

REPORT ON ALLOCATIONS AND PRIORITIES  
OF WAR MATERIALS

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LETTER

FROM THE

CHAIRMAN OF THE WAR PRODUCTION BOARD

TRANSMITTING

IN RESPONSE TO SENATE RESOLUTION NO. 195,  
A REPORT OF THE OFFICE OF PRODUCTION  
MANAGEMENT RELATING TO THE POLICY,  
METHODS, PLANS, AND PROGRAMS  
FOR THE ALLOCATION OR DISTRIBU-  
TION OF WAR MATERIALS



FEBRUARY 2, 1942.—Referred to the Committee on Military Affairs  
and ordered to be printed with an illustration

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The data and information in this report are in general as of December 15, 1941, and were prepared by the Division or Branch of OPM charged with the responsibility for each particular subject. Certain changes that have occurred since that date are not fully reflected here.

SENATE RESOLUTION NO. 195

Submitted by Mr. O'Mahoney

IN THE SENATE OF THE UNITED STATES,  
November 13, 1941.

*Resolved*, That the Office of Production Management is hereby requested to submit a report to the Senate as soon as practicable with respect to (1) the general policy which has been established for the Office of Production Management in connection with the administration of section 2 of the Act of June 28, 1940, as amended (relating to assignment of priorities), (2) the methods and plans which have been adopted or are contemplated for the allocation or distribution of materials to which priorities have been assigned pursuant to such section 2 under contract arrangements or otherwise, and (3) the program which has been formulated or is being followed by the Office of Production Management for the purpose of protecting to the fullest practicable extent the various business enterprises the operations of which are interrupted or interfered with because of a shortage of materials to which such priorities apply, and for relieving the hardships caused to small-business enterprises by the application of a priorities or allocation system to materials deemed to be essential for national defense purposes.

*Resolved further*, That upon the receipt of such report the Secretary of the Senate is hereby directed to transmit a copy thereof to the Clerk of the House of Representatives.

Agreed to November 17, 1941.

Attest:



Elwood H. Halsen  
SECRETARY U. S. SENATE

## LETTER OF TRANSMITTAL

WAR PRODUCTION BOARD,  
*Washington, D. C., February 2, 1942.*

The VICE PRESIDENT,  
*United States Senate.*

DEAR MR. VICE PRESIDENT: In accordance with Senate Resolution 195, Seventy-seventh Congress, first session, I am submitting a report on the general policy, methods, and plans of the Office of Production Management for the allocation or distribution of materials to which priorities have been assigned and the program which has been formulated by the Office of Production Management for the protection of business enterprises, the operations of which are interfered with because of shortages of materials.

Respectfully yours,

D. M. NELSON.

## *Introduction*

Senate Resolution 195 presents a welcome opportunity to report on one of the most vital problems that confronts this country in its determination to crush aggression. The American people not only have the right to know the policies and methods that have been adopted to control the flow of materials to the nation's war effort but their understanding and cooperation is essential to ultimate success.

Between this country and destruction stand the armed forces, the production lines, and the workers of the nation's factories. On the speed with which planes, tanks, ships, and guns are turned out rests the national safety. This is a war of materials and machines. Vast quantities of both will be needed to defeat the aggressor nations.

The demand of modern war for materials, particularly metals, is tremendous. It is so great that this demand and that of the normal civilian economy cannot both be met. There are not sufficient quantities of certain materials to go around.

The power of priority is the mechanism which directs the flow of these materials so that the most essential needs are filled ahead of the less essential.

In general, this flow of materials to the most essential uses is controlled either by preference ratings which assign to specific articles the order in which they get materials or by allocation which assigns materials directly to specific purposes. The methods and plans for handling this vast problem are, of necessity, complicated and detailed, and a full description is given in chapter III of this report.

The entire report is divided into four main sections:

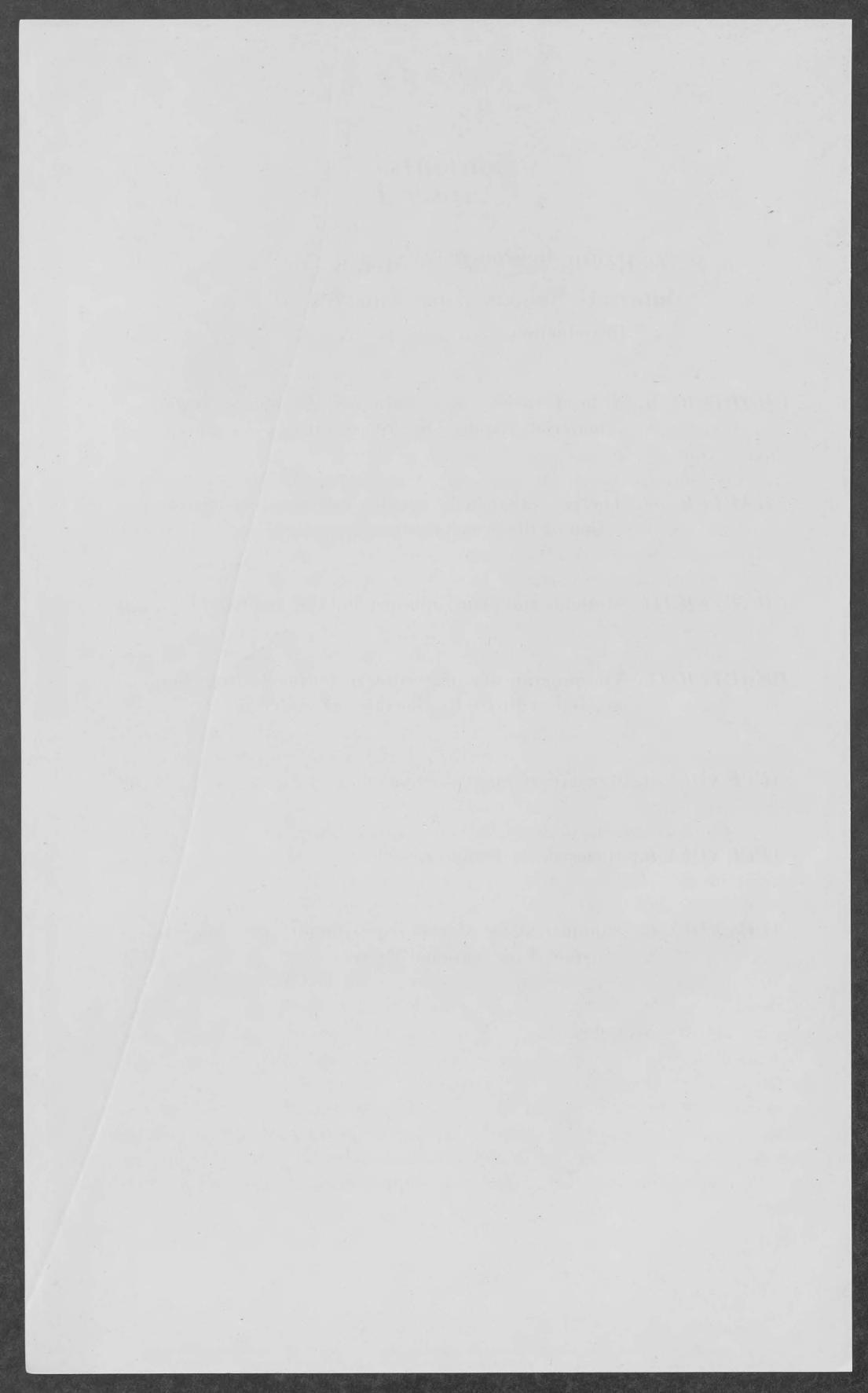
1. A high-light review of the situation as regards the supply of scarce materials and the demands for them. An understanding of this is essential, for the policies governing the administration of the priority power are based on these facts.
2. A statement of the general policies that guide the administration of the priority powers.
3. A description of the methods and plans that have been adopted to put these policies into effect.
4. A review of what is being done to aid business, particularly small business, where it is affected by the shortage of material.

This report, and all the policies and activities it covers reflect one primary aim:

Until final victory is achieved, all of this nation's vast resources of men, materials, and machines must be directed to the production of an ever-increasing quantity of war materials at an ever-increasing speed. There can be no compromise with the achievement of this objective. Everything else is secondary to this purpose.

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## *Chapter I*

### **A Brief Review of Certain Metals and Strategic Materials Required by America At War**

To understand the effect upon civilian life of an American war program, facts and figures are needed on (1) the relationship between raw materials and war production, and (2) the impact of all-out war production on the civilian economy.

This section, therefore, gives, as a foundation for the study of this report, a brief exposition of a few important figures on the connection between the nation's war and civilian demands and available supplies of certain important critical materials.

Briefly, these figures show the following facts:

1. Supplies—so far as domestically produced materials are concerned—will be much larger in 1942 than in any recent year.
2. But war demand is stepping up even more rapidly than supply. This increased war demand, plus a big increase in civilian demand, will make shortages worse in 1942.
3. While all these things would be true even under the military schedules made prior to war, any program of the size necessary to be truly called a war program will make unprecedented additional demands on supplies.
4. The outlook, therefore, with this country devoted to a total war effort, is for an economy in which civilian uses of critical materials must be cut to the very limit.

This country is more self-sufficient than any other modern industrial nation, but this fact, considered alone, is likely to be misleading. For it is also a fact that it depends on imports to a very large extent and that some of these imports coming from the Far East are now threatened seriously by the outbreak of war in the Pacific. Even in the case of Latin America, which is usually regarded as being quite accessible, there are limitations on production and also shipping difficulties which hamper the supply lines.

Although many different materials are involved in this war effort, the nature of the outlook may be illustrated graphically by one material—copper—which is vital for both military and civilian purposes.

The available facts and figures on copper indicate that in the year

1940—substantially a pre-war year so far as production was concerned—this nation actually consumed 1,002,000 short tons.

In the year 1942, if all goes well, there should be a total supply of copper estimated at 1,752,000 short tons. This supply is far greater than the largest year's consumption in the country's history.

On the basis of these two figures, the outlook would appear to be good. But this is not the case. For direct and indirect military requirements have stepped up to such an extent that, even without expanding to a true war program, the amount of copper remaining for purely civilian purposes in 1942 will be considerably less than that consumed in 1940.

A more realistic way of analyzing the supply-and-demand picture is to compare 1940 consumption with the amount of material that will be available in 1942 for requirements other than those bearing preference ratings in the A-1 to A-10 class. Such ratings are reserved for military and essential production requirements, considered as a part of defense.

Analysis of the figures from this point of view (see table at end of this chapter) shows that if the allocation of copper for A-1 to A-10 ratings were carried out in 1942 at the rate which prevailed in November 1941—before the outbreak of war—it would be necessary to allocate 1,708,000 tons of copper for orders rated as defense by military officials and OPM. This would leave only 44,000 tons for all other orders.

This would mean that in 1942 the copper available after defense requirements were met would fall short of 1940 consumption by more than 95 percent.

One reason why the analysis from this point of view looks so bad is that, under the preference rating system, a number of important orders which are not directly for military equipment but are indispensable for its manufacture, such as machine tools or the maintenance of civilian health and morale, have necessarily been granted ratings in the A class. The deficiency of more than 95 percent, therefore, is not a total deficiency for all civilian purposes but shows the very considerable extent to which orders, essential to the conduct of war, have preempted the available supply.

It should be noted that these illustrations do not take into account the additional impact of a full war program.

While the details of a war program have not been entirely settled at the date this report is written, preliminary estimates indicate a situation much graver from the civilian viewpoint than that indicated previously.

Under such circumstances, even the military requirements must be

reconsidered and reduced, with possibly serious consequences to the war program. It is clear, when faced with such necessities, that no copper can be used except for the most essential of nonmilitary purposes. From every point of view, the supply situation in copper compared to the over-all demand is serious.

The figures also show that in a number of other matériels under allocation very substantial proportions of the supply have to be allocated for defense, thus drastically diminishing the supply available for purely civilian purposes. Figures for certain other critical materials may be found in the table at the end of this chapter.

In most cases the accumulation of reserves against the grave days which lie ahead must involve even further curtailment of less essential civilian uses. The grim fact is that any concessions to a natural desire to prevent some present suffering and hardship may well have to be paid for by intensified suffering and loss of life at some later date.

*Comparison of 1942 supply for other than A-1 to A-10 ratings with 1940 consumption — selected commodities<sup>1</sup>*

Commodities	Unit	Actual 1940 consumption	1942 estimates			1942 nondefense supply other than A ratings to 1940 consumption percent over (+), percent short (-)
			Available new supply	Allocations to A-1—A-10 rating at rate of November 1941	Remainder for other ratings	
Copper (refined).....	Thousand short tons.....	1,002	1,752	1,708	44	-95.6
Lead.....	Thousand short tons.....	782	1,116	<sup>2</sup> 694	422	-54.0
Nickel.....	Million pounds.....	152	<sup>3</sup> 208	187	21	-86.2
Rubber.....	Thousand long tons.....	618	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Zinc.....	Thousand short tons.....	719	978	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )

<sup>1</sup> In this table the commodity shortage problem is approached from the standpoint of allocations. The rates at which allocations were made to the A-1 to A-10 rating groups in the month of November 1941 are applied to 1942 supply with the effect of estimating the continuance of the November 1941 rate through 1942. In November 1941, 97.5 percent of the allocable copper went to ratings A-1 to A-10. If this rate continued through 1942 the total copper so allocated as shown above would be 1,708,000 short tons. After deducting this from supply the remainder is below 1940 consumption by 95.6 percent, or is, in other words, only 4.4 percent of that amount.

<sup>2</sup> Total requirements bearing A-1 to A-10 ratings as reported to OPM for December allocations. The companies reporting represent approximately three-quarters of the industry.

<sup>3</sup> Includes scrap.

<sup>4</sup> The effect of the war on the supply of this commodity has been to render all previous estimates useless.

<sup>5</sup> These data not comparable with that of other commodities. Of the part (27 percent) of current zinc supply allocated, 280,000 tons went to A-1 to A-10 ratings in November. The apparent remainder of other than these ratings was 97 percent of the 1940 supply.

## *Chapter II*

### **The General Policies Which Guide the Administration of the Priority Power**

The primary objective of the Office of Production Management is to aid the armed forces to win this war—to win it as quickly and efficiently as possible, but in any case—to win the war.

The demands of the armed forces must be met in full so that United States soldiers and sailors and those of our Allies get the planes, tanks, guns, and ships which they need. This is the basic policy which is followed in determining the flow of scarce materials—military requirements come first.

So closely allied to the military demands as to be almost indistinguishable is the necessity for maintaining the basic civilian economy in efficient running order.

To meet these twin demands—and both must be met—it is major OPM policy that production must be increased and scarce materials must be conserved to the fullest extent possible.

Less essential civilian uses of scarce materials can be filled only after these more important demands have been met. This means that these less essential needs must be curtailed or cut out completely if full war potential is to be attained. The Office of Production Management realizes that it has a responsibility to do what is possible to alleviate hardship and cushion the effect of this all-out effort that is necessary for victory.

No agency of government can do this job alone. Industry also must accept its responsibilities. It must expand essential production to the limit of capacity. It must develop substitute materials. It must find ways of using less material. It must simplify its production, and assist in converting nonessential production to military and essential civilian needs.

These statements of policy and objective are not presented here as a record of accomplishment. It is realized that they have not been fully attained because of the complexity and magnitude of the problem. This chapter, however, does state the aims for which the OPM is striving and sets forth in detail the policies which guide its actions.

There follows an amplified statement of these policies, including the related minor policies:

## WAR AND ESSENTIAL CIVILIAN REQUIREMENTS COME FIRST AND MUST BE MET

In addition to the war program indirect war and essential civilian requirements must also be met by directing the flow of materials available for necessary civilian use primarily to transportation (including land, sea, air, and inland waterway), public utilities including communications, health services of all kinds, food production and preservation, fire and police protection, and to the maintenance and repair of all facilities and equipment which continue to be used.

## PRODUCTION MUST BE INCREASED TO THE FULLEST EXTENT POSSIBLE

Production must be expanded to the limits of the nation's resources. The war program urgently requires a volume of materials and equipment far beyond that now being produced.

To achieve this expansion it is OPM policy—

1. To convert plants engaged in less essential civilian production to war or essential civilian production.
2. To increase productive capacity by building new facilities wherever existing facilities are inadequate and where the need cannot be met by conversion of plants; and to expand productive facilities for basic essential materials to the extent necessary, even at the cost of diverting some current supply of scarce materials.

All plants engaged in less essential civilian production must be converted to war or essential civilian production to the fullest extent possible. This is necessary both to meet the requirements of the war program and to enable such plants to continue in existence.

Subcontracting should be promoted and stimulated wherever feasible and should become a recognized part of procurement practices in the armed services wherever possible. Provision for subcontracting and for the increased cost thereof should be included in prime contracts.

Army and Navy supplies should be purchased where appropriate in small units from a large number of firms in many different localities.

Contracts should be let by negotiation, instead of by competitive bidding whenever helpful in adjusting firms to war production.

Higher prices may be paid, where necessary, to concerns with higher costs or not familiar with war production, in order to increase partici-

pation in war production, and educational orders should be placed where necessary by the armed forces.

The organization and use of local industrial defense production associations should be stimulated.

Specifications should be relaxed, to increase the number of participants in war production where this can be done without lowering quality below satisfactory performance levels.

Contract terms, including terms of advance payments, which unnecessarily discourage participation in military production should be liberalized and provision made for subcontractors to secure advance payments where necessary.

An adequate and trained labor supply for war production must be provided.

Maximum use of existing productive facilities and tools should be obtained by advising manufacturers of specific ways in which their facilities and tools may be utilized in war production and by informing them about the procedures and practices of the various Federal procurement agencies.

Necessary financing should be facilitated for prime contractors, subcontractors, and local industrial defense production associations through the regular commercial banking channels, the Reconstruction Finance Corporation, and the Federal Reserve Banks, and additional financial procedures or machinery should be recommended as required to insure maximum utilization of existing plant and tool facilities for war purposes.

## **CONSERVATION AND CONTROL OF SCARCE MATERIALS IS ESSENTIAL**

Central control of the distribution and conservation of scarce materials is necessary if essential demands are to be met.

It is OPM policy to make the most just and equitable distribution of scarce materials that is consistent with supplying the requirements of war and essential civilian activity.

Demand has increased to the point where priority ratings alone can no longer control adequately the flow of scarce materials in all cases.

It is the policy of the OPM, therefore, to increase the extent to which these materials are controlled by allocation—definite amounts to definite uses. This requires building up the production requirements, company by company for each industry, and also building up the detailed over-all requirements of the Army and Navy, other defense agencies, and allies. The control of materials for war, essential civilian and less essential production will improve steadily, as OPM obtains more information about supplies, requirements, and use.

All less essential civilian uses of scarce materials must be curtailed or eliminated.

Unnecessary military use of scarce materials, especially imported materials, must be cut out and every effort to find satisfactory substitutes must be made.

Priority for acquisition of new machine tools and heavy equipment, even for military production, should be withheld where the necessary tools are already available.

Uses of scarce materials should be curtailed where demand is postponable. This applies particularly to consumers' durable goods.

Ways and means of making more end product per unit of scarce material should be devised.

Substitutes must be sought for all scarce materials, and preference ratings should be refused where plentiful materials can be substituted.

All efforts possible should be made to reclaim scarce materials.

Simplification of products both for war and civilian purposes should be sought wherever possible.

Expansion of civilian production should be prevented where the construction would use scarce material and where it involves serious direct conflict with military requirements.

Civilian and governmental building for other than war purposes should not be permitted unless essential to public health or safety.

Delivery should be scheduled so that material or equipment are not received sooner than required by the production or the delivery schedule.

Military requirements must be ascertained and scheduled so that they can be served effectively without unnecessary diversion from civilian needs.

Civilian requirements should be ascertained and scheduled so as to distribute materials most efficiently.

#### **THE SUPPLY OF SCARCE MATERIALS REMAINING AFTER SERVING WAR AND OTHER ESSENTIAL NEEDS SHOULD BE ALLOCATED AS ADVANTAGEOUSLY AS POSSIBLE<sup>1</sup>**

Distribution of the supply of scarce materials remaining after serving war and other essential requirements must be controlled in the public interest. The following policies guide OPM in this respect:

Residual amounts of scarce materials should be allocated to civilian industry in such manner as to minimize the burden of shortages on labor, consumers, and industry.

The residual supply of material should be allocated, where possible,

<sup>1</sup> Examples of how these policies have been put into action may be found in Chapter IV.—The Program for Protection of Business Enterprises Interfered With by Shortages of Material.

to industries supporting a large volume of employment with small quantities of material.

Where consistent with war production and military strategy, geographic decentralization of war industry should be facilitated.

The availability of alternative employment in related areas or occupations should be considered in both curtailment and allocation of residual supply.

Community situations should be taken into account and, where necessary, special allocations should be made to communities threatened with excessive unemployment due to lack of scarce materials.

Small "hardship reserves" should be set aside from which small allocations can be made to relieve exceptional hardship.

Temporary and limited aid should be given to tide over less essential producers, particularly small business, until conversion to war or essential civilian production can be made or until substitute materials can be found.

In limiting the use of scarce material or curtailing less essential production, differentiation should generally be made in favor of small firms as they are less easily absorbed in the defense effort.

All inventories for war and other essential production should be reduced to practicable working minimums.

Supplies should be redistributed so as to spread them equally to those who produce similar essential products but who are unequally supplied as a result of curtailment.

### **STOCK PILES MUST BE BUILT UP**

To be prepared for emergencies where supplies are dependent on sea lanes, it is the policy of the OPM to build up a supply of strategic materials which must be imported, even at the cost of curtailing current use. To accomplish this and to relieve shortages as far as possible, imports of vital raw materials must be maintained at the highest possible level.

### **PREFERENCE LIST**

The following list indicates OPM policy as to the approximate relative importance for certain domestic (not Lend-Lease or foreign) uses of scarce materials and is based largely upon the preference rating orders (P-orders) that have been issued to date.

#### **A-1-a to A-1-j**

Military items—see current Army and Navy Munitions Board Directive.

Merchant ships—production of (P-7).<sup>1</sup>

Cutting tools—production of (P-18-a).

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<sup>1</sup> The numbers refer to the number of the P-order involved.

Experimental defense research supplies—manufacture of (P-24).  
Foundry equipment—production of (P-31).  
Metal working equipment—production of (P-11-a).  
Cranes—production of (P-5-b).  
Heat-treating furnaces—production of (P-74).  
Welding machines—production of (P-39).  
Machine tools—rebuilding of (P-77).  
Resistance welding electrodes—manufacture of (P-85).  
Iron and steel mills—emergency repairs for (P-68).  
Smelters and refiners—emergency repairs for (P-73).  
Mines—emergency repairs for (P-56).  
Commercial (excluding home) and military radio receiving, transmitting, and directional equipment—manufacture of (P-16).  
Radio sondes—manufacture of (P-38).  
Electrical relays and solenoid assemblies—manufacture of (P-15).  
Lift trucks—manufacture of (P-40).

#### A-2 to A-5

Research laboratory supplies—manufacture of (P-43).  
Fire apparatus—production of (P-45).  
Air transport—operation of (P-47).  
Freight cars—production of (P-8).  
Locomotives—production of (P-20).  
Locomotives—repairs for (P-21).  
Trucks, trailers and busses for war purposes—production of <sup>2</sup> (P-54).  
Mining machinery—production of (P-23).  
Conveyor machinery—production of (P-78).  
Elevator and escalator repair parts—manufacture of (P-72).  
Mines, essential equipment for, as specified (P-56).  
Iron and steel mills—maintenance of (P-68).  
Smelters and refiners—maintenance and repairs for (P-73).  
Marine paints—manufacture of (P-65).  
Containers, steel—production of (P-76).  
Laboratory equipment and reagent chemicals—manufacture of (P-62).  
Containers, non-metal other than wire—production of (P-79).

#### A-6 to A-10

Farm machinery—production of (P-33).  
Mines—all other maintenance and repairs for (P-56).  
Containers, wire—production of (P-79).  
Health supplies—manufacture of (P-29).  
Civil aircraft for essential purposes—production of (P-6-A).  
Industrial explosives—manufacture of (P-86).  
Defense supplies—manufacture of (P-6).  
Utilities—maintenance, supplies and repairs for (P-46).  
Textile machinery—repair of (P-53).  
Automobile and light truck parts—manufacture of <sup>2</sup> (P-57).  
Insecticides, germicides, fungicides—manufacture of (P-87).  
Farm machinery—repair of (P-32).  
Repairs, maintenance and operating supplies (P-100).

<sup>2</sup> Also subject to Limitation Order.

## *Chapter III*

### **Methods and Plans, Adopted and Contemplated**

#### **SECTION I. METHODS USED FOR CONTROLLING DISTRIBUTION OF SCARCE MATERIALS**

The procedures followed in the distribution of material under priority control are divided into three general groups:

- A. Preference ratings.
- B. Distribution of raw materials through allocation procedure.
- C. Limitation orders which restrict the use of materials for certain less essential uses.

Preference ratings which are statements of the relative importance of purchase orders may be characterized as working from the top down (considering the most highly processed and finished products as "up" and basic materials in low processing stages as "down"). The rating is supplied first to the finished item or to the Government's order placed with the prime contractor for finished goods. This rating is then passed down to subcontractors, to sub-subcontractors, and so on down the line to the raw-material suppliers at the bottom of the production ladder.

The raw-material allocation orders reverse this process by taking control at the raw-material level, and so direct the flow of the material up the ladder that the defense and essential civilian needs receive the necessary raw-material.

The limitation orders are designed to simplify the task of the preference ratings and the allocation orders by limiting the demands of the less essential uses, to bring demand down to the size of supply. For example, when the automobile-limitation order restricted the output of that industry to one-half of last year's output, the demands of that industry on the raw materials concerned were necessarily reduced by 50 percent.

The several kinds of instruments used for extending preference ratings will be described in detail on the following pages, but it should be noted that the current aim of the Office of Production Management is to reduce the number of methods and to concentrate on the approach used in the Production Requirements Plan, described later. Under this scheme it is necessary for the producer to show specifically,

for his entire operation, how much material he needs after allowance for inventories and when he needs it. His rating on that amount is based upon the place his products occupy in the preference list and the amounts of materials available. This procedure is a device with which to make the transition between preference-rating controls and allocation. Once industry requirements are clearly ascertained, the task of allocating specific amounts to particular industries will be greatly simplified and a specific allocation of all materials can be made in place of the preference rating which is assigned currently.

The process of making such a transition will be greatly facilitated by the request made that the Army and Navy furnish statements of their requirements in total. When these statements have been received, it will then be possible to approve the total proportion of each scarce material to go to the military and to the civilian economy. The detailed decision as to the amounts to each company, whether it is producing civilian or military goods, will be made on the basis of the statement presented by that company on the Production Requirements Plan application in compliance with any announced policy decision.

#### PREFERENCE RATINGS

There follows a description of the most important kinds of preference rating procedures.

1. *Army and Navy preference ratings.*—When a contract is placed by the Army, the Navy, or certain related agencies such as the Maritime Commission, the Coast and Geodetic Survey, etc., a preference rating may be assigned to it by the designated officers of the armed services. The system followed is coordinated by the Army and Navy Munitions Board but is actually administered by the field officials of the Services. The system rests upon the Priorities Directive, which is a statement of the relative importance of finished military items, that is, the rating assigned is determined by the place of the finished material in the current Priorities Directive.

If, after the rating has been assigned to the contract for purchasing the finished item, it is necessary that the rating be assigned to certain of the component parts or materials necessary to manufacture that finished item, the contracting officer fills out a similar form extending the rating which had been assigned to the prime contract to any of the component parts necessary to manufacture the finished item. In practice the manufacturer generally fills out the extension form himself and simply obtains the countersignature of the Army or Navy field officer, which signature certifies to the fact that the amounts of materials are not greater than actually needed to complete the military items ordered under the prime contract.

2. *Individual civilian applications.*—When a manufacturer requires priority assistance to obtain materials needed to produce important civilian or indirect war products, unless he is covered by a blanket rating order as described below or applies on the Production Requirements Plan, his recourse is to the "PD-1" application. This application is a request for priority rating on a particular purchase order of material to be used for a specific purpose. This form of application may be characterized as a catch-all, since any request for priority assistance may be made on it so long as a specific amount is requested for a specific use.

PD-1 application forms are received by the Priorities Division, and after being recorded are immediately forwarded to the industrial branch which has jurisdiction over the product for which the material is required. That is, an application for brass to manufacture electric power equipment would be sent first to the power branch. After the branch has considered the application and, in many cases, has checked other industrial branches interested (in the example above, the copper and brass branch) a recommendation is made to the Priorities Division. This recommendation passes through a rating and review section in the Priorities Division, which is to insure coordination of the activities of other branches so that uniform ratings may be given to activities of similar importance. After the form has cleared the rating and review section, the application is converted into a priority certificate by stamping certain conditions on the face of it and obtaining the signature of the Director of Priorities. Several thousand of these applications are handled every day.

3. *Blanket preference ratings ("P" orders).*—In order to reduce the volume of work involved for manufacturers in making applications for each individual amount of material needed, certain essential industries have been placed under a form of blanket order which grants them priority assistance to obtain the materials which they need to continue uninterrupted manufacture. In every case this rating is limited to some extent, generally by the provision that the rating may only be applied to material entering directly into the production of the end product concerned.

In this form of order it is only necessary that the rating form be extended once to each supplier of the recipient of the order.

To apply the rating to subsequent purchase orders it is only necessary to certify on the ordinary purchase orders that the materials concerned are covered by the terms of the preference order which has previously been extended.

A list of the industries covered by this type of order to date follows:

### BLANKET PRODUCTION RATING ("P") ORDERS

<p>Air bases (P-41).<sup>1</sup>          Aircraft accessories (P-52).          Aircraft, civil (P-6-a).          Airframes (P-3) (P-13).          Airplane engines and propellers (P-4).          Aluminum scrap (P-12).          Automobile and light truck replacement parts (P-57).          Bombers, heavy (P-9).          Canning machinery (P-42) (P-51).          Containers, nonmetal (P-79).          Conveyor machinery (P-78).          Copper mines (P-58).          Copper scrap (P-61).          Cranes (P-5-b).          Cutting tools (P-18-a).          Electrical relays and solenoid assemblies (P-15).          Electrodes, resistance welding (P-85).          Elevator and escalator repair parts (P-72).          Experimental research work (P-24).          Farm machinery (P-33).          Farm machinery, repairs (P-32).          Fire apparatus (P-45).</p>	<p>Foundry equipment (P-31).          Freight cars (P-8).          Furnaces, heat-treating (P-74).          Health supplies (P-29).          Laboratory equipment (P-62).          Lift trucks (P-40).          Locomotives (P-20).          Locomotives, repair (P-21).          Machine tool rebuilding (P-77).          Metal-working equipment (P-11-a).          Mining machinery (P-23).          Paints (P-65).          Radio equipment (P-16).          Radiosondes (P-38).          Research laboratories supplies (P-43).          Ships, conversion (P-10).          Ships, merchant (P-7).          Shipways (P-14).          Steel for containers (P-76).          Tackle blocks (P-75).          Tanks, light (P-25).          Tanks, medium (P-26).          Trucks, trailers, and busses (P-54).          Vehicles, half-track (P-35).          Welding machines (P-39).</p>
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4. *Ratings for construction (project ratings).*—Another important form of the limited P orders are the so-called project ratings, which are assigned to construction projects. These ratings are issued on the basis of a special application received from the individual who wishes priority assistance in some construction activity. The applications are received by a special section of the Priorities Division known as the project rating section, and are then forwarded to the branch having jurisdiction over the product to be produced in the finished plant. For example, a request for project rating for an aluminum plant would go to the aluminum branch; for a power plant, to the power branch.

The branches receive the application, pass upon the merits of the claim, and then after checking with other interested branches, make a recommendation that a rating be issued. This recommendation is cleared through the rating and review section of the Priorities Division in a manner similar to that followed for the individual applications, but if the project amounts to more than \$50,000 the application is next reviewed by a clearance committee composed of representatives from the Priorities Division, Materials Division, Labor Division, Division of Civilian Supply, the Army, the Navy, and the National Resources

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<sup>1</sup> These numbers refer to the preference order controlling the industry in question.

Planning Board. After the project has been reviewed by this committee, a rating is assigned by the Director of Priorities, and an extension procedure similar to the other limited blanket ratings is followed.

5. *Repair, maintenance, and operating supplies.*—In order that it shall not be necessary to make individual applications for every small amount of material needed for a repair part or operating supply, a general order has been issued which automatically assigns a rating of A-10 to all material which is to be used in repair or maintenance of a plant, or as an operating supply in the production process of all manufacturing industries, government units, communications and other important civilian activities. To apply this rating the user must endorse a statement on the purchase order to the effect that the materials concerned are being ordered under the terms of the repair and maintenance order, and that he, the manufacturer, fully understands those terms which include limitations on inventories and kinds of materials to be purchased.

It is expected that industrial branches of the OPM will devise special maintenance and repair orders for each of the important industries; that is, special orders more directly adapted to the requirements of particular industries. In most of these cases, because of the fact that the orders would be for important industries specifically designated, a higher rating could be applied.

If an industry is brought under the Production Requirements Plan as described below, the repair, maintenance, and operating requirements will be covered by that plan.

6. *Production Requirements Plan.*—The Production Requirements Plan is a recently developed device (although it takes the place of a somewhat similar one now proven by 6 months' trial to be a sound approach) which grants priority assistance to a manufacturer on all his material requirements for one plant. Although the questions asked in the application are more detailed, the plan—reduced to its simple terms—is as follows:

A company or plant or department of a company gives to the Priorities Division a statement of its requirements of scarce materials for the ensuing quarter, backed up by an analysis of its consumption, inventory, preference-rating orders, and its proposed production. On this showing the Priorities Division, after taking into account all announced policy and the inventory situation shown on the application, will grant a preference rating to specific amounts of the scarce materials listed on the form. The manufacturer is then authorized to apply the preference rating in ordering materials, but is limited by the amount of each material which had been certified on the form.

This plan has the double advantage of putting the manufacturers in the position of having to apply for a preference rating only once in 3 months; and of bringing together at one time a specific statement of what the manufacturing units expect to use in the way of scarce materials. The accumulation of these statements of requirements will enable the OPM to get a definite picture of how much material is needed by specific industries, and by matching this fact with known production of the scarce materials concerned, a definite basis for allocation is obtained.

In general, it is expected that the Production Requirements Plan will be emphasized by OPM as the means of covering the requirements of all users for basic materials for production and maintenance. It is expected that individual preference ratings will continue to be assigned to finished products ordered by the Army and Navy, as well as important fabricated and semifabricated products ordered by industry in the production of other end products, but that individual preference ratings will be used less frequently as the means of granting priority assistance for obtaining materials for regular production and maintenance.

It is also expected that a simplified version of the Production Requirements Plan will be issued for use by small businesses not in a position to supply the more detailed facts called for in the current plan.

#### **DISTRIBUTION OF RAW MATERIALS AND CERTAIN PRODUCTION EQUIPMENT THROUGH THE MATERIALS ALLOCATION ORDERS**

Materials under the control of the Office of Production Management, through specific orders issued by the Director of Priorities to date, are listed below:

##### **MATERIALS UNDER CONTROL OF DIRECTOR OF PRIORITIES**

(“M” & “E” General Preference Orders)

Aluminum (M-1). <sup>1</sup>	Cotton linters (M-12).
Calcium-silicon (M-20).	Formaldehyde, paraformaldehyde, hexamethylenetetramine, and synthetic resins (M-25).
Chlorinated hydrocarbon solvent (M-41).	Iron and steel scrap (M-24).
Chlorinated hydrocarbon refrigerants (M-28).	Lead (M-38).
Chlorinated rubber (M-46).	Magnesium (M-2-b).
Chlorine (M-19).	Manila fiber and cordage (M-36).
Chromium (M-18).	Methyl alcohol (M-31).
Cobalt (M-39).	Nickel (M-6-a).
Copper (M-9).	Phenols (M-27).
Cork (M-8-a).	Phosphorus oxychloride (M-35).

<sup>1</sup> These numbers refer to the preference order controlling the material in question.

Pig iron (M-17).	Synthetic rubber (M-13).
Polyvinyl chloride (M-10).	Titanium pigments (M-44).
Potassium perchlorate (M-32).	Toluene (M-34).
Potassium permanganate (M-33).	Tricresyl and triphenyl phosphates (M-16).
Rayon yarn (M-37-a).	Tungsten (M-29).
Rubber (M-15).	Tungsten in high-speed steel (M-14).
Sheet steel for drums (M-45).	Vanadium (M-23).
Silk (M-22).	Zinc (M-11).
Silk waste, silk noils, and garnetted or reclaimed silk fiber (M-26).	Machine tools (E-1).
Sperm oil (M-40).	Cutting tools (E-2-a).
Steel (M-21).	

The degree of control varies considerably between the several products. In general, nearly all of the orders may be characterized as falling under one of five kinds of control:

1. The mildest control is a general inventory restriction and an order that war orders must be filled first.

2. A somewhat more stringent control involves, in addition to inventory restrictions and the requirement that war orders be filled first, a special preference list of uses established by the order; that is, for example, producers are told to fill orders for public and industrial heating before filling orders for tables and kitchenware.

3. The next degree of control is to have all purchase orders placed on a schedule of delivery which is filed by the producer with the Office of Production Management and checked. In some cases a pool or "kitty" is set aside to meet emergency war requirements. The lead order is an example of this type.

4. The next degree of control is the case where the producers report just how much material will be available, the users indicate what their requirements will be for the material during the period of one month, and the OPM branch having jurisdiction over the product makes an allotment of a specific amount of material. The neoprene order is an example of this type.

5. The most detailed form of control is that of complete allocation, as in the step above plus control of the production activities of the industry using the material. The cork order is an example of this type.

(Appendix "B" attached to the report is a detailed statement of the control exercised under each of the orders.)

*Contemplated changes.*—The degree of control is expected to move from the very mild types to the more complete allocation procedures similar to those employed for copper, cork, etc. It is expected that the tendency to do the allocation jobs in terms of a single material will give way to an allocation procedure based on a statement of

requirements similar to that described for the Production Requirements Plan mentioned above—that is, a firm or an industry will state its requirements of all kinds of materials for a 3-month period, and the decision will be made at one time as to the amount of each material which should be allocated to them. This will insure coordination of the allocation procedure so that a concern will not find itself with, for example, plenty of steel but no copper to carry on its operations.

It should be mentioned at this point that a simplified allocation procedure is being developed for small users which will be the same in principle as the contemplated procedure described above, but which will provide for a simplification of the paper work.

#### LIMITING LESS ESSENTIAL USES OF MATERIALS

The Director of Priorities has issued orders limiting the production of final goods or consumption of scarce materials by various civilian industries. In certain orders the use of a scarce material in specified nonessential uses is entirely prohibited. A summary of the major provisions of the limitation orders which have been issued to date is presented in the tables on pages 23, 24, and 25.

#### TYPES OF LIMITATION ORDERS

(a) *Limitation of a particular industry.*—The most important type of limitation order restricts the use of scarce materials by producers in a single industry, limiting their output or material consumption to a given percentage of output or material consumption in some base period.

The domestic mechanical refrigerator order (L-5) is a good example of this type of order. The production of each refrigerator manufacturer is limited for the 5 months August–December 1941 to a specified percentage of his average sales in a base period—the year ending June 30, 1941. The percentage varies according to the size of the firm, as measured by sales during the base period. Large firms are limited to 55 percent of average base period sales; medium-sized firms, to 63 percent, and small firms to 71 percent.

Alternatively, the order may restrict not the output of a given product but the consumption of steel or other scarce materials in its manufacture. An example is the order (L-13) curtailing the use of steel in the production of metal office furniture and equipment. Each manufacturer is restricted to a certain percentage of his use of steel in making these products during the base period—the year ending June 30, 1941. This percentage varies according to the size of the firm and the product manufactured.

There is no fixed policy in favor of limitation of the output of final goods rather than the input of materials, or vice versa. The method of limitation which is administratively the more convenient and fits the circumstances of the individual industry is chosen. In many cases limitation of output is the only feasible method of control.

The chief advantage of limiting the output of an industry, rather than its consumption of scarce materials, is the administrative simplicity of this method of control. Control of the output of the final product more or less automatically limits the consumption of a wide variety of scarce materials, both by the producers of the final product and by all their parts suppliers. For example, restriction of the output of washing machines necessarily reduces the consumption of steel, copper, aluminum, chromium, nickel, rubber, and other scarce materials. Limitation of output is also the more effective way of diverting plant and equipment and managerial and technical skill to defense production; and this diversion is often a primary consideration. On the other hand, this type of limitation provides no incentive to achieve maximum production from available materials or to conserve scarce materials by substitution or by the elimination of nonfunctional parts and deluxe models.

The outstanding advantage of placing the ceiling on material consumption rather than on production is that it enlists self-interest and competitive rivalry in the conservation of scarce materials while putting out the greatest amount of finished goods. Because of the possibilities of using wood in the production of ice refrigerators, the limitation order (L-7) restricts the use of steel rather than the number of units produced. A similar type of limitation has been ordered for the stove and range industry, because of the possibilities of saving steel by eliminating nonessential parts.

In some cases a limitation order of this type is accompanied by a preference rating order. This combination is appropriate for products where some output, although restricted, seems desirable. Production of medium trucks and busses during the 3 months ending November 30 was limited to 50 percent of production for the first 6 months of 1941, and the production of replacement parts for medium trucks and busses was restricted to 60 percent of production during the same base period. At the same time, a preference rating of A-3 was given for materials necessary for this production. A similar combination of limitation and of preference rating has been employed in the case of repair parts for automobiles and light trucks and is contemplated for agricultural equipment.

In general, however, a limitation order sets a ceiling to production or material consumption and does not guarantee the delivery of mate-

rials necessary to reach the ceiling. When information concerning supply of scarce materials available to civilian industries is adequate, and when our coverage of industries is more nearly complete, it is contemplated that ceilings can be converted into definite allocations.

(b) *Prohibition of certain uses.*—Another type of limitation order prohibits entirely certain nonessential civilian uses of a given scarce material or service. For example, the use of foil in packaging a list of civilian articles is prohibited.

(c) *Limitation of most consumers of a given product.*—Certain limitation orders restrict not merely a single industry but all consumers of given scarce materials or services. In the East all purchases of waste paper for making paperboard or roofing are curtailed.

(d) *Limitation of quality grade obtained by using scarce materials.*—A fourth type of limitation order is exemplified by the order restricting the use of chlorine in bleaching paper (L-11). This order establishes maximum grades of brightness for various types of paper and pulp, but makes it possible for producers who can exceed these standards without use of chlorine to appeal to OPM for permission to do so. This method of control was adopted because it was considered the most effective and enforceable method of restricting the use of chlorine by paper manufacturers while maintaining the production of usable grades of all types of paper.

#### PURPOSE OF LIMITATION ORDERS

The purpose of a limitation order is to release materials, facilities, and skilled personnel needed for war production. The automobile industry, for example, uses large quantities of steel, nickel, chromium, copper, rubber, and other scarce materials required in the war program. It also possesses plant and equipment and technical and managerial skill which can make a major contribution to war production. The order limiting automobile production was designed to release these materials and facilities.

The requirements of the war program have left a supply of materials for civilian use totally inadequate to the demands of civilian consumers. One purpose of the limitation orders is to prevent large and powerful civilian consumers from getting a disproportionate share of these limited supplies of materials at the expense of small purchasers. The limitation of automobile production gives other civilian producers, many of whom fill more essential needs, a better chance to get steel. As more and more industries are covered by limitation orders, the excess of demand for steel and other materials over supply is reduced and every civilian purchaser can plan ahead with a greater expectation that his order will be filled.

Similarly, the curtailment of waste-paper consumption in the East assures all users of a fair share of the limited quantities available.

#### SCOPE OF LIMITATION ORDERS

So far, the major limitation orders have dealt with the consumers' durable-goods industries. These industries are big consumers of scarce metals, and the war boom has greatly expanded the demand for their products. It is contemplated that limitation orders will be eventually extended to all civilian industries which use significant quantities of materials, equipment, or labor needed by the war program. There is, of course, less need to prevent expansion of the production of goods which depend wholly on materials that are not scarce such as wood, glass, and cotton.

#### FACTORS DETERMINING THE AMOUNT OF CURTAILMENT

The heart of a limitation order is the extent of the limitation. Of course, the over-all curtailment of civilian industry is governed by estimates of the shortages of materials, but every civilian industry is not necessarily curtailed by the same percentage. Certain general criteria have been developed to guide the appropriate degree of curtailment:

(a) *Employment*.—In the first place, attempts are made to minimize the unemployment which will be caused by the shortage of basic materials. A pound of steel or a pound of copper may give employment to a much larger number of workers in one industry than in another. The policy is to order less curtailment in the industry which gives greater employment with a given amount of scarce materials.

In estimating the impact of curtailment on employment, such figures are not the only factor which must be taken into account. In addition, the availability of alternative employment in the relevant areas and occupations must be considered. For example, many washing-machine factories are the main sources of employment in small middle western towns. The automobile industry, in contrast, is largely located in large industrial areas which are rapidly becoming centers of war activity.

(b) *Conversion to war production*.—The possibilities of converting the facilities of an industry to war production are a major consideration in deciding the extent of curtailment of civilian production. Conversion to war production is, in the last analysis, the best method of avoiding unemployment and of keeping firms in business. In any case, the war effort needs the services of every civilian plant which can possibly be mustered. Some industries are better equipped than others to undertake war work now, because of their machine tools or because of their managerial and engineering personnel. Other things

being equal, the civilian operations of these industries are the more severely curtailed. The automobile industry is the best example.

(c) *Consumer sacrifice*.—An attempt is made to minimize the sacrifice which the shortage of materials imposes upon civilian consumers.

(d) *Availability of substitutes*.—The availability of good substitutes which do not use scarce materials is a consideration in favor of substantial curtailment. For example, wooden desks, chairs, and tables can be used in place of steel furniture. Consequently, the use of steel in these items of metal office furniture and equipment was severely restricted. (From 40 to 60 percent, depending on the size of the firm.) On the other hand, metal must be used in certain essential items—insulated files, safes, and visible-record equipment. A much smaller curtailment of the use of steel in these items was ordered. (From 10 to 30 percent, depending on the size of the firm.)

(e) *Postponement of consumer demand*.—The existence of a large stock of durable goods in the hands of consumers indicates that current production can be reduced without causing consumers great hardship. There are, for example, over 30,000,000 automobiles and over 18,000,000 refrigerators now in existence in the United States. Replacement of most existing automobiles or refrigerators can be postponed until after the emergency.

(f) *Need for product*.—Some products are manifestly less essential to the war program and to civilian health and safety than others. Furnaces are more essential than juke boxes, and farm equipment is more important than slot machines. Considerations of this type necessarily play a large part in deciding the extent of the curtailment embodied in a limitation order.

The extreme shortage of certain materials may compel complete prohibition of uses where they serve no functional purpose.

#### TIMING OF CURTAILMENT

So far as shortages of materials permit, the curtailment of a civilian industry is made gradual over time, in order to permit transition of labor and management to war production. On this theory the curtailment in automobile production increased over the year; other programs follow the same pattern.

In applying this policy, it is necessary to make allowances for the usual seasonal fluctuations of the industry. For example, the production of passenger cars and of refrigerators normally declines sharply in August and the succeeding months, while the production of washing and ironing machines is fairly uniform throughout the year. The same percentage cut for the period August through December would, in reality, be a much more severe cut for the washing-machine pro-

ducers. This was one of the reasons that the percentage cut of washing-machine production for this period, compared to the year ending June 30, 1941, was less than the cut in other durable goods industries. It is contemplated that washing-machine production will be further reduced in 1942.

#### **PROCEDURE IN FORMULATING LIMITATION ORDERS**

In the process of formulating a limitation order, the advice of the appropriate Industry Advisory Committee is usually sought, and, before it is finally issued, the order is submitted to the industry representatives for comment and criticism.

In the case of each of the limitation orders concerning mechanical refrigerators, laundry equipment, metal office furniture, ice refrigerators, and vacuum cleaners, members of the industry were invited to a preliminary meeting. At this meeting the general necessity for curtailment and the impact of shortages on the industry was discussed. Later, a second meeting with a panel of the industry—chosen so as to represent all geographical areas and all sizes of firms—was held, at which a tentative order was presented in order to obtain the advice and criticism of the industry. All firms were invited to submit written briefs stating how they would be affected by the proposed order. In the light of the verbal and written suggestions of the industry, the order was reconsidered and, in some cases, revised.

Labor representatives were present at these industry meetings and were also consulted separately in the course of drawing up the order. The advice of the Labor Division and the Division of Contract Distribution concerning the impact of curtailment on employment is obtained.

#### **CONSERVATION ORDERS**

A certain type of "M" orders is sometimes referred to as "a conservation order". This type of order is very similar to the limitation orders just described, except that it prohibits the use of a specific material in the production of many civilian items and reduces the amount of material which can be used in all civilian activities. For example, the copper order prohibits the use of copper after a certain date in andirons, jewelry, etc., and directs all manufacturers using copper for items not appearing on the prohibited list to reduce their consumption of copper to 70 percent of the amount used during a similar period in the previous year. It only differs from the limitation orders in that the manufacturer can continue production if he can substitute other materials for copper.

TABLE I.—*Limitation orders issued through Dec. 1, 1941*

Number of order	Product affected	Form of limitation	Date issued	Date of expiration	Period of operation of specific order
L-1-a	Medium trucks and replacement parts.	Curtailment of production.		Indefinite	
L-2	Passenger automobiles	Limitation on production.	Sept. 13, 1941	do	
L-2-a		Prohibition of bright work in production of new passenger automobiles.	Oct. 27, 1941	do	
L-2-c		Limitation on production.	Sept. 13, 1941	do	
L-2-d		Prohibition of bright work in production of new light trucks.	Dec. 14, 1941	do	Aug. 1, 1941, to Jan. 31, 1942.
L-2-b	do	Limitation on quantity of replacement parts produced.	Sept. 20, 1941	do	Sept. 15, 1941, to Dec. 31, 1941.
L-3	Light motortrucks	Limitation on output.	Sept. 30, 1941	do	Aug. 1, 1941, to Dec. 31, 1941.
L-3-b	do	Limitation on quantity of steel contained in finished product.	Oct. 29, 1941	do	Do.
L-4	Replacement parts for passenger automobiles and light trucks.	Limitation on delivery of motor fuel on Eastern Seaboard.	Oct. 28, 1941	do	Sept. 1, 1941, to Dec. 31, 1941.
L-5	Domestic mechanical refrigerators	Curtailment of use in manufacture of pulp, paper, and paperboard by setting maximum standards of brightness.	Sept. 30, 1941	do	
L-6	Domestic laundry equipment	Limitation on quantity of steel contained in finished product.	Nov. 7, 1941	do	Sept. 1, 1941, to Dec. 31, 1941.
L-7	Domestic ice refrigerators	Limitation on purchase or receipts for consumption by paperboard and roofing mill plants in the East.	Oct. 24, 1941	Dec. 24, 1941	
L-8	Motor fuel	Limitation upon consumption of electric power in the Southeast.	Oct. 31, 1941	Oct. 30, 1942	
L-11	Chlorine	Limitation upon production.	Nov. 27, 1941	Indefinite	October to December 1941.
L-13	Metal office furniture and equipment.	Prohibition of use in certain categories.	Nov. 8, 1941	do	
L-15	Waste paper	Curtailment and ultimate prohibition of manufacture or delivery for certain uses.	Nov. 24, 1941	do	
L-16	Electric power				
L-18	Vacuum cleaners				
L-20	Cellophane				
L-25	Tin and lead foil				

TABLE II.—*Limitation Order Terms*

Number of order	Base period	Percentage of base period permitted	Prohibition	Relevant "P" order	General
L-1-a	Jan. 1, 1941, to June 30, 1941	New trucks—100% of average monthly production in base period. Replacement parts—120% of average monthly production in base period.		P-54 (A-3)	Quotas assigned monthly.
L-2	Aug. 1, 1938, to July 1941	("Large" production, 60% of average production (3-year base). "Small" production, 85% of average production (3-year base).	After Dec. 15, no "bright work" may be used in production of new automobiles (suspended until Jan. 1, 1942).	P-54 (A-3)	Do.
L-2-a					Plating parts in inventory may be used if plating value is destroyed.
L-2-c					
L-2-d					
L-2-b					
L-3	Aug. 1, 1938, to July 31, 1941	84% of average production (3-year base)	Effective Dec. 15, 1941 (suspended until Jan. 1, 1942) no "bright work" may be used in production of new light trucks.		Quotas assigned monthly.
L-3-b					
L-4	Jan. 1, 1941, to June 30, 1941	Production must not exceed 60% of base-period factory sales. (Percent of average monthly factory sales during base period)		P-57 (A-10)	
L-5	July 1, 1941, to June 30, 1941	Class A    B    C    Ent. Ind. 55       63      71      56.7			
L-6	July 1, 1940, to June 30, 1941	D 100    80    84    88    82.7			
L-7	do	65% of average monthly consumption during base period for all firms.			
L-8	May to June 1941, inclusive	For October, approximately 90% of average monthly consumption during base period, percentage varying with the State.			Revoked Oct. 24, 1941.
L-13	July 1, 1940, to June 30, 1941	(Percent of average monthly steel consumption during base period) A    B    C Group I products .....    70    80    90 Group II .....    55    65    75 Group III .....    40    50    60			

3 Alternatives				
L-15.....	a. Consumption in 5 peak weeks of 10-week period ending October 4. b. For producers who produce for a period less than 5 weeks within 10-week period—average consumption of weeks producing. c. For producers who did not produce during 10-week period—average consumption during peak period.	90% of weekly average.....		
L-16.....	Billing month ending between Sept. 15, and Oct. 14, 1941.	70% of base period consumption for consumers of certain power companies, 95% for consumers of other companies.	Complete prohibition of certain uses of electric power.	Essential users and consumers of less than kwh. per week exempted. Indefinitely suspended.
L-18.....	July 1, 1940, to June 30, 1941.....	Large manufacturers—90% of average monthly sales in base period. Small manufacturers—100% of average monthly sales in base period.		
L-20.....			Order is effective immediately, but processed stocks and inventories may be disposed of within 60 days.	
L-25.....	Jan. 1 to Mar. 31, 1941.....	a. Until Jan. 15, 1942, manufacture limited to 33 1/3% of base period. b. Effective Jan. 15, 1942, manufacture and delivery for certain uses prohibited. c. Effective Mar. 15, 1942, these uses prohibited.		Order suspended for thirty days on Nov. 28, 1941.

It is expected that more orders of this type will be issued for the very scarce raw materials.

#### OTHER LIMITATIONS

In addition to the priority orders limiting the use of materials in certain civilian fields, certain other activities have been undertaken outside of the priorities program to curtail the use of scarce materials. One of the most important of these is the work of changing specifications of military materials so as to eliminate the use of scarce materials for nonessential purposes within the Army and the Navy. For example, although aluminum is very desirable for Army furniture, it is hardly essential—yet it is essential for airplanes. Therefore, the specifications have been changed so that Army orders for furniture do not require aluminum. This work has been carried on with the complete cooperation of the Services for many months. Through these activities a great deal of material has been released for use in essential military production.

Another form of limiting less essential uses of material is through the conservation efforts of the Bureau of Industrial Conservation and the individual industrial branches of OPM in cooperation with voluntary changes in design and specification by industry. For example, the thickness of tin plate used for cans has been reduced in order to conserve tin. This type of limitation has also resulted in making large amounts of material available for war production.

### SECTION II. REQUISITIONING OF PROPERTY REQUIRED FOR NATIONAL DEFENSE

Pursuant to Executive Order 8942 of November 19, 1941, the Supply Priorities and Allocations Board established on December 8, 1941, policies and regulations governing the requisitioning and disposal of property under the act of October 10, 1940 (Public, No. 829, 76th Cong.), and the act of October 16, 1941 (Public, No. 274, 77th Cong.). The Office of Production Management created on December 9, 1941, an inventory and requisitioning section and delegated to this section the functions and responsibilities involved in requisitioning and disposing of property required for national defense.

A detailed description of the procedures to be followed in administering these requisitioning acts is given in appendix B. In general, however, they provide that the Secretary of the Treasury, the Secretary of War, the Secretary of the Navy, the Secretary of Agri-

culture, the Chairman of the United States Maritime Commission, the Executive Director of the Economic Defense Board, or the head of such other agency as the President may designate from time to time, may initiate action for the requisitioning of property by submitting proposals of requisitioning and disposal of such property to the Office of Production Management, if the property is of the type which may be requisitioned under the acts and if such property is needed for the defense of the United States.

In addition, it is proposed to establish within the inventory and requisitioning branch of the Office of Production Management, an information and investigation unit which will, in cooperation with the Bureau of Research and Statistics, organize to obtain on a Nationwide basis, current reports on existing and anticipated shortages of materials at individual plants engaged in defense or essential civilian production. This unit will obtain, similarly, current reports on inventories so as to locate excessive inventories of various materials, and inventories which are intended for nonessential civilian uses. The unit will also seek to locate hidden, lost, and frozen inventories which have been accumulated outside of normal trade channels. The work of obtaining information regarding shortages and surpluses will be carried on to the fullest extent possible through existing field services of the Office of Production Management, the Office of Price Administration, and other Government agencies.

In the event that surplus stocks are located as a result of the surveys, appropriate checks will be made with the materials branches of the Office of Production Management, and if the conclusion reached is that the material should be requisitioned the inventory and requisitioning section will proceed to secure the particular surplus in accordance with the official regulations. Inasmuch as no funds have as yet been provided to the Office of Production Management for reimbursing the owner of any property seized, all such purchases and seizures will have to be handled through subsidiaries of the Reconstruction Finance Corporation and other government agencies.

To insure complete equity, a hearings and appeal unit will be created for the purpose of planning and conducting all hearings in connection with appeals for release of seized property and appeals for the establishment of a higher valuation on such property as may be seized.

### **SECTION III. EXPLANATION TO THE PUBLIC**

The Priorities Division has always pursued a policy of making public all actions taken. Orders of wide general interest or other

important actions of the division are printed in the Federal Register and in most cases are also announced in the form of press releases, to which are attached exact copies of the document concerned. Booklets describing the system in detail and copies of Priorities Reg. No. 1 have been distributed by the tens of thousands to anyone interested. This work is carried on by the Division of Information of the Office for Emergency Management.

In addition to recording publicly and officially all its actions, the Priorities Division has undertaken to insure complete understanding of its procedures through the establishment of field offices. Over forty of these offices exist at the present time, in all sections of the country, and staffs of trained employees are available to businessmen for discussion of priority practices and procedures. The offices do not make priority decisions, but have available all forms and information necessary to a businessman. These offices are very closely coordinated with the offices of the Division of Contract Distribution, so that in cases where it is obvious that a manufacturer is going to have trouble obtaining materials for his civilian activities he can be referred to the Contract Distribution Office for assistance in converting to war production.

Another activity of the division in making information available has been to hold meetings in various sections of the country to which all interested individuals in the district have been invited. At these meetings a complete explanation is given of the various aspects of the priority program, and detailed information as to the proper ways of complying with the several priority procedures.

## CONCLUSION

In conclusion, it should be noted that the methods outlined in this chapter which are needed to distribute the scarce materials in order to insure the fulfillment of the war program and at the same time provide for the civilian economy in the most equitable way possible, are all merging into one type of system. This system will require that users of scarce material, whether they be civilian or military, make specific over-all showings of the amounts of material required, of inventories, and the periods in which those materials are required. The immediate procedure will be to assign a preference rating to this statement of requirements, to the extent approved, but it is expected that the transition can be made gradually to a system whereby allocation of specific amounts of material can be made on the basis of the same statements of requirements. It will take time

to make the transition because it is necessary to gather together the requirements of many industries before accurate decisions can be made as to the total demand.

## *Chapter IV*

### **The Program for Protection of Business Enterprises Interfered With by Shortages of Material**

This chapter of the report sets forth what is being done by OPM to carry out its general policy of alleviating hardships and assisting business, particularly small business, in meeting the changed conditions caused by the war.

The program is widespread. Activities and methods directed to this end may be found in all divisions and plans of OPM, and certain divisions of OPM have this problem as their primary responsibility.

The fundamental basis of this program is the vital necessity for converting every possible plant and worker to production for military and essential civilian needs. These have to be met, and it will take all of America's resources and energy to do it. Besides this essential principle, the program has been guided by the obvious desirability of allocating what scarce materials remain after essential demands have been met so that maximum employment is obtained per pound of material allocated and the greatest distress averted.

The activities designed to accomplish this fall into certain broad classifications:

1. Aid to business in converting from nonessential civilian uses to war or essential civilian production.
2. Subcontracting and relaxation of contract terms.
3. Efforts to cushion the effect of the curtailment of scarce materials by temporary assistance to affected industries and communities.
4. Efforts to find substitute materials.
5. Provision to enable all business to obtain necessary materials for maintenance and repair.
6. Provision for appeal where an order works an unusual hardship or where it causes unemployment unreasonably disproportionate to the materials saved.
7. Provision for less curtailment of scarce materials in the case of small business than in the case of large business.
8. The establishment of a "hardship pool" and the organization of a section to handle individual requests of small business—the Limited-Allotment Plan.

9. The establishment of a simplified Production-Requirements Plan for small business.

## HOW BUSINESSMEN CAN OBTAIN INFORMATION CONCERNING PRIORITIES

To the businessman seeking to know what to do about the many and often overlapping priority requirements, two major channels of information are open:

1. Detailed printed material and public meetings designed to give complete coverage to all actions;
2. The Priorities Field Offices.

The field office force of the Priorities Division should be considered as consultants to the businessmen of the community. When in doubt as to a particular procedure, the businessman should write, telephone or call on the nearest field office.

A trip to Washington in person should be a last resort, but arrangements also have been made to handle businessmen who find it necessary to do this.

### PRINTED INFORMATION AND MEETINGS

Press releases, available not only to the working press but also to anyone else who is interested, announce any important action taken. In the case of formal priority actions, a copy of the order is generally attached to the press release.

To make these formal statements of policy, action, or procedure more easily available to the average businessman, a weekly publication summarizing all releases is published by the Division of Information of the OEM. This publication, formerly called "Defense" and now called "Victory," is available to any individual, corporation, or organization caring to subscribe at the rate of 75 cents a year. At the time of writing, about 55,000 copies of the magazine were being distributed weekly. A supplement to this magazine is issued which gives the details of the orders issued.

In addition to the published information handled through the Division of Information of OEM, the Priorities Division has attempted to convey the facts about the system through the medium of public meetings. These meetings are organized either by inviting all representatives of a particular industry to a meeting in some central location, or by inviting all manufacturers or other interested individuals in a particular community to attend a meeting in that community at which experts in the various kinds of priority control explain the orders and answer questions.

## FIELD OFFICES

In the event that the small businessman does not have access to or does not understand the general explanations of the system as described in the press and through large meetings, the Priorities Division attempts to assist him through field offices in 44 cities. These offices are staffed by competent businessmen recruited from the local community and trained for several weeks at a special school in Washington in the detailed operations of the system. The field offices, which are kept up to date on all orders and other actions, handle thousands of telephone calls and interviews weekly, in addition to distributing copies of orders and forms.

It has been the policy to locate the offices in close physical proximity to the Contract Distribution field offices, so that when the analysis of an individual's case indicates that he cannot expect much help through priorities because of the character of his product, he may be readily referred to the Contract Distribution office for assistance in obtaining war work. The field officers of the Army and the Navy in many instances have also served as a useful source of information to the businessmen of the community.

## CORRESPONDENCE AND PERSONAL VISITS TO WASHINGTON

If information must be obtained from Washington, the best method is to write to OPM, Washington, D. C., where arrangements have been made for handling inquiries through the creation of a Correspondence Section. This section handles 300 to 400 general inquiries a day, while the several thousand other inquiries which are more specifically concerned with a particular order or material are referred immediately to the commodity or industrial branch having jurisdiction over the subject concerned.

Arrangements have also been made for the businessman who comes personally to Washington (a procedure which is *not* recommended in most cases). All who do come to Washington can be guided to the appropriate place by the Special Inquiry Section of the Administrative Division of OPM on the first floor of the Social Security Building. This has been recently enlarged and strengthened.

The officials in this section are in a position to discuss the businessman's problem and to route him to the proper commodity or industrial branch. In the event that the problem requires no special or detailed handling, the Special Inquiry Section can furnish the answer and save the businessman another call.

In general, it may be said that the objective of all these efforts is to make all necessary information available to the businessman in

his own community, through wide publicity and through the creation of field offices; and that when it is necessary to visit Washington, a procedure has been established for central handling to avoid waste motion.

## THE DIVISION OF CONTRACT DISTRIBUTION

This division is directly engaged in the effort to give concrete assistance to those enterprises interfered with by the application of a priorities and allocation system to materials essential to war purposes.

The division was created by an Executive order of the President on September 4, 1941, to take the place of the defense contract service.

Although the Executive order did not vest the director of the newly created division with power to compel the armed forces or other departments of the Government to distribute their orders for materials more widely, it did, nevertheless, vest the director with the responsibility of recommending, promoting, stimulating, and urging changes in procurement practices to bring about these ends.

The division at the outset faced two major problems: One, to devise some plan that would quickly, if possible in the next few months, solve the problem of the smaller enterprises that could not be easily converted into the defense picture; the second, to devise an organization that would efficiently and quickly convert into war production those enterprises which could be converted. A plan was devised providing for the setting aside of certain scarce materials in an amount to maintain small business in being and thus permitting the division to concentrate on the conversion of the intermediate and larger plants. Following presentation of the program to the Supply Priorities and Allocations Board, this body endorsed the major principles of special aid to small business, but did not accept the plan in detail as presented. An alternative program, primarily designed as aid to hardship cases rather than to small business as a whole, was approved.

## CONVERSION PROGRAM

An advisory committee of engineers was created to advise and assist this division in converting industry to defense production. Similarly a committee of small businessmen has been created representing various sections of the country and various small business enterprises.

In order to utilize all the facilities available for the production of implements of war, two fundamental undertakings had to be accomplished.

(a) It was necessary to obtain a detailed description of the types of

articles required by the armed forces. These had to be reduced to a simple catalog showing not only the articles needed but the component parts of those articles.

(b) The complement of machine tools required for their production had to be cataloged. This is now being done. Representatives of this division are working with the Army, the Navy, and the Maritime Commission, carefully preparing such a catalog and, at the same time, are attempting to get it out in sufficient time so that the prospective manufacturers of those requirements may be in a position to organize themselves to produce these articles.

The next task was to inventory all the available tools, facilities, and manpower existing in the country which were capable of filling the requirements of the armed forces but which are not being utilized. Data with respect to 47,000 plants are already available and are being added to daily. It is contemplated that the division will have systematic and centralized information with respect to all available but unused facilities throughout the Nation capable of participation in defense production.

#### ORGANIZATION

In every State in the Union this division has one or more offices. These offices are staffed with practical businessmen, engineers, Army and Navy officers, representatives of the Labor Division, and other personnel whose job it will be to render every possible assistance to businessmen—especially the smaller businessmen—who desire to participate in war production. Through this State-wide organization it will not be necessary for the smaller businessmen to come to Washington to ascertain what the armed forces require.

In addition, through these field offices the division's production and management engineers will be able to render assistance to businessmen who desire to convert their facilities to defense production or who may need other technical assistance in connection with subcontracting and prime contracting or other production problems. Additional offices are being opened almost daily. Additional personnel is being added to these offices. Information is being forwarded to these offices both from the Washington office and from the armed forces.

At present there are 913 persons employed in 100 field Offices of the division.

Behind these field offices there has been created in Washington an organization to supplement the field work and devise ways and means of encouraging and stimulating effective plans to bring about the purposes of the President's Executive order. This organization consists of 532 people.

## EXHIBITS AND MEETINGS

Permanent exhibits of "bits and pieces" throughout the country show the prospective manufacturer of war goods in a very simple practical way the parts and components which are needed. Competent personnel is attached to these exhibits, answering all questions and making all necessary explanations.

Traveling exhibits have been utilized to reach places where it is impractical to establish permanent exhibits. In this connection, three trains, consisting of five cars each, representing the requirements of the various branches of the armed services and the Maritime Commission, were dispatched to various parts of the country. Each of these trains had representatives of the several procurement establishments and the several divisions of OPM.

Business clinics are being held throughout the country. At these clinics the small manufacturer meets the large manufacturer. The large manufacturer exhibits to the small manufacturer blueprints and other descriptions of the products which the large manufacturer is making. Subcontracts are entered into at these clinics between the small and large manufacturers.

## POOLING OF FACTORIES

The pooling of factories in a given industry, or in a given community, is being stimulated. A competent engineering organization is being set up both in Washington and in the field offices which will help organize pools of scattered machine shops or units of an industry to take on defense work. Thus, by pooling various units of an industry or a community into one aggregate, many firms are able to undertake jointly what they are unable to do singly. Several hundred pools have already been organized. Fourteen are now engaged in defense production. To illustrate the work of these pools we cite the case of the organization of the washer and ironer industry pool:

A committee representing the industry met with a representative of the division on August 1, 1941, for a preliminary exploration of its problems resulting from a shortage of raw materials due to priority applications and a curtailment order as announced by the then Office of Price Administration and Civilian Supply. The industry is composed of relatively small manufacturing units, no one unit employing as much as 10 percent of the total pay roll of the industry. Units of the industry are located in 20 cities and in 11 States, principally in small Middle West communities where the particular plant is in the main the principal source of employment.

Following this first exploratory meeting, the industry was requested to appoint a technical committee of three of its most competent engineers to begin the necessary engineering studies in cooperation with an engineer assigned to the case from the Division of Contract Distribution.

This joint committee undertook a detailed analysis of the machinery, facilities, manpower, engineering, and tooling facilities of each of the plants in the industry. A "shopping list" of defense items capable of being produced by the industry's facilities was then prepared. The list, consisting of 17 items, ranged from bomb-fuse assemblies to anti-aircraft-gun mounts.

In selecting these 17 military items careful consideration was given to striking a balance between machine man-hours and assembly man-hours, so as to conform as nearly as possible with the civilian manufacturing practices of the industry. The items on the list ranged from 10 to 500 components.

Having ascertained from the "shopping list" the possible range of items which could be produced with the existing facilities and equipment of the industry, the next step was to organize these facilities into a pool around one particular item—an anti-aircraft-machine-gun mount.

Specifications and drawings of the item for analysis as well as an actual gun mount for inspection were then obtained. Through the cooperation of the Chicago Ordnance District a typical mount was made available from the Rock Island Arsenal. The mount was then "exploded" into its constituent parts and components, and the engineering and production staffs of the entire industry were invited to be present for an inspection. After a careful scrutiny of the blue-prints, as well as the parts and components of the sample mount, it was the consensus of opinion of the assembled engineering staffs that the job presented no particular production or technical difficulties.

Three of the units of the industry agreed to act as prime contractors and the industry indicated its agreement to their serving in such capacity on any awards which might be made by the War Department. A schedule was then prepared of the man-hours which the three prime contractors agreed to subcontract parts, components, and subassemblies to each plant in the industry.

Pursuant to an understanding between OPM and the War and Navy Departments, the industry was "certified" to the Secretary of War on September 29th, and it was recommended that a contract be negotiated with the three prime contractors acting in behalf of the industry. On October 21, the War Department announced the award to the industry pool of a \$12,500,000 contract.

In undertaking the production of this military item, the industry determined that its pooled production operations would be aided materially by having each of the prime contractors assume certain responsibilities in behalf of the entire pool. Thus, one prime contractor is in charge of all phases of tooling; another handles all aspects of production and inspection; and the third is in charge of the purchase of raw materials. Each of the three prime contractors supplies to the industry pool a complete staff to handle the respective operations assigned to it. In addition, the pool has engaged an engineer from outside the industry to serve as a coordinator. He is in charge of the entire administration, and makes all decisions with respect to allocation of work, tooling, purchasing of materials, inspection, and so on.

#### CERTIFICATION OF DISTRESS AREAS

A method of certifying distress areas and distress communities has been worked out. Recognizing that the impact of priorities and raw-material shortages would cause serious dislocations to labor and industry, a committee was appointed early last summer, consisting of staff members of OPM to prepare recommendations for dealing with the problem of "priorities unemployment."

Among the recommendations of this committee was the program of certification adopted by the council of the Office of Production Management on August 19th (and embodied in the directive of the Under Secretary of War to the chiefs of the supply arms and services under date of September 5, 1941, a copy of which has been spread in the records of the committee) by which communities threatened with priority unemployment may be certified by the Division of Contract Distribution to the armed services for special consideration in the award of contracts.

The certification of communities or industries is the joint undertaking of the priorities branch of the Labor Division (OPM) and the Division of Contract Distribution. At the request of the priorities branch of the Labor Division or upon its own initiative, community surveys are made by the Bureau of Employment Security. The completed surveys are transmitted to the priorities branch. If the community is certified, the priorities branch transmits copies of the community survey to the Division of Contract Distribution together with a letter of certification. Through its engineering and technical staff, the Division of Contract Distribution analyzes the defense potential of the plants or industries involved and recommends a remedial program to the armed services.

Ten areas, including more than 75 plants, have been certified by the

Division to the armed services. The total of contracts awarded under this plan amounts to \$28,337,099.

Under study at the present time are some 100 areas which face potential distress from priorities unemployment.

### LEGISLATION

In order to overcome certain of the disadvantages which confronted the smaller business enterprises in their desire to participate in the defense effort, it was the opinion that legislation was essential to overcome certain legal impediments which stood in the way of the armed services carrying out the terms of Executive Order No. 8891, of September 4, 1941. Experience had amply demonstrated that the average business concern—especially the smaller unit—is generally unable to estimate the cost of production for military items on the basis of competitive bidding. Certain laws, for example, make it impossible for the Navy to award a regional contract if there is a responsible low bid from outside the region. Further, bonding requirements have also served as a deterrent to the participation of the smaller enterprises despite the fact that the armed services have endeavored to the fullest extent possible to liberalize their requirements. These and similar procurement practices it was believed, if eliminated, would aid materially not only the smaller enterprises but the armed services as well. Legislation to accomplish this purpose was included in the First War Powers Act which became law on December 18, 1941.

### FINANCIAL AID

The impact of national defense upon the smaller business enterprises has not served materially to ease their credit and capital problems. Some months ago the financial section of the Division of Contract Distribution made a study of the financial position of several hundred subcontractors participating in various phases of defense production. It was found that 40 percent of the subcontractors had a submarginal credit rating, and would, therefore, experience difficulties in obtaining credit from the normal banking channels. It has subsequently been found that a considerable proportion of these subcontractors has, in fact, been inadequately financed.

Executive Order No. 8891 states that the division is to provide through the regular commercial banking channels, the Reconstruction Finance Corporation, and the Federal Reserve Banks and their branches, the necessary financing facilities for prime contractors, subcontractors, and local industrial defense production associations as well as to "recommend from time to time such additional financial

procedures or machinery as shall be required to ensure maximum utilization of existing plant and tool facilities for defense purposes."

This policy is being carried out by the financial section of the division. Between 400 and 500 inquiries are being received in the Washington and field offices each month regarding the availability of working capital alone.

The maximum of cooperation has prevailed between the division and the private and governmental agencies of finance. The policy of the division has been to direct all possible credit inquiries to the commercial banks in the first instance. When these channels have been unable to meet the needs, recourse was had to the Reconstruction Finance Corporation, the Federal Reserve Banks or to the 30 percent advance payments made to prime contractors by the armed services.

A summary of the division's experience with respect to the adequacy of the existing sources of financing follows:

1. Both governmental and private banking channels appear to have exercised to the limit of their authority and responsibility the financing to the smaller enterprises as prime contractors and subcontractors. However, neither the public nor private agencies are able to justify risking the funds of their depositors, noteholders, or appropriations by the Congress in the case of the submarginal contractor.

With a vastly augmented production load scheduled for the coming year, the financing of the submarginal enterprise whose facilities are required will present a serious problem.

2. The 30-percent advances to prime contractors by the fighting services are customarily made promptly and without undue delay. However, experience has shown that it is extremely difficult to induce the prime contractor to permit these to percolate down to the subcontractor where there is generally a pressing need for working capital. It is the considered opinion of the financial section of the Division of Contract Distribution that this indirect method of financing subcontractors by making advances through the prime contractor is not only cumbersome but inadequate for existing needs.

The division is now preparing a comprehensive report on the entire problem of financing and conversations are now taking place between representatives of the division, governmental officials and private banking executives to the end that a practical, remedial program may be evolved.

#### **REALLOCATION OF PRODUCTION**

Studies are being made to reallocate the manufacture of civilian goods where manufacture must be continued for the requirements of

the civilian economy. In this connection, the division is endeavoring to have those companies which have the machinery to manufacture implements of war (but are now engaged in civilian production) turn over their civilian production to those concerns whose machine-tool complement does not permit of participation in war work.

#### **SUBCONTRACTING**

Shortly after this division was formed it requested the larger companies to adopt as their individual policy the President's policy of spreading defense work widely through subcontracting. To the extent that these concerns had not already adopted adequate arrangements for subcontracting, they were requested to do so. Moreover, each company was requested to designate a top executive who would become the liaison officer of his company to the division just as the Army, the Navy, the Maritime Commission have delegated ranking officers for this purpose. Excellent response from these corporations has been received. Most of them have declared their adherence to the policy of spreading defense work widely.

Conferences have been held with specific companies on the need for wider subcontracting. All phases of existing subcontracting, or the absence thereof, by the large holders of defense contracts are being explored.

#### **SPECIFICATIONS**

To overcome a frequent criticism by manufacturers that specifications frequently require too close tolerances for certain types of work, an engineering committee has been appointed which is now exploring this problem with the armed services.

### **THE LABOR DIVISION**

The Labor Division has developed a program for helping to maintain working forces intact and to prevent the disruption of effective working units. This program has involved efforts to preserve business enterprises, including small firms, and to help solve the problem of unemployment arising from shortages of materials under priority orders.

#### **GENERAL PRINCIPLES FOLLOWED**

In connection with this program the following seven general principles have been adopted:

1. *Special consideration in the allocation of materials for employers who are shifting to war production so that they may retain their working forces intact during the period of conversion from nondefense to war production.*

A few selected cases upon which action was taken after recommendation by the Labor Division will illustrate this policy.

A New Jersey firm with 1,100 employees, of whom 400 were on Navy contracts in September with the number increasing to 650 in 3 months on completion of retooling, was granted additional zinc (its total zinc usage for 1941 was well below that for 1940) in order to retain its working forces and to complete its products which were already more than 95 percent completed.

Sufficient steel was obtained for minimum employment of 420 workers in a Wisconsin firm in a distressed community during the period from December 15, 1940, through January 30, 1941, when the concern was retooling its plant for defense work and seeking additional defense work.

*2. Consideration in the allocation of materials of the effect of such allocations upon employment, including less restriction on users of small amounts and allowance for the ratio between the amount of materials and the volume of employment.*

Both Copper Order M-9-a (dated August 2, 1941) and Nickel Order M-6-a state that the Director of Priorities may “\* \* \* take into consideration the possible dislocation of labor and resulting unemployment \* \* \*.” One of the grounds for appealing for relief from Conservation Order M-9-c is where compliance with the order “would result in a degree of unemployment which would be unreasonably disproportionate compared with the amount of Copper conserved \* \* \*.”

Under the above provision of Copper Order M-9-a, firms in the slide fastener (zipper) industry have received monthly allocations of copper alloy at a rate of about 50 percent of their normal usage not only because of the large direct displacement of labor compared with the amount of copper consumed but also because of the indirect displacement of labor in industries using zippers, such as clothing and leather goods.

The Labor Division was instrumental in having approximately 15,000 additional pounds of freon granted to a refrigerator concern in Massachusetts, thus preventing the lay-off of 1,000 employees in September and October 1941, before the concern could convert to a substitute material.

*3. The principle of community allocations, which takes into account employment conditions within the local labor market and which may include special allocations to communities threatened with excessive or undue priority unemployment.*

Upon the initiative and recommendation of the Labor Division, the quotas for medium and heavy civilian trucks were raised in certain Michigan communities where displacement of workers were

expected to be most severe during the first half of 1942, so as to alleviate distress and maintain in these auto communities a labor supply adequate for "all out" war production. The Labor Division has also recommended that a large proportion of the forthcoming orders for military trucks and armored cars be placed with companies having plants in these distress auto communities.

Additional allocations of materials for a month or two, upon recommendation of the Labor Division, have also been obtained by certain concerns in communities certified by the Office of Production Management to the armed forces as areas experiencing or threatened with serious priority unemployment and subject to special consideration in the letting of war contracts.

*4. The setting aside of small "hardship reserves" or "kitties", from which allocations can be made for exceptional and hardship cases.*

Under the system of pig-iron allocation, a percentage of the pig iron produced by each blast furnace is set aside for the purpose of correcting inequities or meeting emergencies in connection with current allocations. While this pool has been used primarily to prevent the interruption of direct war work, some use has been made of it to relieve temporary situations of community distress resulting from inequities in actual pig-iron shipments. For example, shipments of material to a boiler and foundry concern in Michigan were increased in October and November, upon recommendation of the Labor Division, because of priority unemployment in the community and the company's special problem in securing adequate supplies of scrap. In another case, additional material for November was granted to an Ohio stove company that was forced temporarily to lay off 200 of its 1,400 employees because of an interruption in the operations of the company's normal supplier.

A representative of the Labor Division makes recommendations regarding these allocations.

*5. The Labor Division recommends the inclusion of appeals clauses in all priority orders.*

All important material's orders contain provision for appeal. Upon the recommendation of the Labor Division, the italicized clauses were added to the standard appeals clause in the case of the first Conservation Order M-9-c:

*Appeal.—Any person affected by this Order who considers that compliance therewith would work an exceptional or unreasonable hardship upon him, or that it would result in a degree of unemployment which would be unreasonably disproportionate compared with the amount of Copper conserved, or that compliance with this Order would disrupt or impair a program of conversion from nondefense to defense work,*

may appeal to the Director of Priorities. The Director of Priorities may thereupon take such action as he deems appropriate.

*6. Gradual curtailments in order to avoid sudden displacement of labor and to allow sufficient time for orderly adjustments.*

Rubber Order M-15 provided that between the months of July and December 1941 the industry will be permitted a decreasing amount of rubber each month in order to permit the building of an adequate stockpile. The purpose of this gradual curtailment was to enable the industry to adjust itself to the new conditions of supply.

This policy has been applied very consistently in the allocation of nickel.

The following individual cases indicate how this policy has been applied in line with recommendations by the Labor Division: arrangements were made for a firm with plants in Connecticut and New York to receive a diminishing supply of steel to permit the company's 600 workers to find reemployment because of the necessary drastic curtailment in production of steel frames for ladies' handbags. The same procedure was applied to another Connecticut firm making similar steel frames.

Limited quantities of steel were secured to enable a Tennessee company to adjust to curtailed operations, to secure additional war work, and to enable displaced workers to find employment in expanding defense plants in the area. The company employed 1,000 men, and a considerable proportion of them faced lay-off through curtailed production because of shortage of materials.

*7. "Minimum subsistence" allocations of scarce material to civilian industries in the making of whose product the material is an essential component and for which there is not a readily available substitute; where substitutes can be developed, some allocation during a reasonable change-over period.*

This policy is applied in the allocation of nickel, for example, by means of monthly industry-wide allocations and "special case" allocations to individual concerns. The industry-wide allocations are made to those industries for which nickel is an essential and nonsubstitutable component material. Among the more important examples are electrical cooking and heating appliances, spark plugs, and heat-resisting enamel. Where substitution is possible, as in the case of electric-light bulbs, the allocations will be discontinued as soon as the change-over to the substitute material has been effected.

In every instance, an attempt has been made to establish industry allocations at a minimum amount, taking account of the country's need for the product and the necessity of avoiding undue dislocation

of labor and business enterprise. The total industry-wide allocations during the past two months have amounted to less than 3 percent of the available nickel supply.

The "special case" allocations are made from time to time during the month to individual concerns which face undue hardships as a result of the diversion of nickel to war production. The basis of such allocations may be any one, or a combination, of the seven policies enumerated above.

#### REPORTS AND PROCEDURES

In connection with its program for protecting employment and business enterprises against the effects of material shortages and for relieving hardships caused by the application of priorities, the Labor Division has developed a system of reports; various procedures for assisting firms, industries, and communities adversely affected by priorities; and arrangements for labor advisory committees.

#### UNEMPLOYMENT REPORTS

The Priorities Branch of the Labor Division receives each week more than 500 ES-223 forms, which are available in the 1,500 local employment offices, and are filled out for individual companies that have either experienced lay-offs because of shortages of materials and priority orders, or that are expecting to lay off workers in the future for such reasons. In addition, information regarding present or prospective priority unemployment is obtained through community surveys made by the State Employment Services either upon request by the Priorities Branch of the Labor Division or upon the initiative of the State Employment Service or the Regional Labor Supply officer. Over 100 such surveys, running from 3 to 20 pages, have been made. Additional material on priority unemployment is also obtained through correspondence, personal visitations, the various forms used by the Office of Production Management, and material submitted by the Bureau of Labor Statistics.

As soon as the ES-223 forms are received by the Priorities Branch of the Labor Division they are studied by one or more persons in that branch to see what, if anything, can be done to remedy the existing priority unemployment or to prevent prospective priority unemployment. The same procedure is followed in the case of community surveys which analyze the situation in those firms in a community that are likely to be affected by priorities. The following cases illustrate the various types of action that may be taken to assist firms whose situation has been brought to the attention of the Labor Division by the reports from the Bureau of Employment Security:

On October 21 it was reported that a furniture company in Vermont would probably have to lay off 122 employees within a few weeks because of inability to secure steel knives for a Yates jointer. This firm was immediately informed that it was entitled to a priority rating of A-10 for material needed for repair and maintenance of present equipment. On October 28 the president of the furniture company wrote that they had obtained the knives without which the company was faced with a possible shut-down. Numerous other cases have been handled in the same way where firms did not know the ratings to which they were entitled under various priority orders.

An Illinois stove company was forced to reduce its employment from 1,500 in April 1941 to 800 in September 1941 because of material shortages. This company, the most important source of employment in the community, was preparing for a contract for shell cases, production to begin in September. Upon the recommendation of the Labor Division steel was obtained for this firm to permit operations through November and December at 60 percent of normal levels in order to relieve the critical employment situation in the community and to give the firm an opportunity to shift to defense work.

The following cases are representative of those that arise through correspondence or personal visits to the Priorities Branch of the Labor Division:

An Ohio firm making vacuum cleaners, upon recommendation of the Labor Division secured in October a small allocation of aluminum in order to permit the completion of a program of substitution to bakelite.

Another Ohio firm with 800 workers in an area certified to the armed forces as one threatened with serious priority unemployment, obtained a small amount of aluminum in September in order to permit the firm sufficient time to convert to defense and to substitute materials.

#### COMMUNITY SURVEYS

The Priorities Branch of the Labor Division maintains a file, by communities, of data pertaining to labor displacement—past, present, and prospective—arising from priorities and production curtailment orders. The data are obtained chiefly from the material submitted by the Bureau of Employment Security and the Bureau of Labor Statistics. This file is used to determine the employment situation in the community. The community file of labor displacement is used not only in connection with the certification of distressed communities to the armed forces for special consideration in the letting of defense contracts but is also consulted by the staff of the Labor Division when-

ever a question arises as to the situation in any community. It is used in connection with the decisions of the Plant Site Board as to the location of new plants and also in connection with various other activities of the Office of Production Management involving questions of labor displacement, labor supply, and labor demand.

The material flowing in from the Bureau of Employment Security and the Bureau of Labor Statistics, and accumulating in the community file on labor displacement, gives a good indication of the firms and industries that are being affected by priorities and the particular materials or priority orders that are causing the most labor displacement.

On the basis of community surveys received from the Bureau of Employment Security, the priorities branch of the Labor Division has certified 20 communities for special consideration in the letting of war contracts, which consideration may include the allowance of up to 15 percent above current prices. This program of certification was adopted by the council of the Office of Production Management on August 19, and embodied in Army and Navy directives early in September. It is designed for communities threatened with serious priority unemployment, which in most cases means that there has been or is likely to be a net volume of unemployment in the community amounting to as much as one-fifth of the community's total manufacturing employment.

Although the certification procedure is not designed specifically to assist small business, it has helped to preserve business enterprises and has operated to the benefit of a substantial number of small business concerns. For example, in the first 11 communities certified, well over half of the companies surveyed employed less than 200 workers. Five of the communities certified by the Labor Division have less than 6,000 inhabitants.

In addition to the assistance under certification the Labor Division has helped concerns and industries to maintain employment by assisting them in converting to defense work.

The Labor Division has helped other industries whose employment was being curtailed by priorities to convert to war production. In June 1941, when aluminum was no longer available for the manufacture of civilian cooking utensils, the Labor Division investigated the possibility of converting facilities used for rolling soft aluminum sheets and for stamping cooking utensils to the rolling of cartridge brass and the drawing of cartridge shells. A number of aluminum cooking utensil plants have already shifted part of their facilities to such brass cartridge work under war contracts, in line with the program suggested by the Labor Division.

#### LABOR ADVISORY COMMITTEES

Labor advisory committees have been established in a number of industries to consult with and advise the industry branches of the Office of Production Management. These labor advisory committees represent the interest of the workers in each particular industry or commodity. In certain cases these labor advisory committees have played an important part in establishing systems for the allocation of materials such as rubber and silk, which have already been discussed in this report. These labor advisory committees are of course interested in maintaining employment in their respective industries so that their advice and suggestions generally look toward the maintenance of existing business enterprises.

#### OTHER ACTIVITIES

The Labor Division is consulted in the drawing up of priority orders and in the policy of administration of such orders. It has been especially watchful to see that small concerns are not put to disadvantage under priorities. The case of every small manufacturer who reports his situation to one of the 1,500 local employment offices is given personal consideration by the labor consultant in the industry or commodity branch involved. This same labor consultant who receives the individual complaints regarding the effect of priority orders upon employment is the person who, in the first instance, participates in the drawing up of priority orders and also advises regarding policy in the administration of priority orders.

In connection with the appeals filed under Conservation Order M-9-c, the Labor Division has, for example, taken into consideration the percentage of the firm's employment that is engaged on one item restricted by Order M-9-c and also has taken into consideration the fact that small firms have been at a disadvantage in accumulating large inventories. Pursuance of such policies in connection with appeals has tended to favor small business firms.

#### THE PURCHASES DIVISION

The Purchases Division has had as its objective advising the armed services on how best to procure what they need when they need it, at reasonable prices, and with as little adverse effect upon the civilian economy as is possible, consistent with the military necessities of the situation.

In carrying out the objective of the functional activities of the division, i. e., to advise Government procurement agencies on the quantity and timing of purchases, on quality and specifications, on

price, and on terms and conditions, a number of steps have been taken which now make easier the task of helping firms adversely affected by material shortages to make the necessary adjustments.

Very early in the defense program the armed services were assisted in developing a program of negotiating contracts and of splitting awards among a number of bidders in contrast to the normal procedure of making awards to the lowest bidder. This development now makes it possible to take into consideration factors other than those of price and delivery terms in making awards. Examples of the use currently being made of this procedure appear at a later point.

Two pieces of administrative machinery, one assigned to the Purchases Division by OPM, and one developed within the division, also contribute to making easier the task of helping firms adjust themselves to new conditions.

The first piece of machinery is the clearance of abstracts of proposed Army and Navy contracts in excess of \$1,000,000. The information provided by this process is available for all Government agencies wishing to use it in helping business firms readjust their operations.

Similarly, the machinery whereby the Purchases Division receives advance notice from a number of Government procurement agencies of their intention to purchase a list of specified items provides an opportunity for easing the conversion of firms from less essential to more essential activities. Concrete examples of activities arising from this machinery and from the general activities of the division follow.

It will be observed that these activities essentially fall into a two-part program:

- (a) bringing business enterprises into war production; and
- (b) aiding enterprises which cannot be brought into war production.

#### **BRINGING ADDITIONAL FIRMS INTO WAR PRODUCTION**

Within the Purchases Division, a number of devices have been employed to bring as many firms as possible into war production. These devices include:

##### **CHANGES IN REGULATIONS GOVERNING QUANTITY TO BE PURCHASED FROM A SINGLE SOURCE**

Until the defense program got under way, the Government customarily purchased from low bidders on competitive bids all that they were willing to supply, up to the total amounts requested in invitations to bid. In some instances the Government even stipulated that bids should be on an all-or-nothing basis.

At the instance of the Division of Purchases, many contracts now

carry clauses limiting the maximum amount to be awarded to any one firm; lowering below previous levels the minimum amount acceptable from any one source; permitting partial bids instead of insisting upon all-or-nothing; and decentralizing purchases by procurement districts.

#### **INTRODUCTION OF PURCHASE BY NEGOTIATION IN PLACE OF AWARD ON THE BASIS OF LOW BID**

This device, allowing the payment of slightly higher prices to concerns with higher costs or firms not familiar with production for Government account of particular items, has served the very useful purpose of increasing the potential capacity for production of critical items, thus insuring adequate supply to meet expanded future demands. Many of the firms originally brought into the war program in this manner, as a result of Purchases Division cooperation with Government agencies in development of negotiated contract procedures, have been spared the full impact of material shortages because of their early conversion to defense business.

Recent instances in which Purchases Division branches have been instrumental, through the use of negotiated contracts, in bringing more firms into war production are in the purchase of enamelware for officers' mess kits, and sheet-metal tent-heaters. The number of suppliers was raised from 2 to 8 in the first case and from 10 to 30 in the second. Currently efforts are being made to utilize the purchase of prefabricated houses and airfield lighting equipment to bring a larger number of manufacturers into the war program.

#### **MODIFICATION OF SPECIFICATIONS**

Many firms have in the past been effectively discouraged from bidding on Government business because of their inability to produce to Government specification. Where examination has indicated that such specifications can be relaxed somewhat without lowering quality below levels consistent with satisfactory performance, Purchases Division branches have cooperated with Government agencies and interested industries for the purpose of securing revisions permitting more firms to participate in awards. For example, the containers branch has recently been instrumental in bringing about a shift in the type of box specified for export shipment of a petroleum product. The new specification calls for wire-bound boxes, produced by manufacturers who currently have a substantial amount of idle capacity; the previous specification required solid fiber boxes, produced by manufacturers who are currently operating all-out.

On December 2, the Treasury Procurement Division, a group of representative wood desk manufacturers, and members of the equipment and supplies procurement advisory branch, considered in joint meeting a proposal to liberalize Government specifications for wood desks. At present, only two manufacturers are furnishing this product to the Government through the Treasury Procurement Division. It is expected that after contemplated revisions have been made, a substantially larger number of desk manufacturers will have Government contracts. The modifications under consideration include elimination of sizes not regularly manufactured commercially, elimination of metal parts, elimination of mahogany finishes, increases in allowed tolerances, permitting of solid as well as built-up construction, and substitution of 3-ply for 5-ply panels.

#### **LIBERALIZATION OF CONTRACT TERMS**

Realizing that contract terms (other than those covering prices and specifications) upon occasion discourage bidding, the Purchases Division and its branches make suggestions designed to remove such barriers to bidding. A case in point is that of the wood desk quoted above, where in addition to liberalizing specifications, it is proposed to change the practice of signing up contractors for deliveries upon demand over a 12-month period to limiting deliveries to a shorter period ahead; and to place greater emphasis on purchase in small quantities.

#### **ADDITION OF NAMES TO BIDDING LISTS**

When clearing contract abstracts and intents to purchases, the responsible branches of the Purchase Division frequently suggest that companies not receiving invitations to bid should be extended invitations and added to bidding lists.

#### **GUIDING AND ADVISING COMPANIES SUFFERING FROM MATERIAL SHORTAGES**

A profitable approach to the problem of keeping industrial machinery from lying idle for lack of scarce materials is the development of ways and means first, for increasing production of such materials, and second, for making more end products per unit of scarce material input.

#### **CONSERVATION**

Conservation in use of scarce materials has been often invoked by

Purchases Division branches to forestall industrial curtailment. Examples of instances in which it has been found practicable to produce more units of an end product with a given limited amount of scarce material are numerous. For example, the container branch was able to decrease consumption of paper by 300,000 tons as a result of its successful appeal to the railroads to suspend Rule 41. This suspension permitted shipment of goods wrapped in 14 point paper, as against a previous minimum of 16 point paper.

Several thousand tons of paper were saved by the elimination of inside flaps in cigarette cartons. An appreciable amount was saved by getting stocking manufactures to ship in boxes of 6 and 12 pairs, instead of 3. The limited production of nylon and residual supplies of silk in process were stretched by textile, clothing, and equipage branch action leading to adoption of substitutes such as rayon in manufacture of hosiery tops.

The equipment and supplies procurement advisory branch conserved substantial amounts of monel metal and stainless steel for use where more sorely needed by obtaining War Department consent to use of wood as substitute in cantonment laundry equipment and has also been active along these lines on electrical goods, building materials, and so on.

#### RELIEVING "HARDSHIP" CASES

The Purchases Division has extended aid, by making scarce materials available, to a number of concerns which have been shown, upon investigation, to be suffering unduly by reason of their inability to obtain residual free-market supplies of scarce materials in competition with more fortunately situated industrial consumers. When silk was suddenly withdrawn from industrial use, for example, following the placing of an embargo on imports from Japan, the silk substitution section of the textile, clothing, and equipage branch, together with OPACS took steps to assure former silk users an opportunity to secure equivalent amounts of rayon. This action took the form of an order requiring rayon producers to set aside a fixed percentage of the capacity for purchase by firms cut off from silk supplies. Also, in order to make certain that all silk users, whatever their size and buying power, should have equality of opportunity in obtaining supplies from this pool, an inner pool was set up to take care of hardship cases, allocations from this latter pool being made by the silk substitution section itself.

The container branch, finding that manufacturers of containers made principally from materials other than steel were experiencing difficulty in obtaining the small amounts of nails, wire, and other

steel products they required, extended them assistance in the form of priority ratings. Thereafter, they were able to obtain wire on an A-8 rating and other ferrous metals on an A-5 rating.

Another instance of container branch action to assist a small user to obtain materials required arose from a request of a maple sirup manufacturer in Utah for assistance in procurement of 5,000 one-gallon cans. Orders of this size were not profitable for can companies in busy times, since they involved short runs and frequent line shut-downs. Nevertheless the container branch telephoned one of the larger can companies and secured not only a promise to fill the particular order but also a commitment to take care in the future of similar requests submitted direct from industry.

#### **HELP IN FINDING NEW AND SUITABLE MATERIALS**

The container branch, has adopted and followed the general principle that every company is entitled to an adequate supply of some sort of package in which to ship its goods. It has, in every single instance submitted to it, been able to suggest and make available satisfactory substitutes in satisfactory quantities. The safety and technical equipment branch, by persuading manufacturers of fire coupling to experiment with malleable iron instead of brass, expects that it has enabled them to keep going in the face of an order eliminating copper and brass from this product.

#### **HELP IN FINDING NEW PRODUCTS**

A noteworthy example of Purchases Division efforts in this direction is the project currently under way in the furniture section of the equipment and supplies procurement advisory branch to discover, in cooperation with a technical representative of the metal-furniture industry, what products the industry is in a position to make which the Government is now purchasing or planning to purchase.

The procedure employed is for the technical representative and a member of the section to contact, through the Contract Distribution Divisions in the Army and Navy, the supply officers familiar with the requirements of each arm. The needs of each arm are then examined in detail, and information on specifications, amounts required, and previous bidders and bid prices are supplied. It is expected that, upon completion of the project, the metal-furniture industry will have a list of possible substitute products which individual companies can bid on, if they desire. Provisions will be made to put companies on bidding lists for particular items upon receipt of request.

## HELP IN FINDING NEW MARKETS

Purchases Division branches regularly bring the benefit of their wide experience to bear on problems of finding new markets for concerns which have idle capacity. An example of this sort is contributed by the container branch, which has recently obtained approval of tight and slack wood barrels as substitutes for steel barrels in several uses. Since the wood-barrel manufacturers were operating well below capacity, this move has had the result of bringing their rate of operations up, in addition to releasing perhaps 150,000 tons of steel for other purposes.

## THE BUREAU OF INDUSTRIAL CONSERVATION

The Bureau of Industrial Conservation was set up in the interest of increasing and conserving the supply of materials required for the national defense and for essential civilian needs. The Bureau of Industrial Conservation formulates programs for the assistance of the Office of Production Management in conserving materials through substitution and reclamation of materials, simplification of products, and other methods. This aids affected enterprises, both by finding alternatives for them and by making materials available for their most beneficial uses.

The Bureau of Industrial Conservation has been organized into four branches:

1. Simplification branch.
2. Specifications branch.
3. Conservation and Substitutions branch.
4. Salvage branch.

### SIMPLIFICATION BRANCH

The Bureau is emphasizing the fact that simplification—that is, the elimination of unnecessary sizes, varieties, types, grades, models, etc., of manufactured articles—is one of the first and most important things to be done now as an emergency measure.

Scarce materials will have to be used wisely by the affected industries in accordance with an efficient plan. It cannot be considered either wise or efficient to fabricate any part of our scarce materials into varieties of products that are seldom demanded and which complicate the processes of manufacturing, swell inventories, and reduce the effective supply of materials.

For example a survey of the pipe-fittings (gray cast iron, malleable iron, and brass or bronze) industry disclosed that 8,566 kinds, types, and sizes of fittings were being regularly offered by the manufacturers. Careful study of the sales of each of these many varieties showed that demand was concentrated on 2,967 items. It was obvious that the continued stocking of the 5,599 varieties, which moved but slowly, tied up considerable material in finished inventories and on dealers' shelves, and complicated the productive processes with thousands of short production runs.

The simplified list of sizes and varieties recommended (effective January 1, 1942) the continued production for stock of 1,311 of the 4,964 gray cast iron fittings heretofore offered; of 1,169 of the 2,331 malleable iron fittings, union, and union fittings; and 487 of the 1,271 brass or bronze screwed fittings, etc., heretofore stocked. It is estimated that the 2,967 items retained will satisfy from 92 to 94 percent of all consumer demand.

#### SPECIFICATIONS BRANCH

All the conservational activities of this branch have been devoted to the economical and constructive use of metals, avoiding uses that cannot be justified in the present state of emergency, and curtailing the uses of the metals to as great an extent as is practicable.

It is not as easy to state that these activities have resulted in the maintenance of operations in plants or industries that would be closed down due to the restrictions on supplies of raw materials. The object of maintaining continuous operations and avoiding unemployment is uppermost but due to the nature of the activities it is difficult to evaluate the results of efforts in this direction.

The shortage of aluminum has threatened the complete stoppage of operations in a number of industries, notably the one supplying pistons for internal combustion engines. It has been possible to obtain limited amounts of aluminum to keep piston makers supplied with a part of their normal needs. In this case a metal, that today can be classified as "semiprecious," has been kept in a use that is not usually appreciated as vital in the defense effort. At the same time a widespread conservational effort has been made to divert aluminum from the manufacture of pistons for combustion engines that are not essential to the direct war effort.

In the field of building construction and defense housing, the metal requirements for construction—for plumbing, and heating, for lighting, for decoration, for exposure to the weather—have been reviewed

with great care. It is one of the most important continuing duties of this branch to review building projects from all over the country. They are scrutinized and criticized, and released with such restraints, or modifications, as seem necessary. Substitute materials are suggested wherever a criticism or denial is reported. In this way, scarce material, for example, cast iron for pressure piping in water distribution, is made available for those projects in which it is considered essential, but its use elsewhere is discouraged. The cast iron pressure pipe industry is supplied with a substantial business, and those industries making pipes of substitute materials (asbestos, reinforced concrete, wood stave) are kept active and even being encouraged to expand.

In the electrical world an important economy in the use of zinc has been effected through the wider usage of enameled rigid conduit and raceways, instead of galvanized conduit and flexible armored cable. The limited amount of zinc available for the protection of electrical equipment is, therefore, being spread much more widely than before. With the same object in view, nonmetallic covered wire and cable is being given preference wherever the fire hazard or type of construction permits. This action is saving quantities of steel and zinc. A review of wiring practices is leading to the installation of smaller wire sizes than have been customary in recent years, thus making the available copper spread out to a greater number of linear feet of active conductor installed.

The lighting-fixture industry is a fair example of one in which substitutes for aluminum have become well established, the substitutes consisting principally of porcelain-enameled steel, painted steel, glass, porcelain, steel, and other materials, instead of aluminum and the brasses. This has been done without serious interruption to the production of lighting fixtures or causing more than temporary displacement of labor. Aluminum, to all intents and purposes, is out of lighting fixtures except for the limited number of fixtures required in aviation, on vessels of the Navy where weight is all-important, in the mobile forces of the Army, and operating-room equipment in hospitals.

An example of industrial conservation by which a plant is kept open and operating, has been the review of the specifications of gasoline and kerosene pressure lanterns and lamps, and gasoline and kerosene ranges and trailer cookers with the manufacturers supplying these articles. As a result, 87 percent of the copper alloys are being removed from the construction of these articles. The plants are pro-

vided with steel, and other substitutes, and will continue in operation without interruption.

Materials used in highway construction have been reviewed at great length with the Public Roads Administration and representatives of State highway departments. Substitutes for surprisingly large quantities of steel and zinc, and metals in the form of pigments, have been found in the shape of concrete, wood, tile, and less critical varieties of highway paint. It is difficult to estimate the quantities of materials so affected, inasmuch as the changes in specifications have just recently been perfected, but the savings will become evident through the next year's construction season. These changes will create a large amount of work in the industries providing the substitutes, without subtracting from the industries supplying the metals.

A report of this nature would be incomplete if it did not include reference to the simplification of steels and shapes through cooperative activity of industry-wide and government committees, under the auspices of the OPM. The full effect of the activities of these committees cannot be foretold, but they will lead to a considerable extension of the productive capacity of the country in rolled steels, a conservation of alloy, and a reduction of the necessary tonnages maintained in stock. The emphasis, of course, is being placed on those grades, shapes, and sizes needed in greatest quantity by direct defense. The efforts of these committees are also being coordinated with the needs of our lend-lease allies.

The introduction on a generous scale of a commercial material not widely used heretofore, that spreads the use of the now very critical stainless steels over four to five times the number of articles, or area, that a given poundage formerly covered, is "clad steel." There are several manufacturers who are putting stainless-steel surfaces on carbon-steel plates and sheets. These clad steels are readily adapted to many classes of cooking vessels, to mess trays, and to equipment that needs to be corrosion resistant on one side only. The use of clad steel by the various branches of the Government for steam-jacketed kettles has been suggested with success. It is being used by the Navy for mess trays. Its use is being urged in all manner of food-processing plants, in place of solid stainless. The mess trays are faced with stainless alloy on both sides.

#### **CONSERVATION AND SUBSTITUTION BRANCH**

This branch deals with the most efficient utilization of raw materials first, for the war program, and second, to permit as far as possible continued operation of civilian industry. The supplies of raw ma-

terials are considered reservoirs with very definite limitations on the available quantities from which the needs of the armed services, of essential civilian requirements and of our Allies must be supplied. The continued application of this principle of conservation and substitution throughout the range of raw materials is promoted by this branch to permit maximum production in all types of products.

Recommendations were made to the Army and Navy in June 1941 that they should use more abundant materials or lower grades of the scarce materials wherever the latter would suffice. Magnesium castings and magnesium used in hardening aluminum and alloys for civilian construction were superseded by aluminum in order to make available the maximum possible quantity of magnesium for incendiaries and flares where its peculiar qualities made its use most essential. The use of aluminum of secondary grade was promoted for ordnance equipment to release the maximum quantities of primary aluminum for structural use in bomber and other airplane construction. The use of aluminum in lighting fixtures was largely eliminated, and suggestions made on the basis of photometric tests looking towards the use of porcelain enameled steel, silver coated glass, and indium plate for reflectors and cast iron, steel, or wood for supports.

In cooperation with the Materials Division, severe restrictions were placed on the use of nickel for stainless steel, plating, and nickel silver, and substitutes such as molybdenum, and manganese in steel, paint, or asphalt for coatings and plastics, wood or glass in place of nickel silver.

This branch aided in the preparation of the copper order, which was early anticipated when the copper requirements for cartridge brass bade fair to require more copper alone than was used by all of civilian industry in recent years. A list prohibiting less essential items was prepared with the cooperation of the National Research Advisory Committee, and industry representatives, and arrangements made for progressive stoppage of manufacture of these items with general limitations on the quantity which might be used for purposes other than essential military and the most essential civilian needs. This order is expected to effect a saving of close to 200,000 tons of copper a year, which would otherwise be consumed in the production of less essential civilian articles. Arrangements are also being made to divert existing inventories of copper and copper alloys in the hands of manufacturers of less essential items into the production of essential material for the war program. Wherever manufacturers are being affected by the restrictions placed on the use of copper, suggestions are made looking towards the use of more abundant materials if the plant is not adapted to conversion to war

production. Emphasis is also being consistently placed on the most economical use of copper in essential articles where requisite strength and other properties can be obtained using less material but more efficient design. In cooperation with the Army and Navy, very encouraging results have been obtained in the development of cartridge cases made of steel instead of brass, which will relieve the largest single military demand for copper which is interfering with civilian uses of this important metal.

Conservation measures looking toward the reduction of the consumption of zinc in die castings for automobiles, household appliances, and electrical equipment construction were initiated early in the year with resultant savings by elimination of trim and substitution of lead, cast iron, glass, and other more abundant materials. In the case of the automobile industry, the rate of consumption of zinc was reduced some 80 percent, resulting in a saving of over 100,000 tons of metal. Similar restrictive measures were applied to the use of zinc for galvanizing, with reduction in the weight of coating or substitution of paint. The resultant saving assured an adequate supply of zinc for all anticipated military needs and the more essential civilian requirements.

Less essential uses of lead have more recently had to be curtailed, and substitutions used, as the metal was called upon to carry a substitution load from metals higher up in our scarcity scale. Measures have been instituted looking toward the substitution of waste paper in place of lead tin foils in packaging cigarettes, gum, and similar commodities. Decorative and other less essential uses are also being curtailed to insure an adequate supply of lead for ammunition, storage battery grids, and sulphuric acid plates.

With the supply of iron and steel proving inadequate for all needs, conservation measures have been instituted looking toward the replacement of wood for steel furniture and building construction; concrete and tile culverts in place of cast iron, and lignite and other more abundant plastics in place of many small articles made of steel.

An idea of what is being accomplished can best be gained from a review of some of the specific cases handled, the substitutes available, and the sources and means by which they can be secured which have been furnished to interested manufacturers or users.

Galvanized steel in place of copper and aluminum window strip.

Clay instead of cast iron for gas-stove burners.

Plastic, steel, glass, or clay products in place of brass for zippers.

Paper or wood in place of metal for containers.

Initially, a reduction in the thickness of nickel layer in plating; and, subsequently, recommendations of silver, lead, and tin plus chromium to save both copper and nickel.

Wallboards of wood in place of stainless or enamel steel for refrigerator construction.

Substitution of ruthenium for iridium as hardener in platinum jewelry.

The introduction of zinc base die castings with lower aluminum content to permit increased production in view of the aluminum scarcity.

The substitution of zinc base die castings for aluminum base die castings.

The general specification of cornstarch for foundry core binders in place of scarce imported tapioca.

Substitution of lead-coated or painted steel in place of brass and bronze for badges and ornaments.

The substitution of porcelain enamel, silvered glass, or indium plate for aluminum for reflectors.

Suggestions on the replacement of steel furniture by wood construction.

The substitution of plastic-wood handles with steel tube inserts in place of aluminum construction for spray guns.

Here are some of the actual cases handled by this branch:

The following examples of assistance to small business were checked at random from the files, covering only the period between November 21, 1941, and November 28, 1941, inclusive. They are typical and representative of the work being done.

Company A successfully substituted die castings in their magnetos. They asked to make an exception in the case of the rotor. Approval was recommended temporarily for a small quantity of aluminum for the rotor and a die change coring out the action so as to be able to use zinc die casting without increasing the weight was recommended for the future.

Company B stated that they required aluminum in the airfoil propeller of their ventilating equipment. As substitutes, sheet steel or zinc was suggested, even brass in applications where nonsparking was required and cast iron or aluminum bronze. The names of two new molded plastic materials which might serve as substitutes were given them.

Company C asked for assistance in the securing of substitutes for brass for such items as trade checks, identification badges, and milk-can number plates. The use of sheet steel was suggested. It may be plated, painted, galvanized, or tinned to prevent it from rusting.

Injection molded plastics for identification badges and trade checks were also suggested.

Representatives of certain brewing companies asked for information on substitutes for brass in beer-dispensing equipment. Substitutions were suggested as follows:

(a) The use of iron or steel for all parts not actually in contact with the beer.

(b) The substitute of a tin die casting or tinned cast iron for the tap body.

(c) Substitution of glass or of saran for the rods and tubes.

Most of these had not been considered by the industry.

#### SALVAGE BRANCH

The salvage branch of the Bureau of Industrial Conservation is charged with the duty of bringing back into production as rapidly as possible many of those waste materials which are urgently needed for defense and civilian requirements. Recent figures prepared by the Bureau of Research and Statistics indicate that under normal conditions a very large percentage of the total supply of various critical and strategic materials is made available by the reclamation of these so-called "waste materials."

Of the estimated total supplies of certain materials for 1941, the following percentages indicate what proportion reclaimed scrap is of the total supply: Copper, 34 percent; tin, 29 percent; steel 25 percent (not including so-called "home scrap"); aluminum, 22 percent; lead, 20 percent; and rubber, 16 percent. This is only a partial list to give an idea of the great importance that these waste materials are to available supplies. Obviously, anything that can be done to increase the amounts and rapidity of flow of these secondary materials enhances the total supply and thereby makes possible the continued operation of many plants and industries that might otherwise have to shut down or curtail their operations because of inadequate supplies.

The salvage branch of the Bureau stimulates the flow of secondary materials back into industry through two major, but separate, undertakings:

#### INDUSTRIAL SALVAGE

This has to do with the scrap and secondary materials generated primarily in manufacturing establishments. For example, recently a member of this section inspected substantially all of the large users of primary aluminum. As a result of this work, which aided the various plants in the segregation and channeling of their secondary

scrap, the increment in the first month after the campaign in the amount of secondary aluminum available was 69 percent as opposed to an increase in the plants' basic production of only 25 percent.

The foregoing must not be confused with the recent "pots and pans" campaign which was another and separate activity carried on jointly by the Office of Civilian Defense and the salvage branch of the Bureau of Industrial Conservation. This latter campaign resulted in the collection of approximately 6,750,000 pounds of refined aluminum, all of which will be used directly or indirectly in defense production. It will be sold to specified users who will be designated by the aluminum and magnesium branch of the Office of Production Management. It is specified that at least 20 percent of the ingots produced shall be so-called 98-percent-plus aluminum. This is a very high grade secondary aluminum and can be used directly in airplane construction. At least 25 percent is to be so-called No. 12 aluminum, which is an aluminum alloy that can be used for castings and, hence, in direct defense production. The balance, or not more than 55 percent, is in the form of so-called deoxidizing aluminum which is essential in steel-mill operation. Its use in this manner will liberate an equal quantity of primary aluminum which will be used directly for airplane or other defense construction.

#### **GENERAL SALVAGE**

This section of the salvage branch of the Bureau has to do with so-called general salvage or the salvage and reclamation of waste materials generated primarily in homes and farms throughout the country. Extensive plans for a nation-wide organization of volunteer workers have been perfected with the knowledge, agreement, and cooperation of the Office of Civilian Defense and will very soon be put into operation in a number of states.

Already, efforts have been made to stimulate the flow of certain of these waste materials, notably paper and iron and steel scrap, which have definitely resulted in considerably augmenting the supplies of these products and thereby have made possible the continuance in operation of many plants on a scale that would otherwise have been impossible.

#### **THE DIVISION OF CIVILIAN SUPPLY**

More important than any specific measure of this Division to aid small business is the effect of its general program. In the absence of Government action, large and powerful consumers might obtain a

disproportionate share of the limited supplies of materials available for civilian use. This is only natural, because no supplier would like to antagonize a big peacetime customer. Limitation orders restrict the demands of these customers, thereby releasing materials for smaller and less influential business firms. As the scope of the program of limitation orders is enlarged, relatively more steel, copper, etc. will be available for small purchasers.

#### DIFFERENTIATION FAVORING SMALL FIRMS IN LIMITATION ORDERS

Wherever possible, limitation orders provide for a smaller curtailment of small firms than of large concerns. In the limitation orders covering automobiles, mechanical refrigerators, laundry equipment, metal office furniture, and vacuum cleaners, firms are classified into groups depending on their sales, output, or steel consumption during the base period.

The percentage limitation is graduated to favor the classes of smaller firms. For example, the domestic laundry equipment order divided firms as follows:

	Monthly average sales 12 months ended June 30, 1941	Average production in August-December 1941 as percent of average monthly sales in 12 months ended June 30, 1941
Class A	12,000 units up	80
Class B	5,000 to 12,000 units	84
Class C	1,200 to 5,000 units	88
Class D	0 to 1,200 units	100

#### GRADUAL CURTAILMENT UNDER LIMITATION ORDERS

Curtailment of civilian production in an industry covered by a limitation order is made as gradual as material shortages permit. The object of this policy is to encourage a smooth transition of labor and management to war production. As civilian production in the factories is curtailed, war production can take up the slack. The company can maintain its labor force intact.

To this end, the programs of the Division of Civilian Supply are developed in close collaboration with the Labor Division and the Division of Contract Distribution. These other Divisions inform the Division of Civilian Supply of the difficulties confronting the conversion of industry under consideration to war production, and they attempt to develop a program of war work in anticipation of the limitation order. A notable example of the success of this type of

collaboration is the domestic laundry equipment industry. By the time the limitation order was issued, a military contract for the major producers of washing and ironing machines had been arranged, with the understanding that they would let subcontracts to the rest of the industry.

#### **INDIVIDUAL PRIORITY ASSISTANCE**

It is the policy of the Division, through its operating branches, to recommend to the Director of Priorities that priority assistance be granted to firms which are in danger of shutting down for lack of materials where the material supply permits and where this assistance appears advisable in light of the overall situation.

#### **THE ARMY AND NAVY PROGRAMS TO AID SMALL BUSINESS**

The Army and Navy have recognized the seriousness of the problem that is facing the small businessmen of this country in attempting to adjust to the war program and both have joined with the Office of Production Management in an effort to meet this situation. Contract distribution divisions have been set up in both the War and the Navy Departments to supervise the program and to insure the maximum utilization of existing production facilities. A description of the specific programs worked out by each follows:

##### **THE ARMY CONTRACT DISTRIBUTION EFFORTS**

The duties and responsibilities of the Army Contract Distribution Division are as follows:

To advise and assist and, with the approval of the Under Secretary of War, to direct the supply arms and services with respect to spreading the war effort to additional suppliers, whether by splitting awards between a number of bidders, subcontracting, or otherwise.

To formulate policies for the distribution of war work to industries and communities distressed by the impact of priorities.

To maintain liaison with the other branches of the Office of the Under Secretary of War with the view to having the other branches advise and assist in carrying out the policies.

To maintain liaison with the supply arms and services and, through them, with their respective procurement offices in the field, with a view to seeing that the objectives of the Division are properly carried out.

To maintain liaison with the Office of Production Management, making use of the facilities of its branch offices and other appropriate divisions.

To render information and assistance to prospective contractors.

To advise with respect to and to formulate such directives as may from time to time be desirable from the Office of the Under Secretary of War by reason of recommendations of the Office of Production Management or otherwise.

To solicit, receive, and act upon suggestions from the supply arms and services and the Office of Production Management.

In cooperation with the War Department Bureau of Public Relations, to give such public information from time to time relative to the activities of the Division as may seem advisable.

All instructions issued to the supply arms and services regarding contractual procedure or affecting the placing of contracts or the terms thereof will be coordinated with the Director of Purchases and Contracts.

Various directives have been issued by the Army Contract Distribution Division to the supply arms and services, pointing out the need for spreading the munitions requirements to a greater number of manufacturers and liberalizing procurement methods so as to give purchasing officers greater latitude in the awarding of contracts.

All supply arms and services are required to submit to the Army Contract Distribution Division a complete statement of the method to be followed for the procurement of each specific item, including the distribution that will be effected territorially and how many contracts will be placed. This report also includes a statement of the intent of the service with respect to the placement of continuation orders with going facilities and whether or not any expansion is anticipated.

This report is submitted prior to the initiation of negotiation or a request for bids. Whenever the plan does not conform to the basic intent of the policies covering distribution of contracts, it is returned to the service with specific directions for necessary changes.

Wherever the procurement of a specific item appears to afford unusual opportunity for distribution, the Army Contract Distribution Division picks up control of that particular item and requires that the results of negotiations be discussed with that office before awards are made.

These reports are also utilized by this office to select specific items for placement in areas which have been certified by the Office of Production Management as specially distressed. In these cases, all negotiations are carried out under the direct supervision of this office.

On behalf of the Under Secretary of War, this Division has taken control of the expansion of facilities, and regulations governing such expansions have been published to the services. Applications for

approval of expansions are cleared by this Division with the Contract Distribution Division of the Office of Production Management to assure that no opportunities for subcontracting have been overlooked and that facilities be not further expanded if there is any other method for securing the material. These clearances are also passed on to the Tax Amortization Division of the Under Secretary of War's office in order that the availability of subcontract sources may influence the decision of the War Department with respect to the granting of Certificates of Necessity.

In addition to the above specific policies, this Division is active in securing the cooperation of the arms and services with the representatives of the Office of Production Management in the various projects intended to assist manufacturers by increasing their knowledge of Government procurement.

The War Department has participated actively in the defense trains sponsored by the OPM. All supply arms and services provided experienced personnel and displays of material at defense clinics.

Arrangements are being rapidly completed providing for placement of representatives of the Contract Distribution Division, OPM, in the offices of the chiefs of the supply arms and services in order that they may be fully acquainted with the procurement plans of those services.

Field agencies of the procuring services are encouraged to make their needs known to the local field offices of OPM in order that those field offices may assist in securing subcontract sources.

#### THE NAVY CONTRACT DISTRIBUTION EFFORTS

The Naval Contract Distribution Division has been established in the office of the Under Secretary of the Navy to perform the same general functions as outlined for the Army Contract Distribution Division.

In order to facilitate subcontracting, the Navy Contract Distribution Division plans to issue daily, to the field offices of the Division of Contract Distribution, lists of naval contracts awarded, and will also furnish from time to time advance information as to prospective needs.

The Navy Department has assigned officers as naval advisors and representatives of the various naval activities to the Division of Contract Distribution and has placed these representatives in most field offices of the Office of Production Management. These offices are being used by the Navy Department as industrial planning agencies. The duties of these representatives as regards assistance to small business follow:

Coordinate the relations of all Navy activities within their districts with the local offices of the Division of Contract Distribution.

Render such consulting advice and assistance to the local officials of the Division of Contract Distribution as is necessary throughout the several districts to facilitate the work of that office.

All offices of the Naval Inspection Service will keep such naval advisors and the nearest office of the Division of Contract Distribution advised of:

Instances where the contractor is not subcontracting to the extent desirable for the speeding up of the war munitions program and speeding war work.

Instances where the contractor, though willing, is not successful in contacting proper subcontractors.

Instances where additional machine tools or expansion are being requested when subcontracting would remove the necessity therefor.

These naval inspection offices are in the best position in respect to their contacts with industry in general and Navy contractors in particular for rendering the above information to the local Division of Contract Distribution in the interests of advancing deliveries and spread of work.

In accordance with a recent dispatch subcontracting sections are to be formed for all industrial shore activities.

#### **NEW PROCEDURES FOR PRIORITY AID TO SMALL BUSINESS**

The OPM Priorities Division recognizes two principal types of situation involving material shortages among small enterprises.

The first situation is one where a little metal will go a long way in the preservation of a concern and its employment. It is planned to handle this type of situation on an individual application basis for each isolated case—but within limits and on a simplified procedure, as described below, in the Limited-Allotment Plan.

The second situation involves the continuing supply of material for operations continuing in nature. It is planned to handle this second type of situation on a simplified Production-Requirements Plan.

#### **LIMITED-ALLOTMENT PLAN**

This is the first type of situation mentioned above, and to handle it, it is planned to request each material branch to earmark a limited emergency pool of the scarce materials under its jurisdiction. This will be set aside each month as an allotment of the amount which can be spared in the case of the particular material. It must be recognized, however, that there may be no allocation to such a pool in the case of some materials, such as magnesium.

Applications for such materials as may be available will be granted by the administrator of the Limited-Allotment Plan without clearances from other agencies or departments.

Special tests for relief will be—

(a) Whether the allotment of a small amount of critical material will help to stabilize a relatively large amount of employment.

(b) Whether the allotment of a relatively small amount of critical material will free a relatively large amount of noncritical end products.

It will be in accord with existing policy and—

(a) Will not interfere with extension of a conservation order, such as copper.

(b) Will permit consideration of community problems, such as one-industry towns.

(c) Will reject any proposal for granting relief solely on the basis of the size of the applicant firm.

(d) Will permit elimination of the less essential in favor of the more essential, in accordance with announced policy.

The Limited-Allotment Plan has these general advantages:

1. It will help small business effectively, because applications for small quantities of material can all be handled in one coordinated section, whatever the nature of the material required.

2. It will help all special hardship cases, because help will be afforded on the basis of real need (not mere size) and because any hardship case which can be handled with a relatively small amount of material can be handled in the same single section.

3. It will facilitate expeditious handling of priority applications, because application for small quantities—whether hardship is involved or not—can also be handled by the Limited Allotment Plan, instead of the regular commodity sections.

4. It will aid the trend toward allocations, because it contemplates the setting aside of small amounts of critical materials each month, after determination of over-all needs and requirements.

5. It will promote equitable treatment for all, since the amounts to be so allotted will be allocated, not on the basis of size but on the basis of (1) need, (2) essentiality, (3) hardship factors, (4) importance of the producer in the civilian economy, and (5) the special circumstances of the community in which the producer operates.

6. It will be consistent with a war program, because the amounts of critical material to be allotted will be flexible, subject to change each month in the light of the supply situation, so that the war requirements will never be harmed by the arbitrary setting aside of an arbitrary quantity of material.

7. It will promote substitution and conversion, because the allot-

ments will be given for relatively brief periods, so that any given firm, instead of being kept in less essential production, will be encouraged to move into defense work so that critical materials can be assured.

8. The Limited Allotment Plan can be of immediate assistance.

(a) Operating plans have been developed.

(b) No new policy decisions are necessary, since the Limited Allotment Plan is in accord with national policy.

(c) Forms and procedures have been developed in detail.

The Limited Allotment Plan recognizes that the United States is faced with a crucial question in the so-called small-business problems and the closely allied special-hardship problems. But it also recognizes that these are only part of a much broader problem—What kind of an economy must we have to beat the Axis powers? The Limited-Allotment Plan recognizes that the answer to this latter question is: An economy which puts the war program uncompromisingly ahead of everything else—and that any form of relief for nondefense requirements must be integrated into the framework of that answer, which is now basic national policy.

#### **REGULAR OPERATING REQUIREMENTS OF SMALL ENTERPRISES— SIMPLIFIED PRODUCTION REQUIREMENTS PLAN**

The small enterprise doing a regular business in fabricating metals will be aided procedurally by using a simplified form of the Production Requirements Plan.

The processing of this form raises the same questions that processing of a larger form for larger concerns raises, in that many millions of dollars of material, in total, are consumed by relatively small concerns. This large total of scarce materials cannot be approved for delivery without consideration of the gross of each material committed against the nature of the product to be made and the inventory on hand.

The Production Requirements Plan Branch of the Priorities Division will provide an additional group of analysts to routinize the handling of these simplified small enterprise forms, but will apply the procedure, insofar as applicable, that is used on the larger forms. This will enable policies followed on large forms within the same product classifications to be correlated with policy on the same type of small operation.

The small enterprise section of the Production-Requirements Plan Branch will be authorized to approve limited amounts of material for one quarter in order to keep in operation an organization that will thus be enabled to convert to essential production or to the use of substitutes.

## *Appendix A*

### **Regulation No. 3 Amended**

*Defining the status of the Division of Priorities of the Office of Production Management and prescribing the duties and functions of the Director thereof.*

Regulation No. 3 of the Office of Production Management, issued March 8, 1941, is hereby amended to read as follows:

Whereas by Executive Order No. 8629 and Executive Order No. 8875 the Office of Production Management has been created and charged with certain authority and duties with regard to defense and civilian supply, priorities and allocation, including the authority and duties hereinafter conferred upon the Director of Priorities; and

Whereas there has been established by said Executive orders a Division of Priorities within the Office of Production Management in charge of a Director appointed by the Office of Production Management with the approval of the President.

Now, therefore, by virtue of the authority vested in the Office of Production Management by said Executive orders it is hereby provided that:

1. The Director of the Division of Priorities, who shall be known as the Director of Priorities, shall perform the functions and exercise all the power, authority, and discretion conferred on the President by section 2 (a) of the act entitled "An Act to Expedite National Defense and for Other Purposes," approved June 28, 1940, and by Public, No. 89, 77th Congress, First Session, entitled "An Act to Amend the Act Approved June 28, 1940, entitled 'An Act to Expedite National Defense, and for Other Purposes,' in order to extend the power to establish priorities and allocate material," approved May 31, 1941.

2. The Director of Priorities shall have authority to propose action under section 9 of the Selective Training and Service Act of 1940, and all proposals for such action, whether originating with him or with any directors of any other division of the Office of Production Management or with any other official of the Government, shall be

submitted by him, with his recommendation, to the Director General, the Associate Director General, the Secretary of War, and the Secretary of the Navy, constituting the Council of the Office of Production Management, for such directions as they may give.

3. The Director of Priorities shall review, clear, and approve for execution all requests or proposals originating from other Federal agencies, private industry, or other sources for priority action, with respect to the procurement, production, transmission, or transportation of materials, articles, power, fuel, and other commodities; issue or provide for the issuance of all priority orders, warrants, certificates, or ratings with respect to the supply, production, transmission, or transportation of materials, articles, power fuel, and other commodities; and, with reference to specific priority authorities vested by law in established departments and agencies of the Government, certify to such departments and agencies, when he deems such action necessary to national defense, that preferential treatment is essential for certain materials, commodities, facilities, or services. On ultimate military items, the Director of Priorities shall be guided by categories of military preferences, including the modification of existing categories, as set forth from time to time by the Army and Navy Munitions Board.

4. The Director of Priorities shall, in consultation with the United States Maritime Commission, determine when, to what extent, and in what manner priorities shall be accorded to deliveries of material as provided in section 2 (a) (3) of Public, No. 46, 77th Congress, First Session, entitled "An Act to Make Emergency Provision for Certain Activities of the United States Maritime Commission, and for Other Purposes," approved May 2, 1941. Deliveries of material shall take priority as provided in said Act in accordance with such determinations and the orders issued in pursuance thereof, by the Director of Priorities.

5. The Director of Priorities may establish such organization as he deems necessary to the adequate execution of the authority and duties vested in him, including the employment of personnel. He shall obtain the approval of the Director General of the Office of Production Management, acting in association with the Associate Director General, for the creation of the principal administrative subdivisions within the Division of Priorities.

6. The Director of Priorities may exercise the powers, authorities, or discretion conferred upon him through such officials of the Government, including the contracting and procurement officers and inspectors of the War and Navy Departments, and in such manner as he may determine, subject to such policies or regulations as may be adopted from time to time by the Office of Production Management, and

subject to such policies or regulations as may be adopted from time to time by the Supply Priorities and Allocations Board.

7. The Director of Priorities shall have authority to designate an Assistant or Deputy Director to serve as Acting Director of Priorities in the event of his absence or inability to act, subject to the approval of the Director General of the Office of Production Management acting in association with the Associate Director General.

8. The Director of Priorities shall make such reports of his actions pursuant to this Regulation as may be required from time to time by the Office of Production Management.

9. All existing rules, regulations, orders, directions, and actions of the Director of Priorities are hereby ratified and confirmed and shall remain in full force and effect until they expire by their terms or are specifically repealed or amended.

September 2, 1941.

(Signed) WILLIAM S. KNUDSEN,  
*Director General.*

(Signed) SIDNEY HILLMAN,  
*Associate Director General.*

(Signed) ROBERT P. PATTERSON,  
*Acting Secretary of War.*

(Signed) JAMES FORRESTAL,  
*Acting Secretary of the Navy.*

Approved:

(Signed) JOHN LORD O'BRIAN,  
*General Counsel.*

Attest:

(Signed) HERBERT EMMERICH,  
*Secretary.*

Approved:

(Signed) FRANKLIN D. ROOSEVELT,  
*THE WHITE HOUSE.*

Date—September 12, 1941.

## Appendix B

### List of Materials and Tools Covered in Report

*Aluminum; antimony; calcium-silicon; chemicals; cobalt; copper; cork; iron; lead; machine tools; magnesium; manila fiber; molybdenum; nickel; rayon; rubber; silk, raw; silk, waste; steel; tungsten; vanadium; zinc.*

#### ALUMINUM

Prior to 1940, aluminum was used almost exclusively for varied civilian purposes. The rapid increase in orders for national defense, starting in 1940, led the only producer and principal fabricator in the United States, the Aluminum Co. of America, to give voluntary preference to defense orders. Later a priorities committee was appointed, consisting of:

Dr. E. M. Hopkins, President, Dartmouth College, chairman.

Col. A. J. Lyons, Army representative.

Lt. Comdr. D. N. Logan, Navy representative.

Mr. Ralph Farrell, chairman of the board, Fairmont Aluminum Co., representing fabricators and producers.

Mr. E. J. Barney, purchasing agent, General Motors, representing industrial users.

Various Government departments were also represented. After thorough consideration of the current situation and expected developments, the committee recommended that formal priorities be instituted. These were made effective by an order issued by the Director of Priorities, effective as of March 22, 1941, under the first of the general preference orders, M-1. This order and its supplement, M-1-a, issued under the same date, provided that producers and fabricators should give preference to their defense orders and that nondefense orders should be classified according to a schedule contained in the order. The first classification recognized the importance of maintaining existing equipment by proper supply of repair and renewal parts; the next classification dealt with matters affecting public health and safety; the next classification provided for items, some of which were used for defense and identical ones for civilian purposes; then came the class which dealt with the manufacturer who needed only a

relatively small amount of aluminum in relation to his total volume of business and labor involved; manufacturers who needed only small total amounts of aluminum; this was followed by the classification of products for which there is no satisfactory substitute for aluminum; and finally the products for which, from the consumer's point of view, there is a satisfactory substitute.

The order provided a sliding scale of percentages; the highest percentage was given to the first of the foregoing classifications and the lowest percentage to the last of these classes. Percentages were allowed in each case in relation to the same manufacturer's use of aluminum in 1940. Thus, the small manufacturer was treated relatively liberally, even though the consumer could have a satisfactory substitute for his product.

As defense demands for aluminum increased during 1941, outstripping the increase in production, it became necessary to apply successively lower percentages to each month's allotments. By the middle of the summer defense demands were so large that it resulted in civilian delivery dates being extended so far as to become meaningless. This made it necessary to discontinue any civilian allotments, except for cases that had been individually reviewed by the OPM. In these reviews, consideration was given to claims for small quantities of aluminum to serve during the transitional period, while the manufacturer was preparing to go into defense production or to substitute other less scarce materials. Similarly, reviews have been made of uses of aluminum by defense agencies, so that noncombat uses will be decreased or eliminated, thus conserving the available supply for the essential operations of the services.

Many of the small users of aluminum have been helped to secure defense contracts and to find substitutes. More liberal treatment of the smaller companies appeared to be necessary in part because they did not have the research facilities and engineering staffs that would permit them to change quickly to another type of production.

Steps were taken in 1940 by the Aluminum Co. of America to increase its production, and by Reynolds Metals Co. to enter the field of producing aluminum. These plans for expansion have been assisted by OPM and in 1941 OPM recommended and assisted further expansion for these companies and helped other companies to enter this field.

The successive increases in the war program which call for rapidly mounting quantities of aluminum for aircraft and other military equipment, renders it improbable that any appreciable amount of aluminum will be available for civilian purposes while the war program is functioning.

The supply of aluminum metal has been adequate for military de-

mands to date, although on the other hand the rapid expansion of demand has caused some instances in which the aluminum fabricating facilities have temporarily not been adequate for the demands of the plane manufacturers. These situations have been corrected as rapidly as additional fabricating equipment could be obtained and installed. Additional expansion of fabricating facilities is now under way in many parts of the United States by many companies, to handle the further increases in metal supply which will become available in 1942.

## CALCIUM-SILICON

### INTRODUCTION

Calcium-silicon is used as a deoxidizer and cleanser in the manufacture of certain types of steel. This alloy is effective in producing clean steels to meet the very rigid specifications of the Army and Navy, particularly as regards the Magniflux test. When calcium-silicon is used it replaces approximately an equal amount of ferrosilicon. However, calcium-silicon requires approximately two and one-half times the amount of electrical power in its manufacture and, therefore, in order that the maximum alloy production of the various grades of ferro-alloys can be met, conservations and restrictions have been placed on the use of calcium-silicon.

In view of the high electrical energy needed to produce this alloy, control was deemed necessary, particularly in view of the widespread droughts throughout the southeastern section of the country which have led to a serious shortage of electrical power. Eight electrical furnaces were standing idle as one plant which supplies its own hydroelectric power, had no connection with any utility system. With these operating units out of production, it was essential that the maximum production of ferro-alloys be made with the restricted amount of power available.

Capacity for the output of calcium-silicon can be changed at will inasmuch as practically all ferro-alloy furnaces are suitable for the manufacture of calcium-silicon.

The control of production and allocation of this commodity is not difficult insofar as the amounts consumed are relatively small and there is only one manufacturer of this commodity in the United States.

Regulation of the amount of calcium-silicon produced causes no dislocation of labor or unemployment. Any curtailment in the production of this alloy would immediately be followed by an increase in other types of ferro-alloys and would have no effect on the total steel output in the United States.

## HISTORY OF ALLOCATION

During the latter part of July 1941, the industrial branch after consultation with the Legal Division of the Office of Production Management, metallurgists from industry, and the producers, drew up General Preference Order M-20, placing calcium-silicon under the direct allocation of the Director of Priorities. The order became effective July 29, 1941. The Order, under the title "M-20-a," was renewed with but minor changes on November 29, 1941, and will expire May 31, 1942.

## METHOD OF ALLOCATION

Under General Preference Order M-20, now M-20-a, users of calcium-silicon are required to file a monthly questionnaire, Form PD-72, with the supplier of calcium-silicon and with the industrial branch. It is filed monthly by somewhat over a hundred consumers. The form covers the types and quantities of iron or steel to be treated with calcium-silicon during the forthcoming month, the ultimate product to be made of the iron or steel, the preference rating which applies to the respective orders of the user, the quantity of calcium-silicon to be used during the forthcoming month, the quantity requested from the producer for the month, stocks at end of preceding month, and estimated stocks as of the end of the month immediately preceding that for which the report is filed.

On receiving these monthly reports, the industrial branch analyzes them carefully as to amounts of calcium-silicon used, stocks, ultimate use of the final product, etc. The results of these monthly surveys have been tabulated, and monthly calcium-silicon requirements have been broken down with respect to preference ratings. Tentative use analyses have also been made. In addition, a balance sheet has been set up for each consumer, showing his stocks at the beginning of each month, and his stocks carried forward to the following month. On the basis of information contained in the report forms, together with other information, the branch has made allocations of calcium-silicon.

The allocations are made early in the month, but supplemental allocations are made from time to time during the month to meet the needs of industry. It has been the policy of the branch to take cognizance of any exceptional situations in which hardship might occur.

In addition to making allocations of calcium-silicon, the branch is actively encouraging manufacturers of steel to curtail their use of calcium-silicon to the minimum amount necessary to obtain the desired results in the finished steel product. It is apparent from the first data collected that excessive amounts of calcium-silicon were being used in

some instances. Letters were sent to approximately one-quarter of the consumers who appeared to be using more of the alloy than necessary, requesting that the producer economize in the use of this material. The request was met with splendid cooperation, and the consumption was immediately reduced where wasteful practices were involved. This branch estimates that as a result of this conservation program approximately 80,000 pounds of calcium-silicon were saved monthly. However, over-all consumption has increased somewhat, due to the increased number of war orders requiring the use of this alloy.

## CHEMICALS

### INTRODUCTION

The products assigned to the chemical branch cover a wide field, comprising such diverse activities as the manufacture of poker chips and the pickling of steel, the synthesis of materials used in headache powders and in the making of high explosives, the preparation of toxic gases and embalming fluids, and the production of fertilizers, fumigants, and insecticides. It is estimated that the compounds assigned to the chemical branch number in the thousands, of which at present about three hundred are especially important, directly or indirectly, to the war effort.

In general, the raw materials of the chemical industry are obtained from domestic sources, and for the most part, the chemical industry depends on sulfur from Texas and Louisiana and on widely distributed domestic deposits of coal, salt, phosphates, and the like, not to mention air from which oxygen, nitrogen, and other rarer gases are obtained in important quantities.

### HISTORY AND PROCEDURE

In January 1941 a priorities committee on chemicals was appointed, the original membership of which remains unchanged:

Dr. Harrison E. Howe, chairman.

Mr. Warren N. Watson, secretary, Manufacturing Chemists' Association—represents producers.

Mr. Ernest Trigg, president, National Paint, Varnish, and Lacquer Association—represents consumers.

Maj. Clifford V. Morgan, Army.

Lt. Comdr. N. S. Prime—Navy.

In addition to these five regular members of the Priorities Advisory Committee, complete meetings of the committee are attended by a number of men who represent the interests of various branches of the Government that are concerned with chemical priority and allocation problems.

## PREFERENCE ORDER ON CHEMICALS

### *M-7, Borax and Boric Acid, Effective Date, June 9, 1941.*

This order was made necessary by a shortage resulting from the long strike at the Trona Works of the American Potash and Chemical Co. Under normal conditions there would have been no shortage of borax and the order was allowed to lapse when the strike was settled.

### *M-19, Chlorine, Effective Date, July 26, 1941.*

The order is comparatively simple in form, providing in the main that defense orders should be accepted by producers. The industry, which had been most cooperative, found some difficulty in absorbing unforeseen defense orders. The principal problem seemed to be a legal one, namely, that certain producers could not accept their share of these new defense orders without short-shipping contract customers and thus laying themselves open to damage suits. The order made the acceptance of defense orders mandatory, and thus removed the obstacle of possible legal action from contract customers. (This problem is now cared for by our over-all regulation.)

### *M-12, Cotton Linters, Effective Date, August 10, 1941.*

The principal purpose of this order was to ensure that all producers of cotton linters turned out the necessary proportion of chemical grade lint, and that this lint was made available to the bleachers who supply the smokeless-powder plants instead of going into mattresses as might otherwise have been the case.

There are 450 producers of linters, mostly small, and, consequently, preliminary plans could not be discussed with all. Close contact with the industry was maintained through a strong association and a committee selected by the association to represent the various regions in which cotton linters are produced.

### *M-28, Chlorinated Hydrocarbon Refrigerants.*

This was needed to support the chlorine order as the curtailment in the civilian supply of these chlorine derivatives necessitated by increasing defense requirements for chlorine was causing distress among the users of these refrigerants. The main purpose of the order was to ensure adequate supplies of chlorinated hydrocarbon refrigerants for existing refrigerating equipment at the expense, if necessary, of new equipment. This directed the main impact of the shortage toward large producers of refrigerants and relieved the pressure on small food distributors, many of whom needed these refrigerants to keep in operation facilities essential for the preservation of their stock in trade.

*M-25, Formaldehyde, Paraformaldehyde, Hexamethylenetetramine and Synthetic Resins, Effective Date, August 23, 1941.*

This order differs from the chlorine order in that the distribution of the residual supply after defense orders had been filled was placed under control by dividing specified uses into three classifications which received different treatment. The first class, comprising essential civilian uses in fields such as public utilities, transportation, communications, etc., received a rating of B-4. The next classification, of somewhat less importance, including uses in such fields as household appliances, passenger automobiles, textile finishing, etc., received a rating of B-8. The third classification, consisting of luxury items, novelties, toys, games, etc., was prohibited from receiving any formaldehyde.

*M-27, M-30, M-31, M-32, M-33, M-34, M-35.*

On August 28 and 30 seven orders were brought out in fields where the mandatory acceptance of defense orders seemed necessary.

M-27, Phenols, effective date, August 30, 1941.

M-30, Ethyl Alcohol and Related Compounds, effective date, August 30, 1941.

M-31, Methyl Alcohol, effective date, August 30, 1941.

M-32, Potassium Perchlorate, effective date, August 28, 1941.

M-33, Potassium Permanganate, effective date, August 28, 1941.

M-34, Toluene, effective date, August 28, 1941.

M-35, Phosphorus Oxychloride, effective date, August 30, 1941.

M-34, Toluene, included the additional restriction that, after defense orders were filled, preference was to be given to deliveries of toluene for use in the production of coal-tar intermediates, dyes, synthetic medicinals, or other finished coal-tar products. With the concurrence of the industry, it was decided that a minimum of hardship would accrue by providing that, in the event of a shortage, toluene for chemicals should be supplied at the expense of its use in paints, varnishes, and lacquers.

M-27 was amended November 10 prohibiting deliveries of phenols except as directed by the Director of Priorities. While the allocation of phenol called for by this order is not yet complete, it is apparent that there will not be enough to meet all defense and civilian requirements.

M-31 was amended on November 12 to make methanol available for conversion into formaldehyde for the first two classes referred to in the discussion of the formaldehyde order, number M-25.

*M-40, Sperm Oil, Effective Date, October 16, 1941.*

Dealers holding in excess of 100,000 pounds of sperm oil were re-

quired to set aside 30 percent of their stock to be distributed as directed by the Director of Priorities.

*M-44, Titanium Dioxide, Effective Date, January 1, 1942.*

This order provides for a pool from which defense orders will be filled. It is planned that the pool should be big enough so that there would be an ample residue after taking care of defense orders to provide for emergency requirements. Should any producer find his pool inadequate to take care of defense orders, he is to communicate with the protective-coatings section of the chemical branch of the Office of Production Management which will see that the unfilled orders are handled by some other producer. In the event that all producers have exhausted their pools, the unfilled orders will be allocated by the Office of Production Management.

*M-10, M-13, and M-46, Synthetic Rubberlike Materials.*

All three orders are similar in that they prohibit the distribution of the product except as directed by the Director of Priorities. In the case of neoprene and polyvinyl chloride, allocation was necessary to provide the relatively large amounts of these materials required in the manufacture of nonflammable cable coatings for use both on ships and airplanes, as well as degaussing cables. The synthetic rubber order was necessary in order to direct the limited supply of this material into such important uses as leakproof gas tanks, engine mountings, tank treads, and numerous minor applications in the construction of airplanes and tanks. Placing chlorinated rubber under complete allocation was necessary because of comparatively large new orders for this product for use in the treatment of tent cloth for the Army.

In each of these three cases there are comparatively few producers of the product which was placed under mandatory allocation.

#### **POLICIES FOR ALLOCATION**

(1) The primary policy of the chemicals branch is to insure an adequate supply of materials for the defense program.

(2) The chemicals branch has been actively pursuing a policy of stimulating the construction of increased productive capacity.

(3) In general, it has been the policy of the chemicals branch not to interfere with the ordinary processes of production and distribution except where the successful prosecution of the defense program has been threatened.

(4) On the whole, where curtailment of civilian requirements becomes necessary, it is effected along the lines recommended by the Division of Civilian Supply. It is recognized that there is a minimum limit in most industries beyond which the civilian supply cannot be

reduced, however worthy the cause, without serious consequences to the proper functioning of the economy.

(5) Every effort is made to evaluate the effect upon labor of measures taken and to minimize the initial impact of the dislocations which may occur.

(6) Similarly, recognizing the importance of agriculture in the national economy, it is the policy of the chemicals branch to give due consideration to the possible impact on agriculture of the steps contemplated.

(7) Again, realizing the complexity of the national economy, it is our policy to give due consideration to the interest of small businessmen and to provide a period of some time for adjustment prior to the complete enforcement of the program.

(8) It has been the policy of the chemicals branch to attempt to advise the small manufacturers of new uses for their plant and equipment when it appears that shortages of essential materials will affect their current production.

#### CURRENT EXPANSION PROGRAM

A view of the current expansion program in the chemical field discloses that exclusive of explosives plants over a hundred major expansion projects are at present under construction. Moreover, these projects, when completed, will contribute to the supply of over 40 different chemicals, which are essential to the defense program. The entire program, including explosives, involves an expenditure of about \$700,000,000.

#### CONTEMPLATED ACTIONS

Certain actions contemplated by the chemicals branch have been stated in a recent study with recommendations which was prepared for the Supply, Priorities, and Allocations Board. These proposals are summarized here:

##### CHLORINE

(1) The industry should be induced to expand the production of chlorine.

(2) Efforts should be made to obtain the necessary power.

(3) Adequate support should be provided in obtaining Government financing where necessary.

##### TOLUENE

(1) If civilian use must be curtailed the use of toluene as a diluent in lacquer formulation should be limited. For this purpose

substitutes are available so this method of approach will cause the minimum of hardship.

(2) In conjunction with the Ordnance Department, a recommendation has been made and approved by SPAB that a material increase in annual capacity should be attained by the middle of 1943. Already a substantial portion of this new capacity has been lined up and additional proposals are being received each week.

(3) Some Government financing will be necessary and support should be accorded in obtaining it where needed.

#### ETHYL ALCOHOL (ETHANOL)

(1) To utilize available grain facilities beyond the amount now contemplated.

(2) To purchase Cuban sugar.

(3) To promote the completion of outstanding projects for the manufacture of synthetic alcohol.

#### PHTHALIC ANHYDRIDE

(1) The need is evident for a carefully integrated allocation program governing the distribution of naphthalene, phthalic anhydride, and dibutyl phthalate. Such a program is under consideration and will be submitted to the Director of Priorities shortly.

(2) Every effort should be made and is being made to obtain the maximum amount of naphthalene from byproduct coal tar. After providing naphthalene for certain essential uses the balance is to be converted to phthalic anhydride. To this end production capacity for this conversion is being provided. It will be necessary to control distribution of this phthalic anhydride under our allocation program.

(3) Ample new capacity for making dibutyl phthalate is in prospect, and it is recommended that these projects should be completed as soon as possible. It is planned to govern the distribution of dibutyl phthalate under the allocation program covering this product and the foregoing related products. This is especially necessary in view of the large requirements for 1942.

(4) Although Government financing has not been requested as yet, it should be provided if necessary for the completion of the program.

#### COTTON LINTERS

(1) Carry on with the present program which is providing more than enough cotton linters to meet military requirements.

(2) Should an increase occur in military requirements over anticipated quantities, additional supplies, substantial in amount, will be provided by curtailing the use of cotton linters for the production of rayon and plastics.

(3) Alpha cellulose made from wood pulp will be substituted for cotton linters in the event that the smokeless-powder program is increased to an extent requiring supplies exceeding those available from domestic and imported cotton linters.

#### SYNTHETIC RUBBER

(1) Pool all managerial and technical skill now available in the synthetic rubber field, with the object of bringing about the most rapid and yet the most economic expansion possible in this industry.

(2) The completion of the present RFC synthetic rubber program should be carried out with the greatest possible speed. It is of the utmost importance to obtain experience in the use of synthetic rubber.

(3) New plants for the production of the raw materials for this program, namely, utadiene and styrene, have been projected. It is most important that these plants should be completed at the earliest possible moment or the whole program will be delayed.

#### PHENOL

(1) Financial backing should be provided for the present expansion projects where necessary. So far, no Government financing has been requested, but it may be needed to complete the program.

(2) In the allocation of phenol in December, phenol for nonessential uses, including nylon, should be curtailed in order to provide an adequate supply for defense needs.

#### SYNTHETIC AMMONIA

(1) Every effort should be made to ensure the importation of Chilean nitrate each year of the emergency. No Government financing will be necessary.

(2) The exportation of ammonia in any form should be strictly controlled.

(3) Sufficient synthetic ammonia capacity should be provided to take care of Army and Navy requirements. The urgent need for speed

in completing the two newly authorized Defense Aid ammonia plants is emphasized.

(4) Additional capacity independent of that built by the Army, should be constructed to provide a margin of safety.

## COPPER

After conferring on November 7, 1940, with representative copper producers and Army and Navy officers on prospective supply and demand for the metal, the National Defense Commission recommended to Metals Reserve Co. the purchase of foreign copper for domestic use. In general, the method of allocation was based first on the individual fabricator's requirements for defense, then on his other requirements, taking into account also his current supply from other sources and his inventory.

On June 1, 1941, by general preference order M-9, the allocation of Metals Reserve Co.'s copper was transferred to the Priorities Division of the Office of Production Management, and at the same time domestic refined production was placed under partial allocation, by setting aside from each refiner's monthly output a quantity equal to 20 percent of his April production, to be delivered in accordance with priority direction. The Order further provided that copper purchased by Metals Reserve Co., plus the 20 percent of domestic output, should be allocated first to the completion, expedition, or satisfaction of defense orders, and thereafter at the discretion of the Director of Priorities, with the guidance of a civilian allocation program to be supplied by OPACS. The order further required each refiner to ship the remainder of his production (not set aside for allocation) pro rata to the commitments of his books, subject however to the general provision that preference-rated orders for refined copper must be filled in their rated sequence, before filling unrated orders.

By amendment to this order dated July 9, 1941, the provision for filling rated orders, in preference to unrated, was extended to brass and fabricated copper products. Both the original order and this amendment prohibited deliveries which would increase consignees' inventories beyond the limits of necessary working stock.

On August 2, 1941, these orders were superseded by general preference order M-9-a, whereby the domestic production of refined copper, together with copper purchased by Metals Reserve Co., was placed under complete allocation, while the distribution of brass and fabricated copper products continued to be governed by the system of preference ratings. By the terms of this new order, refined copper

was allocated to fabricators primarily to satisfy defense orders. Any surplus was allocated in accordance with a program of civilian allocation to be furnished by OPACS, or in the absence of such program, then to assure each fabricator a share substantially proportionate to his surplus capacity. The allocation of surplus copper has been based on the broad principle of maintaining the individual fabricating units of the country at the same proportionate level of employment and ability to function, except that small units (including some with relatively little defense business) have frequently been given more copper than the strict application of this principle would afford them.

General preference order M-9-b was issued as of September 30, 1941, for the purpose of controlling the movement of scrap. The order provides, first, that scrap derived from brass-mill products may be returned only to brass mills; and second, that no delivery of other scrap may be made for retreatment unless assigned a rating of A-10. Under the terms of the order, no rating is required for delivery to a dealer, or by one dealer to another, because in general the dealers perform a necessary function of collection, sorting and grading; but delivery by a dealer to a remelter requires a rating. As an administrative matter, ratings are assigned to all deliveries of scrap to brass and copper fabricators, to copper refiners, and to makers of alloy ingot, that is, to those whose products are under the controls of order M-9-a. Ratings have also been assigned to certain foundries, the product of which is largely for defense or for essential civilian services, and which can be controlled; but the indiscriminate purchase of scrap for foundry use is denied the necessary rating sanction.

Control of basic production and manufacture having been applied by order M-9-a, and of the circulation of scrap by M-9-b, a further control was imposed upon end use, by the copper conservation order, M-9-c. This order, dated October 15, 1941, contains three general provisions: first, with respect to about 100 finished articles of copper (listed in the order), manufacture is permitted at reduced rate up to January 1, 1942, and prohibited thereafter; second, continued manufacture of all other finished articles of copper is permitted, but at reduced rate; and third, certain general exceptions to the first two provisions are made, the most important of which relate to articles for defense use, and for the preservation of public safety and health. To prevent unnecessary hardship on the individual manufacturer, the order gives him opportunity of appeal from its provisions, and for its administration a staff has been organized, to consider appeals and interpret the order in its application to individual cases.

In summary, priority control of copper takes four broad forms:

1. Complete allocation of refined production.
2. Control of fabricated products by the preference-rating system, which from the beginning has been the basic method of priority control of materials.
3. Control of scrap movement by permitting deliveries only with the sanction of A-10 ratings and thus channelling the flow of scrap into products subject to control 1 and 2.
4. Control and conservation of end use, that is, of the manufacture of finished products.

In the administrative application of these controls, every effort is made, consistent with the needs of national defense, to prevent adverse effects on employment and on industry, especially the small business not equipped to adjust its line of manufacture quickly to changed conditions.

### CORK

The Office of Production Management in May 1941 concluded that it was necessary to adopt some form of priority control of cork consumption because of the threatening international situation and industry's high and increasing rate of consumption of cork.

The industry meeting held on May 21, 1941, included representatives from both large and small companies in all branches of the cork industry, together with representatives from the various defense agencies. It was decided at this meeting that cork should be placed under mandatory control. After consideration of names submitted by the industry a committee of nine was selected from various branches of the industry, including representatives from both large and small companies. The members of this committee are as follows:

H. H. Bose, United Cork Co.s, Kearny, N. J.  
H. H. Bruns, Mundet Cork Corp., Brooklyn, N. Y.  
W. G. Burns, Congoleum-Nairn, Inc., Kearny, N. J.  
E. J. Costa, Crown Cork & Seal Co., Baltimore, Md.  
A. B. Dodge, Dodge Cork Co., Inc., Lancaster, Pa.  
A. L. Faubel, Cork Institute of America, New York City.  
F. R. Mitchell, Mitchell & Smith, Inc., Detroit, Mich.  
L. B. Montfort, Crown Manufacturers Assn. of America, Washington, D. C.  
H. W. Prentis, Jr., Armstrong Cork Co., Lancaster, Pa.

This committee has had regular meetings and has been consulted from time to time on problems facing the cork industry.

### ALLOCATIONS—HISTORY AND PROCEDURE

In May 1941, a program was prepared to place the entire cork industry under mandatory control. On May 26, 1941, the Director of

Priorities sent telegrams to all cork manufacturers ordering them to restrict their processing of unmanufactured cork during the period of May 26 to June 12 to 50 percent of the daily rate of processing for the calendar month of April 1941.

On May 31 the Director of Priorities issued general preference order M-8, which directed the use and distribution of cork and materials of which cork is a component. The order directed that on and after June 12 every supplier set aside his entire stock of raw cork, all finished and semifinished cork products, and materials of which cork is a component, as a reserve for the fulfillment of all defense orders and any other orders authorized in monthly allocations by the Director of Priorities. Since this order went into effect, monthly allocations have been sent out directing the use, processing, and delivery of all cork products.

On September 30, 1941, general preference order No. M-8 (a) was sent out to all cork suppliers extending the previous order to March 31, 1942, and limiting the use of corkboard to defense and food preservation uses, and also restricting the delivery of beverage crowns to a 1-month's supply. On October 16, 1941, an interpretation of M-8 (a) relating to "food preservation" was issued limiting the use of corkboard to cabinets and similar small storage boxes maintaining temperatures below 20° F. and cold storage rooms maintaining temperatures below 40° F.

In formulating an allocation program best suited to meet defense, civilian, and industry needs, the following factors were taken into full consideration:

1. Defense needs must be fulfilled first.
2. The need to provide adequately for civilian uses essential to public welfare.
3. The degree of hardship upon labor or business resulting from the restrictions contained in general preference order No. M-8.
4. The past requirements of users of cork.
5. The objective of achieving an equitable relation with regard to inventories of cork or cork products in the hands of suppliers and users.
6. A policy of refusing to allocate cork to any person who, in the conduct of his business, discriminates against defense orders.
7. Satisfy civilian requirements with the least hardship to the greatest number.
8. Allocate sufficient material to the small companies to maintain their business.

#### **METHOD OF ALLOCATION**

Monthly reports are received from cork product suppliers with the following information:

1. Monthly inventories, usage, processing, and deliveries of unmanufactured cork and finished and semifinished cork products.

2. A list of defense orders to be delivered during the following month.

3. Requests for nondefense orders by product classification to be delivered during the following month.

These industry reports are tabulated to determine the industry's inventory situation and the scope of its defense and nondefense orders. A formula of allocation by product was then devised to reduce the total processing and shipments to the quota assigned for this period by the Director of Priorities. The general policy was to divide the total remaining after defense orders were satisfied, on a product basis; each company was allocated its total product quotas according to its normal position in the industry.

#### CONSIDERATIONS

1. Cork and cork products should remain under mandatory control.

2. Even though present stocks of raw cork are substantial, efforts to continue the importations should not be relaxed, and adequate shipping facilities should be provided.

3. Since all stocks of raw cork are under rigid control and allocation by OPM order, the total stocks, irrespective of Government or industry's ownership, is the important consideration.

4. A study of exports is in progress with the view in mind of proposing an allocation program to insure an equitable distribution.

5. Unless 1942 imports are higher than our minimum estimates, nonessential civilian uses will have to be curtailed further and substitution more widely used.

6. A salvage program for reclaiming used cork is being studied by the Cork-Asbestos branch, and if the savings resulting from such a program appear worth while and practical, a definite program will be recommended.

#### IRON AND STEEL

##### INTRODUCTION

Steel constitutes the most important element in any defense or war program. The importance of the different types of steel varies in the defense program, however, and accordingly the allocation procedure has been based upon classes rather than upon tonnage. In some types of finished product, complete allocation has been found necessary because of the critical need in the defense effort, while in other cases even the application of priorities has not been found generally necessary.

Under the Lend-Lease program, there was superimposed upon an

already overcrowded industry the tremendous load of supplying the democracies all over the world with this necessary material of military effort. In connection with lend-lease orders, allocations have been necessary in almost all products due to the need for meeting shipping dates and the critical need for various materials at various times due to the constantly shifting circumstances abroad.

### **PIG IRON**

Since pig iron is the basic material used in making steel, the equitable distribution of this product made it necessary to place it on allocation in order that all facilities, large and small, might be utilized in the making and fabricating of steel. A survey by the Bureau of Mines indicated a shortage. The shortage of raw iron prompted the large integrated mills to reserve their supply for their own use, which practice left the smaller nonintegrated mills without adequate supply.

### **STEEL PLATE**

First in importance of type of product is steel plate, which is required in the building of Army tanks, warships, cargo ships, railway cars, and for many other military uses.

The demands of the Army, Navy, Maritime Commission, and Lend-Lease exceeded the plant capacity on plates, and allocation became necessary.

### **ALLOY STEELS**

Next to pig iron and plate come certain types of special alloy steels which are of importance. These involve such items as stainless steels, high-speed steel, steel for aircraft frames, mechanical tubing, sheet steel, and others, the output of which is dependent largely upon elements other than iron and which elements are so limited in supply that the situation becomes most critical as such materials become scarce. Accordingly, the allocation of these products has been necessary.

### **SCRAP**

Scrap, iron, and steel bear a close relationship to pig iron since both are basic raw materials necessary to keep plants operating.

Because of a growing shortage of scrap, it has been necessary to allocate to steel producers, both large and small, tonnages of scrap to keep them going.

### **OTHER**

Shortages occur from time to time in other classes of steel to an extent that allocation is temporarily necessary in the interest of the

defense program. As such shortages become less acute, allocations in the past, have been relaxed.

### HISTORY OF ALLOCATION CONTROL

There have been occasional allocations in steel to meet specific situations since the early part of 1941. The first formal, complete, and continuous control by allocation was in the case of pig iron which became effective on September 1, 1941.

Records were required from all producers as to inventories, future schedules, and past production on Form PD-71.

Members of the industry were called in from the outside to go over the figures and summaries and to give their advice.

The committee is made up of the following:

Berg, H. A., Woodward Iron Co., Woodward, Ala.

Brooke, Robert E., The E. & G. Brooke Iron Co., Birdsboro, Pa.

Ford, Kay, Hanna Furnace Corporation, Buffalo, N. Y.

Harper, A. M., Carnegie-Illinois Steel Corporation, Pittsburgh, Pa.

Marshall, R. M., Pittsburgh Coke and Iron Co., Pittsburgh, Pa.

Striebing, George W., Interlake Iron Co., Chicago, Ill.

Whiting, J. T., Alan Wood Steel Co., Conshohocken, Pa.

Wilson, H. M., Shenango Furnace Co., Pittsburgh, Pa.

### METHOD OF ALLOCATION

The methods of allocating products vary slightly in detail but follow the same general pattern in principle and practice. The method used in the case of pig iron, a basic product, and one of the first put on complete allocation, is therefore described, since it is upon this that the others are modeled.

Under the plan set up by General Preference Order M-17, pig iron is allocated every thirty days and no commitment for a period exceeding a month is recognized. However, in order to preserve the normal user-supplier relationship insofar as possible the following procedure was established to handle the allocation:

1. Each user of pig iron sends his orders to his regular suppliers by the 5th of each month, accompanied by Form PD-69, for total tonnage required for shipment in the succeeding month. Form PD-69 shows the break-down of the user's requirements by priorities.

2. Each supplier of pig iron tabulates the PD-69's placed with him and forwards them to the Office of Production Management by the 12th of each month accompanied by Form PD-71 on which he shows what pig iron he will have available for distribution in the succeeding month.

3. Each user also files directly with the Office of Production Management, on Form PD-70, by the 12th of each month, a report of his inventory and consumption.

4. The information regarding the user's needs and normal consumption is then correlated and allocation made. By the 25th of each month, the Office of Production Management send to the producers Form PD-71b instructing them what shipments they may make during the succeeding month. The producers then advise their customers what portion of their request they are permitted to fill and ship accordingly.

#### **POLICIES FOLLOWED IN MAKING ALLOCATIONS**

In making allocations, the factors are:

Defense needs.—The requirements of the War, Navy, Maritime Commission, and Lend-Lease are considered first and every effort is made to supply their needs in accordance with the dates set up by them.

Having met the obligations of defense as above outlined, every effort is made to conserve materials on behalf of civilian use and so allocate them that the least possible dislocation will be effected in normal civilian economy.

Inventories are watched to prevent hoarding.

Substitutions are suggested.

In cases where the quantity of steel required is small compared with the high value of the finished product, it has been the practice of the iron and steel branch to supply these industries with the steel needed. Examples of these are furniture hardware, studio-couch swinging springs, bed manufacturers, saws for lumber products, etc.

The major effort on behalf of the small user made by the iron and steel branch was the setting up of the warehouse plan, as covered by order M-21b.

#### **WAREHOUSES**

Insofar as iron and steel products are concerned, the steel warehouse, including local jobbers and dealers who maintain small inventories, is the principal source of supply available to the customer whose individual purchase is small. Unless steel is directed to such distribution outlets, steel production at the mills is retarded by a large volume of very small orders, and the requirements of the small-order buyer will not be served. Despite the current shortage of steel, it was deemed advisable to maintain at the former level the flow of from ten to fifteen percent of the total steel production through warehouses. In this manner, small buyers will be assisted and the minimum maintenance and repair requirements of the nations will be cared for.

To meet this problem, supplementary order M-21-b and a directive dated September 26 were issued, after consultation with a committee representing the steel-warehouse industry from all sections of the United States.

#### ESTABLISHING QUOTAS FOR WAREHOUSES

1. Warehouses handling heavy steel products were asked to report on Form PD-83a their sales of each class of products from stock during the first calendar quarter of 1941. With this information in hand, the requirements of the industry were tabulated, and quotas were set for each warehouse unit. The same percentage of sales made during the first quarter of 1941 was used in setting quotas for all warehouses in the United States. At the end of each month, each warehouse reports on Form PD-83 its receipts and shipments of each steel product classification and, at the end of each three months, its inventory. These reports are checked carefully in the warehouse section of the iron and steel branch in order to determine whether the full quotas made have been received.

2. Warehouses handling the merchant steel items, such as galvanized sheets, pipe, and wire products, number over 15,000. The orders from each such warehouse are assigned a blanket preference rating of A-9 up to a certain percentage of purchases made by that warehouse during 1940. The quota set in this manner is designed to care for the minimum maintenance and repair requirements of each community in the nation.

#### POLICIES FOLLOWED

An effort has been made to secure sufficient steel for warehouse distribution to take care of the minimum requirements of our civilian economy in addition to the amount needed for small defense orders. No preference rating is required, and no forms are necessary for a customer to obtain delivery of carbon steel from a warehouse stock. Due to the shortage of alloy steel, however, sales of this material are restricted to defense orders except in very small quantities.

Before making decisions, members of the iron and steel branch of the Office of Production Management and of labor groups are consulted. Quotas are set as liberally as possible consistent with the current supply situation, and are subject to review at the end of each calendar quarter.

If additional steel-producing facilities are brought into operation, it is expected that more steel will be available for actual allocation to warehouses. In the near future, the Office of Price Administration will issue a price order restricting prices in order that the customers who are forced to buy from steel warehouses will be protected.

Because many of the warehouses have been unable to receive their full allocation on a rating of A-9, a new procedure is being formulated which will enable them to take advantage of higher preference ratings on certain of their orders for steel. In the event this assistance should fail, it is probable that some drastic procedure will have to be invoked in order that steel production will not be retarded by small orders and in order that the requirements of small order buyers can be cared for through warehouses.

The chart opposite this page shows the flow of iron ore through its stages of processing to finished product, and what checks are required at each step in the way of reports. At the end of the flow is the warehouse order M-26-b, the purpose of which is "To prevent excessive accumulation of inventories in warehouses, but to give every assistance to warehouses in obtaining their reasonable requirements to fulfill the needs for defense and for serving the small industrial users."

#### PAST AND FUTURE

It is believed that a sound mechanism has been set up to care for defense needs first, and an equitable distribution of what remains to civilian use; and that provision has been made to protect the small business which often is not in position to protect itself.

The Branch realizes that these agencies have not been wholly effective, nor has enough time elapsed to make them so. They have, however, already done much to help the small business where such business understood and utilized opportunities.

As the phase of organization and planning progressively graduates to administration, the further effectiveness of planning will be evident. The principal problems are:

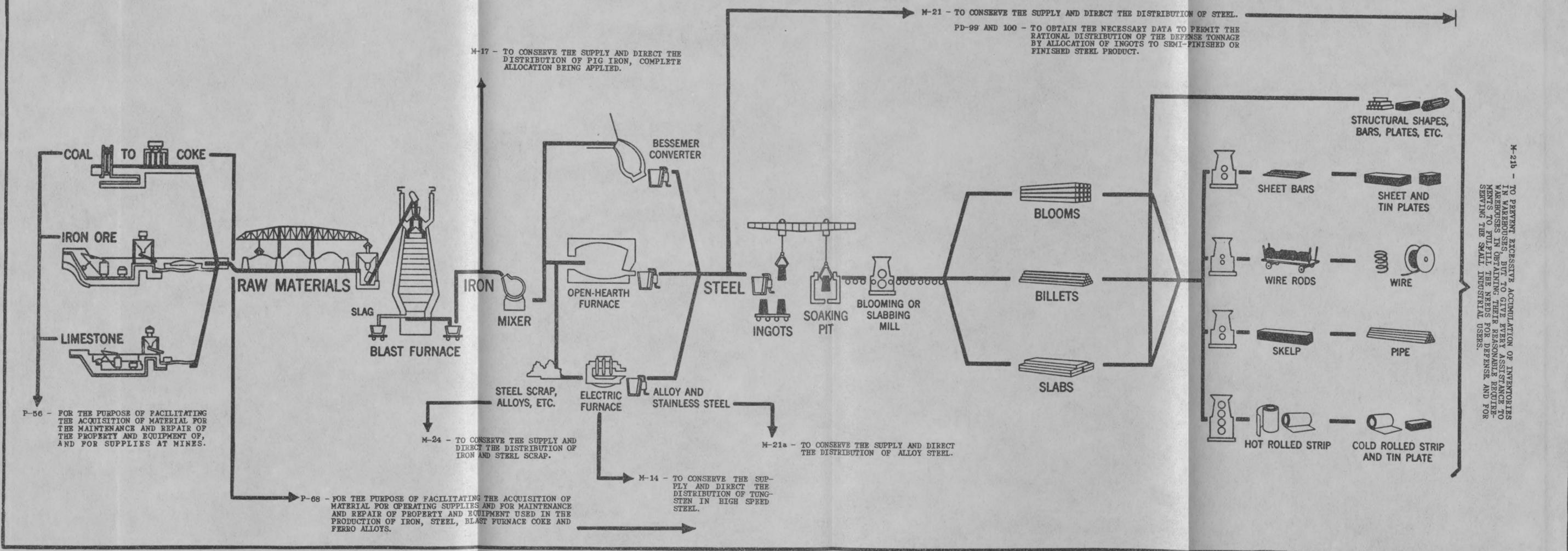
1. To overcome lack of understanding on the part of both user and supplier.
2. Refinement of plans when experience dictates the need.
3. Enforced compliance when and where greed defeats the purpose of the plans.

#### LEAD

#### HISTORY OF CONTROL

Owing to (1) the scarcity of aluminum and the withholding of supplies of this metal from nondefense industries commencing in March, (2) the more critical position of zinc, and (3) the development of the extreme shortage in copper, lead has been substituted for these metals in ever-increasing quantities. In addition war requirements have been rising rapidly during the past 2 months.

## FLOW CHART OF STEEL-MAKING SHOWING ORDERS WHICH APPLY TO THE IRON AND STEEL INDUSTRY



### METHOD OF ALLOCATION

On October 10, Order M-38 was issued placing lead under priority regulations and permitting the Director of Priorities to withhold a "kitty" from domestic production. All foreign lead purchases made by the Metals Reserve Co., as well as the above-mentioned "kitty" (15 percent for November and December) are being allocated by the OPM on the basis of information supplied to it on Form PD-66-A, whereon the user gives his stock position, purchases of raw materials, and his requirements listed (1) for Army, Navy, and Maritime Commission; (2) A-1 to A-10 preference ratings; and (3) all others. These questionnaires (PD-66-A) cover approximately 70 to 75 percent of the consuming industry and give an over-all picture of the requirements, consumption, and stock of both large and small firms.

Producers and representatives of foreign sellers have been invited to attend all allocation meetings up to this time, in order to give the lead branch of the OPM their advice as to distribution of the foreign lead.

No industry committee for lead has been appointed, but almost daily visitors from every branch of industry, both the largest and the smallest, are received by the lead branch and their particular problems are discussed. Although the supply of lead is far below the present apparently inflated demand, smaller enterprises are receiving from the OPM proportionate allocations equal to and greater than the larger enterprises.

All allocation meetings have been attended by representatives of the Labor and Civilian Supplies Divisions, whose advice has been asked and given.

There is no ceiling price on lead except insofar as OPACS, in early May, requested lead producers not to raise their prices beyond 5.85 New York delivery, 5.70 St. Louis delivery, for common lead. This price has been consistently maintained by producers, but the scrap market, not being subject to any price stabilization, has mostly ruled well above the primary market.

Commencing in early July, fact-finding studies as to the price structure were initiated by OPACS in lead as well as in other metals. The advance in the price of zinc on October 10 naturally caused it to be rumored that the same thing would happen in lead and producers did not exert themselves to the utmost to keep up production. It might be mentioned here that the summer months generally show a decreased production. It having been decided that lead, in contradistinction to zinc, did not merit an advance in the price, the OPM on November 4, over the signature of Mr. Knudsen and Mr. Hillman, requested all lead producers to go on a 24-hour day, 6 days, and where possible,

7 days a week. Responses to there telegrams show that a majority of the large companies and many of the smaller marginal producers are attempting to comply with this request although hampered by labor rules, increased costs due to overtime and supplies, and also the inability to keep up their development work at the present price level. It is hoped that by the middle of December definite estimates of increased production will be available.

The only conservation order so far issued by the lead branch is Order L-25 covering lead, tin, and composition foils. This order is considered absolutely necessary in view of increasing direct war demands for 1942. Further conservation orders for lead are in the course of preparation.

#### ACTIONS CONTEMPLATED AND IN THE COURSE OF PREPARATION

1. Priority order to control the flow of scrap.
2. Increased domestic mine production, by further action subject to result of the Knudsen-Hillman telegram. It is the considered opinion of the branch that a horizontal rise in the price of lead would bring out a considerable increase in both high cost and marginal mines, although estimates of such an increase are difficult to obtain. In any case experienced engineers, both in Government and private industry, do not believe that the mine production of 1926 and 1927 can be attained except over a long period, if at all, as no new deposits of magnitude have been discovered for many years. Development and exploration work in most active mines has been sadly neglected during the past 11 years.
3. Further conservation orders.
4. Comprehensive questionnaires are about to be sent to industry asking detailed information as to the ultimate uses to which lead is put, with a view to assisting the proper allocation of the metal.
5. Further increased purchases of foreign lead and encouragement of greater production in adjoining countries.
6. The possibility of further salvage of lead, although the present scrap industry covers the field fairly efficiently.

#### MACHINE TOOLS

The tools branch of the Office of Production Management is charged with the responsibility of balancing production and requirements not only of machine tools but also, in general, metal-working machinery, cutting tools, mill supplies, cranes, foundry equipment, and heat-treating equipment. All of the machines, supplies, and equipment

mentioned occupy a position of prime importance in the industrial field. This is particularly true of machine tools because they are the parent machines used to create all other forms of machines and equipment required in the industrial processes connected with not only military matériel in its various forms but also with the needs of the domestic economy.

On June 17, 1940, a board headed by Col. J. L. Philips and Commander H. G. Sickel was appointed by the Army and Navy Munitions Board to deal with preference ratings on machine tools.

In the tools branch a department was established to seek out, with the aid of the Government bureaus and agencies as well as the British Government, the immediate requirements for machine tools and also to forecast what the future programs would require. With this information in hand, groups of manufacturers were invited to Washington to consider the requirements for various types of machine tools and to determine what means should be used to meet those needs. As a measure of the success of such action it is interesting to note that the annual output of machine tools has been stepped up as shown by the following tabulation:

1929	\$150,000,000
1932	22,000,000
1937	170,000,000
1938	120,000,000
1939	185,000,000
1940	450,000,000
1941	850,000,000

The distribution of machine tools is governed by General Preference Order No. E-1 and Supplementary Order No. 1 to Order E-1, which provides a master preference list showing the urgency standing of the various contractors to the Army, Navy, and Maritime Commission, under the priority classification. The order provides that machine-tool manufacturers shall not make shipment of any machine tools not covered by a priority certificate unless permission is granted by the Office of Production Management.

In special cases it is necessary to divert a machine from one contractor to another, but this is only done when such action is concurred in by the liaison representatives of the War and Navy Departments.

The machine-tool industry is essentially an industry of small firms and, as is shown by the tabulated annual output, the industry as a whole is small. Out of 200 concerns making over 90 percent of the machine tools only 25 percent employ over 500 people, over 40 percent employ between 100 and 500 hands, and the balance; or about 35 percent, employ less than 100. The same condition applies to the

foundry-equipment industry, the crane industry, and the small tool and mill-supply industries. All of these industries have been encouraged with considerable success to subcontract to even smaller concerns and to manufacturers engaged in nonessential enterprises at least a portion of the increased load, so the priority unit of the tools branch is intimately acquainted with the impact of priorities on small enterprises as well as large, and subjects each case to the final test of its relationship and importance to the needs of the defense plan and the requirements for carrying on the domestic economy.

The machine-tool section is pressing for the expansion of machine-tool output so that as new requirements arise the equipment will be available in the shortest period of time. At present there are on order through the Defense Plant Corporation over 200 millions of dollars' worth of machine tools against future requirements, and under present arrangements this amount can and is being expanded for an additional 400 million. This plan is one of a number of steps taken in advance of definite requirements to put the industry on a wartime basis for maximum output to the end that machine tools will be available for all reasonable requirements as well as urgent needs and that the facilities thus provided will be ample to form the raw materials into the finished product.

## MAGNESIUM

No detailed procedure has been worked out for magnesium since under the terms of Order M-2-b, which controls the distribution of this metal, deliveries can only be made to purchase orders bearing a rating of A-1-j or higher. Confining delivery of material to this series of ratings means that there is practically none delivered to other than military uses. The relation with civilian activities is therefore not discussed in any detail.

The demand for defense uses of the metal is considerably greater than the supply, and a large proportion of the efforts of the magnesium branch is devoted to uncovering ways and means of expanding the capacity of the industry. Considerable expansion has already taken place, and more will be available in a short time; but it will still be no more than enough to meet the military needs.

## MANILA FIBER

### INTRODUCTION

The principal use of manila fiber is in the manufacture of marine cordage (hawsers and ropes) which take about 40 percent of the total supply. The following uses each take about 10 percent of the supply,

lines and running gear for fishing vessels, oil-well drilling cables, and various industrial uses for hauling, the operations of mines, et cetera. It has an important use in the manufacture of paper for wrapping electric cables and of condenser paper, although this takes a relatively small portion of the total supply. A considerable part of the total supply formerly went into agricultural uses, for which it is not essential, since sisal is a satisfactory substitute.

### HISTORY OF ALLOCATION CONTROL

1. *Action previous to formal control.*—Action previous to formal control was limited to efforts to bring about the gradual accumulation of a national stock pile.

2. *Development of first order.*—(a) The mandatory priority order, M-36, was issued following a request of the Army and Navy Munitions Board. Informal committees representing the industry were consulted and agreed that the order was desirable.

(b) The order reflected the wish to accumulate a stock pile at a rate considerably faster than that which unrestricted consumption permitted.

### METHOD OF ALLOCATION

The order sets up two classes of cordage: A and B. It stipulates that manila fiber may only be processed for definite uses. Class A and class B may only be processed for sale or delivery to certain specified uses, which are: defense orders, commercial marine uses; oil and gas wells, drilling cables; in mining operations, in hoisting and in transmission of power.

Other provisions permit sales of manila lariat and yacht rope, and rope of such special construction as to be unfit for the uses now permitted, from stocks in hand or in process on August 29, 1941. They also permit retail sales from such stocks in lengths of less than 540 feet of any manila cordage.

The order further provides that, unless specifically authorized by the Director of Priorities, no person was to begin the processing of any manila fiber except for the purposes of manufacture of class A or class B and that no person was to begin the processing of fiber for the purposes of manufacturing class A or class B cordage, except for sale or delivery to fulfill the categories or orders specified above.

Finally, no processor is permitted to sell or deliver to a dealer, and no dealer is permitted to buy or accept delivery of any manila cordage, so long as the inventory in the hands or under the control of the dealer is sufficient to enable him to fulfill orders in the specified cate-

gories which he will be required to fulfill within ninety days thereafter, as indicated by his customary rate of operation.

#### ALLOCATION POLICIES UNDER THE ORDER

Under the order, manila fiber and cordage is available only for the categories of orders specified, and for those orders, it is available in unlimited quantities.

#### CONTEMPLATED ACTIONS

A revision of the present order to conserve even more carefully the existing United States stocks will undoubtedly be necessary. The precise nature of this revision is not now known.

One possible revision, however, will limit defense orders which may be supplied to orders with an A-9 rating or better. This will shut off manila fiber and cordage from use for maintenance and supply purposes in industry generally, a use which Priorities Order P-100 now makes possible.

### NICKEL

#### HISTORY

In the early months of 1941 occasional complaints were made to OPM that individuals were having difficulty in obtaining nickel. These were adjusted by calling them to the attention of the International Nickel Co.

In March representatives of the International Nickel Co. requested a conference with OPM on the rapidly mounting demands for nickel. At that meeting the International Nickel Co. revealed that orders on them had been extremely heavy over the last 3 or 4 months and exceeded the rate at which they were able to supply. For this reason they had, of necessity, been delaying deliveries as much as possible and were now at a point where they actually had to ration the available nickel. They appealed to the OPM to take jurisdiction over this rationing. At this meeting company representatives showed figures as to supply and demand for the month of March and their proposed rationing to customers for that month. These figures were approved by OPM and immediate steps were taken to make allocations of nickel from the OPM office.

Starting with the month of April a monthly questionnaire form PD-27 was prepared and sent to all major users of nickel. At about the same time General Preference Order M-6 was issued by the Director of Priorities which controlled the deliveries of primary nickel and nickel matter. On September 30 order M-6 expired, and it was superseded by order No. M-6-a, which is now in effect. Both these orders

state essentially that producers of nickel must meet defense requirements first and that the Director of Priorities shall have the authority to direct the shipments of all primary nickel.

### SUPPLY

In January of 1941 the available nickel appeared to be ample for all needs. This opinion was based upon such estimates of military requirements as were available and upon past experience as to requirements of United States industries. However, a report on the situation was requested of the OPM Advisory Committee of the National Academy of Sciences. This report revealed a current shortage but discounted it as abnormal and due to inventory buying. However, when information as to requirements started coming in on the form PD-27, the demands were revealed as far in excess of the available supply. Direct military and lend-lease requirements were again reviewed, but the demands for nickel on preference-rated orders continued to exceed the estimated military demands. Various possibilities for expanding the supply of nickel were investigated by the Bureau of Mines and the Geological Survey, and the International Nickel Co. was requested to expand its operations. In June the company agreed to undertake an expansion of its Canadian properties which would result in an increase in the American supply. The expansion was undertaken with the company's own funds and has been given every possible assistance by the OPM, particularly in helping the company obtain necessary materials and equipment. The program is being pushed at a maximum speed and the expansion is expected to come into production in the latter part of 1942. Other possible sources of nickel have also been investigated by the OPM.

### ALLOCATIONS

The allocations of nickel heretofore referred to are made monthly. They consist of direct allocation to all major users of nickel to cover their monthly requirements. The recommended allocations are fixed at a meeting held about the 25th of each month. Present at this meeting are representatives of the Nickel Branch, International Nickel Co., Civilian Supply Division, OPM, Labor Division, OPM, and starting with the allocations for the month of December representatives of the Army and Navy. A report, addressed to the Deputy Director, Materials Division, is made of the allocation meeting each month and the recommended allocations are transmitted to the Office of the Director of Priorities for his approval. The allocations are then transmitted to the International Nickel Co. in a letter authoriz-

ing them to ship to specified customers specified amounts. Customers are informed of their allocations by the International Nickel Co. and the company submits each month a report of shipments actually made in the preceding month in order that a check may be had as to whether or not the allocations have been adhered to.

The basis of the allocation is form PD-27. This form requires each applicant to list all orders on him requiring nickel which he intends to put into process during the ensuing month. The applicant shows for each of his orders, the name of the customer, the priority rating, the ultimate use to which the material will be put, the percentage of nickel contained in the material (most nickel being used for alloying purposes), and the weight of nickel to be contained in each order as shipped out of the applicant's plant.

The weights are classified according to priority ratings, which each order carries, i. e., A-1 to A-9, A-10, B-1 to B-4. This information is summarized and the customers' requirements under the various preference rating categories are tabulated. Form PD-27 also calls for additional information which includes the weight of material which must be melted or put into process in order to produce the finished material, a statement of the customers' stocks of nickel, both in virgin form and contained in scrap, a statement of the amount of these stocks which he is able to apply against his melting requirements. The form also calls for a statement of stock on hand in past months in the form of virgin metal, scrap, work in process and finished goods.

At the beginning of each month International Nickel Co. furnishes a statement of the total amount of nickel which will be available for allocation during the month. This amount is compared with the total requirements as returned on form PD-27 and a base formula for allocation is arrived at. For example, if the total requirements under preference ratings down through A-10 approximately equals the amount of nickel available, the base formula for the month would be allocations through A-10. This formula is applied to each separate application with suitable adjustments made for what the applicant can supply out of his own stocks. Departures are made from the formula in individual instances where it is not appropriate.

A typical example of this departure is in the case of the electroplating industry. In this case all preference-rated orders are provided for and in addition an arbitrary amount is allocated for the civilian business of the industry. This arbitrary amount was originally set at 50 percent of the industry's 1940 monthly requirements, and has been progressively reduced so that currently it is 15 percent of the 1940 figure. This was done in an effort to keep in business the 2,000

to 2,500 concerns (mostly small) in the country which are dependent almost completely on the supply of nickel anodes for continuance in operation.

In other cases specific programs for allocation of nickel have been set up for certain industries which have made representations as to the hardship endured by reason of the nickel allocations. In every case but one the industry program was worked out by the Nickel Branch with the knowledge and approval of the Labor and Civilian Supply Divisions. In the case of the bimetal industry, a program was worked out by the Civilian Supply Division. The method followed is first to obtain a list of all the firms engaged in the industry; to circularize each firm and obtain its purchases of nickel over some base period, and the channels through which the nickel or nickel-bearing material is purchased; and then to allocate the amount decided upon for the industry through the proper channels to each company in the industry. In most cases the year 1940 or first half of 1941 has been taken as the base period, and the allocation is fixed at some percentage of the requirements of the industry in that base period. Each company in the industry is allocated the same percentage of its base-period requirements.

## RAYON

### INTRODUCTION

Because of the Government policy in cutting off imports of silk and the freezing of raw silk supplies by an Office of Production Management order of August 2, 1941, it became necessary to take immediate action to avert severe dislocation in the silk knitting and weaving industries.

Silk had been used widely in such industries as hosiery, warp knitting (underwear and outerwear), narrow fabrics (ribbons, hat bands, woven labels, etc.), and broadloom weaving (draperies, men's furnishings, dress fabrics, ladies' woven underwear, linings, etc.). In 1940 over 39,000,000 pounds of raw silk were imported into the United States having a dollar import value of approximately \$125,-000,000. Of this quantity approximately 36,000,000 pounds of raw silk were delivered to United States mills and distributed roughly as follows: 30,000,000 pounds, hosiery industry (full-fashioned and seamless); 500,000 pounds each to the warp-knitting and narrow-fabrics industries; 4,000,000 pounds to the broadloom-weaving industry; and the remainder for miscellaneous uses such as thread, fish lines, and electrical wire covering. The industries using silk materials at the time of the silk-freezing order employed in the neighborhood of 250,000 people.

The first problem which had to be met in preventing widespread unemployment was that of finding an adequate substitute for silk. Speaking in a general way it appeared that for most purposes and particularly in hosiery, nylon was the best substitute. However, insufficient quantities were then being made yearly. Even with the coming into production some months following of the Dupont Martinsburg nylon plant, the total supply of nylon would not begin to meet the problem of replacing silk. Fine combed cotton yarn could not meet the problem. With cotton and nylon eliminated as substitutes capable of handling the situation, rayon remained as the one yarn capable of really doing the job. It was possible to divert enough of the total rayon production to replace silk without appreciably curtailing the operations of mills which had regularly been consuming rayon. An allocation program was arrived at since the total capacity of the rayon industry was not sufficient to satisfy the aggregate requirements of defense and civilian industries plus the new demand that had arisen from mills cut off from all raw silk supplies.

#### HISTORY OF ALLOCATION CONTROL

1. No actions were taken prior to formal control, an allocation program having been originally selected as the best means of handling the situation.

2. Development of first and subsequent orders:

(a) The first order was made effective on August 4, 1941. Before it was issued, on August 2, the then Office of Price Administration and Civilian Supply held several conferences with hosiery manufacturers, other users of silk, and rayon producers at which all aspects of the silk shortage problem were explored. These meetings developed the information that (1) rayon yarn is the only substitute for silk immediately available in the necessary quantities and sizes; (2) distress caused by allocation of a proportion of rayon yarn to hosiery mills and other users of silk would by no means be as severe as that which would follow virtually closing every hosiery mill in the country; and (3) mechanical problems surrounding substitution of rayon for silk could be readily solved by most former silk users.

In all there have been three orders which together have furnished the framework for the silk-substitution program. Under the first order (referred to in the paragraph above) the Government did not allocate rayon itself but provided that during the months of August and September, 1941, every producer of rayon yarn should set aside an amount of rayon equal to 10 percent of the total daily output. Of the 10 percent, 7 percent was to be made available by the producer to manufacturers of hosiery and the remaining 3 percent to other manu-

facturers whose products had been made largely or wholly from silk, and to such other persons as may have been caused undue or unreasonable hardship by the freezing of silk. What constituted undue or unreasonable hardship was to be determined by the Director of Priorities of the Office of Production Management.

The original order was modified on September 13, 1941, by the issuance of general preference order No. M-37 which provided in effect that the 3 percent of rayon set aside for undue hardship cases and for former silk users other than hosiery manufacturers should be distributed as follows: one-half for use in making products other than hosiery and one-half to be distributed to such persons and in such amounts as the Director of Priorities should specify as necessary for the relief of undue hardship.

General preference order M-37 was replaced on October 1, 1941, by supplementary order M-37-a. The silk-substitution section is currently operating under this order which substantially follows the pattern of distribution laid down by general preference order M-37 but changes the basis for reserving yarn from a percentage of total production to a percentage of the total number of active spindles.

(b) At the time of the first order it was probably true that the demand for rayon yarn exceeded the production of the industry. No exact figures are readily available to show this, but from the experience to date in administering the silk-substitution program it is apparent that many rayon users were having their shipments of rayon yarn curtailed before the date of the silk-freezing order. This, together with the taking of a certain percentage of the total rayon production as a substitute for silk, made it necessary that every former user of rayon would have to face the necessity of somewhat curtailing operations.

#### METHOD OF ALLOCATION

All allocations are on a 30-day basis.

In order to get silk replaced a former user of silk presents directly to the producer a form PD-113. On this form he shows the total consumption of raw or thrown silk in the first 6 months of 1941, the average monthly consumption during such period and the amount to which entitled in replacement of silk which, under order M-37-a, is three-fourths of a pound of rayon yarn for 1 pound of silk yarn consumed in the average month during the first half of 1941.

To obtain an allocation of rayon directly from the Government (hardship pool) it is necessary for an applicant to file with the silk-substitution section of the Office of Production Management an application Form PD-102 which gives information as to the total pounds

of various kinds of yarn consumed in 1940 and 1941, the total supplies of rayon which are being received in the current month from all normal trade sources, the inventory situation in the applicant plant, and the effect of material on employment and the general mill condition.

Order M-37-a provides in essence that a former user of silk should receive not more than three-fourths of the monthly average number of pounds of raw silk consumed during the first 6 months of the year 1941. This is termed "basic monthly poundage." As a means of enforcing the order, copies of all Forms PD-113 which are filled by a producer of rayon and copies of all allocation orders issued by the Director of Priorities are submitted to the Textile Tabulating Bureau, which is a section of the Office of Production Management, Division of Research and Statistics. Through this mechanism it is possible to determine whether the basic monthly poundage has been exceeded.

#### POLICIES FOLLOWED IN MAKING ALLOCATIONS

The only direct allocation program is from the hardship pool. The amount of yarn in this pool comes to slightly less than 1 percent of the total rayon production and consequently it is necessary to have this reserved yarn do as much good in relieving cases of undue hardship as is possible.

Situations which receive primary attention are outlined in a preference plan for allocations which has been regularly followed. Under this plan small mills receive preference over large mills, small communities over large communities, former silk users over nonsilk users, and mills which have received no rayon over those which have received an insufficient supply. These classifications are not considered iron-bound so as to preclude from consideration types of cases wherein a bona fide hardship exists but to which no classification given above is the governing factor.

Allocations in hardship situations did not commence until late September and to date approximately 350 allocations have been made to an estimated 250 companies. These companies are distributed among all of the various industries which formerly used silk. In terms of employment about 40 percent of the allocations have been made to firms employing less than 25 workers each, another 40 percent to firms employing from 25 to 99 persons, while only a negligible percentage of the allocations have been to plants with as many as 500 workers. There are less than 100 employees in the average mill which has received an allocation of rayon from the hardship pool. In terms of rayon poundage the average allocation has been slightly over 2,000 pounds, which is in itself persuasive evidence to show that small mills receive primary consideration in the allocation program.

As of December 9, 1941, 539 applications had been received out of a total of 1,035 application forms which were mailed out, 341 applications had been given approval by the Director of Priorities. As of the same date, 80 applications had been rejected. The balance of the applications received is accounted for by cases on which action is being withheld pending the receipt of further information and by current cases received within the past week or 10 days. As a general rule, applications are acted upon within one week of their receipt.

#### **PRESENT SITUATION WITH RESPECT TO RAYON PRODUCTION AND THE DEMAND THEREFOR**

The best solution which can be made for the problem at hand is apparently one of distributing equitably the current production. Faced with a shortage exclusive of the replacement of silk, it is necessary that all users of rayon experience some curtailment of operations or that rayon production be increased sufficiently to reasonably meet the demand. That the latter can be done is most unlikely for the following reasons:

1. The rayon industry has been operating at capacity for well over a year.
2. There is very little idle machinery which could be put into operation. The industry has only one inactive plant and the capacity of this plant is not great.
3. The completion of two new plants was under way at the time of the silk-freezing order but the projects have been held up for one reason or another because of the war program. However, even if these plants had been completed their total production would not increase the over-all poundage produced by more than a few percent. It takes approximately one year to build a new rayon plant and to get it into production and for this reason, among others, the creation of new capacity is not deemed feasible.

#### **CONTEMPLATED ACTION**

The rayon-allocation program has had only 2 full months of operation, as yet too short a time to determine its effectiveness. There is a strong possibility that a greater amount of rayon will have to be set aside for direct Government allocation in order adequately to handle serious hardship arising from the silk-freezing order and to distribute more equitably the total available supply; but to date no compelling evidence has been presented to show the need for an all-out allocation program. The situation is under current study.

## RUBBER

### INTRODUCTION

Rubber is an imported material which constitutes a more or less important component of about 40,000 products for transportation, industrial, commercial, household, and personal use. Under normal conditions about 70 percent of the rubber consumed in the United States is used in the manufacture of automobile and truck tires and tubes. It also has important uses in hose, belting, packing, wire insulating, clothing, and medical and surgical goods.

While most of the rubber-producing areas were controlled by friendly powers, the vulnerability of these areas to Japanese attack, the uncertainty of shipping under conditions of war in the Pacific, and the substantial need of rubber to keep our military and industrial machine running, and to safeguard the health of civilians, made necessary the accumulation of a stockpile of crude rubber. It was decided to accumulate this stockpile by increasing imports and reducing the consumption of rubber.

### HISTORY OF ALLOCATION CONTROL

1. No official actions to allocate rubber were taken prior to the imposition of formal control.
2. In the middle of April 1941 the Office of Production Management consulted with representatives of the rubber industry regarding a reduction in the consumption of crude rubber, to build up a stock pile more rapidly. On May 22, 1941, a conservation committee from the industry recommended that OPM place a ceiling at the rate of 675,000 tons a year on consumption during the last 6 months of 1941. At a meeting of the industry advisory committee on June 19, 1941, the OPM announced that consumption in the last 6 months of 1941 would be held to an annual rate of 600,000 tons. The following subjects were discussed with the industry representatives at this meeting:
  - (a) Gradual step-down of consumption, month by month.
  - (b) Adjustment of base period for small companies because of disproportionate consumption of four large companies, occasioned by abnormal requirements for tires and tubes for original equipment on new automobiles and trucks.
  - (c) Consumption reports.
  - (d) Reserve for special allocation to take care of errors in reporting and unforeseen conditions.
  - (e) Impact on labor—25 percent reduction in pay rolls compared with first 6 months of 1941.

(f) Imposition of proportionately larger restriction on larger companies.

(g) Problems of price control.

(h) Reclaimed rubber capacity.

(i) Subcommittees on conservation, simplification, and labor problems.

At a meeting of the industry advisory committee June 27, 1941, it was announced that OPM would recommend that July consumption need not be reduced below 80 percent of the June figure.

#### METHOD OF ALLOCATION

General preference order No. M-15 was issued by the Director of Priorities on June 20, 1941, requiring processors to reduce their consumption or processing of rubber from all sources to decreasing percentages of the average monthly consumption during a base year, April 1, 1940, to March 31, 1941. Specifically, the order required that no processor consume in excess of the following percentages of his average monthly consumption during the base period:

	Percent
July	99
August	94
September	84
October	84
November	82
December	80

This constituted an immediate reduction of very substantial proportions, inasmuch as the rate of operations in June of this year exceeded by far the average monthly rate during the base period. The reduction in July to 99 percent appeared, even before the order went into effect, to be so severe that a subsequent amendment was issued providing that in no event would it be necessary in July to reduce the amount of rubber processed by more than 20 percent from that used in June.

Processors were required to submit reports of their consumption of rubber by months from January 1, 1938, through June 1941 and for each month during which the order was in effect. In addition, they were required to report their opening and closing inventories for each month and their consumption of liquid latex and reclaimed rubber. Manufacturers of mechanical goods were requested to report their consumption by products for the months of April, May, and June. Manufacturers of camel back have been required to report their monthly consumption for this item starting with April 1940.

Checking of each processor's consumption during each month that the order was in effect against his base-period consumption brought

to light those cases of noncompliance which were referred to the compliance section.

#### ALLOCATION POLICIES

It was the intent of the order to prevent major changes in the competitive position of the rubber processors. In many instances the base year chosen did not represent a completely fair picture of the relative positions of the various companies. For example, a change was made in the base period of a small tire company which had suffered seriously during a severe price war, which existed during a large part of 1940. A so-called small tire company formula was adopted to grant the small tire companies a base computed from the average monthly consumption during 1938, 1939, and 1940. This adjustment was made under the provision of paragraph (j) of the order, which allows the Director of Priorities to take appropriate action to relieve persons upon whom compliance with the order would work an exceptional and unreasonable hardship.

Other adjustments made under paragraph (j) did not affect a large group of processors in any one industry. Rather, adjustments were made for individual companies on grounds such as the following:

1. That a strike crippled production during the base period.
2. Machinery and equipment had been purchased for expansion and was in operation shortly before the restriction was put into effect.
3. That heavy seasonal requirements in the last half year made the restrictions of the order unfair.

In addition to these adjustments, increased quantities of rubber were granted broadly to all independent producers of mechanical goods, wire, and cable, to compensate for the substantial requirements for these products by defense agencies and industrial concerns. The pressure on these companies was so great that it was possible to make these adjustments with the certainty that the increased quantities of rubber allowed would not provide an opportunity for increased business which was not directly or indirectly important to the defense program.

Finally, it was decided to exempt all processors who consumed less than 10 tons a month from the requirement that they reduce their consumption in accordance with the scale of percentages. It was provided, however, that there should be no increases in consumption over and above the amount used during the base period, unless such increases could be justified to the full satisfaction of the allocation unit.

In carrying out the rubber restriction order, making adjustments

to avoid undue hardship, and providing additional rubber to insure production of defense articles, the allocation unit has found it necessary to establish a group of policies as its guide.

1. Until October all allocations were made to companies as a whole, the rubber to be used at their own discretion after filling defense orders. In October, November, and December allocations were made to individual companies for the production of specified products deemed essential to satisfy minimum civilian requirements.

2. Allocations have been made to companies as a whole without specific regard to the amount of defense business they had. This has been done for four reasons. First of these is the fact that direct Army, Navy, and Lend-Lease orders have required less than 20 percent of the rubber processed. Second, the necessity of accepting defense orders within a quota tended to promote a spreading of defense business. Third, such a method avoided the serious administrative problem of verifying thousands of individual defense orders. Fourth, that method made it more certain that the stock-pile objective would be attained.

3. Labor's interests in the allocation program were taken care of by an amendment which provided that individual companies owning more than one plant should not alter their allocations between plants without advising the allocation unit. Also, paragraph (j) of the rubber order provided the right of appeal in the event that restriction creates undue hardship and the allocation unit considered not only past processing records and present defense orders, but the effect of the restriction upon dealers, labor, and the communities in which plants were located.

4. No provisions were made for the establishment of quotas for new companies, nor for additional allotments to companies desiring expansion, unless that expansion was necessitated by defense business or completed and processing begun before the restriction order was issued. There was also no provision for the transfer between companies of a rubber quota.

5. In a few instances companies were permitted to use rubber in excess of one month's quota, with the understanding that the excess so used would be deducted from quotas for future months.

6. On some occasions individual processors refused to fill orders for rubber products placed by one or more of their regular customers. Appeals under these circumstances were made under paragraph (f) of the Order, which allowed the Director of Priorities to take appropriate action to avoid undue hardship on the customers.

7. In some instances, additional allotments of rubber were provided when the effect of such action made possible the conservation

of scarcer materials. This action generally was taken only on the advice of the branches handling the materials so replaced.

#### **PRESENT SITUATION**

With the outbreak of war in the western Pacific, the emergency for which the stock pile was being accumulated has materialized. The demands of the war program make it necessary to reduce civilian consumption of rubber products by as much as 80 percent. This restriction can be made less severe by the development of capacity for the production of synthetic rubbers, the retention under the control of friendly powers of the rubber growing areas in the western Pacific, and the establishment of a convoy method, or the development of alternative shipping routes which will result in the maintenance of some imports of rubber. Since the building of synthetic manufacturing facilities will be a lengthy process and the amount of crude rubber which we can continue to import, if any, is a question as yet unsolved, the immediate future must foresee a very severe cut in the civilian consumption of rubber products.

#### **CONTEMPLATED ACTION**

Under the circumstances described above, a supplementary rubber restriction order has been issued, the effect of which has been to reduce the consumption of rubber for all purposes between 40 percent and 50 percent. The Labor Division of the Office of Production Management, working with the help of the plant conversion service of the division of contract distribution, is taking all possible steps to alleviate the effect of the impact of this supplementary order on rubber workers and to convert manufacturing facilities to war purposes. The conservation section of the rubber and rubber products branch is taking action to eliminate or reduce as far as possible the usage of crude rubber in thousands of rubber products. In order to avoid the disorganization of the national economy, an orderly program for the rationing of tire usage is being developed by the rubber and rubber products branch, the civilian allocation section of the civilian supply division, and the rubber section of the Office of Price Administration.

Coupled with the expected severe restriction on the civilian use of rubber products is the action of the Office of Price Administration, which is taking steps to establish price controls to minimize the harmful effects of the expected shortages of consumers' goods.

#### **SILK, RAW**

##### **INTRODUCTION**

Virtually the entire supply of raw silk has been imported from Japan and China. Its principal civilian use was in the manufacture

of hosiery, which in 1940 took about 90 percent of the total supply; it was also used in the manufacture of piece goods, in which in recent years rayon had increasingly supplanted it. Its military requirements are principally for parachutes, silk thread, and medical uses (sutures)

### HISTORY OF ALLOCATION CONTROL

#### 1. Actions previous to formal control.

No control action was taken prior to the issuance of the mandatory Priority Order M-22 on July 26, 1941.

#### 2. Development of first order.

(a) The Army and Navy Munitions Board, in a letter addressed to OPM on July 21, 1941, requested that raw silk be placed under control coincident with the President's order freezing Japanese funds in the United States. The need for action was urgent to prevent dissipation of the stock on hand, and the industry was not consulted.

(b) The order resulted from the expected cessation of silk imports from Japan and China, and the importance of the military requirements; other factors were not important.

### METHOD OF ALLOCATION

Under the Mandatory Priority Order, all stocks of raw silk in the United States were frozen. No person was permitted to deliver, or accept delivery of, any raw silk unless specifically authorized by the Director of Priorities. Under the order as amended on August 12 and October 16, a preference rating of A-10 was assigned to (1) contracts or orders for silk cloth, shroud lines, tape, or thread for life, material, or flare parachutes to be delivered to or for the account of the War Department, the Navy Department, or the Weather Bureau of the United States, and (2) contracts or orders for silk in any form required by the persons placing them to fulfill contracts or orders on hand, of the types described in (1), and (3) contracts or orders for raw silk placed by the Defense Supplies Corporation. Silk is also released to manufacturers of surgical thread, upon application to the Director of Priorities.

The order also limited quantities of silk knitted, woven, or otherwise processed by any person in any week to the amounts processed during the week ending July 26, 1941, without specific authorization by the Director of Priorities, and forbade throwing, spinning, or other processing of raw silk except as otherwise provided in the order or specifically authorized by the Director of Priorities.

Persons delivering or accepting delivery of raw silk in accordance

with the provisions of the order are required, not later than the close of the next business day following delivery, to notify the Textile Section, OPM, in writing, of the amount, the bale numbers, origin, denier, size, and color of the raw silk delivered, the names and addresses of the persons delivering and accepting delivery, and the identifying number or numbers of the War, Navy, or Commerce Department contracts. Each holder of raw silk was required to fill out Form PD-78 reporting amounts of stocks on hand and their ownership.

#### **ALLOCATION POLICIES UNDER THE ORDER**

As stated, no raw silk is released from the frozen stocks except for defense requirements. However, under the allocation order for rayon M-37, 9 percent of the total rayon production is being made available to former users of silk. The operation of this order has been described in a separate statement.

#### **SILK, WASTE**

##### **INTRODUCTION**

Waste silk is a byproduct of raw silk, spun in this country by about six or eight mills; small amounts have been imported. The defense importance of waste silk derives mainly from its use in the manufacture of cartridge cloth, for which it is particularly suited because, as animal fiber, it leaves no ash in burning, thereby preventing after-explosion. However, the Army has developed substitutes suitable for about 75 percent of its requirements. In civilian uses, its short lengths have been woven into sweaters and other outer garments, sometimes combined with wool. From a civilian point of view, waste silk can be considered relatively unimportant, both with respect to quantities consumed and the availability of substitutes.

##### **HISTORY OF ALLOCATION CONTROL**

###### **1. Actions previous to formal control—**

No action has been taken to control the use of waste silk prior to the issuance of the mandatory Priority Order, M-26, on August 8, 1941. The Army and Navy had previously been able to secure amounts needed without difficulty.

###### **2. Development of the first order—**

(a) The Army and Navy Munitions Board, in a letter addressed to OPM on July 31, 1941, requested that waste silk be placed under control coincident with the President's order freezing Japanese funds in the United States. The need was an urgent one, and members

of the industry were not consulted, except for information about existing stocks.

(b) The order resulted from the expected cessation of the flow of raw silk from Japan and China, and the importance of the military requirements. There were no other factors of importance.

#### **METHOD OF ALLOCATION**

Under the mandatory priority order, as issued on August 8, 1941, all existing stocks of waste silk were frozen. The order forbade delivery or acceptance of delivery of silk waste, silk noils, or garnetted or reclaimed silk fiber (except delivery to importers), unless specifically authorized by the Director of Priorities. It also forbade the beginning of the processing of any such waste except for the purpose of filling a defense order, defined as (1) an order for delivery to the Army or Navy, the Maritime Commission, the Panama Canal, the Coast and Geodetic Survey, the Coast Guard, the Civil Aeronautics Authority, the National Advisory Committee for Aeronautics, the Office of Scientific Research and Development, and foreign governments under the terms of the Lend-Lease Act, (2) any other contract or order assigned a preference rating of A-10 or higher, and (3) any contract or order for material needed to fulfill contracts or orders on hand of the types just described.

Under the amended order of September 5, 1941, restrictions on deliveries are removed. The waste may be partially processed by dressing and spreading, but it cannot be further processed except for the purpose of filling a defense order, defined as above with the addition of orders for certain foreign governments not provided for in the Lend-Lease Act. Persons dressing and spreading waste are required to keep accurate, complete records showing the number of pounds so processed, and to file with the OPM any reports requested.

#### **ALLOCATION POLICIES**

No waste silk is released from the frozen stocks, except for defense requirements, as defined. It is released for this purpose in unlimited amounts.

#### **TUNGSTEN, VANADIUM, MOLYBDENUM, ANTIMONY, AND COBALT**

#### **GENERAL POLICY**

At the present moment, tungsten and cobalt are regulated by general preference orders M-29 and M-39, respectively, which orders

exercise mandatory allocation control. Vanadium is regulated by general preference order M-23, which exercises inventory control. This order is being revised to exercise mandatory allocation control. Antimony will be controlled by a general preference order to be issued promptly. The formulation of this order is now being studied. At the present moment there seems no pressing necessity for putting Molybdenum under the operation of a general preference order. However, complete and reliable information with regard to this element is being collected. The general preference orders mentioned will be described below under the proper headings.

#### METHODS AND PLANS FOR ALLOCATION AND DISTRIBUTION OF MATERIALS

##### TUNGSTEN

Mandatory allocation is exercised under general preference order M-29. This order does not include the allocation of ore and tungsten-bearing scrap, nor is this considered necessary. The allocation of tungsten takes place at the level of the "producer," that is to say, the converter of ore into resalable products; and his product is allocated to his customers. There are two special situations covered by General Preference Order M-29 and its supplement, M-29-a:

(1) The use of tungsten chemical compounds which are not converted into tungsten metal powder is reduced by 10 percent by the order M-29. This figure was arrived at in an informal conference with manufacturers, held August 13, 1941.

(2) Supplementary order M-29-a allows purchase and delivery of quantities of tungsten up to but not to exceed 100 pounds of contained metal per month, without the formality of filing forms with the Office of Production Management. This measure obviously has the effect of permitting the small manufacturer to purchase his supply of material without formalities.

It has been found necessary to limit by allocation the quantities of tungsten delivered in the form of ferrotungsten, tungsten metal powder, and certain other compounds to large consumers, due to the threatened scarcity of this essential strategic material. In the case of small users consuming less than 100 pounds of contained metal per month, it will be seen that no attempt has been made at limitation. In the case of uses of tungsten for essential purposes; such as tungsten wire for filament use, wire and rod for electrical uses, and tungsten salts for fluorescent lighting, where allocation has been necessary this branch has adopted the policy of allocating the amount

requested by the applicant unless it was obvious that his inventory was in excess of any reasonable requirement.

In addition, this branch is doing everything possible to encourage domestic mining of the ore without regard to the size of the operation.

Since the beginning of the work of the Advisory Commission in June 1940, efforts have been made to increase domestic production.

In July 1940 the possibility of increasing the output of its Pine Creek Mine in the Bishop District, Calif., was discussed with the United States Vanadium Corporation, and this was arranged.

The Nevada-Massachusetts Co., the largest producer, arranged late in 1940 to finance construction of new plant and mine development at Mill City and Golconda, Nev., to the extent of \$400,000. Necessity certificate was issued in January 1941.

The United States Geological Survey and Bureau of Mines have worked very closely with this branch investigating prospects, and, as a result, production from small mines is steadily increasing. In the course of drilling in the antimony district of Valley County, Idaho, the Geological Survey discovered tungsten in the Bradley Mining Co. property at Yellow Pine (Stibnite) and this new tungsten mine began production on a small scale last August. Output will be increased as rapidly as possible.

#### COBALT

The situation with regard to cobalt parallels in many ways that of tungsten. With regard to general preference order M-39 (cobalt) and M-39-a, the following differences are to be noted:

(1) In the general order, cobalt ore, crudes and concentrates are under allocation control, and

(2) Supplementary order M-39-a provides that quantities of cobalt or cobalt materials containing less than 50 pounds of cobalt per month may be purchased without the formality of filing monthly reports.

Cobalt for metallic uses and cobalt chemical compounds to be refined to cobalt metal are allocated in exactly the same way as is tungsten. The use of cobalt chemical compounds, except those to be refined into metal, is reduced 10 percent, in a manner exactly similar to tungsten.

The uses of cobalt chemical compounds are largely for frit used in enameling, cobalt blue pigment in the ceramic and glass industry, and for driers in the paint and printing industry. In some of these uses cobalt is apparently not capable of substitution, or if substitutes are possible, the element required for such substitution is restricted; such as, for instance, the use of manganese in driers.

## VANADIUM

Ninety-nine percent of the vanadium in the United States is used in the production of alloy iron and steel. The following table which has been made up from the analysis of very complete data gathered by this branch, shows clearly the types of alloy iron and steel in which vanadium is currently used.

	Percent
1. Cutting tools, including high-speed steel-----	38. 4
2. Steel mill equipment, dies, heavy tools, and tubing-----	12. 8
3. Armor plate, ordnance castings, and forgings-----	26. 8
4. Railroad locomotive castings and forgings-----	3. 8
5. Miscellaneous transmission and automotive equipment, including springs-----	8. 7
6. Miscellaneous uses, principally in castings-----	9. 5
 Total-----	 100. 0

There is no known substitute for vanadium in high-speed steel cutting tools.

The use of vanadium must of necessity be curtailed. It is to be noted, however, that the curtailment of the use of vanadium in certain types of alloy steel and iron will not in any way affect the steel and iron production due to the fact that other steels will be made using other and less scarce alloying elements, or no alloys at all.

The branch is encouraging in every way possible the production of vanadium ores by large and small mining operations, wherever such production is economical.

The expansion of the vanadium-producing capacity in the United States is entirely due to the efforts of this branch. The operations which are expanding are as follows:

*Vanadium Corporation of America.*—This company is expanding its present mill at Naturita, Colo., and also building a new mill at Monticello, Utah. This latter is being built with Government financing.

*United States Vanadium Corporation.*—This company is installing a mill at Rifle, Colo., and doing its own financing.

## MOLYBDENUM

Molybdenum is not currently under allocation control and this branch sees no immediate necessity for adopting such measures. On the other hand, the substitution of molybdenum for tungsten and vanadium is being urged. The largest and most formal substitution program of molybdenum comes under the operation of general preference order M-14, which directs that for every pound of tungsten

high-speed steel one pound of low-tungsten molybdenum-containing steel must be purchased.

This branch is actively looking for new producers of molybdenum ore and concentrates to see if it is possible to find any source of this material.

Our supplies are entirely domestically produced. In the beginning of 1940 stocks on hand were very heavy, since there was no export market. Nevertheless, to provide for expected defense demands and requirements from abroad for war use, early in 1940 Climax Molybdenum Co., the largest producer, was aided in increasing their production. This production is now being further increased.

The byproduct supply produced by certain copper companies is a factor of their copper production.

About 3 months ago the Molybdenum Corporation was urged to reopen the old Urad mine in Colorado and negotiations for Government financing of this undertaking are about concluded. The molybdenum situation is perhaps the most satisfactory of any of the strategic metals.

#### ANTIMONY .

The current position with regard to antimony is due partly to the increased demand of the defense program and partly to the recent unusually heavy rains in Mexico, which curtailed mining operations there to a considerable extent and paralyzed transportation. The formulation of a general preference order placing antimony under allocation control is now in progress. This order will be drawn as closely as possible along the lines of the tungsten and cobalt orders described fully above, and every care will be taken to protect the legitimate interest of the small user.

Beginning in the summer of 1940, the expansion of facilities by the Texas Mining & Smelting Co., Laredo, Tex., was promoted with the result that these have been increased. Further expansion will depend upon ore supplies. Expansion of facilities to produce antimony of the Bunker Hill and Sullivan Co. in Idaho were also promoted—now treating all ore available in their district and producing both refined antimony and antimonial lead.

Unfortunately, antimony is one of the metals in which this country is very deficient, and consequently efforts have also been devoted to stimulating production in Mexico and South America.

#### ZINC

On March 7, 1941, the Director of Priorities announced a plan to take care of urgent defense requirements for zinc. Each producer

was asked to set aside 5 percent of his production beginning the first of April. This tonnage was to be allocated under the direction of the director principally to defense industries where shortages appeared to be delaying the defense program.

On April 22, 1941, it was announced that a new examination of the supply and demand for zinc would be undertaken by the minerals and metals group of the Priorities Division in conjunction with the zinc industry. Special emphasis was to be given to the increasing requirements for defense industries. It was also decided to require each producer to set aside the equivalent of 17 percent of March production which would be allocated during the month of May.

On May 26, 1941, it was announced that the zinc percentage to be set aside for June would be 22 percent of April production.

On June 10, 1941, general preference order No. M-11 was issued putting zinc under mandatory priority control. This order included metallic zinc, zinc oxide, and zinc dust. This order was amended on June 28th, and again on October 16th. Since the latter date there have been no changes.

This order provided that each producer of metallic zinc, zinc oxide, and zinc dust would set aside from his production a quantity to be determined from time to time by the Director of Priorities to be delivered only upon express direction of the Director of Priorities. It also directed each producer to ship the balance of his production in such manner that each customer shall receive a percentage of the producer's commitment to him for the month, including both defense and nondefense orders, equal to the percentage received by every other customer.

Accordingly, on June 28, 1941, supplementary order No. M-11-a was issued by the Director of Priorities which determined the amount of metallic zinc, zinc oxide, and zinc dust to be set aside by producers for the month of July. This was as follows:

1. Metallic zinc—an amount equal to 22 percent of producer's May 1941 production.
2. Zinc oxide—an amount equal to 10 percent of producer's May 1941 production.
3. Zinc dust—None.

After setting up this pool, allocations were made by the Director of Priorities as provided for in the zinc order. Specifically, this provided that the Director of Priorities on and after July 1, 1941, will, in his discretion, make allocation of zinc set aside by the producers as follows:

- (i) For delivery under defense orders or under other orders which

appear to the Director to be directly or indirectly in the interest of national defense.

(ii) For delivery under civilian orders not covered under above; insofar as the Director of Priorities shall make allocations among competing civilian demands, the Director will be guided by the civilian allocation program for zinc issued by the Office of Price Administration and Civilian Supply.

Applications hereunder for the allocation of zinc shall be made to the Director of Priorities on Form PD-20 provided. (At the present time Form PD-94 is used for metallic zinc and zinc dust, and PD-62 is used for zinc oxide.)

The order also provided that no person shall hereafter knowingly deliver zinc to any customer, and no customers shall accept delivery of zinc in an amount which will increase, for any calendar month, the customer's inventory of such material in the same or other forms, in excess of the quantity necessary to meet required deliveries of such customer's products on the basis of his usual method and rate of operation.

For this purpose Form PD-50 and PD-50-A were drawn up to take care of this control on excessive inventories.

During the succeeding months the percentage of metallic zinc to be set aside for allocation was increased to 27 percent and again to 31 percent. These increases were necessary to take care of additional Lease-Lend requirements as well as increased defense requirements in this country.

For the month of December the Director required that each producer set aside 29 percent of his August production for allocation during the month. He did not require the producers of zinc oxide or zinc dust to set aside any tonnage at this time.

During the past year it can safely be said that all defense requirements, both domestic and foreign, were met 100 percent. It has also appeared that all essential civilian requirements have been met with as little disruption to our national economy as possible. It is believed that the continuance of this priorities regulation will be to the interest of all concerned, not forgetting the fact that at any time the Director so desires the entire zinc production may be taken over and allocated to industry if this action is deemed necessary.

## *Appendix C*

### **ADMINISTRATION OF THE REQUISITIONING OF PROPERTY REQUIRED FOR NATIONAL DEFENSE**

Pursuant to Executive Order 8942 of November 19, 1941, the Supply Priorities and Allocations Board established on December 8, 1941, policies and regulations governing the requisition and disposal of property under the act of October 10, 1940 (Public, No. 829, 76th Cong.) and the act of October 16, 1941 (Public, No. 274, 77th Cong.). The Office of Production Management promptly created on December 9, 1941, an inventory and requisitioning section and delegated to this section the functions and responsibilities involved in requisitioning and disposing of property required for national defense.

The following is a detailed description of the policies to be followed and the organization being created to carry out the requisitioning Acts of October 10 and October 16, 1940.

#### **REGULATIONS APPROVED BY THE SUPPLY PRIORITIES AND ALLOCATIONS BOARD <sup>1</sup>**

##### **GENERAL PROVISIONS APPLICABLE TO ALL REQUISITIONING PROCEEDINGS**

(a) As used in these regulations, the term "Requisitioning Authority" means the Office of Production Management in all cases except when requisitioning is initiated under paragraph 4 of Executive Order 8942 in which case the term "Requisitioning Authority" means the head of the department or agency who shall have submitted the proposal for requisitioning to the Office of Production Management.

(b) Promptly after any property is requisitioned, notice of such requisition, in such manner and form as may be approved by the general counsel of the Supply Priorities and Allocations Board, shall be given by the Requisitioning Authority to all persons known to have or claim any interest in such property; and all such persons shall be directed to file such claims with the Requisitioning Authority.

(c) As prompt as practicable after property is requisitioned

<sup>1</sup> The Supplies, Priority and Allocations Board has been supplanted by the War Production Board.

the Requisitioning Authority shall make a preliminary determination of the fair and just compensation to be paid for such property and of the person or persons entitled thereto, and notice of such preliminary determination, in such manner and form as may be approved by the general counsel of the Supply Priorities and Allocations Board, shall be given by the Requisitioning Authority to all persons known to have or claim an interest in such property.

(d) If a preliminary determination of the person or persons entitled to compensation cannot be made, or if any person known to have or claim an interest in such property shall file a written objection to a preliminary determination in accordance with paragraph (c), specifying the grounds for such objection, the requisitioning authority shall direct all such persons to appear in support of their claims before a board or official designated by the requisitioning authority for such purpose, at a specified time and place. Such board or official shall hear the claimants and shall receive any evidence relevant to the inquiry. A stenographic transcript of the proceeding before such board or official and copies of all written evidence submitted shall be preserved. Following such inquiry, such board or official shall make a recommendation to the requisitioning authority as to the person or persons entitled to compensation and the amount thereof, and thereupon the requisitioning authority shall make its final determination as to these matters.

(e) If, in any such proceeding, the person or persons entitled to compensation for the property requisitioned cannot be determined, the amount of such compensation shall nevertheless be determined; and such amount may be set aside and retained, or the proper appropriation charged therefor, until the person or persons entitled to receive the same shall be established.

(f) A requisitioning authority may exercise any power, duty, or discretion vested in it under Executive Order 8942 or this regulation, through such person or persons as it may designate.

(g) Any requisitioning authority, for the purpose of requiring and compelling a disclosure of information under section 4 of the act of October 16, 1941, may administer oaths and affirmations, may require by subpoena or otherwise the attendance and testimony of witnesses and the production of any books or records or any other documentary or physical evidence which may be relevant to the inquiry. Such attendance and testimony of witnesses and the production of such books, records, or other documentary or physical evidence may be required at any designated place from any State, Territory, or other place subject to the jurisdiction of the United States.

**PROVISIONS APPLICABLE TO ACTION INITIATED BY THE HEAD OF A  
DEPARTMENT OR AGENCY OTHER THAN THE OFFICE OF PRODUCTION  
MANAGEMENT**

(a) The Secretary of the Treasury, the Secretary of War, the Secretary of the Navy, the Secretary of Agriculture, the Chairman of the United States Maritime Commission, the Executive Director of the Economic Defense Board, or the head of such other agency as the President may from time to time designate shall, prior to requisitioning any property pursuant to the power granted by paragraph 4 of Executive Order 8942, submit to the Office of Production Management a written statement (in such form as may be approved by the general counsel of the Supply Priorities and Allocations Board) setting forth in reasonable detail all pertinent facts with respect to the property which he proposes to requisition and the proposed disposal thereof, and certifying that he has made the determinations required under said paragraph 4.

(b) Upon the submission of any such proposal, the Office of Production Management shall determine whether such proposal is consistent with its priorities and allocations program and general production and supply plan. The Office of Production Management may consider and act upon the proposed requisitioning separately from the proposed disposal. The determination of the Office of Production Management shall be transmitted in writing to the requisitioning authority.

(c) If the proposed requisitioning is determined to be consistent with the priorities and allocations program and general production and supply plan of the Office of Production Management, the requisitioning authority may requisition the property in accordance with section I hereof. If the proposed disposal of such property has been determined to be consistent with the priorities and allocations program and general production and supply plan of the Office of Production Management, such property shall be disposed of in accordance with such proposal; but if the requisitioning authority desires otherwise to dispose of such property, it may submit a new proposal for such disposal to the Office of Production Management.

(d) In any case in which any requisitioning authority which has requisitioned property pursuant to paragraph 4 of Executive Order 8942 determines that property requisitioned by it and retained is no longer needed for the defense of the United States and proposes to return it to the original owner thereof, it shall submit such proposal to the Office of Production Management, in the same manner as provided in section I hereof, for determination as to whether such proposal is consistent with the priorities and allocations program and

general production and supply plan of the Office of Production Management. The determination of the Office of Production Management shall be transmitted in writing to the requisitioning authority.

(e) In any case in which property is requisitioned or disposed of, or a determination of compensation or of a person entitled thereto is made, or property is returned to the original owner thereof, in accordance with this section II or section IV hereof, the requisitioning authority shall report in reasonable detail concerning such requisitioning, determination, and payment of compensation, disposal or return to the Office of Production Management within 15 days after the event.

#### **PROVISIONS APPLICABLE ONLY TO REQUISITIONING BY THE OFFICE OF PRODUCTION MANAGEMENT**

(a) The Office of Production Management shall keep a written record of each determination made by it, pursuant to the provisions of Executive Order 8942 and the acts, of the necessity for requisitioning property.

(b) Whenever the Office of Production Management determines to requisition property through another department or agency pursuant to paragraphs 2 and 3 of Executive Order 8942, it shall notify such department or agency and request (in such form as may be approved by the general counsel of the Supply Priorities and Allocations Board) it to requisition and dispose of such property, and all action taken shall be in accordance with the determination of the Office of Production Management.

#### **MATTERS PENDING UNDER THE ACT OF OCTOBER 10, 1940**

This regulation shall apply only with respect to property requisitioned after the effective date hereof. If any property has heretofore been requisitioned under the act of October 10, 1940, and such property has not heretofore been disposed of or the determination of the fair and just compensation therefor has not been made, such disposal or determination shall be made in accordance with said act of October 10, 1940, and all Executive orders and regulations of the President thereunder.

#### **REQUISITIONING BY GOVERNMENT AGENCIES OTHER THAN THE OFFICE OF PRODUCTION MANAGEMENT**

Under Executive Order 8942 the Secretary of the Treasury, the Secretary of War, the Secretary of the Navy, the Secretary of Agriculture, the Chairman of the United States Maritime Commission,

the Executive Director of the Economic Defense Board, or the head of such other agency as the President may from time to time designate, may initiate action for the requisitioning of property by submitting proposals for the requisitioning and disposal of such property to the Office of Production Management, whenever he determines that—

*a.* Such property is of the type which may be requisitioned under either of the acts.

*b.* With respect to proposals for requisitioning property under the act of October 16, 1941:

(1) The use of such property is needed for the defense of the United States.

(2) Such need is immediate and impending and such as will not admit of delay or resort to any other source of supply.

(3) All other means of obtaining the use of such property for the defense of the United States upon fair and reasonable terms have been exhausted.

(4) If the property to be requisitioned is machinery or equipment, such machinery or equipment is not in actual use in connection with any operating factory or business or is not necessary to the operation of such factory or business, and

(5) The property to be requisitioned is not a firearm possessed by an individual for his personal protection or sport, the possession of which is not prohibited by existing law.

*c.* With respect to proposals to requisition property under the act of October 10, 1940, there exists a necessity for requisitioning the property in accordance with the provisions of section 1 of the act.

In the case of property to be requisitioned by other Government agencies, the sole responsibility of the Office of Production Management therefore is to determine that the proposed requisitioning and disposal of such property is consistent with the priorities and allocations program and the general production and supply plan of the Office of Production Management. To determine this, all requests for approval of requisitioning proposals will be carefully examined in the inventory and requisitioning section and will be reviewed by the appropriate industry branch of the Office of Production Management. It is anticipated that except in unusual circumstances such examination, review, and clearance can be completed within 24 hours.

#### **REQUISITIONING BY THE OFFICE OF PRODUCTION MANAGEMENT**

It is proposed to establish within the inventory and requisitioning section, an information and investigation unit which will, in co-operation with the Bureau of Research and Statistics, organize to

obtain on a Nation-wide basis, current reports on existing and anticipated shortages of materials at individual plants engaged in defense or essential civilian production. This unit will obtain, similarly, current reports on inventories so as to locate excessive inventories of various materials, and inventories which are intended for nonessential civilian uses. The unit will also seek to locate hidden, lost, and frozen inventories which have been accumulated outside of normal trade channels. The work of obtaining information regarding shortages and surpluses will be carried on to the fullest extent possible through existing field services of the Office of Production Management, the Office of Price Administration, and other Government agencies.

As information is obtained it will be reported to an economic unit where it will be translated into action. The economic unit will be organized along industry lines—that is, there will be an iron and steel group, a textiles group, a chemicals group, and other similar groups. Information regarding shortages and surpluses of iron and steel products, for example, will, as they are reported to the iron and steel group of the economic unit, be recorded and an effort made to match shortages with surpluses.

A "case" will then be prepared recommending the requisitioning of a particular surplus to fill an existing or anticipated "defense shortage." The case will be referred to the appropriate commodity branch for review and recommendation. If approved, the inventory and requisitioning section will proceed to secure the particular surplus in accordance with the official regulations governing its operations. It is anticipated that the various industry branches will similarly develop "cases" upon their own initiative which will be referred to the inventory and requisitioning section for action.

Inasmuch as no funds have as yet been provided to the Office of Production Management for direct purchase of property required for defense or for reimbursing the owner for any property seized, all such purchases and seizures will, for the time being, have to be handled through the Reconstruction Finance Corporation. Cooperative arrangements with the Reconstruction Finance Corporation are being worked out. To be effective, requisitioning must, in most instances, be speedy and definite, otherwise the property may be consumed or may change hands and location and thus be lost. If experience demonstrates that necessary action cannot be secured through the use of R. F. C. funds, consideration will be given to a special fund to facilitate this work.

The various industry and commodity groups of the economic unit will be in complete charge of each "case" as it is developed and will

follow it through from the time it is initiated to the time it is closed. This will involve arranging for the preliminary investigation of the form, grade, quantity, and value of the specific property needed, for the negotiations to purchase, for the seizure if such is necessary, for establishing the value and thus the amount of money to be paid to the former owner (the legal staff will determine the beneficial owner or owners), for setting the price at which the disposal of the property will be made, for arranging for transportation and storage where such is necessary, and for presenting its "case" to a hearing and appeals unit when the value which has been set has not been accepted by the owner and an appeal for an administrative determination of value has been made.

Many of the duties will be performed for the economic unit by a third unit to be established—the business services unit. This unit will carry on, partly through its own staff and partly through the personnel of other Government agencies, the work of conducting the negotiations for private or governmental purchases which, in all instances, must precede any actual seizure, the work involved in determining the quantity, grade, form, and, with the help of the Office of Price Administration, the market value of each specific property, and such work as may be required in connection with the transportation and storage of the property purchased or requisitioned.

The fourth major unit will be a hearings and appeals unit which will have responsibility for scheduling, planning for, and conducting all hearings held in connection with appeals for release of seized property and appeals for the establishment of a higher valuation of such property as may be seized.

A fifth unit will be charged with the responsibility of administering any funds which may be provided for the acquisition and transfer of property, for maintaining the records of property acquired, held, and transferred, and for performing such other financial services as may be necessary.

It must be emphasized again that the present plan of operation is, of necessity, tentative, inasmuch as the inventory and requisitioning section is only beginning to function. However, it does appear that regardless of the nature and magnitude of the problem, the basic plan of organization will, in the end, undoubtedly be very similar to that proposed above.

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