	250	250	250	250	250	250	250	400	400	400	400	3600
me	-	-	-	-	500	500	500	500	500	500	500	500	4000
re bricks	400	400	400	400	400	400	400	400	400	400	400	400	4800
-hours	2000x 24x31	2000x 24x28	2000x 24x31	2000x 24x30	3000x 24x31	3000x 24x30	5000x 24x31	5000x 24x31	7000x 24x30	7000x 24x31	7000x 24x30	7000x 24x31	
me	-	-	-	-	500	500	500	500	500	500	500	500	4000
riels:													
	-	-	-	-	-	-	-	-	5000	5000	5000	5000	20000
	2600	2600	2600	2600	3300	3300	3300	3800	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
rs	200	200	200	200	2800	2800	2800	2800	3000	3000	3000	3000	24000
	-	-	-	-	200	200	200	300	300	400	400	400	2400
ght)	1000x 24x31	1000x 24x28	1000x 24x31	1000x 24x31	1000x 24x31	1000x 24x30	1000x 24x31	1000x 24x31	1000x -	- -	- -	- -	
)	-	-	-	-	-	-	-	10000	10000	10000	10000	10000	50000
works	-	-	-	-	-	-	700	1800	3000	3000	3000	3000	14500
	-	-	-	-	-	-	700	700	1200	1200	1200	1200	6200
f.fire br.	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 follo

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 1945 when Bagnoli will start working.

PROGRAM OF PRODUCTION (IN TONS)

	Production:	Jen.	Feb.	Mer.	Apr.	May	June	July	Aug.	Sep.	Oct
	Ingots	2700	2700	2700	2700	2700	2700	2700	2700	2700	270
I	Beams Channels Flats Angles Flats Bars Round	2250	2250	2250	2250	2250	2250	2250	2250	2250	225
ITEM	Castings	50	50	50	50	50	50	50	50	50	5
I	Italy:										
	Electric Power	3000 x24x31	3000 x24x28	3000 x24x31	3000 x24x30	3000 x24x31	3000 x24x30	3000 x24x31	3000 x24x31	3000 x24x30	300 x24x
	Heavy Scrap	1250	1250	1250	1250	1250	1250	1250	1250	1250	125
	Light Scrap	750	750	750	750	750	750	750	750	750	75
	Imported:										
	Pig Iron (x)	800	800	800	800	800	800	800	800	800	80
	Coke Coal	10	10	10	10	10	10	10	10	10	1
	Coal Steel Works	750	750	750	750	750	750	750	750	750	75
	Coal for reheating	750	750	750	750	750	750	750	750	750	75

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

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

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 1945 when pegnoli will start working.

PROGRAM OF PRODUCTION (IN TONS)

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	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
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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REQUIREMENTS OR RAW MATERIALS FOR "ILVA" TORRE ANNUNZIATA STEEL WORKS (cont'd)
IN TONS

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.
Italy:										
Tar	1	1	1	1	1	1	1	1	1	1
Dolomite	50	50	50	50	50	50	50	50	50	50
Iron Ore	50	50	50	50	50	50	50	50	50	50
Fire Clay	25	25	25	25	25	25	25	25	25	25
Quartz (SiC_2)	100	100	100	100	100	100	100	100	100	100
Magnesite $MgCO_3$	20	20	20	20	20	20	20	20	20	20
Fluor Spar. CaF_2	7	7	7	7	7	7	7	7	7	7
Fe-Si-Mn	10	10	10	10	10	10	10	10	10	10
Fe-Si 75%	20	20	20	20	20	20	20	20	20	20
Fe-Mn 55%	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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REQUIREMENTS OR RAW MATERIALS FOR "ILVA" TORRE ANNUNZIATA STEEL WORKS (Continued)

IN TONS

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

APPENDIX F

REPORT ON S.A. ACCIAIERIE E FERRIERE FUGLIESI

PART

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 ledles are in existence. Switch gear and control geer appears to be in good condition. This is a potentially useful unit given supplies of raw materials in the form of refrectory 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 originel 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

359

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 [illegible] repairs are done on this

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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 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

3591

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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be utilised to assist the grid. The plant consists of:

a) One 700 K V and one 500 K V Brown Boveri Steam Turbines
b) Two Babcock & Wilcox chain grate boilers
c) The necessary coal handling plant and waste heat economisers.

Major Burton stated that he had not sufficient staff to operate this unit, but would be prepared to supervise its running, if the necessary skilled operators were provided.

CONCLUSIONS AND RECOMMENDATIONS

1. This plant is a small self-contained tube works of rather more modern design and construction than the parent company at Giovinazzo. It is a potentially useful unit as the plant and building are intact, in fact they are being improved by the R.E.'s who are at present in occupation of the premises.

2. Nothing can be done to re-activate this plant under present circumstances due to its occupation and use by the R.E.'s as a repair shop. It will, however, be in a good position to re-start when this workshop moves forward.

3. All stocks of raw materials, in the form of steel scrap (many hundreds of tons), pig iron, and steel tubes have been requisitioned by D.W. and are drawn on, as required by them.

4. It is suggested that some steps be taken to investigate the possibility of re-starting the electric generating station at present intact and inactive. There are some 500 tons of good quality coal lying alongside the coal handling plant.

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... operators were provided. ... training, if the

CONCLUSIONS AND RECOMMENDATIONS

1. This plant is a small self-contained tube works of rather more modern design and construction than the parent company at Giovinazzo. It is a potentially useful unit as the plant and building are intact, in fact they are being improved by the R.E.'s who are at present in occupation of the premises.

2. Nothing can be done to re-activate this plant under present circumstances due to its occupation and use by the R.E.'s as a repair shop. It will, however, be in a good position to re-start when this workshop moves forward.

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REQUIREMENTS OF RAW MATERIALS FOR "ACCIAIERIE E FERRIERE LUGLIESI" - BARI'S STEEL

IN TONS

All requirements are referred to a plant working in conjunction with the following shops: 1 electri
1 tube rolling mill and 1 mechenical 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 (Splint) 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
termo-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 Sper (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 Mangan 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) Imported till August 1945, when Bagnoli will start working.

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3584

REQUIREMENTS OF RAW MATERIALS FOR "ACCIAIERIE E FERRIERE LUGLIESI" - BARI'S STEEL WORKS

IN TONS

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

Jen.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Totals
550	550	550	550	550	550	550	550	550	550	550	550	6.600
400	400	400	400	400	400	400	400	400	400	400	400	4.800
2000x 24x31	2000x 24x28	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	100	1.200
6	6	6	6	6	6	6	6	6	6	6	6	72
250	250	250	250	250	250	250	250	250	250	250	250	3.000
900	900	900	900	900	900	900	900	900	900	900	900	10.800
350	350	350	350	350	350	350	350	350	350	350	350	4.200
150	150	150	150	150	150	150	150	150	150	150	150	1.800
2	2	2	2	2	2	2	2	2	2	2	2	24
5	5	5	5	5	5	5	5	5	5	5	5	60
20	20	20	20	20	20	20	20	20	20	20	20	240
5	5	5	5	5	5	5	5	5	5	5	5	60
10	10	10	10	10	10	10	10	10	10	10	10	120
10	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	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	8	96
5	5	5	5	5	5	5	5	5	5	5	5	60
2	2	2	2	2	2	2	2	2	2	2	2	24

(1) Reported till August 1945, when Pignoli will start working.

A

APPENDIX G

REPORT ON S.A. ACCIAIERIE E FERRIERE PUGLIESI-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.W. the O/C being Lt. Mortier of No. 2 District 80 E.B.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 anxilleries.

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.W. 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 ancillery 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 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 no spares existed). As a standby to the electric drive there was a steam

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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 are 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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3. Forge

The original forge consisted of a number of very old tilt hammers. (This type of ahammer 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. Mortier that no proper records, drawings or maintenance arrangements existed and they found it necessary to bring in some 20 R.E. Sappers to do this work.

Previously the owners had operatedon 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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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. Fortier that no proper records, drawings or maintenance arrangements existed and they found it necessary to bring in some 20 R.E. Sappers to do this work.

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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.

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 E

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 1,800. 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 the 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,

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

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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.

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

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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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b) 1-2 High 9 Stand 260 m/m Mill
1-2 High 4 Stand 260 m/m Mill

These units are of an old pattern, but are still capable of useful work, driving motors are intact and re-construction work is in progress. These mills could roll small rounds, flats or squares. No roof covering is available over the plant. Furnaces to feed the above rolls are of the continucus billet type, fired by pulverised coal. They are at present under re-construction. The whole of this plant should be ready for rolling within 2 months. The new rolling mills are housed in a large modern type shop and consist of the following:

c) One semi-continuous 11 Stand Mill with an output of 10 tons per hour. All the driving motors have been completely demolished by the Germans, but the mechanical damage to the plant is not heavy. There is no 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.

d) One modern looping mill for wire rods and small flats. This is of modern construction with repeaters, coiling machines, cooling bank and all necessary ancillary equipment. The driving motors have been thoroughly demolished and until these are replaced the plant is unable to operate. Its rated output was approximately 10 tons per hour. Of all the rolling mills, those 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, and of these 75% are in production, producing wire of various sizes. It was understood that the bulk of the products 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 2/10 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 70 machines producing an assorted variety of nails from 1/2" in length to a maximum of 8" 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 repair. 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, 1-3000 Kg. capacity, and 1-1500 Kg. 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 punching and drawing Press
b) 150 Ton Punching and Drawing Press
c) Two continuous billet furnaces fired by

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rolling within 2 months. The new rolling mills are housed in a large modern type shop and consist of the following:

c) One semi-continuous 11 Stand mill with an output of 10 tons per hour. All the driving motors have been completely demolished by the Germans, but the mechanical damage to the plant is not heavy. There is no 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.

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

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VI. Shell Forging Shop. Situated at the extreme end of the steel plant with the following equipment,

a) 300 Ton punching and prawing press
b) 150 Ton punching and prawing press
c) Two continuous billet furnaces fired by coal
d) Two sets of three throw hydraulic pumps together with 9 air bottles with a total capacity of 10 cu.meters. Water pressure is at 220 Kg/cm.
e) Two electric furnaces for the heat treatment of shell forgings.
f) Two semi-automatic shell turning lathes.

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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 100 per hour and 150 per hour of each size concurrently. Large quantities of shell forgings are stocked around the plant.

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

VII. 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) Beams 200 m/m max.
b) Angles 120 m/m max.
c) Channels 100 m/m max.
d) Rounds 80 m/m max.
e) Flats 150 m/m x 40 m/m
f) Squares 100 m/m sq.
g) Tees 50 m/m
h) Rails 27 Kg. 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 1/3 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 bloom form can be made available from other sources.

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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) Beams 200 m/m max.
b) Angles 120 m/m max.
c) Channels 180 m/m max.
d) Rounds 80 m/m max.
e) Flats 150 m/m x 40 m/m
f) Squares 100 m/m sq.
g) Tees 50 m/m
h) Rails 27 Kg. 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 1/3 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.

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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 rods in coils and random lengths.
c) Large quantities of 76 m/m and 105 m/m shell forgings.

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7. A directive is sought regarding the policy to be followed on munition plants. It is pointed out that there is a modern and almost intact shell forging plant at these works. Also large quantities of shell forgings which may be of use to USA munition plants.

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REQUIREMENTS OF RAW MATERIALS FOR "ACCIAIERIE E FERRIERE IUGLIESI-GIOVINAZZO"

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 x24x31	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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REQUIREMENTS OF RAW MATERIALS FOR "ACCIAIERIE E FERRIERE FUGLIESI-GIOVINAZZO'S STEEL WORKS (In Tons)

These 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 x24x31	2200 x24x28	2200 x24x31	2200 x24x30	2200 x24x31	2200 x24x30	2200 x24x31	2200 x24x31	2200 x24x30	2200 x24x31	2200 x24x30	2200 x24x31	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) Imported till August 1945 when Pegnoli will start working.

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REQUIREMENTS OF RAW MATERIALS FOR "ACCIAIERIE E FERRIERE LUGLIESI-GIOVINAZZO'S STEEL W

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	No
From Liberated Italy:											
Heavy Scrap	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1
Light Scrap	600	600	600	600	600	600	600	600	600	600	
Iron Ore	40	40	40	40	40	40	40	40	40	40	
Fluor Spar (CaF_2)	5	5	5	5	5	5	5	5	5	5	
Magnesite ($Mg\ CO_3$)	16	16	16	16	16	16	16	16	16	16	
Quartz ($Si\ O_2$)	80	80	80	80	80	80	80	80	80	80	
Fire Clay of Sardinia	22	22	22	22	22	22	22	22	22	22	
Dolomite $Ca\ Mg\ (CO_3)_2$	44	44	44	44	44	44	44	44	44	44	
Tar	1	1	1	1	1	1	1	1	1	1	
Fe-Mn 55%	15	15	15	15	15	15	15	15	15	15	
Fe-Si 75%	15	15	15	15	15	15	15	15	15	15	
Fe-Si-Mn	5	5	5	5	5	5	5	5	5	5	
High manganese Spiegel	20	20	20	20	20	20	20	20	20	20	
Silica Brick	-	80	-	-	-	80	-	-	-	80	
Clay Brick	-	100	-	-	-	100	-	-	-	100	
Dolomite	-	30	-	-	-	30	-	-	-	30	
Magnesite Brick	-	5	-	-	-	5	-	-	-	5	

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

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REQUIREMENTS OF RAW MATERIALS FOR "ACCIAIERIE E FERRIERE PUGLIESI-GIOVINAZZO'S STEEL WORKS - IN TONS (Contd)

Jen.	Feb.	Mer.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Totals
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000
600	600	600	600	600	600	600	600	600	600	600	600	7200
40	40	40	40	40	40	40	40	40	40	40	40	480
5	5	5	5	5	5	5	5	5	5	5	5	60
16	16	16	16	16	16	16	16	16	16	16	16	192
80	80	80	80	80	80	80	80	80	80	80	80	960
22	22	22	22	22	22	22	22	22	22	22	22	264
44	44	44	44	44	44	44	44	44	44	44	44	480
1	1	1	1	1	1	1	1	1	1	1	1	12
15	15	15	15	15	15	15	15	15	15	15	15	180
15	15	15	15	15	15	15	15	15	15	15	15	180
5	5	5	5	5	5	5	5	5	5	5	5	60
20	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 Bagnoli will start working.

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