



*European
Industrial Projects*

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MSA INDUSTRIAL PROJECTS

MSA industrial projects are approved for major construction, modification, rehabilitation, or equipping of plants, installations, or facilities where substantial amounts of integrated engineering or dollar procurement are required. In practice, the projects are generally confined to those involving \$1,000,000 or more of MSA funds.

Formal proposals, including economic justification, are initiated and submitted to MSA by participating countries. Proposed projects are carefully reviewed for technical feasibility, adequacy of local financing, probable effect on the participating country's economy and over-all importance to the defense effort. After a project is approved, procurement authorizations, earmarked for use on the project and charged against the country allotment, are issued for all purchases of equipment and services requiring MSA dollars.

P R E F A C E

This report is a reprint of the special presentation on *European Industrial Projects* which appeared in the April 30 issue of the MONTHLY REPORT OF THE MUTUAL SECURITY AGENCY TO THE PUBLIC ADVISORY BOARD.

The report was prepared jointly by the INDUSTRY DIVISION and the STATISTICS AND REPORTS DIVISION, MUTUAL SECURITY AGENCY, Washington, D.C.

JULY 21, 1953

THE "WHY" OF INDUSTRIAL PROJECTS

Defense production expenditures in Western Europe during the fiscal year 1953 are expected to exceed \$3 billion—almost 200 percent higher than in fiscal year 1951. This increase could not have been realized without the plant improvement and expansion program made possible in part by assistance from the United States. The problems of restoring and expanding Western Europe's capital plant—with increased production goals set after Korea—have been mainly a matter of European initiative and responsibility. The United States, however, through the Marshall Plan Program and now through the Mutual Security Program, has aided the European efforts by supplying dollar financing for critically needed machinery, supplies and engineering skills.

A large part of this American aid has been channeled through MSA "Industrial Projects" — integrated plans for major capital improvements requiring, as a rule, at least \$1,000,000 of MSA-dollar financing to obtain modern and efficient installations within a reasonable time. At the very beginning of the Marshall Plan, it was recognized that Western Europe's most urgent need was a large-scale increase in production. To accomplish this, substantial capital investment was necessary—

- To rebuild war-ravaged plants
- To redress accumulated arrears in maintenance, replacement, and modernization
- To finance new ventures in industry

A problem second only to that of increasing the level of production was that of increasing productivity simultaneously and thus lowering costs so that European products could be marketed abroad competitively. This would produce the foreign exchange required to finance vital imports of materials and equipment.

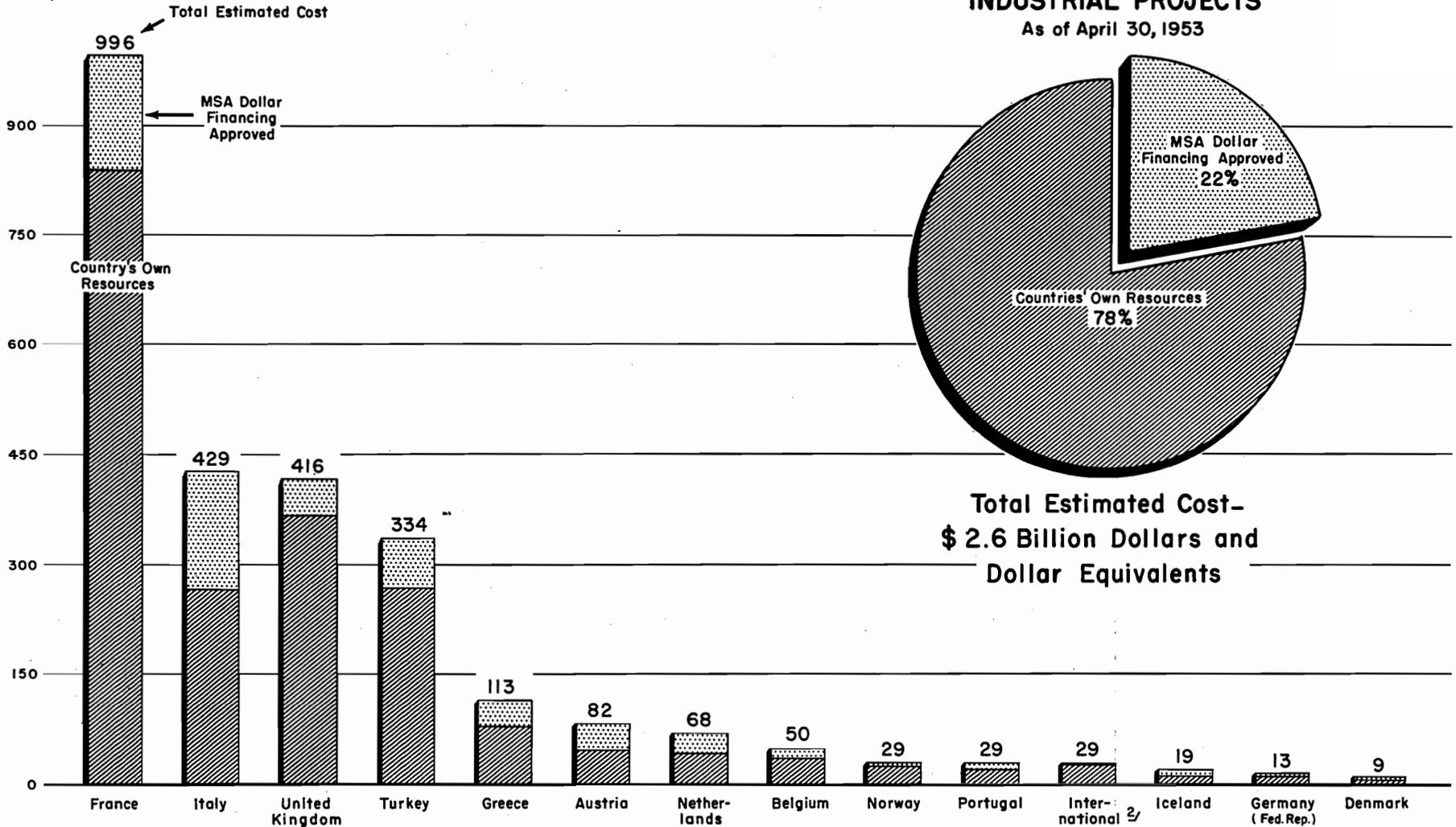
The countries of Western Europe, by mid-1950 had largely achieved the production objectives set under the Marshall Plan. After Korea, however, production goals were increased again to allow for defense objectives. The large-scale industrial projects authorized under the Marshall Plan have thus assumed even greater importance than before. These industrial facilities, many of which are already completed, are basic not only to the civilian economy but also to rearmament and defense. As defense mobilization gathers momentum in Western Europe, the main source of strength lies in the area's heavy industries and utilities—steel, automotive, and chemical plants; electric power installations; mines; oil refineries; and improved transportation and communication facilities—all represented by important MSA-approved industrial projects.

The Mutual Security Program will provide during the current year and during 1954 the remaining equipment and supplies from dollar areas essential to complete the MSA-approved industrial projects undertaken by the participating countries. When finally completed, these projects will increase further the defense production capacity of the Western European countries and in time will enable living standards to seek higher levels, thus making a lasting contribution to the economic and political stability of the area.

THE MSA INDUSTRIAL PROJECTS PROGRAM HAS AIDED THE EXPANSION AND MODERNIZATION OF EUROPE'S CAPITAL PLANT

134 Industrial Projects Have Been Approved For 13 Countries ¹

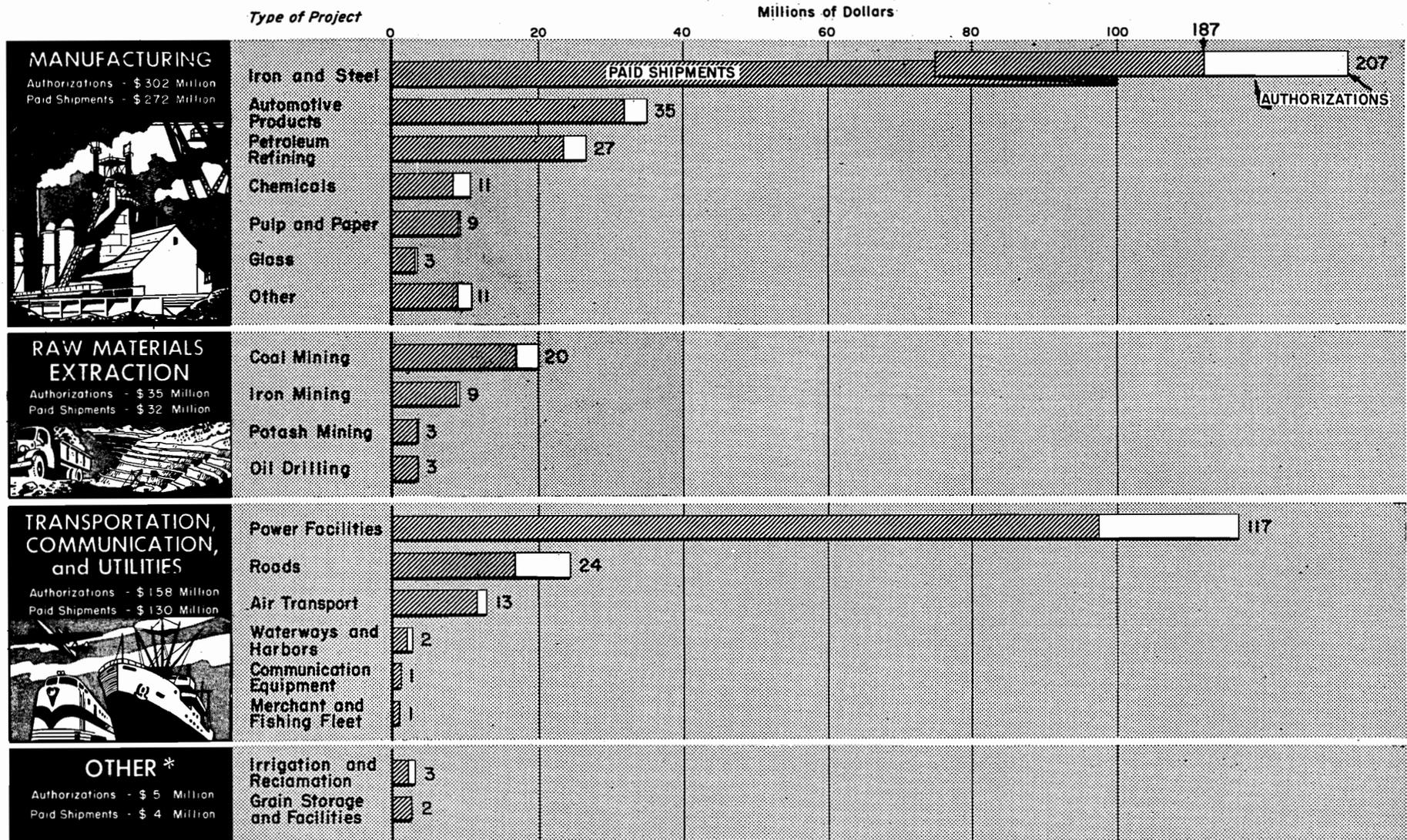
Millions of Dollars and Dollar Equivalents



¹ Excludes 8 canceled or inactive projects. ² Represents a hydroelectric plant located on the Inn River for the joint use of Austria and the Federal Republic of Germany. MSA has approved \$540 thousand for financing out of a total cost equivalent to \$28.6 million.

WESTERN EUROPE'S PRODUCTION POTENTIAL HAS BEEN RAISED BY MSA ASSISTANCE IN MANY INDUSTRIAL SECTORS

Over one-half billion dollars has been authorized through April 30, 1953



Division of Statistics and Reports
Office of Research, Statistics, and Reports
MUTUAL SECURITY AGENCY
June 29, 1953

* Excludes Engineering and Technical Services: Procurement Authorizations, \$3.4 Million; Paid Shipments, \$2.8 Million.

Key Industrial Projects in Western Europe

More than four-fifths of MSA/ECA funds authorized for industrial projects in Europe have been directed into—

- IRON AND STEEL
- POWER
- PETROLEUM REFINING
- RAW MATERIALS EXTRACTION
- TRANSPORTATION AND COMMUNICATION

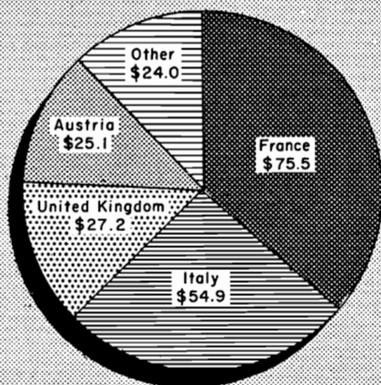
The principal projects in these areas are described on the following pages. MSA/ECA also has approved industrial projects in other sectors of Western Europe's economy, including automotive products, chemicals, pulp and paper, cement, glass, grain handling and storage, and irrigation and reclamation. Detailed information on all European industrial projects approved by MSA/ECA is presented in the tabulations on pages 18 through 42.

IRON and STEEL

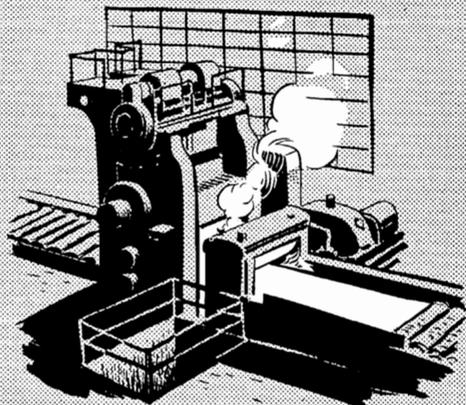
MAJOR PROGRAMS

MSA AUTHORIZATIONS BY COUNTRY

(Millions of Dollars)



Total \$206.7 Million



Steel consumption is an accurate guide to a nation's standard of living as well as to its ability to produce modern arms and munitions. The same pieces of equipment are used to produce the structural shapes and plates for bridges and buildings as are used to manufacture similar items for tanks and armament. The same plant and equipment used to manufacture automotive body sheets can be used to manufacture the components of weapons carriers, military vehicles, and airplanes.

In 1947, European steel production had dropped from its prewar annual level of some 50 million metric tons to only 30 million tons. Vast quantities of steel were required for the rehabilitation of Europe. Bridges had to be built, transportation facilities reactivated, war-damaged power plants re-erected; the entire reconstruction and reactivation of Europe's industrial activities were dependent upon an adequate supply of steel. In addition, the potential of Western Europe to manufacture the arms and munitions needed to resist external aggression could not be used until steel products were available.

To cope with these problems, a survey was made of existing iron and steel facilities. It was decided what portion of these facilities could be reactivated and operated with local capital and local materials and what portion would require American dollar aid. To the extent feasible, the plans took maximum advantage of European materials and European equipment. United States aid and dollar purchases were considered as a last resort in rebuilding the European steel industry. Some 30 iron and steel projects were, however, approved by MSA/ECA to provide \$227 million in American aid out of total costs estimated at \$872 million in dollar equivalents and dollars. Most of these projects covered finishing equipment for flat-rolled products, where American equipment and machinery were considered essential. In contrast, gross investments in the iron and steel industry in the participating countries are estimated at the equivalent of approximately \$2.7 billion from 1950 to 1953.

Steel production has been stepped up materially. It has more than doubled since 1947. A major deterrent to more rapid expansion of the industry is the length of time required to develop adequate sources of raw materials (coal and iron ore) and the four or five years required for the manufacture and installation of steel finishing facilities.

Europe's increased population and planned industrial expansion will demand a continuing expansion of the iron and steel industries if the area is to remain economically viable and if a level of armament production is to be reached which will ensure effective resistance in the event of external aggression. It is estimated that steel consumption demands of the Coal and Steel Community countries will increase by some ten million tons in the next six years. Even if this sharp increase is met by higher output, per capita consumption in these areas will remain far below that which exists in the United States.

FRANCE

Of tremendous importance to Western rearmament is the modernization and expansion of France's steel-making capacity. With the aid of over \$75 million in equipment and supplies authorized

IRON and STEEL

MAJOR PROGRAMS

under MSA industrial projects in this field, France will be able to produce a balanced quantity of different types of steel products, thus eliminating many of the surpluses and critical shortages which formerly existed. Crude steel output in 1952 in France and the Saar reached 13.7 million metric tons—a fourth higher than 1949 production. The various types of finishing facilities, moreover, were in better balance to meet domestic and export requirements.

The USINOR mills at Denain and Montataire, when operations are fully integrated, will be of tremendous significance to Western defense. One MSA-aided mill completed over three years ago has been supplying important quantities of cold-reduced sheets—an essential component of armament products. A hot-strip mill to supply the cold mill with hot-rolled coils for cold reducing was completed in March 1951 with MSA aid.

The hot-and cold-strip rolling mill facilities being built in Lorraine, by SOLLAC (a merger of nine leading iron and steel firms) are even larger than at USINOR. Located in the heart of France's richest iron ore region, the SOLLAC mill will include an initial installation of 57 coking ovens. The 80-inch hot- and cold-rolled strip mills are designed to turn out products of the type needed for manufacture of jeeps, military trucks, and armored vehicles. Another project provides for the expansion of the plate and slabbing mill at Dillingen, in the Saar. Completion of these facilities will provide France, for the first time, with a domestic source of medium and heavy open-hearth armor plates of the type required for construction of tanks and naval vessels.

The Longwy project, to be completed the middle of next year, will increase production at the Mont Saint Martin plant, which includes the only French mill capable of rolling plates up to widths of 150 inches. The expanded output and better quality of plate resulting from these two projects will benefit French defense production on a broad front—particularly in naval construction, military vehicles, oil reserve tanks, pipelines, bridges, and boilers.

ITALY

Modernization and reactivation of Italy's important steel industry has been materially assisted by MSA-aided industrial projects which provided United States plant equipment and engineering services not obtainable in Europe. War damage to the Italian steel industry was extensive—68 percent of the pig iron capacity, 29 percent of the crude steel and 8 percent of the finished steel capacity were destroyed. Prewar there were over 200 plants manufacturing iron and steel, many of them small and medium-sized companies using obsolete equipment and operating inefficiently. High tariffs protected their market and the resulting high prices kept demand at a relatively low level. Postwar efforts have aimed to: (1) replace obsolete equipment with modern installations; (2) concentrate production in a few large plants, which can work near full capacity; (3) specialize production in various plants; and (4) plan for better equilibrium between solid and liquid charge steel-making processes to stabilize production under varying availabilities of raw materials. Capacity for various types of steel is now in better balance. Modernization and more efficient plant organization have lowered production costs, and the industry is in a more favorable position to compete at world prices. As a direct result of this improved competitive position, reliance on protective tariffs has been reduced.

The FINSIDER group of steel plants, the largest integrated works in Italy, has been authorized to receive over \$32 million in equipment and engineering services from the United States, including a billet mill, a rod mill, soaking pits, a hot-strip mill, and certain other special finishing facilities. When completed late in 1953, the FINSIDER combine will produce approximately 50 percent of the steel required by Italy. Development of the steel-making facilities of the FIAT Company is another important step in building up the economic and defensive strength of Italy. The FIAT plant is one of the major European facilities capable of immediate conversion to production of military-type vehicles. Some are now being produced; when the Italian steel industry can supply the required types of finished steel, the production of these vehicles can be materially increased.

The facilities of FALCK, the second largest Italian steel works, have been modernized with MSA support. Basically, the objective of this project is to assist the shift to special types of steel required in Italy for defense and essential civilian industries. No expansion in the over-all level of production is planned at this plant.

IRON and STEEL

MAJOR PROGRAMS

Western Europe is virtually dependent on the United States for high quality, transformer-grade electric sheet. To help overcome this situation, the magnetic sheet producing facilities of the TERNI plant of Societa per L'Elettricit  have been modernized and expanded. The leading United States producer of quality electric sheet was retained as consultant on this project to assure the production of the type and quality of electric sheets so badly needed in Italy and all the Western European areas.

UNITED KINGDOM

As part of an over-all steel development program being undertaken in the United Kingdom, MSA has provided assistance for two projects.

Flat-rolled steel products have been in short supply domestically, and the output of a new plant at Margram helps to provide the steel urgently needed for the engineering and metal-working industries. The new plant has not only increased production of flat-rolled products sufficiently to meet the immediate demands of the United Kingdom and leave a substantial export surplus, but has also provided products of improved quality at a lower cost. The project provides new annual capacity of 1,000,000 tons of hot-wide-strip steel, 350,000 tons of tinplate, about 300,000 tons of cold-rolled sheets, 150,000 tons of hot-finished sheets, and 150,000 tons of plates.

The short supply of steel tubing has held back shipbuilding and the electrical power expansion program. The Corby steel plant was developed to increase the output of finished tubular products by 80,000 tons of continuous weld tube; 50,000 tons of electric weld tubes, primarily boiler tubes; and tube strip by 170,000 tons per year. Limited production of line pipe and oil tubular goods, which has hampered the development of overseas oil resources has been alleviated by expansion of facilities at Clydesdale and Tolcross to meet the demand of British petroleum companies.

AUSTRIA

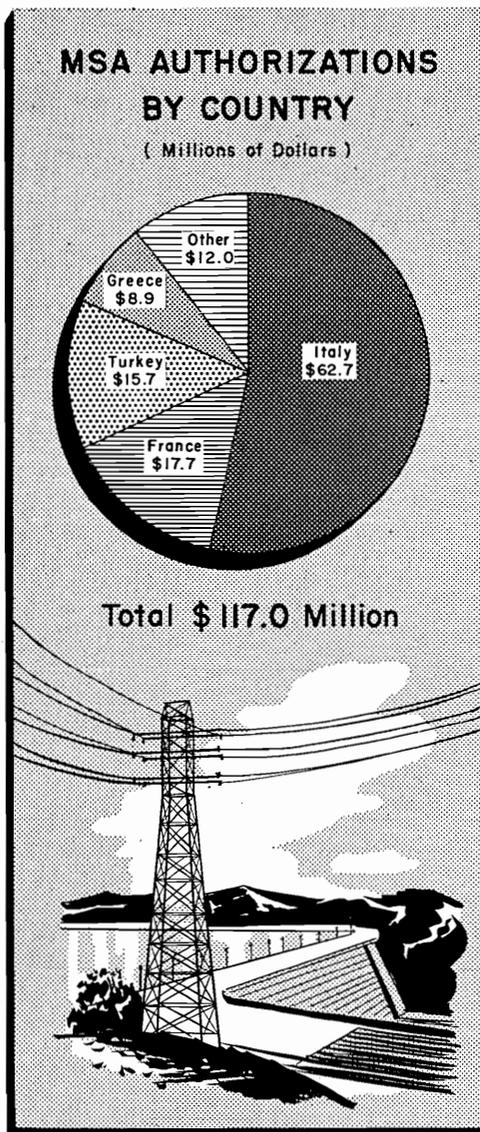
War damage and seizure of certain facilities by the Russians left the Austrian steel industry in a state of chaos, and actions of MSA/ECA were designed primarily to replace missing parts necessary to the efficient functioning of the steel industry.

After the finishing facilities at the Donawitz mill were removed by the Russians, Austria salvaged an 1897 mill from the scrap heap and put it back into operation. This mill, worn out, inefficient, and operated at high cost, was subject to frequent breakdowns. The new blooming mill, built in part with MSA-financed equipment, which replaced this unit, is capable of rolling about 40,000 tons of steel per month on a two-shift basis. Other new facilities are a billet and bar mill, and also a rail and structural mill with an expected annual output of some 150,000 tons of rails and structural shapes.

At Linz, a new slabbing and blooming mill has been erected to replace the one removed by the Russians in 1945. A hot-strip mill was completed in July 1952, and a cold mill, required for the final processing of hot-rolled coils, will be in operation in late 1953. Although integrated operation of the Linz mill will not be possible until all phases of the project are complete, production has continued while the facilities were being installed. Austria can consume, in the form of hot-rolled sheet, a considerable quantity of the hot-rolled coils produced in this mill. Such coils as are not required can be cold-reduced at the French and Italian cold mills which have already been installed but which are not backed up by continuous hot-strip mills.

Availability of steel from these two plants has provided Austria with a badly needed domestic source for her requirements, and has created additional quantities of steel materials for export to other Western European countries.

EUROPEAN INDUSTRIAL PROJECTS
ELECTRIC POWER
MAJOR PROGRAMS



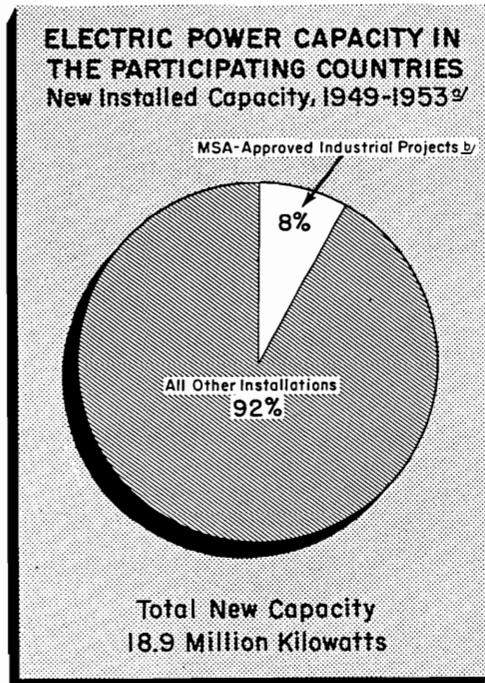
An adequate electric power supply for industrial production, agriculture, communications, transportation, and domestic use is essential to the economy of modern industrial nations and is basic to any effective level of defense production. At the close of World War II, electric power facilities were inadequate throughout Europe and in many areas had been severely damaged. Even though the destruction of industrial facilities had temporarily reduced the demand for power, there was still a deficit of 6 million kilowatts in generating capacity at the end of 1945. The immediate problem was rehabilitation of damaged facilities. All efforts were directed toward this purpose and essential services were restored rather quickly.

The demand for electric power increased sharply as industrial activity was stimulated by Marshall Plan aid. The need for greater generating capacity was recognized and almost \$140 million of MSA/ECA financing was approved for purchase of essential equipment for industrial projects having a total cost equivalent to \$395 million. In addition to the dollar aid, large sums of counterpart funds were made available for new capacity installations which could be purchased with local currency. Investments in new generating plants, however, are not effective immediately since a minimum period of 2 to 5 years is necessary for design, manufacture, and installation. The first of the dollar-aided plants, which were approved in 1949 and 1950, were placed in operation in early 1952. New installed capacity, entirely or partly financed with MSA-dollar aid, will amount to 1.5 million kilowatts by December 1953. Additional MSA-approved projects will provide another 300 thousand kilowatts by 1956.

Western Europe's generating capacity, however, has been increased by a total of nearly 19 million kilowatts in the past four years—a valuable addition to her defensive strength. Most of this increase was due entirely to European capital growth and investment; MSA-aided installations account for 1.5 million kilowatts or about 8 percent of the new capacity. MSA financing provided equipment and engineering services not available in Europe.

The greater part of the dollar-financed plants have modern, efficient, and reliable, American-designed thermal units of a type not heretofore installed in European plants. Designed to burn a low grade of fuel previously considered of little commercial value, these MSA-aided projects are of particular importance to the European economy because they increase thermal power generation

EUROPEAN INDUSTRIAL PROJECTS
ELECTRIC POWER
MAJOR PROGRAMS



without a proportionate increase in the use of high cost fuels which in many cases would have to be imported. Furthermore, the MSA-aided plants have been installed in locations of critical need and have greatly stimulated European interest in the economic advantages of such equipment. This interest is particularly timely because many European countries must rely increasingly on thermal plants to meet basic loads as the more favorable hydro sites have already been developed.

ITALY

Until after World War II, nearly all electricity in Italy was generated from water power, due to the country's wealth of hydro resources and the scarcity of coal and oil. Following the war, a critical shortage of electric power developed. This shortage was heightened by unusually low precipitation during the period 1946 through 1949, and at certain periods, key industries were limited to two days of operation a week. This situation strongly emphasized the need for steam-power generating plants to supplement hydroelectric resources.

Italy's electric power expansion program calls for the installation of plants to generate about one million additional kilowatts of thermal electric energy. MSA is extending aid to eleven new steam-electric generating installations capable of producing 720,000 kilowatts. Nine of these units, with a capacity of 600,000 kw, are already in operation and it is expected that the remaining units will be completed by 1955.

FRANCE

The electric power program of France is being developed as a part of the Monnet Plan. This Plan outlined a nationwide development of power facilities covering a period of several years and reflected electric energy requirements of a general industrial expansion.

MSA is extending dollar aid to three thermal plants to help meet France's requirements for additional electric power. The Dechy project, with capacity of 120,000 kw, was put into operation in 1952. This plant utilizes waste coal, of little market value, as fuel.

The Nantes Cheviré power plant, in Western France, is designed for ultimate capacity of 500,000 kw. MSA is providing financial assistance for boiler room equipment for two 50,000 kw units in the first stage of development. These two units are expected to go into operation in August, 1953.

MSA has also provided financial assistance for two projects for boiler room equipment at Arrighi which will increase the capacity of this plant by 200,000 kw.

^{a/} 1953 data estimated.

^{b/} Excludes 324,000 kw. scheduled for completion in 1954-1956.

ELECTRIC POWER

MAJOR PROGRAMS

TURKEY

Turkey requires large amounts of economic electric power to permit expansion of existing industries and development of new industries which will increase the productive capacity of the country. At present, generating capacity is limited, and the existing power plants serve only small areas due to the lack of distribution lines.

To enable full utilization of the 60,000 kw capacity of the Catalagzi plant—the newest and most efficient power plant in Turkey—a new 185-mile transmission line, with necessary transformers and substations, has been constructed. Through this line, urgently needed power is brought to the Izmit-Istanbul area over the first modern high-tension transmission line to be constructed in the country. The new line will later serve as a principal means of delivering power from projected generating plants to industrial load centers. Full utilization of the capacity of Catalagzi, which uses waste coal as fuel, will save approximately 120,000 tons of high-grade coal annually.

GREECE

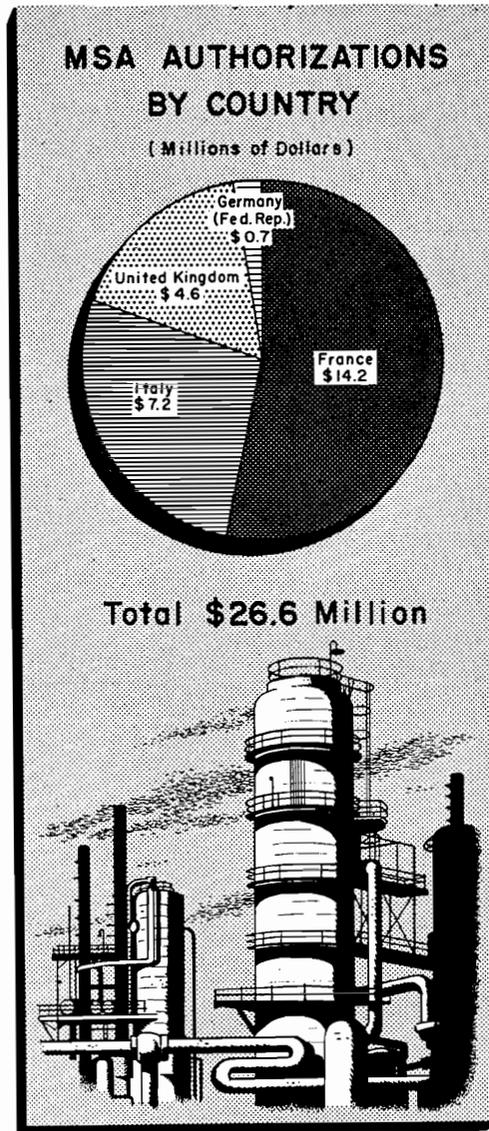
A comprehensive electric power program has been undertaken in Greece since the war. MSA has approved industrial projects providing dollar aid for three hydro and two thermal generating stations and their associated transmission and distribution lines. A "grid" of inter-connecting transmission lines will provide a flexible distribution system capable of meeting varying power demands. In addition, MSA is financing the dollar costs for an American engineering firm to plan and supervise the system.

As part of this program, 22,000 kw of thermal capacity was put into operation in 1952 and 1953 in the Athens-Piraeus area. The 80,000 kw thermal plant at Aliveri will go into operation in July 1953. This plant is designed to burn locally-mined lignite and thus reduce the need to import oil or coal. The three hydroelectric plants, totaling 95,000 kw, are scheduled for completion in 1953 and 1954.

The program under development is not designed to meet the full anticipated power requirements of Greece but will provide a sound basis for future expansion.

PETROLEUM REFINING

MAJOR PROGRAMS



The completion of the European refinery expansion program is now in sight. By July 1, 1953, Europe's crude oil throughput capacity will have increased by more than four times compared to 1948. The total cost of the expansion program through 1952 has been estimated at \$1.3 billion in all currencies, of which an estimated \$200 million required payments in dollars. Only \$36 million of this dollar cost was programmed for MSA financing via approved industrial projects; to date only \$23.7 million of MSA funds has actually been spent. In addition, the equivalent of approximately \$23 million, mostly in the form of loans, has been released from the participating countries' counterpart funds for the construction and maintenance of the European refinery industry.

As a result of increased refining capacity, Europe now imports the bulk of its petroleum requirements in the form of crude oil rather than refined products and is thereby able to cut its outlay of foreign currencies for oil roughly in half. Europe's foreign currency position is further improved by special arrangements between the American crude oil suppliers and the European buyers under which these buyers can pay for a portion of their crude oil purchases in European currencies. These foreign currency receipts are used to buy European materials and equipment needed by the American companies in their offshore operations. Finally, Europe actually exports refined petroleum products to third areas and thereby earns foreign currency income. This export availability was of vital importance during the initial period after the shutdown of the large refinery in Abadan, Iran. Because of the predominant part which oil plays in European foreign trade, the construction of Europe's refineries and consequent foreign currency savings have helped the participating countries to go a long way toward normal trade channels and practices, and have decreased the need for continued United States special financial assistance.

At the same time, Europe's new refining capacity, with its up-to-date equipment and highly

PETROLEUM REFINING

MAJOR PROGRAMS

skilled management and personnel, is an important domestic source of a highly strategic energy resource. NATO forces can rely on European refineries for the supply of high quality petroleum products. Europe's refining industry is also important in view of the recent findings of the President's Materials Policy (Paley) Commission. According to the report of the Commission, Europe's energy requirement will rise within the next twenty years at a more rapid rate than the output of indigenous coal. The new refining industry will have products available to fill a large portion of the resulting gap.

MSA has supported and promoted the construction of modern refining facilities in Europe with a minimum use of United States financial assistance. After the war, additional refining capacity was urgently needed in the Eastern Hemisphere to process the rapidly increasing production of Middle East high sulphur crude oil into the required petroleum products. MSA/ECA recognized that by building the new refinery industry in the European consuming area, rather than near the source of the oil, great economic and strategic benefits would accrue to the participating countries.

An interesting corollary to the large refinery expansion program in Europe is the establishment of up-to-date refinery equipment industries, able to supply European refineries with maintenance and repair equipment and materials, payable in European currencies. The European equipment industry consists largely of subsidiaries of American companies and of European companies manufacturing under license agreements with American companies. MSA/ECA's insistence on reducing dollar expenditures helped to promote the build-up of this industry.

The European refining industry has increased its daily capacity from 420,000 barrels of crude throughput capacity at the end of 1948 to 1.6 million barrels at the end of 1952. In addition, at the end of 1952, Europe had 235,000 barrels per day of modern cracking facilities and 140,000 barrels per day of up-to-date naphtha-reforming units. During fiscal year 1954, Europe's crude refining capacity will reach a total of about 2 million barrels per day.

The accompanying table shows the refining throughput of crude oil in 1948 in the participating countries, and the distillation capacity for crude oil which will exist by the end of calendar year 1954. The table also shows the number of MSA-financed refinery projects in each country.

CRUDE OIL THROUGHPUT IN PARTICIPATING COUNTRIES			
1948 Actual vs. 1954 Estimates			
	Thousands of Barrels per Day		Number of MSA-Financed Refinery Projects
	1948 Actual	1954 Estimate	
TOTAL	382	2,122	16
Austria.....	7	— ^{a/}	—
Belg.-Lux.....	6	113	—
Denmark.....	*	1	—
France.....	166	538	10 ^{b/}
Germany.....	16	225	1 ^{c/}
Italy and Trieste.....	45	366	3
Netherlands.....	35	206	—
Norway.....	—	1	—
Portugal.....	6	24	—
Sweden.....	11	38	—
Switzerland.....	—	4	—
Turkey.....	—	7	—
United Kingdom.....	90	599	2

* Less than 1,000 barrels per day.

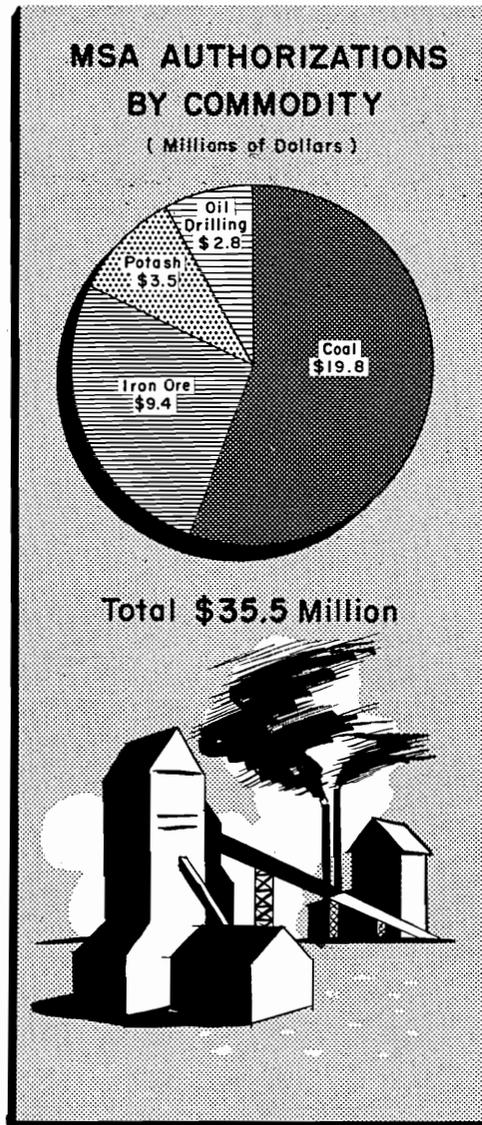
^{a/} No refineries in Western Austria.

^{b/} Only seven refineries involved as three refineries had two approved projects.

^{c/} MSA/ECA funds were used in connection with the expansion of two other German refineries. The amounts were less than \$250,000 each and the expansions were not considered "projects."

RAW MATERIALS EXTRACTION

MAJOR PROGRAMS



COAL

Turkey has undertaken to increase fuel production to a level sufficient to fill domestic requirements and to produce a surplus for export. Increased productivity and reductions in operating costs are being stressed. MSA, since 1949, has been assisting the development of the Zonguldak coal fields—the most important coal-producing area in the country—and has helped modernize the Western Lignite Mines. With expanded coal production and increased domestic use of lignite, Turkey has been able to export coal for the first time since the war.

Mines in Greece and Italy (Sardinia) have also received MSA aid to speed up mechanization and to increase domestic coal supplies in these two fuel-short countries.

IRON ORE

Increased supplies of iron ore are essential to support a flourishing European steel industry. Ore mine projects in Norway, Austria, Turkey and France have received MSA-financed equipment and services. The Sydvaranger mines, in Norway, a most important source of rich iron ore, were completely destroyed by the Germans during World War II. With MSA aid, the mines were reconstructed and reactivated. It is estimated that some 400,000 tons of iron ore concentrate were produced during 1952, and that production will be about 1 million tons during 1953, with the mine completely restored.

French iron ore production, which in prewar was about 40 million tons annually, dropped to 16 million tons after the war. Mines and equipment had run down and little replacement occurred during the war years. The French Government, with MSA support, undertook reactivation of the iron ore mines, particularly in the Lorraine basin, which are the backbone of continental Europe's steel industry. With improvements nearly completed, production has already surpassed the prewar level.

POTASH

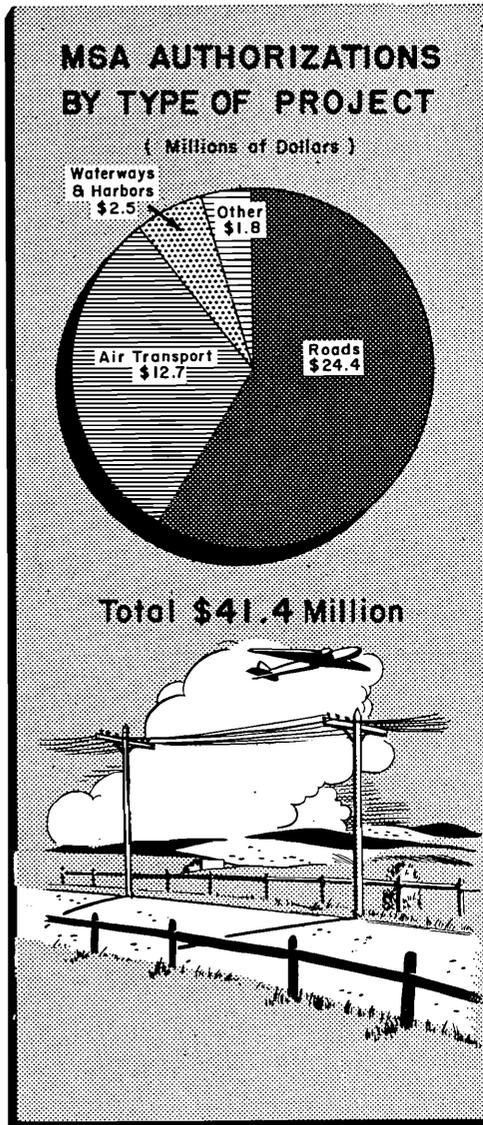
With some American support, French potash mines are being modernized to increase production and mitigate Europe's shortages of potash fertilizer. French potash reserves are one of the principal sources of supply for the free world.

OIL DRILLING

MSA-financed equipment is being used for the exploration and exploitation of oil in France and French North Africa and in Austria. These operations have proved successful in several areas, particularly in Morocco. New oil fields will improve Europe's strategic resources and reduce her dependence on imported crude oil.

TRANSPORTATION and COMMUNICATION

MAJOR PROGRAMS



ROADS

During the past five years, with the help of MSA funds and technical assistance furnished by the United States Bureau of Public Roads, Turkey has reorganized its highway system and obtained up-to-date equipment with which to improve and maintain its 15,000-mile national road system. This network of modern roads will contribute greatly to defense mobility in this country which occupies a strategic position between the Mediterranean Sea and the southwestern border of the Soviet Union.

Improvements already made have reduced travel time between principal cities and have connected hitherto relatively inaccessible rich agricultural and mineral resource areas with markets and seaports by means of all-weather highways. Transportation costs have been reduced from an average of 13 cents to 7 cents per ton-mile.

AIR TRANSPORT

MSA has financed several projects to supply France with aircraft and equipment to help meet increasing demands for air passenger and freight transportation. Grossly inadequate transportation of all types has been a serious deterrent to development of France's overseas territories. Aviation is being emphasized as an efficient medium of transportation and the least costly one to establish where long distances and difficult terrain are major obstacles. One company receiving MSA-financed transport planes operates the only commercial air line in Indochina. Improved air transport between France and her territories and within the territories will contribute materially to the productivity of these areas and will earn more foreign exchange through the accommodation of larger numbers of tourists.

Modernization and extension of Turkish air line facilities will speed delivery of high-cost or strategic commodities and provide a base for efficient communications in connection with Turkish defense. MSA-financed equipment for construction of two key airports will hasten completion by at least one year.

WATERWAYS AND HARBORS

In view of the development of the Zonguldak coal fields, auxiliary transportation facilities are urgently needed in Turkey to move the larger output of coal safely and economically. Harbor facilities are being improved with MSA assistance.

MSA—APPROVED INDUSTRIAL PROJECTS
BY PARTICIPATING COUNTRY AND TYPE OF PROJECT
AS OF APRIL 30, 1953
(Thousands of Dollars and Dollar Equivalents)

TYPE OF PROJECT	NUMBER OF ACTIVE PROJECTS	TOTAL COST ESTIMATE (Dollar Equivalent)	MSA DOLLAR FINANCING APPROVED	MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS
TOTAL INDUSTRIAL PROJECTS - ALL COUNTRIES	134	\$2,615,746	\$581,923	\$505,116	\$441,299
RAW MATERIALS EXTRACTION	15	438,480	42,120	35,457	32,278
Iron Mining	4	214,549	13,125	9,353	8,826
Potash Mining	1	125,000	4,000	3,492	3,473
Coal Mining	4	81,308	22,103	19,760	17,134
Oil Drilling	6	17,623	2,892	2,852	2,845
MANUFACTURING	70	1,373,587	343,084	302,460	272,128
Primary Metals	31	876,055	229,791	208,226	188,357
Iron and Steel	29	872,055	227,491	206,710	186,841
Aluminum	2	4,000	2,300	1,516	1,516
Petroleum Refining	16	250,472	35,975	26,633	23,676
Automotive Products	5	118,112	37,979	35,145	31,919
Chemicals	3	48,088	11,175	10,693	8,289
Pulp and Paper	7	37,911	12,923	9,242	9,153
Cement	2	16,180	3,967	2,537	2,515
General Industrial Equipment	1	8,600	1,930	1,400	1,290
Glass	2	7,547	3,669	3,298	3,038
Fertilizer	1	7,240	3,280	2,922	1,614
Bearings, etc.	1	2,000	1,353	1,353	1,268
Tire Cord	1	1,382	1,042	1,011	1,009
TRANSPORTATION, COMMUNICATION AND UTILITIES	44	705,922	187,059	158,362	129,574
Power Facilities	31	394,951	138,668	116,996	97,570
Transportation Facilities	8	230,366	40,077	37,072	28,216
Roads	1	176,000	24,515	24,371	16,682
Air Transport	7	54,366	15,562	12,701	11,534
Communication Equipment	1	60,000	1,290	1,175	1,175
Waterways and Harbors	2	16,310	5,324	2,455	1,984
Railroad Equipment	1	3,000	1,000	—	—
Merchant and Fishing Fleet	1	1,295	700	664	629
OTHER	3	85,907	6,000	5,446	4,508
Irrigation and Reclamation	2	78,000	3,500	2,946	2,019
Grain Storage and Handling Facilities	1	7,907	2,500	2,500	2,489
ENGINEERING AND TECHNICAL SERVICES	2	11,850	3,660	3,395	2,812

NOTE: Totals shown are sums of unrounded figures, hence may vary slightly from totals of rounded amounts. Total cost includes MSA dollars, other dollars and dollar equivalents of local currencies. Industrial projects exclude technical assistance projects, strategic materials projects, counterpart fund projects, and Overseas Territory Development projects financed from the Special Reserve Fund. Industrial projects for overseas territories are reported with recipient mother countries.

MSA—APPROVED INDUSTRIAL PROJECTS
BY PARTICIPATING COUNTRY AND TYPE OF PROJECT

AS OF APRIL 30, 1953

(Thousands of Dollars and Dollar Equivalents)

COUNTRY AND TYPE OF PROJECT	NUMBER OF ACTIVE PROJECTS	TOTAL COST ESTIMATE (Dollar Equivalent)	MSA DOLLAR FINANCING APPROVED	MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS
A U S T R I A					
TOTAL INDUSTRIAL PROJECTS	<u>13</u>	<u>\$82,326</u>	<u>\$35,687</u>	<u>\$31,985</u>	<u>\$30,187</u>
RAW MATERIALS EXTRACTION	<u>2</u>	<u>9,532</u>	<u>3,581</u>	<u>3,542</u>	<u>3,013</u>
Iron Mining	1	9,037	3,111	3,072	2,547
Oil Drilling	1	495	470	470	466
MANUFACTURING	<u>11</u>	<u>72,794</u>	<u>32,106</u>	<u>28,444</u>	<u>27,175</u>
Primary Metals - Iron and Steel	6	48,133	25,192	25,136	23,897
Pulp and Paper	5	24,661	6,914	3,308	3,278
B E L G I U M					
TOTAL INDUSTRIAL PROJECTS	<u>4</u>	<u>50,523</u>	<u>15,190</u>	<u>9,796</u>	<u>9,796</u>
MANUFACTURING	<u>4</u>	<u>50,523</u>	<u>15,190</u>	<u>9,796</u>	<u>9,796</u>
Primary Metals - Iron and Steel	3	39,523	13,655	8,343	8,343
Cement	1	11,000	1,535	1,453	1,453
D E N M A R K					
TOTAL INDUSTRIAL PROJECTS	<u>1</u>	<u>9,529</u>	<u>5,070</u>	<u>3,371</u>	<u>3,282</u>
TRANSPORTATION, COMMUNICATION, AND UTILITIES	<u>1</u>	<u>9,529</u>	<u>5,070</u>	<u>3,371</u>	<u>3,282</u>
Power Facilities	1	9,529	5,070	3,371	3,282
F R A N C E					
TOTAL INDUSTRIAL PROJECTS	<u>41</u>	<u>996,366</u>	<u>158,486</u>	<u>141,152</u>	<u>122,116</u>
RAW MATERIALS EXTRACTION	<u>7</u>	<u>314,128</u>	<u>10,422</u>	<u>8,023</u>	<u>8,001</u>
Iron Mining	1	172,000	4,000	2,149	2,149
Potash Mining	1	125,000	4,000	3,492	3,473
Oil Drilling	5	17,128	2,422	2,382	2,379
MANUFACTURING	<u>24</u>	<u>441,000</u>	<u>114,033</u>	<u>105,894</u>	<u>90,200</u>
Primary Metals	8	244,995	81,268	76,981	66,349
Iron and Steel	6	240,995	78,968	75,465	64,833
Aluminum	2	4,000	2,300	1,516	1,516
Petroleum Refining	10	138,455	17,453	14,169	11,544
Automotive Products	3	35,150	10,427	10,422	8,295
Chemicals	1	12,418	1,913	1,911	1,713
General Industrial Equipment	1	8,600	1,930	1,400	1,290
Tire Cord	1	1,382	1,042	1,011	1,009
TRANSPORTATION, COMMUNICATION, AND UTILITIES	<u>9</u>	<u>178,238</u>	<u>32,631</u>	<u>25,960</u>	<u>22,724</u>
Power Facilities	4	74,695	22,030	17,692	15,013
Communication Equipment	1	60,000	1,290	1,175	1,175
Transportation Facilities - Air Transport	4	43,543	9,311	7,093	6,536
OTHER	<u>1</u>	<u>63,000</u>	<u>1,400</u>	<u>1,276</u>	<u>1,191</u>
Irrigation and Reclamation	1	63,000	1,400	1,276	1,191

MSA—APPROVED INDUSTRIAL PROJECTS
BY PARTICIPATING COUNTRY AND TYPE OF PROJECT
AS OF APRIL 30, 1953
(Thousands of Dollars and Dollar Equivalents)

COUNTRY AND TYPE OF PROJECT	NUMBER OF ACTIVE PROJECTS	TOTAL COST ESTIMATE (Dollar Equivalent)	MSA DOLLAR FINANCING APPROVED	MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS
GERMANY (Federal Republic)					
TOTAL INDUSTRIAL PROJECTS	<u>2</u>	<u>\$12,637</u>	<u>\$2,520</u>	<u>\$2,241</u>	<u>\$2,000</u>
MANUFACTURING	<u>2</u>	<u>12,637</u>	<u>2,520</u>	<u>2,241</u>	<u>2,000</u>
Petroleum Refining	1	8,683	683	683	596
Glass	1	3,954	1,837	1,558	1,404
GREECE					
TOTAL INDUSTRIAL PROJECTS	<u>13</u>	<u>112,900</u>	<u>33,512</u>	<u>16,943</u>	<u>13,248</u>
RAW MATERIALS EXTRACTION	<u>1</u>	<u>10,197</u>	<u>3,873</u>	<u>2,208</u>	<u>1,775</u>
Coal Mining	1	10,197	3,873	2,208	1,775
MANUFACTURING	<u>2</u>	<u>8,773</u>	<u>4,264</u>	<u>2,824</u>	<u>2,696</u>
Cement	1	5,180	2,432	1,084	1,062
Glass	1	3,593	1,832	1,740	1,634
TRANSPORTATION, COMMUNICATION, AND UTILITIES	<u>9</u>	<u>86,930</u>	<u>22,375</u>	<u>8,911</u>	<u>6,360</u>
Power Facilities	9	86,930	22,375	8,911	6,360
ENGINEERING AND TECHNICAL SERVICES	<u>1</u>	<u>7,000</u>	<u>3,000</u>	<u>3,000</u>	<u>2,417</u>
ICELAND					
TOTAL INDUSTRIAL PROJECTS	<u>3</u>	<u>18,538</u>	<u>8,428</u>	<u>7,887</u>	<u>6,232</u>
MANUFACTURING	<u>1</u>	<u>7,240</u>	<u>3,280</u>	<u>2,922</u>	<u>1,614</u>
Fertilizer	1	7,240	3,280	2,922	1,614
TRANSPORTATION, COMMUNICATION, AND UTILITIES	<u>2</u>	<u>11,298</u>	<u>5,148</u>	<u>4,965</u>	<u>4,618</u>
Power Facilities	2	11,298	5,148	4,965	4,618
ITALY					
TOTAL INDUSTRIAL PROJECTS	<u>30</u>	<u>429,017</u>	<u>164,183</u>	<u>159,890</u>	<u>140,851</u>
RAW MATERIALS EXTRACTION	<u>1</u>	<u>10,111</u>	<u>3,413</u>	<u>2,801</u>	<u>2,557</u>
Coal Mining	1	10,111	3,413	2,801	2,557
MANUFACTURING	<u>17</u>	<u>306,637</u>	<u>92,407</u>	<u>90,044</u>	<u>79,952</u>
Primary Metals - Iron and Steel	10	191,854	55,456	54,895	48,400
Automotive Products	1	69,379	23,052	22,223	21,124
Petroleum Refining	3	21,334	8,134	7,220	6,984
Chemicals	1	18,670	2,762	2,762	585
Pulp and Paper	1	3,400	1,650	1,591	1,591
Bearings, etc.	1	2,000	1,353	1,353	1,268
TRANSPORTATION, COMMUNICATION, AND UTILITIES	<u>12</u>	<u>112,269</u>	<u>68,363</u>	<u>67,046</u>	<u>58,340</u>
Power Facilities	11	106,809	63,863	62,725	54,051
Transportation Facilities - Air Transport	1	5,460	4,500	4,321	4,289
NETHERLANDS					
TOTAL INDUSTRIAL PROJECTS	<u>2</u>	<u>67,990</u>	<u>26,872</u>	<u>17,839</u>	<u>16,581</u>
MANUFACTURING	<u>1</u>	<u>47,010</u>	<u>23,500</u>	<u>14,746</u>	<u>13,488</u>
Primary Metals - Iron and Steel	1	47,010	23,500	14,746	13,488
TRANSPORTATION, COMMUNICATION, AND UTILITIES	<u>1</u>	<u>20,980</u>	<u>3,372</u>	<u>3,093</u>	<u>3,093</u>
Power Facilities	1	20,980	3,372	3,093	3,093

MSA—APPROVED INDUSTRIAL PROJECTS
BY PARTICIPATING COUNTRY AND TYPE OF PROJECT
AS OF APRIL 30, 1953
(Thousands of Dollars and Dollar Equivalents)

COUNTRY AND TYPE OF PROJECT	NUMBER OF ACTIVE PROJECTS	TOTAL COST ESTIMATE (Dollar Equivalent)	MSA DOLLAR FINANCING APPROVED	MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS
NORWAY					
TOTAL INDUSTRIAL PROJECTS	<u>1</u>	<u>\$29,000</u>	<u>\$5,014</u>	<u>\$3,142</u>	<u>\$3,142</u>
RAW MATERIALS EXTRACTION	<u>1</u>	<u>29,000</u>	<u>5,014</u>	<u>3,142</u>	<u>3,142</u>
Iron Mining	1	29,000	5,014	3,142	3,142
PORTUGAL					
TOTAL INDUSTRIAL PROJECTS	<u>5</u>	<u>28,522</u>	<u>9,186</u>	<u>8,141</u>	<u>6,396</u>
MANUFACTURING	<u>2</u>	<u>11,190</u>	<u>5,349</u>	<u>5,234</u>	<u>4,940</u>
Pulp and Paper	1	9,850	4,359	4,343	4,284
Primary Metals - Iron and Steel	1	1,340	990	891	656
TRANSPORTATION, COMMUNICATION, AND UTILITIES	<u>2</u>	<u>2,332</u>	<u>1,737</u>	<u>1,237</u>	<u>629</u>
Merchant and Fishing Fleet	1	1,295	700	664	629
Transportation Facilities - Air Transport	1	1,037	1,037	573	--
OTHER	<u>1</u>	<u>15,000</u>	<u>2,100</u>	<u>1,670</u>	<u>828</u>
Irrigation and Reclamation	1	15,000	2,100	1,670	828
TURKEY					
TOTAL INDUSTRIAL PROJECTS	<u>12</u>	<u>334,015</u>	<u>66,800</u>	<u>61,876</u>	<u>46,684</u>
RAW MATERIALS EXTRACTION	<u>3</u>	<u>65,512</u>	<u>15,817</u>	<u>15,741</u>	<u>13,790</u>
Coal Mining	2	61,000	14,817	14,751	12,802
Iron Mining	1	4,512	1,000	990	988
TRANSPORTATION, COMMUNICATION, AND UTILITIES	<u>7</u>	<u>255,746</u>	<u>47,823</u>	<u>43,240</u>	<u>30,011</u>
Transportation Facilities	2	180,326	25,229	25,085	17,391
Roads	1	176,000	24,515	24,371	16,682
Air Transport	1	4,326	714	714	709
Power Facilities	2	56,110	16,270	15,701	10,636
Waterways and Harbors	2	16,310	5,324	2,455	1,984
Railroad Equipment	1	3,000	1,000	--	--
OTHER	<u>1</u>	<u>7,907</u>	<u>2,500</u>	<u>2,500</u>	<u>2,489</u>
Grain Storage and Handling Facilities	1	7,907	2,500	2,500	2,489
ENGINEERING AND TECHNICAL SERVICES	<u>1</u>	<u>4,850</u>	<u>660</u>	<u>395</u>	<u>395</u>
UNITED KINGDOM					
TOTAL INDUSTRIAL PROJECTS	<u>6</u>	<u>415,783</u>	<u>50,435</u>	<u>40,315</u>	<u>40,267</u>
MANUFACTURING	<u>6</u>	<u>415,783</u>	<u>50,435</u>	<u>40,315</u>	<u>40,267</u>
Primary Metals - Iron and Steel	2	303,200	29,730	27,234	27,224
Petroleum Refining	2	82,000	9,705	4,561	4,552
Chemicals	1	17,000	6,500	6,020	5,991
Automotive Products	1	13,583	4,500	2,500	2,500
INTERNATIONAL					
TOTAL INDUSTRIAL PROJECTS	<u>1</u>	<u>28,600</u>	<u>540</u>	<u>538</u>	<u>517</u>
TRANSPORTATION, COMMUNICATION, AND UTILITIES	<u>1</u>	<u>28,600</u>	<u>540</u>	<u>538</u>	<u>517</u>
Power Facilities	1	28,600	540	538	517

INDUSTRIAL PROJECTS APPROVED, ESTIMATED TOTAL COST, MSA DOLLAR FINANCING APPROVED
MSA PROCUREMENT AUTHORIZED, MSA PAID SHIPMENTS, AND STATUS OF PROJECTS, AS OF APRIL 30, 1953

AUSTRIA

(Thousands of Dollars and Dollar Equivalents)

PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
TOTAL INDUSTRIAL PROJECTS APPROVED^a				\$82,326	\$35,687	43.3%	\$31,985	\$30,187		
MANUFACTURING				72,794	32,106	44.1%	28,444	27,175		
STEEL				48,133	25,192	52.3%	25,136	23,897		
<p><i>War damage and seizures by the Russians disrupted steel production in Austria. An over-all investment program for modernization and expansion of the iron and steel industry was developed to give Austria a balanced steel production capacity and limit imports to specialized steel mill products. MSA financing enabled the plants at Linz and Donawitz to obtain modern U.S.-designed rolling mills, with much of the machinery and equipment coming from the United States.</i></p>										
2	4/ 1/49 6/ 8/51 8/23/51	VOEST (Vereinigte Osterreichisch Eisen-und Stahlwerke A.G.) Linz	Installation of 46" slabbing and blooming mill as part of the integration of the Linz plant which was producing armor plate only at the end of the war. Annual output as of December 1952 was 220,000 tons of slabs. This will be increased to 370,000 tons following complete installation of additional steel converter facilities in the first half of 1953.	8,863	2,898	32.7%	2,893	2,885	August 1951	
3	4/ 1/49 1/18/51 6/18/51 10/31/51 1/23/52	VOEST, Linz	Installation of 66" hot-strip mill. Completed in July 1952. Two-shift planned production of the plant is 280,000 tons of plate and sheet per year. Output in December 1952 was at an annual rate of 140,000 tons, which will be increased following installation of additional steel ingot capacity now being completed. When all three projects at Linz are complete, the plant will be in a position to meet domestic needs for plate and sheet at competitive prices and to supply substantial quantities for export.	16,067	8,365	52.1%	8,365	8,297	July 1952	
4	4/ 6/50 12/ 4/50 6/25/51	VOEST, Linz	Installation of 66" reversing cold-rolling mill. Completion of project has been delayed by some changes in technical design and late delivery of equipment, from the United States. Estimated two-shift capacity of the mill will be 70,000 tons of cold-rolled sheets annually.	3,362	2,190	65.1%	2,173	1,913		Mid- or latter half of 1953
1	2/25/49 7/20/50 1/31/51 10/31/51 10/16/52	Alpine Montan (Osterreichisch Alpine Montangesellschaft), Donawitz	Replacement of obsolete 1897 steam-driven blooming mill with modern electric mill; capacity has been increased from 360,000 to 600,000 tons per year. Completed in 1950, present output is 450,000 tons. Annual crude steel capacity will be increased by 150,000 tons by the end of 1953, and soaking pit facilities will also be increased subsequently to enable fuller integration of the new blooming mill capacity. When operated at capacity, a 30 percent decrease in costs is expected.	6,244	4,181	67.0%	4,153	4,000	November 1950	
6	5/26/49 2/8/51 4/26/51 8/23/51 10/31/51	Alpine Montan, Donawitz	Modernization and expansion of the largest and oldest steel firm in Austria by installation of a continuous billet mill -- one of three integrated projects at Donawitz to increase the capacity and to decrease costs in the roughing mill department. Two-shift capacity is 500,000 tons of billets and sheet per year; present annual output is 240,000 tons pending an increased supply of ingots scheduled for the end of the year. Output of the mill will supply the requirements of the new rail and structural mill, and of the other Donawitz finishing mills and plants, as well as various independent Austrian rolling mills.	7,395	3,316	44.8%	3,310	3,284	February 1952	
7	4/27/50 1/12/51 3/10/52	Alpine Montan Donawitz	Modernization and expansion by installation of a new rail and structural mill with a two-shift capacity of 180,000 tons of rails and heavy structural shapes per annum. Donawitz is the only producer of rail and heavy structural shapes in Austria. MSA financing for the three Donawitz projects will provide mechanical and electrical equipment from the United States for the mills.	6,202	4,242	68.4%	4,242	3,518		3rd. Qtr. 1954

NOTE: Data shown in "Status of Project" columns on this page and following pages are based primarily on reports from the various European Missions.

^aExcludes data on an international project, see page 42, shared equally by Austria and Germany (Fed. Rep.).

INDUSTRIAL PROJECTS APPROVED, ESTIMATED TOTAL COST, MSA DOLLAR FINANCING APPROVED
MSA PROCUREMENT AUTHORIZED, MSA PAID SHIPMENTS, AND STATUS OF PROJECTS, AS OF APRIL 30, 1953

AUSTRIA-Cont.

(Thousands of Dollars and Dollar Equivalents)

PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
		PULP AND PAPER		\$24,661	\$6,914	28.1%	\$3,308	\$3,278		
			<i>Austria has been a successful and traditional producer of pulp and various grades of paper, all of which found ready acceptance in the world market. Facilities for Kraft pulp and paper (sulphate) production were far short, however, of meeting domestic demands, and obsolete equipment for sulphite production threatened Austria with the loss of her markets on a price basis. Extensive modernization and expansion plans were developed by numerous firms. A technical assistance team of United States pulp and paper experts was sent to Austria by ECA and made an over-all study of the industry. Many of their recommendations were followed in implementing the following industrial projects. Expanded production of Kraft pulp will use inferior grades of wood which are abundant in Austria.</i>							
28	11/30/50	Nettingsdorfer Papierfabrik, A.G., Nettingsdorf Upper Austria	Construction of a new and modern unbleached Kraft pulp mill for production of 30,000 tons of Kraft pulp per year — about half to be processed into Kraft paper with equipment now making sulphite paper and the balance sold to producers of multiwall bag paper and strong wrapping paper. When completed, domestic production of Kraft pulp and paper will improve the foreign exchange position of Austria by an estimated \$2 million to \$2.7 million annually. Original plans called for installation of a new paper machine which would give an installed capacity of 30,000 tons of Kraft paper. This requirement was reflected in the original project approval. Due to the long delivery time required for the paper machine, this part of the project was postponed until the machinery supply situation eases up.	6,996	2,280	32.6%	570	551		March 1954
24	6/ 9/50	Muerztaler Holzstoff und Papierfabrik, A.G., Bruck a.d. Mur	Construction of a completely integrated newsprint mill to replace an obsolete mill. Capacity of modernized plant will be 36,000 tons of newsprint at lower cost, and initial production may be 30,000 tons. About two-thirds of the output will be exported. Austrian balance of payments should be improved by about \$1,750,000 annually, including savings on the use of imported coal formerly used for power. MSA financed a paper mill, grinders, and related equipment from the United States.	5,204	1,604	30.8%	1,241	1,241		February 1953
22	8/17/50	Natronzellstoff- und Papierfabrik, A.G., Frantschach, Carinthia	Modernization and expansion of integrated unbleached Kraft pulp and paper mill and multiwall bag factory. New capacity estimated at 33,000 tons of pulp, of which 27,000 tons will be processed on the new Kraft paper machine, the balance exported. Austria's foreign exchange position should improve by about \$1,000,000 annually since large amounts of Kraft pulp were previously imported.	5,319	1,297	24.4%	1,022	1,017		July 1953
23	6/ 9/50	Arland Papier- und Zellstoffabriken, A.G., Graz-Andritz and Rechberg	Modernization and modest expansion of two extremely old and obsolete plants engaged in the production of sulphite and ground-wood pulp and various semi-fine papers. Partially complete, production has already increased; eventual capacity estimated at 25,000 tons of pulp and 22,440 tons of paper per year. About 50 percent to be exported. Improved processes will also save imported sulphur and coal, resulting in an over-all foreign exchange position improvement of \$1,000,000 annually.	5,384	1,169	21.7%	475	469	Andritz: Sept. 1952	Rechberg: December 1953
27	10/26/50	Karton und Papierfabrik von Franz Mayr-Meinhof & Co., Wannersdorf, Styria	Modernization and expansion of a paper-board mill to increase capacity from 5,700 tons of high quality board per year to 19,500 tons per year — sufficient to meet domestic requirements and allow the export of an estimated 7,500 tons. Dollar aid of \$580,000 was originally requested; below the \$1 million project limit, it was handled as a "Project" because of its importance to the Austrian economy. The original documentation stated that \$305,000 had already been authorized for the project, and the dollar financing approved for the project took this amount into consideration. Only \$4,000 of additional financing (issued as program assistance) was required for American equipment, due to technical changes suggested by the United States technical assistance team, and to shifts to European sources of procurement.	1,758	564	32.1%	—	—	1st part: Nov. 1951	June 1953

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AUSTRIA-Cont.

PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE EXPECTED COMPLETION DATE
		<u>RAW MATERIALS EXTRACTION</u>		<u>\$9,532</u>	<u>\$3,581</u>	<u>37.6%</u>	<u>\$3,542</u>	<u>\$3,013</u>		
		<u>IRON ORE MINING</u>		<u>9,037</u>	<u>3,111</u>	<u>34.4%</u>	<u>3,072</u>	<u>2,547</u>		
5	5/26/49 1/ 8/51 6/27/51 7/ 18/52	Alpine Montan (Oesterreichisch Alpine Montangesellschaft), Erzberg and Radmer Mines, Styria	Rehabilitation of two iron ore mines razed by the Russians. Installation of mining, transport, and ore concentrating machinery and equipment to achieve the high rate of production necessary to supply Austria's remaining blast furnaces. The project has been revised several times and presently aims at "rated" daily output of 8,400 tons. MSA financing covers machinery and apparatus procured in the United States.	9,037	3,111	34.4%	3,072	2,547	7,726 tons daily output attained March-Oct. 1952	No exact estimate for attainment of 8,400-ton daily output
		<u>OIL DRILLING</u>		<u>495</u>	<u>470</u>	<u>94.9%</u>	<u>470</u>	<u>466</u>		
29	2/14/51 4/11/51	Rohoelgewinnings, A.G., Upper Austria	Oil well drilling equipment for exploration for crude oil in Upper Austria by a company owned by American and British interests, in a effort to make Austria less dependent on the Soviet-controlled oil production. Currently the bulk of Western Austria's petroleum requirements is met from production in Soviet-controlled Eastern Austria. MSA financing provided a seismic outfit, oil well drilling equipment, and technical services from the United States.	495	470	94.9%	470	466		1st. Quarter 1954
		INACTIVE PROJECTS, NOT INCLUDED IN COUNTRY TOTALS:								
26	11/30/50	Leykam-Josefsthal, A.G., Gratwein	Modernization and rationalization of an integrated sulphite pulp and paper mill. The original project approval covered the installation of two new paper machines from the United States. The firm, however, was able to secure satisfactory machines in Germany and United States aid was limited to less than \$6,000 for chemicals and coal (not classified as "Project P.A.'s"). The plant improvements when complete will more than double production, at 20 percent lower cost.	6,904	1,101	15.9%	—	—		Within 1953
25	6/ 9/50	Zellulose-und Papierfabriken Brigi und Bergmeister, A.G., Niklasdorf, a.d. Mur	Extensive modernization of completely integrated sulphite pulp and paper mill to increase annual production of paper from 11,000 tons to 18,000 tons, and annual production of chemical pulp from 17,000 tons to 30,000 tons. Original plans were to purchase a new paper machine with United States financing of \$1.1 million. After studying the investment program of the Austrian industry, the U.S. technical assistance team recommended against procurement of a new machine and suggested instead the rationalization and improvement of the firm's sulphite pulp production as far as possible. MSA/ECA financing was therefore limited to about \$33,000 for minor machinery and chemicals (not classified as "Project P.A.'s").	3,408	1,129	33.1%	—	—		End of 1953

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BELGIUM

(Thousands of Dollars and Dollar Equivalents)

PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
TOTAL INDUSTRIAL PROJECTS APPROVED				\$50,523	\$15,190	30.1%	\$9,796	\$9,796		
MANUFACTURING				50,523	15,190	30.1%	9,796	9,796		
STEEL				39,523	13,655	34.5%	8,343	8,343		
<p><i>Three modernization projects have been completed by Belgian steel companies. Up-to-date equipment and integrated production lines have resulted in more efficient and economical production, rather than any great increase in volume. Belgian firms have been able to maintain their extensive export market for steel.</i></p>										
8	4/ 1/49 11/15/49 4/ 4/50	S.A. Metallurgique d'Esperance-Longdoz, Liege	Modernization by installation of cold rolling mill (monthly capacity 8,000 to 10,000 tons of cold-rolled strip); pickling and annealing equipment; and a semi-continuous hot-strip mill (monthly capacity 30,000 tons hot-strip).	17,023	2,823	16.6%	2,329	2,329	Cold rolling: June 1950 Hot-strip: June 1951	
11	2/ 9/50	S.A. Ougree Marihaye, Ougree	Modernization of rolling mills by installation of 66" four-high rolling mill and finishing stands. While production has remained about 48,000 metric tons per month, the same as previously, the new mill produces about 16,000 tons per month of wide sheets in coils, instead of mostly narrow strip.	16,800	7,650	45.5%	2,866	2,866	1951	
9	4/ 1/49 8/ 4/49 10/12/49	Phenix Works at Flemmalle-Haute, near Liege	Reversing four-high cold-rolling mill and pickling equipment to replace obsolete hand process. Output remains about 6,000 tons per month, but with very substantial decreases in costs and increase in quality.	5,700	3,182	55.8%	3,148	3,148	1950-51	
CEMENT				11,000	1,535	14.0%	1,453	1,453		
7	8/ 18/49	Cimenteries et Briqueteuries Reunies de Belgique, Lixhe, near Visé	New plant to replace five old plants. MSA financed two rotary drying kilns with daily capacity of 500 tons of cement. Located near chalk quarry, coal mines and water transportation, new plant equals production of five replaced plants at lower cost. About 30 to 40 percent of plant production is exported. Product used in airport, public works and highway construction.	11,000	1,535	14.0%	1,453	1,453	Early 1951	

DENMARK

TOTAL INDUSTRIAL PROJECTS APPROVED				9,529	5,070	54.2%	3,371	3,282		
TRANSPORTATION, COMMUNICATION, AND UTILITIES				9,529	5,070	54.2%	3,371	3,282		
POWER FACILITIES				9,529	5,070	54.2%	3,371	3,282		
1	4/ 1/49	Isefjordsvaerket (IFV), Kyndby	Expansion of existing power plant by addition of 60,000 kw capacity steam-electric station, making maximum total generating capacity 120,000 kw. First unit was completed in January 1953, second unit expected to be in operation by August 1953. This will be the largest power plant installation in Denmark.	9,529	5,070	54.2%	3,371	3,282	First Unit: Jan. 1953	Second Unit: Aug. 1953

INDUSTRIAL PROJECTS APPROVED, ESTIMATED TOTAL COST, MSA DOLLAR FINANCING APPROVED
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FRANCE

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PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
TOTAL INDUSTRIAL PROJECTS APPROVED				\$996,366	\$158,486	15.9%	\$141,152	\$122,116		
MANUFACTURING				441,000	114,033	25.9%	105,894	90,200		
STEEL				240,995	78,968	32.8%	75,465	64,833		
<p><i>Modernization and reorganization of France's steel-making capacity was the aim of the MSA industrial projects authorized for steel manufacturing. With the aid of American equipment and supplies, France is now able to produce a more balanced quantity of steel products, and will have an enlarged domestic source of medium and heavy armor plates. Both quality and variety -- including plates up to 150" in width -- of steel products have been improved, and both hot and cold continuous strip mills have been installed to produce higher quality steel more efficiently.</i></p>										
17, 18, 19	6/14/49 5/19/52	SOLLAC (Société Lorraine de Laminage Continu), Hayange and Ebange	This will be one of the largest continuous strip mills on the European continent, ultimately enabling France to meet her domestic and overseas territories' needs for both sheet steel and tin plate. The first stage, completed in February 1953, includes an 80" continuous hot-strip mill with planned annual production of 700,000 to 850,000 tons of coils and a 5-stand, 48" continuous cold-strip mill with an annual capacity of 350,000 tons of thin sheets. Subsequent stages scheduled for completion in segments from June 1953 to December 1954, will provide two 100-ton open hearth furnaces and three 50-ton Bessemer converters with a total annual capacity of 530,000 tons of crude steel; a 57-oven coking plant; a 45" by 114" blooming-slabbng mill; a three-stand 80" continuous cold-reducing mill for thin plate; and an electrolytic tinplate line.	147,072	57,834	39.3%	56,341	47,551	1st stage- Feb. 1953	Entire project- Dec. 1954
16, 16a	4/ 1/49 3/30/50	USINOR (Union Sidérurgique du Nord de la France), Denain (Nord) and Montataire (Oise)	The first continuous strip mills in France capable of producing both thin and medium steel sheets. This completed project provides a 66" 10-stand continuous hot-strip mill at Denain and a 66" 3-stand cold-rolling mill with corresponding pickling, annealing and cleaning lines at Montataire. It is estimated that the annual rate of production during 1953 will reach 600,000 tons in the hot mill and 350,000 tons in the cold mill.	60,574	13,074	21.6%	11,919	11,919	Cold-Strip Mill: Jan. 1950 Hot-Strip Mill: March 1951	
41	9/ 2/49	SIDELOR (formerly Société Lorraine des Aciéries de Rombas), Rombas	A modern 44" reversing blooming mill has replaced two obsolete 50-year old mills in the Rombas plant. With a maximum capacity of 1,000 tons per 8-hour shift, the mill is currently producing 50,000 tons of blooms a month -- 25 working days at 2,000 tons per day. The new mill will roll steel continuously without inefficient reheating delays; 6-ton ingots can be rolled as against 4-ton ingots on the old mill.	8,709	1,300	14.9%	1,301	1,301	First ingot rolled Aug. 1952; industrial production started Oct. 1952	
110	12/21/50	Ste. Anonyme des Forges et Aciéries de Dilling, Dillingen in the Saar	Modernization and expansion of plate and slab mill, including special American equipment, viz.: a 4-high 120" reversible stand, a 42" edger stand, a circular shear, a slab shear, and a leveller. When complete, production of heavy plates and slabs will be increased from some 144,000 tons to approximately 270,000 tons annually. Production of high-grade, wide slabs for the SOLLAC rolling mills should aid France to be independent of sheet steel and coil imports and even to have an exportable surplus after 1953. Production of plates is important for military and naval end-use.	7,430	2,060	27.7%	1,975	1,874		Mid- 1953; with full operation by October 1953
111	12/21/50	Aciéries de Longwy, Mont Saint Martin	Modernization and expansion of heavy plate mill to improve quality, lower costs and increase capacity. A 160" reversing 4-high stand will reduce irregularities in the thickness of heavy plates which are of particular importance in the construction of warships, large tanks and pressure pipes. When completed, production will be increased by 115,000 to 165,000 tons, depending on length of shifts.	7,210	2,500	34.7%	1,970	229		Mid- 1954
1	2/25/49	J.J. Carnaud et Forges de Basse-Indre, Basse Indre	New tinplate mill, equipped with 44" 4-high reversing mill, skin pass mill, auxiliary equipment and trimming lines, now producing at an annual rate of 50,000 tons, a much higher quality of uniform tinplate than was available in Europe formerly.	10,000	2,200	22.0%	1,959	1,959	Jan. 1952; full operation June 1952	

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					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
		ALUMINUM		\$4,000	\$2,300	57.5%	\$1,516	\$1,516		
3	4/ 1/49	Etablissement Charles Coquillard, Froges (Isère)	Aluminum foil rolling mill to replace obsolete equipment and planned to produce 100 tons per month of very thin foil of high quality. To date, technical difficulties have interfered with production and 200 tons per month of thicker foil are being produced until the situation is remedied. Once the technical difficulties are resolved, production should be 1,200 tons of thin, high quality foil per year — twice the old mill's production — of uniform thickness permitting its use for condensers and other electronic equipment. Other potential military uses are large scale packaging of troop rations as well as aluminum foil coated cloth for packaging of munitions.	2,000	1,100	55.0	707	707	Dec. 1950 production in January 1951	
4	4/ 1/49 4/26/51	Société des Treffileries et Laminovis du Havre, Rugles	Aluminum foil rolling mill to modernize existing installation. Production capacity of 1,200 tons of medium thickness foil per year is double that of old mill. With this plant and Coquillard (Project 3) in operation, imports of foil are stated to have practically ceased and exports of high quality foil are expected.	2,000	1,200	60.0%	809	809	Feb. 1952; actual production Sept. 1952	
		PETROLEUM REFINING		138,455	17,453	12.6%	14,169	11,544		
<p><i>France's petroleum refining industry suffered heavily from damage and removals by German occupation forces during World War II. An extensive replacement, modernization and integration program by the leading French companies was undertaken and is now largely completed. The new installations can process Middle East high sulphur crudes. MSA-financed aid, extended via approved industrial projects, while not large proportionately, supplied vital United States technical services and specialized equipment, particularly control instruments, not available in Europe. Without this assistance, France's refineries could not have utilized the most advanced techniques to produce high quality products most efficiently. Increased production and better quality products resulting from these projects are important from a military stand point.</i></p>										
33	9/ 7/50	Société Générale des Hules de Pétrole (SGHP), Dunkirk	Rehabilitation and modernization of facilities destroyed during the war and transfer of existing unit from Crouchelettes to Dunkirk. Project involved the construction and rehabilitation of refining units for a complete refinery, including units for the production of lubricants and bitumen.	38,105	4,005	10.5%	4,005	3,917	Mar. 1952	
30	9/22/49	Compagnie de Raffinage Shell Berre, Berre (near Marseilles)	Construction of units to expand the refining capacity and increase the production of lubricating oils. The units added included atmospheric and vacuum distillation units, reforming units, and various facilities for the production of lubricants and waxes. Substitution of European equipment whenever possible reduced the anticipated need of MSA/ECA dollar financing.	31,650	1,850	5.8%	422	392	Topping Unit: Mar. 1951 Reforming Unit: Oct. 1951	
109	9/26/51	Compagnie de Raffinage Shell Berre, Berre (near Marseilles)	Addition of a catalytic cracking unit and replacement of an outdated pressure unit. The new unit gives the refinery greater flexibility and permits processing of waxy distillates from Middle East high sulphur crudes.	8,850	250	2.8%	250	188		Mid-1953
34	8/18/49	Compagnie Française de Raffinage (CFR), La Mède (near Marseilles) and Gonfreville (near La Havre)	Installation of modern lubricating oil production facilities at the Gonfreville refinery and the alteration of existing reforming unit at the La Mède refinery to permit thermal cracking of distillates from high sulphur content Middle East crudes.	11,000	3,150	28.6%	2,499	2,483	Gonfreville: June 1952	La Mède June 1953

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106	6/23/50	<u>PETROLEUM REFINING - Continued</u> Compagnie Française de Raffinage (CFR), La Mède (near Marseilles) and Gonfreville (near La Havre)	Installation of a catalytic cracking unit and a gas recovery system at the La Mède refinery and installation of a gas recovery system at the Gonfreville refinery. The catalytic cracking capacity enables the company to produce a higher grade of gasolines and provides greater flexibility in operations. The gas recovery equipment makes it possible to recover propane and butane gases for domestic uses. A substantial saving in engineering costs was achieved by utilizing the design of the cracking facilities of Project 107.	\$10,000	\$2,850	28.5%	\$2,850	\$1,434	Gonfreville: June 1952	La Mède June 1953
107	6/23/50	Standard Française des Pétroles (SFP), now Esso Standard, Port Jerome	Installation of a catalytic cracking unit. The use of modern American refining techniques and the installation of catalytic cracking capacity provide for greater flexibility, more efficient operation, and higher quality products.	10,000	1,750	17.5%	1,750	1,153		June 1953
35	9/22/49	Standard Française des Pétroles (SFP), now Esso Standard, Port Jerome	Expansion and improvement of lubricants production. Installation of modern units for the production of high quality motor oils, marine oils, aviation engine oils, and industrial and cylinder oils.	6,415	1,428	22.3%	1,339	1,060	1st step: Jan. 1952	Mid-1953
31	9/22/49	Société Vacuum Française, Notre-Dame-de-Gravenchon (Seine-Inférieure)	Rehabilitation and modernization of facilities for the production of lubricating oils. The reconstruction of war-damaged units and the addition of new facilities permit production of high quality motor oils, turbine oils, marine oils, special greases, etc.	6,000	850	14.2%	597	597	May 1952	
32	8/18/49	Raffineries Française du Pétrole de L'Atlantique (RFFPA) Donges (Loire-Inférieure)	Rehabilitation and expansion of the Donges refinery which was practically obliterated during the war. The project provided for the installation of units necessary to produce a complete range of petroleum products, including lubricating oils.	9,435	750	7.9%	244	237	End of 1950	
112	9/26/51	Raffineries Françaises du Pétrole de L'Atlantique (RFFPA) Donges (Loire-Inférieure)	Construction of a Thermoform catalytic cracking unit to produce higher quality and larger yields of gasoline. The unit also provides greater flexibility of operations.	7,000	570	8.1%	213	83		End of 1953
<u>AUTOMOTIVE PRODUCTS</u>				<u>35,150</u>	<u>10,427</u>	<u>29.7%</u>	<u>10,422</u>	<u>8,295</u>		
87	4/ 6/50 6/27/50	CIMA, Compagnie Internationale de Machines Agricoles (an affiliate of International Harvester Co.) St.-Dizier	New plants to produce agricultural tractors, supplied with United States machine tools, equipment and tractor component parts. Estimated annual capacity of 7,500 tractors when plant is fully operating in 1954; 5,500 are planned for 1953. Availability of modern, efficient tractors should improve productivity of French farming.	13,000	4,600	35.4%	4,599	2,732	Part of plant in operation in 1952	End of 1954
89	4/27/50	SIMCA (Société Industrielle de Mécanique et Carrosserie Automobile) Nanterre (Seine)	Modernization of plant producing passenger and commercial automobiles and tractor motors. MSA-financed machine tools are expected to increase production and cut costs. When in full operation, plant capacity will be 7,000 cars, 700 tractor engines and 1,000 light trucks per month with two shifts. SIMCA is one of the "Big Five" in the French automobile industry.	8,150	4,142	50.8%	4,139	3,879		4th Qtr. 1953
90	4/27/50	Société Anonyme André Citroën, Clichy (Seine)	Purchase of machine tools to re-equip Clichy plant for the production of a new model small passenger car at the rate of 200 per day when all machine tools are delivered. Current production is 160 of the new models per day. Citroën produces about 24 percent of all French vehicles.	14,000	1,685	12.0	1,684	1,684		End of 1953

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					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
		CHEMICALS		<u>\$12,418</u>	<u>\$1,913</u>	<u>15.4%</u>	<u>\$1,911</u>	<u>\$1,713</u>		
95	1/24/50 3/29/51 6/11/51 1/21/51	La Société Naphtachimie, Lavera (B-du-R)	New plant for the production of chemicals derived from petroleum, so far largely imported. In full operation, will account for two-thirds of total French production of such chemicals. MSA-financing has provided special equipment of United States origin and technical services of United States engineering firms. Plant produces vital chemical materials for manufacture of military end items.	12,418	1,913	15.4%	1,911	1,713	Mar. 1953	
		GENERAL INDUSTRIAL EQUIPMENT		<u>8,600</u>	<u>1,930</u>	<u>22.4%</u>	<u>1,400</u>	<u>1,290</u>		
94	2/ 9/50	Schnelder et Cie. Le Creusot and other plants	Installation of modern machine tools to replace war damaged equipment and to modernize certain departments of the Schneider plants. Most of the tools went to Le Creusot. Schneider is one of the largest European producers of a great variety of steel products, many used as components by other industrial plants, and is an important segment of French defense production capacity particularly for components of artillery, tanks, armored cars and shells. MSA financing provided United States machine tools not available in Europe.	8,600	1,930	22.4%	1,400	1,290	Jan. 1953	
		TIRE CORD		<u>1,382</u>	<u>1,042</u>	<u>75.4%</u>	<u>1,011</u>	<u>1,009</u>		
88	1/19/50	Le Blan et Cie.	New spinning equipment, replacing antiquated and war-damaged equipment to increase the amount of thread production — particularly tire cords to improve quality and lower production costs. All American equipment arrived by September, 1951. Production is up about 24 percent per man-hour.	1,382	1,042	75.4%	1,011	1,009	Jan. 1952	
		RAW MATERIALS EXTRACTION		<u>314,128</u>	<u>10,422</u>	<u>3.3%</u>	<u>8,023</u>	<u>8,001</u>		
		IRON ORE MINING		<u>172,000</u>	<u>4,000</u>	<u>2.3%</u>	<u>2,149</u>	<u>2,149</u>		
20	3/25/49	SECM (Société pour L'Etude du Chargement Mécanique), Lorraine	Ore handling equipment to assist in the modernization of the iron ore mining industry. All approved MSA-financing was not used as equipment was obtained elsewhere, or with free dollars. Some mines were unfit for mechanization; others had financial difficulties. Modernized equipment has improved output per man-shift. Production in the Lorraine iron ore mines has increased from 30 million tons in 1950 to 40 million tons in 1952.	172,000	4,000	2.3%	2,149	2,149	June 1951 (MSA-financed section)	
		POTASH MINING		<u>125,000</u>	<u>4,000</u>	<u>3.2%</u>	<u>3,492</u>	<u>3,473</u>		
2	8/ 1/49	Mines Domaniales de Potasse d'Alsace, Alsace	Purchase of mining equipment as part of 10-year program to modernize potash mines. MSA financed equipment not available in Europe. MSA portion of project is complete; over-all project will be complete in 1957. These are the only potash mines being worked in France and produce about 40 percent of the potash mined in Western Europe.	125,000	4,000	3.2%	3,492	3,473	Dec. 1952 MSA portion	Over-all project: 1957
		OIL DRILLING		<u>17,128</u>	<u>2,422</u>	<u>14.1%</u>	<u>2,382</u>	<u>2,379</u>		
96	4/27/50	Société d'Etudes et de Recherches Pétrolières (SERP), Middle Alsace	Equipment for oil drilling.	455	200	44.0%	197	197	Nov. 1951	
98	4/27/50 10/19/51	Régie Autonome des Pétroles, (RAP), Pyrénées	Equipment for oil drilling.	578	208	36.0%	207	207	Oct. 1951	
99	4/27/50	Société Nationale des Pétroles d'Aquitaine, Pyrénées (SN France)	Equipment for oil drilling.	520	285	54.8%	285	282	Mar. 1953	
100	4/27/50	Sté. Nationale des Pétroles du Languedoc Méditerranéen, Languedoc	Equipment for oil drilling.	575	279	48.5%	271	271	Aug. 1952	

INDUSTRIAL PROJECTS APPROVED, ESTIMATED TOTAL COST, MSA DOLLAR FINANCING APPROVED
MSA PROCUREMENT AUTHORIZED, MSA PAID SHIPMENTS, AND STATUS OF PROJECTS, AS OF APRIL 30, 1953

FRANCE—Cont.

(Thousands of Dollars and Dollar Equivalents)

PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
105	5/18/50	<u>OIL DRILLING</u> Continued SNREPAL (Algeria), SCP (Morocco) and SEREPT (Tunisia)	Equipment for oil drilling.	\$15,000	\$1,450	9.7%	\$1,422	\$1,422	July 1952	
<u>TRANSPORTATION, COMMUNICATION, AND UTILITIES:</u>				<u>178,238</u>	<u>32,631</u>	<u>18.3%</u>	<u>25,960</u>	<u>22,724</u>		
<u>POWER FACILITIES:</u>				<u>74,695</u>	<u>22,030</u>	<u>29.5%</u>	<u>17,692</u>	<u>15,013</u>		
<p>France has developed an extensive electric power expansion program to provide power for increased industrial demand. MSA has aided the development of three thermal electric power plants by financing needed United States equipment and technical services. The development of economical thermal plants is of special importance to offset low hydroelectric supplies in dry weather. France's over-all power supply reduces the necessity to ration power or to import power from other countries in time of shortage.</p>										
86	2/ 9/50	Electricité de France, Arrighi, Vitry-sur-Seine	Boiler room equipment for 100,000 kw steam electric unit to extend existing power plant serving the Paris area.	20,000	4,000	20.0%	2,618	2,342		Aug. 1953
113	8/24/51	Electricité de France, Arrighi—(2nd phase)	Boiler equipment for a second 100,000 kw extension of the Arrighi plant. As a result of these additions, it will be possible to use a very low grade coal for both parts of the Arrighi plant.	15,350	1,100	7.2%	770	73		Nov. 1954
103	4/27/50	Electricité de France, Nantes-Cheviré	Boiler room equipment for a new 100,000 kw thermal power station to serve the Nantes area. Plant will be among the biggest and best equipped in France and will use surplus low-grade coal from increased Lorraine production.	19,845	1,930	9.7%	1,805	1,316		Aug. 1953
27	10/ 6/49	Charbonnages de France (CDF), Dechy (Nord)	New 120,000 kw thermal power station, located at pithead in the coal basin of northeast France. Power is supplied to coal mines in the area and a substantial quantity to France's interconnected power network.	19,500	15,000	76.9%	12,499	11,282	Half May, 1952 Half Aug. 1952	
<u>COMMUNICATION EQUIPMENT:</u>				<u>60,000</u>	<u>1,290</u>	<u>2.2%</u>	<u>1,175</u>	<u>1,175</u>		
58	12/30/49	French Ministry of Posts, Telegraphs and Telephones	Purchase of telecommunication equipment, and replacement and addition of accounting machines for Postal Check System, widely used in commercial transactions.	60,000	1,290	2.2%	1,175	1,175	Completed	
<u>AIR TRANSPORT:</u>				<u>43,543</u>	<u>9,311</u>	<u>21.4%</u>	<u>7,093</u>	<u>6,536</u>		
85	5/18/50	Société Nationale de Constructions Aéronautiques du Sud-Est (SNCASE), Blagnac	Construction of new type of commercial aircraft, SE-2010, for passengers and freight, particularly within the French overseas territories. MSA financing covers engines, propellers, and accessories from the United States.	18,000	4,500	25.0%	2,780	2,376		End of 1953
84	12/13/49 1/24/50 4/23/51	French Aircraft Industry	Construction of new type French commercial four-engined and two-engined aircraft by two French companies. MSA financing provides engines, propellers and equipment for 12 four-engined planes, of which four are completed, and for 40 two-engined planes, of which some 22 have been completed.	24,000	3,411	14.2%	2,975	2,822		End of 1954
91	6/12/50	Union Maritime de Transport (UAT)	Purchase of four second-hand DC-4 aircraft and spare engines and parts for freight and passenger service between Paris and the overseas territories, and Saigon.	993	850	85.6%	799	799	1950	
108	8/17/50 3/ 5/51	Société Aigle Azur	Purchase of five second-hand aircraft to serve French overseas territories. This company also maintains and operates an important fleet of aircraft in Indochina.	550	550	100.0%	539	539	Sept. 1951	
<u>OTHER, IRRIGATION AND RECLAMATION:</u>				<u>63,000</u>	<u>1,400</u>	<u>2.2%</u>	<u>1,276</u>	<u>1,191</u>		
83	5/ 4/50	Office du Niger, Irrigation Project, French West Africa	Supplying landclearing and levelling equipment to extend rice and cotton cultivation in the Niger Valley as part of long-term project begun in 1932 and to continue indefinitely.	63,000	1,400	2.2%	1,276	1,191		
INACTIVE PROJECT, NOT INCLUDED IN COUNTRY TOTALS:										
97	4/27/50	Pechelbronn, SA., EM., Alsace	Equipment for oil drilling.	860	400	46.5%	—	—		

INDUSTRIAL PROJECTS APPROVED, ESTIMATED TOTAL COST, MSA DOLLAR FINANCING APPROVED
MSA PROCUREMENT AUTHORIZED, MSA PAID SHIPMENTS, AND STATUS OF PROJECTS, AS OF APRIL 30, 1953

GERMANY (Federal Republic)

(Thousands of Dollars and Dollar Equivalents)

PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
TOTAL INDUSTRIAL PROJECTS APPROVED^{2/}				\$12,637	\$2,520	19.9%	\$2,241	\$2,000		
MANUFACTURING				12,637	2,520	19.9%	2,241	2,000		
GLASS				3,954	1,837	46.5%	1,558	1,404		
12	6/23/50	Glaswerke Ruhr, AG, Essen-Karnap	Modernization of one of the largest hollow glassware plants in Europe, by replacement of obsolete glassware machines. Planned in three parts, the first two are in operation and the increase in annual production is already more than double the 10,000 metric tons originally called for; export sales in 1952 reached DM 6,000,000	3,954	1,837	46.5%	1,558	1,404		Late 1953
PETROLEUM REFINING				8,683	683	7.9%	683	596		
15	9/ 7/50	Gewerkschaft Erdöl-Raffinerie Emsland, Lingen	A new refinery to process domestic crude oils from the nearby Emsland fields. The refinery includes a modern catalytic cracking unit and a furfural unit for the improvement of the diesel oil produced. MSA financing covered technical services and some specialized equipment available only in the United States.	8,683	683	7.9%	683	596		July 1953

GREECE

TOTAL INDUSTRIAL PROJECTS APPROVED				112,900	33,512	29.7%	16,943	13,248		
MANUFACTURING				8,773	4,264	48.6%	2,824	2,696		
CEMENT				5,180	2,432	46.9%	1,084	1,062		
2	6/30/49 8/ 1/49 5/18/50	General Cement Co., S.A., Volos and Piraeus	Modernization and expansion to increase annual production at company's two plants from 150,000 tons to 350,000 tons. Project will be completed on schedule in August, 1953; in partial operation, costs have already been reduced the equivalent of \$6 per metric ton. Full production, now estimated at 400,000 tons annually, will meet increased domestic needs and make export cement available. Military end uses of product are highway construction, fortifications, docks and buildings.	5,180	2,432	46.9%	1,084	1,062		Aug. 1953
GLASS				3,593	1,832	51.0%	1,740	1,634		
22	6/23/50	Hellenic Chemical Products and Fertilizers Company Ltd., Athens	Modernization and expansion of glass plant to increase annual production from 12,790 tons to maximum capacity of 35,000; initial operations to be at 22,000 ton level. Cost reductions estimated at 30 percent, largely from modern machinery replacing hand processes. MSA financing covers materials and technical services.	3,593	1,832	51.0%	1,740	1,634		Mid-1953
RAW MATERIALS EXTRACTION				10,197	3,873	38.0%	2,208	1,775		
COAL MINING				10,197	3,873	38.0%	2,208	1,775		
4	3/14/50 11/30/50	Greek Government Aliveri and Kimi	Two new mine developments at an old site to produce 800,000 tons of raw lignite per year, of which 700,000 tons will go to the Aliveri thermal electric power plant (see Project 9 below). MSA financed initial engineering surveys and aided subsequent mechanization of the mines and lignite processing equipment. Partially complete, the mines have already supplied over 50,000 tons of lignite to the power plant stockpile.	10,197	3,873	38.0%	2,208	1,775		Late 1953
TRANSPORTATION, COMMUNICATION, AND UTILITIES				86,930	22,375	25.7%	8,911	6,360		
POWER FACILITIES				86,930	22,375	25.7%	8,911	6,360		
<p><i>An integrated, basic electric power system has been planned, approved and put under construction to serve a large part of the mainland of Greece, aided largely by MSA/ECA financing. Four new power plants (three hydroelectric and one thermal), and an addition to an existing plant, together with the necessary transmission and distribution facilities have been developed as "Industrial Projects." In addition, MSA has financed the dollar cost to the Greek Government of long-term technical and engineering services from U.S. firms to plan and help operate the new integrated power system.</i></p>										
1	5/12/49	Athens-Piraeus Electric Co., Ltd., Athens-Piraeus Area	Addition of both steam and diesel generating equipment to increase capacity of existing plant by 22,000 kw, and improvements to the transmission system serving the Athens-Piraeus area. Part of the improvements are already in use and have alleviated a serious power shortage. MSA financing will cover United States equipment and engineering services. An estimated \$2.5 million in program authorizations have been committed to finance this project.	8,000	3,060	38.2%	—	—		1st Part: Jan. 1952 2nd Part: Jan. 1953

^{2/}Excludes data on an International project, see page 42, shared equally by both Germany (Fed. Rep.) and Austria.

INDUSTRIAL PROJECTS APPROVED, ESTIMATED TOTAL COST, MSA DOLLAR FINANCING APPROVED
MSA PROCUREMENT AUTHORIZED, MSA PAID SHIPMENTS, AND STATUS OF PROJECTS, AS OF APRIL 30, 1953

GREECE—Cont.

(Thousands of Dollars and Dollar Equivalents)

PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
TRANSPORTATION, COMMUNICATION, AND UTILITIES - Continued										
9	3/14/50	Greek Government, Eubean Gulf Area	New thermal electric plant of 80,000 kw capacity designed to burn lignite from the neighboring Alliveri mines (see Project 4 above). This plant will serve the Athens-Piraeus area and the area north of the Eubean gulf. MSA aid financed United States engineering equipment and construction services.	\$15,461	\$10,972	71.0%	\$7,766	\$5,936		1st unit: July 1953 2nd unit: Oct. 1953 100%: Nov. '53
10	3/14/50	Greek Government, Eubean Gulf Area	Electric transmission, transformation and distribution from thermal plant.	12,078	1,337	11.1%	405	186		
13	3/14/50	Greek Government, Ladhon	New 50,000 kw hydroelectric generating station on the Ladhon River to serve the Peloponnesus and reinforce the supply of the Athens-Piraeus area. MSA is financing equipment and engineering services available only in the United States.	14,522	2,177	15.0%	80	—		1st unit: Dec. 1953 2nd unit: Mar. 1954 100%: Nov. '54
14	3/14/50	Greek Government, Peloponnesus, and Athens-Piraeus	Electric transmission, transformation and distribution out of Ladhon plant and into Peloponnesus and Athens-Piraeus.	10,045	1,196	11.9%	275	120		Nov. 1954
11	3/14/50	Greek Government, at Agra on the Vodas River	New 40,000 kw hydroelectric generating station on the Vodas River at Agra to serve Macedonia and Thrace. MSA is financing equipment and engineering services available only in the United States.	8,008	1,491	18.6%	75	—		1st unit: Dec. 1953 2nd unit: Feb. 1954 100%: Nov. '54
12	3/14/50	Greek Government, Macedonia and Thrace	Electric transmission, transformation, and distribution out of Agra plant.	14,899	1,572	10.6%	185	76		Nov. 1954
15	3/14/50	Greek Government, Louros	New 5,000 kw hydroelectric generating station on the Louros River to serve the Epirus area. MSA financing will cover design and engineering services, and special equipment available only in the United States.	2,966	487	16.4%	100	42		1st Part: Nov. 1953 100%: Jan. '54
16	3/14/50	Greek Government, Louros and Epirus Area	Electric transmission, transformation, and distribution out of Louros plant.	951	83	8.7%	25	—		Jan. 1954
ENGINEERING AND TECHNICAL SERVICES				7,000	3,000	42.8%	3,000	2,417		
20	3/14/50 6/21/50 3/28/51 1/23/52	Owner/Engineer Services to Greek Government	United States engineering firm to act as owner-engineer for the Greek Government in the development of a comprehensive electric power system for Greece. These services will include technical advisory services during the design and construction of the new major facilities and management services during the formation and early operating stages of the electric utility system.	7,000 ^{B/}	3,000 ^{B/}	42.8%	3,000	2,417		July 1955

ICELAND

TOTAL INDUSTRIAL PROJECTS APPROVED				\$18,538	\$8,428	45.5%	\$7,887	\$6,232		
MANUFACTURING				7,240	3,280	45.3%	2,922	1,614		
FERTILIZER				7,240	3,280	45.3%	2,922	1,614		
2	12/21/50 4/2/53	Government of Iceland, near Reykjavik	New nitrogenous fertilizer plant — nothing similar exists in Iceland — with a capacity of 6,000 tons of nitrogen content per year. It will eliminate the need for imported fertilizer and according to present plans will meet next year's fertilizer requirements for Iceland's agriculture. Power will be supplied by the Sog power project.	7,240	3,280	45.3%	2,922	1,614		Last half 1953
TRANSPORTATION, COMMUNICATION, AND UTILITIES				11,298	5,148	45.6%	4,965	4,618		
POWER FACILITIES				11,298	5,148	45.6%	4,965	4,618		
3	5/10/50	Reykjavik Municipal Electric Light & Power Co., on the Sog River	Expansion of hydroelectric power plant by 32,000 kw increase in capacity to serve increasing demand in southwestern Iceland. This will be the largest hydroelectric installation in Iceland; the plant will supply power for the new fertilizer plant. To be completed in August 1953, special effort is being made to correct delays in erecting the power line.	8,658	4,038	46.6%	3,995	3,716		Aug. 1953
4	5/10/50	Iceland State Power Board, on the Laxa River	8,000 kw expansion of existing hydroelectric plant to serve the north coast of Iceland. Most of the power will be for domestic use — space and hot water heating — but the plant will also serve Iceland's largest textile mill.	2,640	1,110	42.0%	970	902		July 1953; operations in Aug. 1953

^{B/}EBASCO — Greece Engineering Services. MSA has approved a 6-year contract calling for about \$6 million MSA financing.

INDUSTRIAL PROJECTS APPROVED, ESTIMATED TOTAL COST, MSA DOLLAR FINANCING APPROVED
MSA PROCUREMENT AUTHORIZED, MSA PAID SHIPMENTS, AND STATUS OF PROJECTS, AS OF APRIL 30, 1953

ITALY

(Thousands of Dollars and Dollar Equivalents)

PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
TOTAL INDUSTRIAL PROJECTS APPROVED				\$429,017	\$164,183	38.3%	\$159,890	\$140,851		
MANUFACTURING				306,637	92,407	30.1%	90,044	79,952		
STEEL				191,854	55,456	28.9%	54,895	48,400		
<p><i>Modernization and reactivation of Italy's important steel industry has been materially assisted by MSA-aided industrial projects which provided United States plant equipment and engineering services not obtainable in Europe. Improvements in Italy's major steel companies, including FIAT'S steel-making facilities, will make available increased supplies for Italy's mechanical industries and also greatly increase Italy's defense potential.</i></p>										
9	8/18/49 3/2/50 10/26/50 6/29/51 1/15/52 9/11/52	FINSIDER	The FINSIDER combine is the largest integrated group of steel works in Italy. Project 9, including various supplements, covers MSA aid to two subsidiary companies (SIAC and ILVA) of the combine with plants at three locations. When planned improvements are completed, FINSIDER will produce about 50 percent of Italy's steel. Begun before the war, the Cornigliano works were never completed and much equipment was removed by the Germans.	135,347	32,222	23.8%	32,222	28,721		
		S.I.A.C. Acciaierie di Cornigliano, Genova	The Cornigliano plant will be completed and modernized to produce annually over 375,000 metric tons of end products, including hot strip, plate, cold-rolled sheets and tinplate. Hot and cold rolling mills, control equipment, finishing machines, zinc galvanizing line and engineering services are included in the MSA financing. Completion is expected in June 1953 with full operation by the end of 1953. Further expansion and cheaper transportation of North African ore will be required for FINSIDER-Cornigliano to meet international competitive prices when the European Coal and Steel Community is in full operation.							Mid-1953 Full operation: end of 1953
		ILVA (Alti Forni e Acciaierie d'Italia), Bagnoli (Naples)	Reconstruction and modernization of a plant completely inactivated by Allied bombing and German demolition, plus installation of a semi-continuous billet mill and a continuous rod mill. Completed in June 1952 on schedule, the plant has an annual capacity of 450,000 metric tons of billets and 240,000 metric tons of rods. MSA financed machinery and electrical equipment and engineering services from the United States. It is a well-integrated operation producing high quality products at a low cost.							June 1952
		ILVA, Piombino	Rehabilitation and modernization of a plant destroyed during the war. The plant has an annual capacity of 270,000 metric tons of pig iron and 180,000 metric tons of crude steel. It is an important producer of large and small-sized rails, railroad accessories, and large merchant shapes. MSA financed the procurement of new soaking-pit furnaces.							March 1952
11	8/4/49 4/27/50	FIAT, Turin and Avigliana	Rehabilitation and modernization of steel plant supplying the requirements of FIAT'S mechanical works (which is estimated as producing a fourth of Italy's mechanical output). Aiming for an annual capacity of 350,000 metric tons of crude steel, annual production has already reached 240,000 metric tons. Production of old types has been increased and new products added -- wide strip, welded pipes, stamped bolts, etc. MSA financed United States equipment and engineering services, including: auxiliary equipment for 80" cold mill; electric furnaces; pickling line; tube mill; bolt, nut and screw machines; rotary hearth furnace; 4-pit soaking-pit furnace; skin pass mill; machinery for cold drawing and heat treating bars and wire.	24,950	7,634	30.6%	7,415	6,954		Essentially completed
24	6/30/49	Acciaierie e Ferriere Lombarde FALCK, Milan	Modernization to improve quality and reduce costs. MSA financed United States equipment including electric furnaces, tube forming and welding mill, soaking pits, forging and forming machines for bolts and nuts, and strip welder for cold-strip mill. FALCK produces about one-seventh of Italy's total steel and is an important supplier for pipes, oil refining plants and the mechanical engineering and ship-building industries. Wider tubes and plates can be produced and modernization has also increased production slightly.	4,200	2,200	52.4%	1,901	1,649		Basic equipment installed; remaining auxiliary equipment, 1st half of 1953

INDUSTRIAL PROJECTS APPROVED, ESTIMATED TOTAL COST, MSA DOLLAR FINANCING APPROVED
MSA PROCUREMENT AUTHORIZED, MSA PAID SHIPMENTS, AND STATUS OF PROJECTS, AS OF APRIL 30, 1953

ITALY-Cont.

(Thousands of Dollars and Dollar Equivalents)

PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
STEEL - Continued										
45	5/18/50	Acciaierie e Ferriere Lombarde FALCK, Milan	Equipment for the second phase of modernization at FALCK Milan steel works. MSA is financing United States equipment for open hearth, wire-rod mill, plate mill, 48" four-high cold mill and seamless tube mill. Higher quality products should be produced at lower cost.	\$7,837	\$4,523	57.7%	\$4,523	\$2,869		Within 1954 Parts were completed in 1952
38	6/30/49 12/14/50	Cantieri Metallurgici Italiani (FALCK subsidiary), Castellamare di Stabia	Installation of a new cold-rolling mill to modernize tinplate production and bolt and nut-making equipment. Completed, plant has annual capacity of 30,000 to 40,000 metric tons of tinplate but is presently producing about 20,000 metric tons due to shortage of hot-rolled coils pending completion of Cornigliano-FINSIDER. Bolt and nut production capacity has been doubled, to over 400 metric tons per month. Production costs have been reduced 30 percent. MSA financed equipment for the cold-rolling mill.	2,690	2,152	80.0%	2,131	2,131	June 1952.	Full operation since December 1952
30	6/30/49 1/22/53	SISMA, Soc. Industrie Siderurgiche e Affini, Villadossola	Installation of a new merchant mill of two roughing and two finishing stands, and replacement of obsolete equipment to manufacture bolts and nuts. When completed, production capacity should be about doubled, rising to approximately 100,000 metric tons of end products per year.	5,326	2,546	47.8%	2,544	2,336		End of 1953
44	4/6/50	TERNI, Societa per L'Elettricit�, Terni	Modernization of equipment for manufacture of magnetic sheets to reduce costs and increase quantity of low-loss magnetic sheets. Plant will concentrate on sheets, and cut output of other products. While initially put into operation in the latter half of 1952, certain difficulties developed, which prevented full operation. These are now being rectified. When in full operation, the plant will produce about 25,000 tons annually of low-loss magnetic sheets (out of total estimated production of 80,000 tons) and cut the need to import such specialized products. Products are important to Italian electro-mechanical industry.	4,895	1,407	28.7%	1,407	1,407	July 1952	But broke down in November 1952 and is in partial use only, pending replacements.
54	8/17/50	REDAELLI, Giuseppe e Fratello Redaelli, S.p.A., Rogoredo	Modernization of steel plant to reduce costs and improve quality. MSA financing covers equipment for a wire-rod mill and rolling mill equipment for light section mill. Planned capacity is based on processing 100,000 metric tons of steel ingots per year into iron rods, skelp, round bars, merchant shapes, plate, wire, cold strip and bolts.	3,125	983	31.4%	983	615		End of 1953
31	6/30/49 3/11/52 3/19/53	Isssa-Viola, S.A. Pont St. Martin, Aosta Valley	Installation of a new rolling mill for production of slabs, billets and skelp to avoid subcontracting. Will reduce up to one-half the cost of converting ingots into slabs, billets and skelp. Isssa's production, although it has been limited in capacity, is very important in the sector of special and stainless steel products, including defense uses. The project is part of a long-range program for modernization and expansion of Isssa's facilities.	3,004	1,569	52.2%	1,569	1,518		Plant in operation; one slab shearing machine not delivered.
33	7/12/49	Ferrotubi S.p.A. (FIT), Milan	Installation of new equipment for the manufacture of electric welded tubes from strip. MSA financed United States equipment. Completed on schedule, production was 300 metric tons per month at the end of 1952 and soon will be 1,000 tons per month. Further increases will depend upon such factors as availability of steel strip, working shifts, tube thickness, etc. Completion of the FINSIDER-Cornigliano Plant will provide a basic source for steel strip.	480	220	45.8%	200	200	Early 1952	
PETROLEUM REFINING										
21	10/27/49 9/7/50	IROM, Industria Raffinerie Oili Minerali, Porto Marghera	Installation of additional distillation capacity, a thermo-reforming unit, and modern facilities for the production of lubricating oils from Middle East crudes.	8,400	2,350	28.0%	2,350	2,292		1st half 1953
6	7/12/49	Aquila, S.p.A. Tecnico Industriale, Zaule	Installation of modern lubricating oil producing equipment and a reforming unit to improve the quality of motor gasoline.	7,950	4,250	53.4%	3,336	3,335	Reforming plant: July 1950; Lube plant: March 1951	
				21,334	8,134	38.1%	7,220	6,984		

INDUSTRIAL PROJECTS APPROVED, ESTIMATED TOTAL COST, MSA DOLLAR FINANCING APPROVED
MSA PROCUREMENT AUTHORIZED, MSA PAID SHIPMENTS, AND STATUS OF PROJECTS, AS OF APRIL 30, 1953

ITALY—Cont.

(Thousands of Dollars and Dollar Equivalents)

PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
<u>PETROLEUM REFINING - Continued</u>										
20	6/23/50	Società Permollo, Rome, Genova, Milan	Installation of Thermoform catalytic cracking units at the Rome and Genoa refineries, and installation of facilities to produce good quality lubricating oils at the Milan refinery.	\$4,984	\$1,534	30.8%	\$1,534	\$1,357	Rome: July 1952; Genova: December 1952	Milan: Middle 1954
<u>PAPER</u>				3,400	1,650	48.5%	1,591	1,591		
36	6/14/49	Cartiere Burgo, Verzuolo and Corsuo	Modernization of two plants to increase production volume and quality of paper and to cut costs. MSA financed United States equipment, all now delivered and most in use. Assembly has been progressive, to prevent production shutdowns and to study operation of the new equipment for full utilization. The company produces one-third of total Italian paper production and 80 percent of Italian requirements for newsprint. Output of the two modernized plants is 360 metric tons per day, or 50 percent higher than prewar.	3,400	1,650	48.5%	1,591	1,591	Within 1954 Already in operation	
<u>AUTOMOTIVE PRODUCTS</u>				69,379	23,052	33.2%	22,223	21,124		
10	7/22/49 5/18/50	FIAT, (FIAT Mechanical Sector), Turin	Modernization by plant rearrangement; use of modern machinery and retooling to lower costs and permit use of new designs. FIAT dominates Italian production of automotive vehicles, tractors, diesel engines, railroad rolling stock and airplanes. MSA is financing United States machinery and equipment and technical and engineering services not available in Europe. The modernized plants will enable FIAT to compete for world markets and to provide military vehicles for the defense effort.	69,379	23,052	33.2%	22,223	21,124	End of 1953: 1st installation essentially completed; 2nd installation over 90% completed	
<u>BEARINGS AND OTHER PRODUCTS</u>				2,000	1,353	67.6%	1,353	1,268		
5	10/27/49	Riv Officine Di Villar Perosa, Turin and Villar Perosa	Installation of machinery and equipment to cut costs of bearing production and to increase output of company's other products — cash registers, piston rings, cylinder liners, valve tappets, plastics and railroad equipment. MSA financed machinery and equipment. Present annual production of roller bearings is 8,500 metric tons. Costs have already been cut enough for the company to compete for "offshore procurement" contracts.	2,000	1,353	67.6%	1,353	1,268	July 1953	
<u>CHEMICALS</u>				18,670	2,762	14.8%	2,762	585		
59	5/4/51	Montecatini, S.A. (Olefina), Ferrara	Construction of new olefin plant for the production of ethylene (10,000 metric tons per year), propylene (10,000 metric tons per year), butylenes (5,000 metric tons per year) and derivatives. These chemical products are directly related to military production. MSA financed United States equipment and services. Certain technical changes in processing and equipment are reported under way. Completion date will be determined subsequently.	18,670	2,762	14.8%	2,762	585	See "Description"	
<u>TRANSPORTATION, COMMUNICATION, AND UTILITIES</u>				112,269	68,363	60.9%	67,046	58,340		
<u>POWER FACILITIES</u>				106,809	63,863	59.8%	62,725	54,051		
<p><i>Italy has in the past relied almost exclusively on hydroelectric power because of her lack of coal and oil. Even before the war, it was realized thermal units were needed to bring the power production facilities into balance. A severe drought in the postwar years highlighted this lack and with increased needs for power, a serious shortage developed. Industrial use was curtailed and production interrupted. An over-all program was developed to produce one million additional kilowatts of thermal electric energy. MSA/ECA has helped finance eleven new steam-electric generating installations capable of producing 720,000 kilowatts. MSA financing has made available United States equipment and machinery not obtainable in Europe. The projects are located throughout Italy and Sicily and will bring Italian electric power production into better balance by generating power for necessary industrial requirements and by providing additional capacity so that costly shut-downs can be avoided when rains are scanty or the spring thaws delayed. Fuel shortages will be remedied by the development of the Sardinian coal fields and the use of natural gas in the Po Valley.</i></p>										
1	4/1/49	Società Edison, Genoa	60,000 kw addition to one of the largest modern steam power plants in northern Italy. Completed in February 1952, this project has increased the power supply in the most highly industrialized section of the country and has stabilized output during periods of low hydroelectric production.	8,850	6,000	67.8%	5,669	5,252	February 1952	

INDUSTRIAL PROJECTS APPROVED, ESTIMATED TOTAL COST, MSA DOLLAR FINANCING APPROVED
MSA PROCUREMENT AUTHORIZED, MSA PAID SHIPMENTS, AND STATUS OF PROJECTS, AS OF APRIL 30, 1953

ITALY-Cont.

(Thousands of Dollars and Dollar Equivalents)

PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
<u>POWER FACILITIES - Continued</u>										
14	12/1/49	Società Edison, Genoa	60,000 kw additional turbo-generator for the Genoa plant serving northern Italy.	\$8,498	\$6,169	72.6%	\$6,169	\$5,829	April 1952	
18	2/21/50 1/23/52	Società Edison, Piacenza	New 120,000 kw steam electric station, one unit of which has been in operation since 1952. Highly efficient, this plant uses one-third less fuel per kwh produced. This plant is an addition to one of the largest systems in northern Italy, supplying a predominantly industrial load.	15,125	10,519	69.5%	10,519	9,196	1st Unit: November 1952 2nd Unit: April 1953	
17	2/9/50	Società Meridionale di Elettrocita, Naples	60,000 kw addition to steam electric station to increase power supply in southern Italy. This installation will reduce by one-third fuel used per kwh produced. Project is part of largest steam power plant in southern Italy and will serve to stabilize supply in periods of low hydroelectric production.	9,393	6,143	65.4%	6,143	5,576	March 1953	
19	5/12/49 6/26/50	Società Meridionale di Elettrocita, Naples	30,000 kw addition to steam electric station serving Naples and territories in southern Italy. In operation since October 1952, plant produces 3 kwh on same fuel formerly required for 2 kwh. Plant is connected to the inter-connected Italian power system supplying power to the whole of Italy.	5,392	3,652	67.7%	3,388	3,252	October 1952	
15	1/19/50	Società Idroelettrica Piemonte (SIP), near Turin	New power plant with turbo-generator of 60,000 kw capacity. Will increase power supply of industrial northern Italy and stabilize supply in periods of low hydroelectric production. Fuel consumption will be decreased one-third per kwh.	10,674	6,215	58.2%	6,166	5,720	April 1953	
48	10/19/50	Azienda Elettrica Municipale di Torino, (AEM), Turin	New 30,000 kw thermal electric plant to serve northern Italy, will be part of inter-connected system for all of Italy. Fuel consumption will be decreased one-third per kwh. Serious bottlenecks were encountered, but have been overcome and plant should be completed early in 1955.	5,284	3,517	66.6%	3,517	224		Early 1955
16	2/9/50	Società Romana di Elettrocita, Civitavecchia, Rome	New 60,000 kw steam electric station to increase the power supply of central Italy and stabilize the supply in periods of low hydroelectric production. Plant is designed to use one-third less fuel per kwh produced. Will be part of inter-connected system for all of Italy.	11,628	6,110	52.5%	6,110	5,114		Mid 1953
2	4/1/49	Società Generale Elettrica della Sicilia, Palermo, Sicily	60,000 kw steam electric station to modernize and increase power supply in Sicily. Plant will burn Sardinian coal and use one-third less fuel per kwh than formerly required. Project is largest and most modern steam power plant in Sicily and is important in increasing power supply for industry and for railroad transportation. Project has suffered delays due to late deliveries and some inadequate organization due principally to incomplete engineering services. These bottlenecks have apparently been overcome and completion is expected shortly.	11,050	6,300	57.0%	6,134	5,675		May 1953
41	5/18/50	Società Termoelettrica Italiana, STEI, near Tavazzano	New steam electric power plant of 120,000 kw capacity to serve the industrialized north. Located close to the natural gas fields in the Po Valley, it burns natural gas and requires one-third less fuel per kwh produced. MSA financed boilers and accessories.	10,877	2,680	24.6%	2,680	2,452	June 1952	
13	12/22/49	Società Termoelettrica Veneta, Porto Marghera, Venice	Additional turbo-generator with 60,000 kw capacity to serve northern Italy. Plant will produce efficiently and stabilize supply in periods of low hydroelectric production.	10,038	6,558	65.3%	6,230	5,761	July 1952	
<u>AIR TRANSPORT</u>				<u>5,460</u>	<u>4,500</u>	<u>82.4%</u>	<u>4,321</u>	<u>4,289</u>		
26	10/28/49	Linee Aeree Italiane, S.p.A. (LAI), Rome to New York	Three DC-6 aircraft and spare parts and accessories were imported from the United States in order to start a transatlantic service between Rome and New York. MSA also financed technical and scientific services, including crew training in the United States.	5,460	4,500	82.4%	4,321	4,289	Completed	

ITALY—Cont.

(Thousands of Dollars and Dollar Equivalents)

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					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
		RAW MATERIALS EXTRACTION		\$10,111	\$3,413	33.8%	\$2,801	\$2,557		
		COAL MINING		10,111	3,413	33.8%	2,801	2,557		
39	3/2/50	Società Mineraria Carbonifera Sarda, Rome, Sulcis Field, Sardinia	Mechanization and development of coal mines to increase production, improve quality and lower production costs. When completed, production should be 3 million metric tons of steam coal per year, which is 40 percent of total Italian requirements for steam coal. This will triple availability of domestic steam coal and cut imports of steam coal. With project partially completed, production in 1953 is estimated at 1,300,000 metric tons.	10,111	3,413	33.8%	2,801	2,557	1/3 Completed	1/3 end 1954; 1/3 end 1955
		CANCELLED PROJECTS, NOT INCLUDED IN COUNTRY TOTALS:								
29	6/30/49	Cogne, S.p.A., Aosta Valley	Slab and billet mill equipment for special steels.	1,500	1,034	68.9%	--	--		
40	6/23/50	Montecatini, Po Valley	Construction of plant for the production of synthetic ammonia from natural gas.	18,221	7,348	40.3%	--	--		
22	6/23/50	TERNI, Bagnoli	Construction of ammonium sulphate plant.	11,320	4,500	39.8%	--	--		

NETHERLANDS

		TOTAL INDUSTRIAL PROJECTS APPROVED		67,990	26,872	39.5%	17,839	16,581		
		MANUFACTURING		47,010	23,500	50.0%	14,746	13,488		
		STEEL		47,010	23,500	50.0%	14,746	13,488		
3	12/1/49	Royal Dutch Blast Furnace and Steel Co., IJmuiden.	Modernization of principal Dutch steel works to expand crude steel and plate capacity and to install modern hot and cold-sheet rolling equipment. Construction of slabbing-blooming mill, a 56" semi-continuous hot-strip mill, a cold-rolling mill, temper pass mills and tinning lines. The first three parts are complete. When entirely completed, the project will round out domestic supplies of various steel products, particularly heavy plates, coils and tinplate. Adequate supplies of plates are important to the Netherlands' naval and commercial shipbuilding and ship repair industries.	47,010	23,500	50.0%	14,746	13,488	April 1952 October 1952 April 1953 (first 3 parts)	Mid 1953 (last part)
		TRANSPORTATION, COMMUNICATION, AND UTILITIES		20,980	3,372	16.1%	3,093	3,093		
		POWER FACILITIES		20,980	3,372	16.1%	3,093	3,093		
1	4/1/49	Noord-Brabantsche Electriciteitsmaatschappij, "Amercentrale", Geertruidenberg, Noord-Brabant	Construction of a new 124,000 kw thermal power plant to serve southern and western Holland. Located on the Amer River, the inland waterways assure cheap transportation for the pulverized coal the plant burns. MSA/ECA financing provided boilers, heat exchangers and control equipment.	20,980	3,372	16.1%	3,093	3,093	October 1952	

NORWAY

		TOTAL INDUSTRIAL PROJECTS APPROVED		29,000	5,014	17.3%	3,142	3,142		
		RAW MATERIALS EXTRACTION		29,000	5,014	17.3%	3,142	3,142		
		IRON ORE MINING		29,000	5,014	17.3%	3,142	3,142		
6	10/6/49	Sydvaranger Iron Ore Co., near Kirkenes	Reconstruction of iron mining and concentrating facilities at most important iron mine in Norway, destroyed by the Germans in World War II. Operated 9 months in 1952, producing 400,000 tons of concentrate; 1953 production estimated to reach goal of 1,000,000 tons of concentrate per year.	29,000	5,014	17.3%	3,142	3,142	1953	
		INACTIVE PROJECT, NOT INCLUDED IN COUNTRY TOTAL:								
2	2/14/51	Iron Ore Exploration in the Dunderland Valley	Iron ore exploration.	660	120	18.2%	--	--		

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PORTUGAL

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PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
TOTAL INDUSTRIAL PROJECTS APPROVED				<u>\$28,522</u>	<u>\$9,186</u>	<u>32.2%</u>	<u>\$8,141</u>	<u>\$6,396</u>		
MANUFACTURING				<u>11,180</u>	<u>5,349</u>	<u>47.8%</u>	<u>5,234</u>	<u>4,940</u>		
STEEL				<u>1,340</u>	<u>990</u>	<u>73.9%</u>	<u>891</u>	<u>656</u>		
3	2/14/51	A.J. Oliveira Filhos and Co., LDA., S.Joao da Madeira	Construction of a steel tube mill to produce an estimated 10,000 tons per annum of steel tubing in sizes ranging from 1/4" to 4" in diameter. The mill will supply the normal needs of Portugal's national and colonial markets for these sizes of tubing.	1,340	990	73.9%	891	656		Partial production: October 1953 Full production: February 1954
PULP AND PAPER				<u>9,850</u>	<u>4,359</u>	<u>44.2%</u>	<u>4,343</u>	<u>4,284</u>		
1	3/2/50 2/8/51 6/26/51 4/9/52	Companhia Portuguesa de Celulose, Cacia	Construction of a completely new and modern Kraft pulp and paper mill with an annual capacity of 32,000 metric tons of unbleached Kraft pulp. Of this, 8,500 metric tons will be bleached. It is estimated the plant will produce 14,000 tons of multiwall bag paper and 4,000 tons of bleached paper; the remaining 14,000 tons of pulp will be sold. The mill will use wood from Portugal's pine forests.	9,850	4,359	44.2%	4,343	4,284		Mid-1953
TRANSPORTATION, COMMUNICATION, AND UTILITIES				<u>2,332</u>	<u>1,737</u>	<u>74.5%</u>	<u>1,237</u>	<u>629</u>		
AIR TRANSPORT				<u>1,037</u>	<u>1,037</u>	<u>100.0%</u>	<u>573</u>	<u>—</u>		
7	12/21/50	Portuguese Overseas Territories	Airport equipment to modernize five overseas airports, including telecommunication material, radio aids, runway lighting and equipment for operations. Entirely MSA-financed, the equipment should improve the conditions of the colonies' strategic defenses.	1,037	1,037	100.0%	573	—		1954
MERCHANT AND FISHING FLEET				<u>1,295</u>	<u>700</u>	<u>54.0%</u>	<u>664</u>	<u>629</u>		
10	5/31/51	Portuguese Fishing Fleet	Construction of a new hospital-tender for the Portuguese codfishing fleet, to serve the fleet during extended stays on the Newfoundland banks. MSA-financing will provide steel plates, radio and x-ray equipment, main engines, compressors, and refrigerating equipment.	1,295	700	54.0%	664	629		Under construction
OTHER				<u>15,000</u>	<u>2,100</u>	<u>14.0%</u>	<u>1,670</u>	<u>828</u>		
IRRIGATION AND RECLAMATION				<u>15,000</u>	<u>2,100</u>	<u>14.0%</u>	<u>1,670</u>	<u>828</u>		
6	10/26/50	Government of Portugal, Sorraia Valley and the Plains of Villa Franca	A new irrigation development (including construction of several small power plants) planned to irrigate and to bring under cultivation over 100,000 acres of land.	15,000	2,100	14.0%	1,670	828		Estimated 1955

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TURKEY

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PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
TOTAL INDUSTRIAL PROJECTS APPROVED				\$334,015	\$66,800	20.0%	\$61,876	\$46,684		
RAW MATERIALS EXTRACTION				65,512	15,817	24.1%	15,741	13,790		
COAL MINING				61,000	14,817	24.3%	14,751	12,802		
1	4/ 1/49 3/ 6/52 5/27/52 4/13/53	Republic of Turkey, Zonguldak	Development of coal fields to increase annual production to 5 million tons (double previous level) of marketable coal. This is one of several projects in the Zonguldak area planned to develop the port, improve cargo handling and supply rail facilities. MSA has financed United States construction and mining equipment and United States technical services. Cost estimates are currently under study.	45,000	12,631	28.1%	12,619	10,745		Revised completion schedule under study.
2	4/1/49 2/9/50	Republic of Turkey, Western Lignite Mines	Development of three lignite mines to increase saleable annual production from 1 million to 1.5 million tons. Principal development is at the Soma mine. MSA financed equipment, including a large washery installed by a United States manufacturer. Reserves at the three mines are estimated at 126 million tons.	16,000	2,186	13.7%	2,132	2,057		Early 1954
IRON ORE MINING				4,512	1,000	22.2%	990	988		
13	4/1/49	Republic of Turkey, Iron Ore Mines at Divrik	Machinery and equipment for development of iron ore mines. MSA-financed machinery and equipment was installed by 1952; remainder of project, including power plant to be completed in 1953. At the end of 1953, production should be at the annual rate of 400,000 tons, or more than double 1948 production of 185,434 tons. Bulk of ore goes to Karabuk steel plant.	4,512	1,000	22.2%	990	988		Essentially complete: 100% estimated for September 1953.
TRANSPORTATION, COMMUNICATION, AND UTILITIES				255,746	47,823	18.7%	43,240	30,011		
POWER FACILITIES				56,110	16,270	29.0%	15,701	10,636		
<p><i>Postwar power facilities in Turkey were inadequate to meet the increased demand. From 1940 to 1947, capacity increased about 15 percent, while consumption was up 58 percent. In addition, Turkey lacked any interconnection of generating plants by cross-country lines. Existing plants varied considerably in unit costs and were high by American standards. A United States firm prepared a special report for the Turkish Government and recommended a centrally located hydroelectric station (to lower unit costs) and an interconnected cross-country transmission system to provide flexibility in meeting consumer demand. MSA has aided two projects planned as part of the over-all improvement of Turkish power facilities.</i></p>										
7	9/19/50 6/26/52	Republic of Turkey, Sariyar, on the Sakarya River in northwest Anatolia	Erection of a dam and hydroelectric power plant, with an initial capacity of 80,000 kw (ultimate capacity 160,000 kw) and transmission lines and transformers west to Vanikoy (Istanbul) and east to Ankara. This project is the key segment in the planned power grid for northwest Anatolia. The power lines will carry the current to the principal load centers in northwest Anatolia. MSA is financing United States machinery and equipment and United States engineering and technical services. The project has been delayed by technical difficulties. Cost estimates are currently under study.	47,000	9,450	20.1%	9,158	5,098		Construction: late 1955. Power plant operation: 1956.
6	4/1/49	Republic of Turkey, Catalagzi to Bosphorus	High tension steel tower transmission line from the 60,000 kw Catalagzi thermal station to the Bosphorus. Completed in October, 1952, the line furnishes electric current to the Zonguldak, Kozlu, and Ereğli coal and harbor operations; to other industrial areas around Izmet; and to the Municipal Electric System in Istanbul. MSA financed United States equipment and the services of a United States firm which designed, acted as purchasing agents, and supervised construction. This is an important link in the proposed Turkish transmission system.	9,110	6,820	74.9%	6,543	5,538	October 1952	

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TURKEY-Cont.

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					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
		<u>ROADS AND MISCELLANEOUS TRANSPORTATION FACILITIES</u>		<u>\$180,326</u>	<u>\$25,229</u>	<u>14.0%</u>	<u>\$25,085</u>	<u>\$17,391</u>		
15	4/1/49 4/6/50 6/16/50 2/2/51 2/14/51 9/12/52 4/13/53	Republic of Turkey, Throughout Country	Turkey is carrying out an extensive and comprehensive plan of improvements for her National Highway System, with technical services supplied by the United States Bureau of Public Roads under MSA financing. Prior to this undertaking, Turkish highways were haphazardly connected and much of the system was usable only in summer. Some 4,000 miles of vital connecting roads were selected as essential to tie the system together and these were to be the first to be improved into modern all weather roads. In addition, other roads of military importance were marked for improvement. By the end of 1952, nearly 10,000 miles of important roads were brought under machine maintenance, largely through the use of MSA-financed road building and maintenance equipment. The latest supplement provides additional replacement equipment and more spare parts from the United States. The BPR supervision and planning aid has been of vital importance in aiding the Turks to develop an integrated system of road construction and maintenance.	176,000	24,515	13.9%	24,371	16,682		See "Description"
30	3/29/51	Republic of Turkey, Adana and Esenboga (Ankara)	Construction of a class B instrument runway at Esenboga and a class C-3 runway at Adana (International Civil Aviation Organization Specifications), together with necessary taxiways, aprons, hangars, terminal buildings and communications facilities. MSA has financed the purchase of United States construction equipment for grading, draining, and paving of the runways. Originally scheduled for completion by the end of 1952, priority rating difficulties delayed delivery, losing the 1952 construction season; completion is now expected by the end of 1953.	4,326	714	16.5%	714	709		Adana: December 1953 Esenboga: September 1953
		<u>RAILROADS AND EQUIPMENT</u>		<u>3,000</u>	<u>1,000</u>	<u>33.3%</u>	<u>--</u>	<u>--</u>		
5	4/1/49	Republic of Turkey, Zonguldak	Construction of new industrial standard gauge railroad tracks outside the city limits of Zonguldak. This is part of the general development of Zonguldak industrial facilities. It is currently expected that all equipment will be purchased in Europe, so no MSA financing will be required. Completion will probably tie in with the completion of the washeries at the coal mines (See Project 1).	3,000	1,000	33.3%	--	--		1954 or early 1955
		<u>WATERWAYS AND HARBORS</u>		<u>16,310</u>	<u>5,324</u>	<u>32.6%</u>	<u>2,455</u>	<u>1,984</u>		
3	4/1/49	Republic of Turkey, Zonguldak	Improvement of Zonguldak harbor to accommodate 10,000-ton ships. A breakwater and docks are being built and loading equipment for cargo handling will be installed (See Project 4). Completion prior to operation of the new washery is expected. (See Project 1). MSA has financed United States equipment and technical services, including construction supervision. A safe harbor providing economical coal handling was an essential item in the over-all development of the Zonguldak coal fields to supply Turkish needs and earn foreign exchange.	9,310	4,209	45.2%	2,455	1,984		Last half 1953
4	4/1/49	Republic of Turkey, Zonguldak	Installation of modern and economic coal and ore handling equipment for docks, as part of the over-all development of Zonguldak. Equipment has been ordered in Europe so approved MSA financing probably will not be utilized.	7,000	1,115	15.9%	--	--		Late 1954
		<u>OTHER</u>		<u>7,907</u>	<u>2,500</u>	<u>31.6%</u>	<u>2,500</u>	<u>2,489</u>		
		<u>GRAIN STORAGE AND HANDLING FACILITIES</u>		<u>7,907</u>	<u>2,500</u>	<u>31.6%</u>	<u>2,500</u>	<u>2,489</u>		
32	5/29/52	Republic of Turkey	Erection of emergency facilities for storage of 500,000 tons of grain from increased Turkish grain production. MSA financing has supplied metal storage buildings. All project buildings have been received and most are at erection sites. The related grain handling equipment is being secured from European sources.	7,907	2,500	31.6%	2,500	2,489		August 1953

INDUSTRIAL PROJECTS APPROVED, ESTIMATED TOTAL COST, MSA DOLLAR FINANCING APPROVED
MSA PROCUREMENT AUTHORIZED, MSA PAID SHIPMENTS, AND STATUS OF PROJECTS, AS OF APRIL 30, 1953

TURKEY—Cont.

(Thousands of Dollars and Dollar Equivalents)

PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT		
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE	
		<u>ENGINEERING AND TECHNICAL SERVICES</u>			<u>\$4,850</u>	<u>\$660</u>	<u>13.6%</u>	<u>\$395</u>	<u>\$395</u>		
14	4/1/49	Republic of Turkey	Technical studies in connection with various industrial projects under consideration by the Government of Turkey. The studies principally covered electric power surveys in North Anatolia, which were the basis of the extensive power development plan now in process. Several American engineering firms as well as foreign firms were involved in this enterprise, which was completed in 1951. MSA financing covered dollar payments to the United States firms.	4,850	660	13.6%	395	395	1951		

UNITED KINGDOM

		<u>TOTAL INDUSTRIAL PROJECTS APPROVED</u>			<u>415,783</u>	<u>50,435</u>	<u>12.1%</u>	<u>40,315</u>	<u>40,267</u>		
		<u>MANUFACTURING</u>			<u>415,783</u>	<u>50,435</u>	<u>12.1%</u>	<u>40,315</u>	<u>40,267</u>		
		<u>STEEL</u>			<u>303,200</u>	<u>29,730</u>	<u>9.8%</u>	<u>27,234</u>	<u>27,224</u>		
		An over-all steel development and re-equipment program was undertaken in the United Kingdom after World War II to meet increasing domestic needs, to supply overseas requirements and to produce high-grade steel products in plants of efficient and economic size. MSA financed relatively small parts of two projects, now completed, making available U.S. processes, equipment, and technical services not elsewhere obtainable.									
1	4/1/49	Steel Company of Wales, Ltd. Margram and Troste, South Wales	New completely integrated plant to produce sheets and tinplate. Includes slabbing, hot-strip, and tandem mills and auxiliary items for tinplate production and plate finishing equipment procured or designed in the United States. Provides annual capacity for production of over 1 million long tons of hot strip to be absorbed by the plants' output of tinplate, cold sheets, hot-finished sheets and plates.	240,000	27,000	11.2%	25,383	25,373	Reported as completed.		
2	5/26/49	Stewarts and Lloyds, Ltd., Corby, England and Clydesdale and Tolcross, Scotland	Expansion and modernization of three plants and supporting ore mines by the largest producer of steel tubing in the United Kingdom to meet domestic shortage of steel tubing for shipbuilding and electric power plants and to fill overseas requirements for oil tubular goods. The project is now completed. MSA financing supplied an electric weld tube-making plant, tube threading and boring and tapping machines, and designs for other machines; also a walking drag line for a new ore field to supply the plant.	63,200	2,730	4.3%	1,851	1,851	Reported as completed.		
		<u>PETROLEUM REFINING</u>			<u>82,000</u>	<u>9,705</u>	<u>11.8%</u>	<u>4,561</u>	<u>4,552</u>		
12	9/22/49	National Oil Refineries, Ltd., Llandarcy Refinery, South Wales	Expansion of the present refinery, modernization of plant, and construction of a full range of basic units, including catalytic cracking, and modern facilities for the production of lubricating oils. Because of the improved foreign currency position of the United Kingdom, only a small portion of the ECA funds originally set aside for the project was actually utilized.	48,000	7,250	15.1%	2,837	2,828	Reported as completed.		
10	9/22/49 12/20/49	Shell Refining and Marketing Co., Ltd., Shell Haven Refinery	Installation of additional basic facilities to expand and modernize the Shell Haven refinery. Increased availability of equipment from the United Kingdom made substantial reductions in the estimated dollar expenditure possible.	34,000	2,455	7.2%	1,724	1,724	Reported as completed.		

INDUSTRIAL PROJECTS APPROVED, ESTIMATED TOTAL COST, MSA DOLLAR FINANCING APPROVED
MSA PROCUREMENT AUTHORIZED, MSA PAID SHIPMENTS, AND STATUS OF PROJECTS, AS OF APRIL 30, 1953

UNITED KINGDOM—Cont.

(Thousands of Dollars and Dollar Equivalents)

PROJECT NUMBER	DATE OF ORIGINAL APPROVAL AND SUPPLEMENTS OR REVISIONS	TYPE OF PROJECT, COMPANY AND LOCATION	DESCRIPTION	TOTAL COST ESTIMATE (Dollar Equivalents and Dollars)	MSA DOLLAR FINANCING APPROVED		MSA PROCUREMENT AUTHORIZED	MSA PAID SHIPMENTS	STATUS OF PROJECT	
					AMOUNT	PERCENT OF TOTAL COST			COMPLETED: DATE OF COMPLETION	INCOMPLETE: EXPECTED COMPLETION DATE
20	10/27/49	CHEMICALS British Petroleum Chemicals, Ltd. Grangemouth, Scotland	New petro-chemical plant adjoining a petroleum refinery, to provide increased supplies of essential chemicals for the plastics and rayon industries, at prices below imported supplies. MSA financing was to provide a cracking and separation plant, ethyl and isopropyl alcohol plants, and miscellaneous equipment and technical services required in the construction of the first phase of the plant.	\$17,000	\$6,500	38.2%	\$6,020	\$5,991	Mar. '51; first production (May '51); design capacity reached March '52	
21	1/19/50	AUTOMOTIVE PRODUCTS Ford Motor Company, Ltd. Dagenham	Retooling of plant to permit production of two types of new passenger cars, a new truck engine and a new heavy tractor and an eventual 10 percent increase in production. The project is complete. MSA financing provided machine tools and gauges not available in the United Kingdom.	13,583	4,500	33.1%	2,500	2,500	Reported as completed.	
7	11/30/50	INACTIVE PROJECT, NOT INCLUDED IN COUNTRY TOTALS: Consett Iron Co., Ltd., Consett	Designs and technical services for a new continuous billet mill. No project procurement utilized.	5,600	583	10.4%	—	—		

INTERNATIONAL^a

		TOTAL INDUSTRIAL PROJECTS APPROVED		28,600	540	1.9%	538	517		
		TRANSPORTATION, COMMUNICATION, AND UTILITIES		28,600	540	1.9%	538	517		
		POWER FACILITIES		28,600	540	1.9%	538	517		
2	3/29/51	Austro-German Power Plant at Simbach, Germany and Braunau, Austria, on the Inn River	New hydroelectric power plant on the Inn River on the Austro-German border -- the only international plant developed in Western Europe; with MSA assistance -- will have a 96,000 kw capacity and will supply needed power to industry in the area -- particularly aluminum plants. MSA financing provided heavy construction equipment that will result in completion 4 months ahead of schedule.	28,600	540	1.9%	538	517		December 1953
		DETAIL BY COUNTRY								
		Austria		14,300	270	1.9%	270	249		
		Germany (Federal Republic)		14,300	270	1.9%	268	268		

^a Excluded from data on industrial projects for Austria and Germany (Federal Republic).

