REPORT TO THE CONGRESS

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

UNITED STATES
GENERAL ACCOUNTING OFFICE

Impact Of Shortages Of Processed Materials On Programs Of Vital National Interest

Departments of Commerce, Defense, and Labor
The Environmental Protection Agency and
the General Service Administration

Past shortages of processed materials such as steel, aluminum, castings, forgings, and electronic components increased costs and delayed schedule of procurements; obtaining a priority rating minimized the effect on defense programs, but some civil programs could not obtain such a rating. The economic slowdown has alleviated the shortage problem but such shortages could recur.

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

This report describes the problems encountered by contractors due to the shortages of processed materials on programs of vital national interest.

While reviewing Government acquisitions of major civil and military systems in 1973 and 1974, we noticed an increased frequency of contractor problems in obtaining materials, which appeared to be increasing cost and extending leadtimes. We assessed how the agencies and contractors were dealing with the problems and identified specific impacts of material shortages.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Director, Office of Management and Budget; the Secretaries of Commerce, Defense, and Labor; the Administrator, Environmental Protection Agency; and the Administrator of General Services.

Comptroller General
of the United States

Contents

ABBREVIATIONS

DOD	Department of Defense
EPA	Environmental Protection Agency
FEA	Federal Energy Administration
FPA	Federal Preparedness Agency
GAO	General Accounting Office
OSHA	Occupational Safety and Health Administration

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

IMPACT OF SHORTAGES OF PROCESSED MATERIALS ON PROGRAMS OF VITAL NATIONAL INTEREST

D I G E S T

During periods of shortages in processed materials, such as steel, aluminum, castings, forgings, and electronic components, some Federal programs of vital national interest are delayed. They cannot obtain priority ratings because they do not qualify as "defense related" under clauses of the Defense Production Act.

Accordingly, we recommend that the Congress consider legislation to amend the Defense Production Act to broaden application of the priority and allocation authority to include nondefense programs of vital national interest.

We recommend also that the Congress, to prevent competition among the various priority programs, consider authorizing a single agency to administer all priority programs.

In October 1974 the President, at the request of the Congress, established the National Commission on Supplies and Shortages to study the impact of shortages upon the economy, the means available to cope with these shortages, and the effect of existing Federal policies and practices on the supply of material resources. (See pp. 8 and 9.) It appears that implied in the charter of the Commission would be a study of the impact of the requirements of the Occupational Safety and Health Administration and the Environmental Protection Agency on the current and future capabilities of industry to produce key processed materials and to the use of incentives to expand production capacities if material shortage problems recur. For this reason GAO is making no recommendation on this subject pending the completion of the Commission's work.

In 1973 and early in 1974, shortages of processed materials, such as steel, aluminum, castings, forgings, and electronic components, were causing delays in production schedules

(see p. 5) and inflated prices of shortage materials (see pp. 6 and 7). Producers were reluctant to expand their production capacities to meet an unprecedented growth in demand because of such factors as economic uncertainty, high interest rates, high labor costs, and extra expenses to meet environmental and safety standards. (See p. 14.)

Contractors have taken a number of actions to minimize the impacts of shortages. (See pp. 7 and 8.)

Government contractors were affected on programs not defense related because they were unable to place their orders. Defense contractors, however, were not as adversely affected as nondefense contractors, since the former had defense priority ratings. (See p. 11.)

In 1950 the Congress gave the President authority, through the Defense Production Act, to establish and enforce priorities for distributing materials. The President delegated this power to the Federal Preparedness Agency in the General Services Administration.

Although the Federal Preparedness Agency retains final authority for determining Government and non-Government programs to receive priority ratings, in practice it has given priority authorizations on the basis of certifications by the Department of Defense that the programs are in the interest of national defense. It is possible, therefore, that nondefense programs of vital national interest, such as those for energy and transportation, will be unable to compete for scarce resources.

The Federal Preparedness Agency is concerned that extending the priority and allocation authority to include nondefense programs would dilute the purpose of the Defense Production Act. GAO believes that programs of vital national interest, even if not defense related, should also have priority ratings.

Both the Environmental Protection Agency and the Occupational Safety and Health

Administration contend that their respective environmental and health regulations were insignificant in restricting production capacity growth. (See pp. 14 and 15.)

The Environmental Protection Agency said that there was no evidence that environmental regulations had had any marked impact upon existing production capacity. The Occupational Safety and Health Administration believes the impact of these regulations should be studied, to provide valid data for deliberate decision-making. GAO believes that, in view of the contractor and producer comments on Environmental Protection Agency and Occupational Safety and Health Administration regulations, the impact of these regulations should be studied.

CHAPTER 1

INTRODUCTION

During 1973 and continuing into 1974, the U.S. economy was troubled by the most serious shortages 1/ or tight supplies of basic commodities since the Korean war. Although the major concern was focused on the energy shortage, supply problems were occurring with such commodities as steel, aluminum, castings, forgings, and electronic components.

The shortages were attributed to a variety of factors. Domestically, analysts were attributing the problem to a strong demand, lack of production capacity, inadequate industrial planning, disincentive of domestic price controls, Government fiscal and monetary policies, inadequate transportation resources, and weather disturbances.

We began noticing the effects of the problem on major Government programs during 1973. Prime contractors and major subcontractors complained about a multitude of difficulties in obtaining needed supplies, materials, and component parts to support their efforts. Early in 1974 there were indications that these contractor procurement difficulties were increasing to the point where cost and schedule impacts were becoming more evident. Because of these problems and their increasing frequency, we assessed the effects of material shortages and the ways the agencies and contractors were dealing with the problems on procurement for Government programs.

In November and December 1974, reports were received which indicated that shortages were easing. Buyers were reporting what seemed to be the beginning of a turnaround in the electronic components field, and copper producers discussed cutting output because prices were down and inventories were growing. In addition, there were reports of order cancellations which, in turn, helped to balance supply and demand.

This improvement in the availability of supplies appears to have been due more to the recession and cancellations of orders than to positive problem solving. As a result the changes may be somewhat misleading as an indicator of permanent turnaround in the market. In effect, the

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1/For purposes of this report, a shortage is the unavailability of an item when it is requested within the normally expected leadtime.

reduction of shortages could discourage suppliers from expanding. If the recession eases and demand returns to the mid-1974 level, the result could be more and possibly greater shortages.

SCOPE OF REVIEW

Our review covered 12 diverse major systems which were being developed for the Government and which involved work throughout the United States. The systems, estimated to cost at least $38 billion, included ship, aircraft, missile, mass transit, power-generating, flood control, and space projects. We obtained pertinent documentation from the Department of Commerce and held discussions with officials of the General Services Administration and the Environmental Protection Agency (EPA).

AGC 00074
AGC 00017
AGC 00024

We made our review primarily at contractor locations. We identified shortages, determined the effects of the shortages, and noted the management approaches used to minimize adverse impacts. We also tried to evaluate the actions the procuring agencies were taking to help the contractors to meet their contract commitments. In addition, we made a limited evaluation of the use and effectiveness of the defense priority system in supporting programs of importance to national defense.

To gain some understanding of the shortage problem and future trends, we obtained some limited data, mostly through interviews, from a number of industrial associations and producers of raw steel and aluminum, castings, forgings, and electronic components. We did not verify the comments made by producers and industry associations.

CHAPTER 2

IMPACTS OF SHORTAGES

Greatly lengthened leadtimes, supplier allocation systems, and increased costs have had a major impact on Government contractors. Contractors have responded with many short-term or stopgap actions to cope with these problems. Although some measures were apparently successful in maintaining contract schedules, schedule slippages occurred.

Although the availability of many materials has increased since we completed our review, it is apparent that this improvement is reflecting the results of the overall economic recession. On the basis of statements from spokesmen for the various industries, it appears that the shortage condition could recur and possibly be worse, once the recession ends. The obvious effect on the Government's procurement programs is that they will require longer production leadtimes and costs will grow because of the increased competition for the limited supply of materials.

IMPACTS OF SHORTAGES ON GOVERNMENT CONTRACTORS

Contractors felt the impacts of material shortages primarily in three ways--fewer sources of supply, schedule stretchouts, and increased costs. These impacts affected contractors to different extents, but all served to complicate the competitive market by changing the normal operation.

Producer-imposed allocation systems

Material shortages constrained the normal operations of the marketplace because producers established and imposed allocation systems on the distribution of their products. The allocation systems that we became aware of were all based on the customers' purchase history. A customer without a history of purchases generally could not obtain an allocation and could not place orders for materials without it, unless it received priority from the Government.

The producer-imposed allocation systems give little recognition to the relative national importance of the various Government and non-Government programs being supported. In fact, in our view development and expansion tend to be obstructed when producers pick and choose who receives their products when shortages exist.

Contractors unable to have orders accepted

Many producers would not accept orders of Government contractors, because the contractors were not customers.

Some contractors, because of the inability to have their orders accepted, had difficulty in meeting or were unable to meet contractual commitments.

1. A contractor for a generator-turbine construction program needed another source for tempered steelplates, because its normal supplier could not meet its delivery requirements. The contractor sent orders to another potential supplier and received a letter back containing the following statement.

> "* * * The matter [order] has been reviewed by our Plate Sales Division * * * which advises that our limited capacity in this type of material has been committed to customers in that geographical area who have historically been served from this facility."

   The contractor therefore had to wait for its normal supplier to make delivery and, as a result, expected to have a 60-day schedule slippage. (See further discussion of this example on p. 5.)

2. A contractor on a dam construction project attempted to buy steelplates from two of the largest domestic steel producers and was told by each that it could not receive an allocation because it did not have a history of past purchases. As a result, the contractor was forced to default on its contract, because it could not meet the schedule and because the agency would not allow a schedule slippage. The project was later recontracted at nearly double the price for the same work and schedule.

3. Still another contractor for both Government and non-Government programs, in ordering steel strand (a cablelike material) for use in construction programs, received the following response from a potential supplier.

> "* * * We regret having to advise you that it is impossible for us to supply you with strand at the present time. The demands on us for this product from our regular customers are already far in excess of our production capabilities, and as a matter of policy, therefore, we have had no alternatives but to decide against opening any new accounts for the time being."

This contractor was unable to locate any source for the strand and, as a result, used more expensive material.

Schedule impacts

Several contractors expected to have to stretch out their delivery schedules because of their inability to obtain key material. A shipbuilding contractor, for example, expects to delay delivery of some ships because a subcontractor could not obtain material. In this case, arrangements were being made to renegotiate the subcontract to allow for the slippage and to accept much higher costs than the subcontractor had anticipated. The increased cost was estimated to be about $1.2 million.

A contractor for a generator-turbine construction program could not obtain steel on time and, as a result, was expecting to have a 60-day schedule slippage. The procuring agency estimated this delay would cause the Government to lose revenues of approximately $1 million. Additionally, we were informed that the Government had contractual commitments for power deliveries and could be subject to claims from various public utilities for failing to meet its commitment.

Many other contractors experienced similar problems and expected various degrees of schedule stretchout. Shortage problems were experienced with a wide variety of products, but the most recurrent complaints concerned procurement of steel, aluminum, castings, forgings, and electronic components.

Leadtime impacts

Closely related to schedule slippage problems are the stretchouts, when the procurement cycles are extended to accommodate rapidly lengthening leadtimes for materials. For example, malleable castings had to be ordered at least 20 weeks earlier in June 1974 than in July 1973. We compared other leadtimes for various materials, which were obtained from contractors that we visited, as follows.

Leadtime Comparison in Weeks

Commodity	July 1973	June 1974	December 1974
Steel bars and rods	12	30	20 to 34
Steelplate	15	50	40 to 50
Steel castings	14	40 to 52	40 to 52
Malleable castings	20	40 to 52	40 to 52
Forgings	15	40	30 to 50
Steel wire	12	30	5 to 20
Copper tubing	4	20 to 25	5 to 20
Aluminum wire	12	34 to 40	30 to 40
Aluminum castings	9	36 to 38	20 to 36
Aluminum forgings	10	36 to 48	30 to 52
Engines	12	10 to 30	10 to 30
Gears	12	10 to 30	10 to 30
Transformers	8	20 to 30	14 to 50
Semiconductor devices	14	8 to 26	8 to 26
Resistors, capacitors	8	40 to 60	18 to 60
Plastic resins	4	5 to 20	5 to 20
Methanol	2	5 to 10	5 to 10

More and earlier long-leadtime funding was required for specific programs because of leadtime growths. For one missile program, the contractor initiated long-leadtime procurement 6 months ahead of the supplier's quoted leadtimes, where previously no such advance procurement was warranted.

Cost impacts

The increased prices of scarce materials are affecting Government procurements, as shown below.

Price Comparison

Commodity	July 1973	July 1974	Percent increase
Steel scrap (ton)	$53.00	$145.00	174
Copper (lb)	.60	.86	43
Lead (lb)	.17	.25	47
Zinc (lb)	.21	.35	67
Tin (lb)	2.18	4.49	106
Aluminum (lb)	.25	.34	36
Microelectronic parts	10.38	14.58	40
Capacitors	5.47	6.46	18
Connectors	5.93	9.21	55
Resistors	.72	.78	8
Castings	28.55	33.60	18
Forgings	15.80	20.20	28

Most contractors expressed the opinion that future contracts would reflect the much higher costs for material. They believed that the shortages contributed greatly to the inflation of prices and estimated that many programs would cost considerably more than originally estimated. One major contractor for mass transit railcars indicated that future contract prices would increase because material costs had increased 25 to 30 percent in 1 year.

ACTIONS TAKEN BY CONTRACTORS TO MINIMIZE THE IMPACTS OF SHORTAGES

Contractors took numerous management actions to avoid missing delivery target dates, but the contractors indicated that extra administrative time and expense had been incurred. Some contractors said that they had assumed additional financial risks by extending support to certain work before it was under contract.

Some of the specific actions contractors took to minimize the impacts of shortages included:

--Placing greater emphasis on using priorities, through the Defense Materials System, to place orders and to obtain earlier deliveries. (The number of special priority assistance requests submitted to the Department of Commerce increased from 510 in 1973 to 1,906 in 1974.)

--Using more substitute materials, Government-furnished equipment, and off-the-shelf items. (Contractors were able to use available goods instead of going through lengthy processes of ordering new goods.)

--Establishing materials conservation and control committees to conserve scarce materials. (At least one contractor established a committee to identify materials in short supply and plan their efficient use.)

--Seeking of new sources of supply for scarce materials. (Contractors attempted to develop new suppliers by getting firms to expand their product lines, and even by helping them financially.)

--Establishing subcontractor assistance programs to avert unrealistic delivery promises by subcontractors, to help them meet their schedules. (Subcontractors' material leadtimes used for projecting delivery schedules are reviewed and assistance is given to subcontractors who have difficulty in obtaining material.)

--Applying extra work and personnel as necesary to keep materials and parts flowing on time to their programs. The extra work includes sending representatives to suppliers' plants to negotiate with them and to "pressure" them and shopping around for suppliers with shorter leadtimes.

--Reducing the overall processing time for placing material orders. (One contractor, for example, concentrated on reducing the time it took to process a purchase request and obtain the material ordered and thereby reduced the overall leadtime.)

--Consolidating orders and centralizing procurement in order to (1) increase the size of the orders, (2) increase interdivisional cooperation, and (3) maximize the company's leverage in the marketplace. In a high-volume seller's market, Government programs tend to be at a procurement disadvantage because they often involve unique materials in small quantities. One contractor attempted to neutralize this disadvantage by consolidating orders at both the division and the corporate levels.

--Making advanced purchases or front-end loading. (Contractors, fearful that materials would not be available if they waited until normal time to order, placed their orders earlier and for larger quantities. Some contractors, to maintain program schedules, committed themselves for materials before having contractual authority.)

Contractor officials said that their actions were stopgap measures to meet the immediate impacts of supply shortages and that, in the event of long-range shortages, more positive action would be required to expand capacity.

REMEDIAL ACTIONS TAKEN BY THE EXECUTIVE BRANCH

After we began our review, the executive branch took some remedial actions.

DLG 00705

In October 1974 the President, at the request of the Congress, established the National Commission on Supplies and Shortages. The Commission is charged with:

1. Determining the existence or possibility of materials shortages, both long and short term.

2. Assessing the impact of such shortages upon the economy.

3. Delineating options available for dealing with such shortages and the actions necessary to implement selected options.

4. Evaluating existing Federal policies and practices which may affect the supply of material resources and other commodities.

5. Determining necessary legislative and administrative actions needed to cope with resources and commodity problems.

6. Determining means whereby materials-related information may be most effectively and economically gathered and coordinated.

In August 1975 we discussed shortages of processed materials with the Counselor to the Chairman of the Commission. He informed us that the final five members of the Commission would be appointed in the near future. Subsequently the appointments were made and the 13 Commissioners held an organizational meeting in September 1975. As of December 1975 the Commission had been granted a 1-year extension to March 1977. The Commission had drafted a work program and planned to hold hearings and issue a report by December 1976.

In January 1975 the Office of the Director of Defense Research and Engineering and the Office of the Assistant Secretary of Defense (Installations and Logistics) sponsored an interagency workshop with industry to study the supply and shortages of materials critical to defense needs and formation of a senior-level steering committee.

There were 10 major recommendations developed by the workshop which were presented to the Department of Defense (DOD) Steering Committee on Material Shortages. (See app. VIII.) The steering committee decided the first five recommendations required immediate attention. Actions on most of the remaining recommendations are either already underway or within the purview of other agencies for implementation.

DLG 00706

Representatives of other Federal agencies, including the Department of Commerce, EPA, the Occupational Safety and Health Administration (OSHA) of the Department of Labor, and the Federal Preparedness Agency (FPA) of the General Services Administration, have expressed a strong interest in working with the steering committee.

Labor: AGC 00009
OSHA: AGC 00494
FPA: AGC 00296
DOD: AGC 00005

CHAPTER 3

PRIORITIES AND ALLOCATIONS

Since 1950 it has been recognized that the ability to mobilize the country for national defense and security would require some diversion of certain materials and facilities from civilian use to military and related uses. The President was provided with the authority to accomplish such diversion, and at this point, we believe that the Congress should consider broadening the authority to include nondefense projects vital to the Nation.

AUTHORITY

Title I of the Defense Production Act of 1950, as amended, authorizes the President to establish priorities in the performance of contracts or orders necessary to promote the national defense and to require the acceptance and performance of such contracts or orders to insure such priorities. The same title also authorizes him to allocate materials and facilities to promote the national defense. The term "national defense" is defined in the Defense Production Act as "programs for military and atomic energy production or construction, military assistance to any foreign nation, stockpiling, space, and directly related activity."

These powers have been delegated to FPA. Under the general policy guidance of FPA, the Department of Commerce administers a system of priorities and allocations relating to the broad field of industrial production and materials as well as to construction and research and development.

DESCRIPTION OF THE SYSTEM

Under the system, claimant agencies assign priority ratings to their procurement contracts. Prime contractors, in turn, assign priority ratings to subcontracts. This is designed to insure that the producers at each level will meet specified delivery schedules even though doing so may entail compromise of delivery commitments under contracts and orders that have no similar rating. The system similarly empowers these agencies to issue, or to require their suppliers to issue, orders for controlled materials--aluminum, copper, nickel, and steel mill products--against quarterly set-asides established by the Department of Commerce. The agencies and their contractors, subcontractors, and suppliers can also mandate the acceptance of rated- and controlled-materials orders if more conventional, and less compulsive, procurement procedures prove inadequate.

In some cases these routine procedures may not be effective in insuring timely delivery. This may result from a variety of situations, such as conflicting rated orders on a particular supplier's schedule. To meet these contingencies, the Department of Commerce has directive authority enabling it to render a broad range of special priorities assistance.

EXTENT OF APPLICATION

Since this system gives claimant agencies and their suppliers a first call on productive capacity, it can do much to insulate the agencies' procurement programs from the increasing leadtimes that result from capacity shortfalls. It is not surprising, therefore, that DOD, the principal claimant agency, has stressed the need for its purchasing activities to exploit the priorities and allocations systems as the preferred approach to alleviating the problem of rapidly escalating leadtime.

A number of agencies outside DOD are entitled to priority support under the Defense Production Act for many of their procurement programs. The Energy Research and Development Administration is, like DOD, a claimant agency, and the Federal Aviation Administration and the National Aeronautics and Space Administration are subclaimant agencies under DOD. Two recent laws, the Federal Nonnuclear Energy Research and Development Act of 1974 and the Safe Drinking Water Act, provide for priorities for obtaining scarce, critical supplies of materials and equipment essential to conducting a national program of basic research and development of energy sources and for obtaining chemicals needed for water pollution programs. The Administrator, Federal Energy Office (FEA), told us on May 29, 1975, that energy legislation currently under consideration by the Congress contained provisions for FEA allocation authority.

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EXTENSION OF PRIORITY SUPPORT TO IMPORTANT CIVIL AND CIVILIAN PROGRAMS

Although FPA has retained final authority for determining what civil or civilian programs are "necessary or appropriate to promote the national defense," it routinely seeks DOD certification before assigning priorities. DOD is looked upon by FPA as the department having special competence to measure the impact on defense of a priority request, and the DOD recommendation is the essential ingredient in an FPA determination of whether to support a request for priority assistance.

DOD believes that, when a program appears to have little or no discernible relationship to military programs or when

DOD does not have the information to make a reliable judgment as to whether the program promotes the national defense, DOD cannot certify the program. It is also DOD's opinion that efforts which only indirectly relate to the national defense cannot be certified or supported for ratings by DOD.

We believe there are situations, however, in which narrow interests can too readily influence DOD's discretion in this regard.

Priorities support for civil aircraft production

In 1953 priorities and allocations support was extended to civil aircraft production and to civil airline maintenance and repair operations because the national passenger and cargo aircraft capacity did not adequately meet military airlift requirements. Such support was required to insure timely production, maintenance, and repair operations of large civil transport aircraft. This support continued until June 1971. During the time it was in effect, DOD and the aircraft manufacturers voluntarily agreed that military aircraft would be produced ahead of all civil aircraft even though both may have been assigned equal priority ratings. This agreement was supplemented by the special priority assistance that could be rendered by the Department of Commerce when necessary to meet DOD delivery dates.

The Office of Emergency Preparedness, the predecessor to FPA, decided in 1966 to discontinue this support, but this decision was not carried out until 1971 because it was recognized that sudden withdrawal of such support could have potentially severe consequences for the aircraft and airline industries.

Noncertification of certain commercial shipbuilding

The narrow considerations affecting DOD's certification decisions are evident in the recent action DOD has taken in determining what commercial shipbuilding is directly related to programs for military production and construction.

Priority support has been extended, on a case-by-case basis, to certain commercial shipbuilding programs for some time. Traditionally, such support was routinely extended to any shipbuilding program that had qualified for a construction differential subsidy under the Merchant Marine Acts of 1936 and 1970. This support implied that qualification for such a subsidy entailed prior certification, by the Secretary of the Navy, that these ships were "suitable for economical

and speedy conversion into a naval or military auxiliary or otherwise suitable for use of the United States Government in time of war or national emergency."

In June 1973 the Assistant Secretary of Defense (Installations and Logistics) began to refuse such certification unless the subsidized ships were seen to have direct military use from the standpoint of either current or mobilization requirements. That is, unless mobilization situations were foreseen in which a particular ship would be used in direct support of military operations, its construction was considered to have an insufficiently direct relationship to military programs to merit priority support.

FPA seems to have recognized that DOD's new criterion was too restrictive. In July 1974 FPA wrote to DOD that certification could be based on the need or appropriateness of a civil-civilian program to promote the national defense in the broader context even though the program was not needed to meet a specific and direct military requirement. Although this indicates a desire to revise the criterion DOD has used to deny certification for large oil and gas carriers, it also indicates that FPA plans to continue requesting DOD certification decisions.

Priorities support for energy development

In October 1974 the President announced that he planned to use his authority under the Defense Production Act to allocate scarce materials for energy development. Before that announcement he had delegated to FEA essentially the same authority that FPA now exercises under title I of the Defense Production Act. We were told in October 1974 that the only time FEA had exercised that authority to promote an energy development program was indicated in a joint FEA-FPA decision issued in September 1974. That decision extended limited priorities support to construction of the trans-Alaska pipeline.

DOD was pursuaded to join with FEA; FPA; EPA; the Federal Maritime Adminstration; and the Departments of Commerce, Interior, State, and Transportation in a 5-month factfinding effort which demonstrated that, under certain circumstances, military mobilization programs could be adversely affected by the failure to complete the pipeline, which would qualify the pipeline for limited-priority support.

We were told that FPA and EPA would use the procedure which characterized the pipeline case for determining what other energy development programs should receive priority support under the Defense Production Act.

CHAPTER 4

SITUATION OF PRODUCERS OF SHORTAGE MATERIALS

In mid-1974 producers were operating at or near 100 percent of capacity and had large backlogs of orders. Nevertheless they were reluctant to undertake capital expansion. Among the reasons given for their reluctance to expand were the

--availability of more attractive investments, such as bonds and notes offering high rates of return;

--uncertainties of business forecasts during 1970-74;

--capital drains to meet the legal requirements of the OSHA and EPA;

--high labor costs; and

--high interest rates.

Although none of the producers or trade associations we contacted attributed the mid-1974 shortages to short supplies of raw materials, such as iron ore or bauxite, several commented about the uncertainty of prices of raw materials. It was indicated that this state of uncertainty made expansion less attractive. Also producers were concerned about the prospect of producing nations' imposing embargoes on various raw materials.

Producers and contractors complained frequently about the large investments needed to comply with EPA and OSHA regulations. The producers and contractors told us that the production capacity of certain industries (primarily for castings and forgings) had been adversely affected by the regulations and that a number of companies therefore had discontinued operations. For example, a trade association for castings and forgings suppliers said that 350 foundries had closed since 1969, primarily because it would cost more than the owners were willing to spend to meet the environmental and safety requirements. EPA told us that there was no evidence that environmental regulations had had any marked impact upon existing production capacity. In its monitoring of the impact of environmental regulations from 1971 through 1974, EPA found 69 plants that cited environmental regulations as the principal cause for plant closings or production curtailments, but EPA concluded that the majority of these plants were small, old, or obsolete plants which would have had limited economic life even if there were no pollution control costs.

The regulations' objectives of safer conditions and a healthier environment are universally accepted. Therefore GAO believes that, if productive capacities of marginal firms are to be retained, incentives to comply with environmental regulations may be needed.

OSHA doubted that its regulations were an important factor in limiting productive capacity. OSHA, however, agreed that the impact of its regulations on plant closings should be studied.

STEEL PRODUCERS

As pointed out by the producers and the news media, domestic and foreign steel demands increased dramatically during 1973 and through mid-1974, and as a result, steel mills were operating at or near capacity. In 1973 U.S. steel mills operated at about 97 percent of capacity with an output of 151 million tons, compared with about 78 percent in 1971 with an output of 120 million tons. The largest steel companies reported shipping over 100 percent of their output in 1973, with the excess being from their inventories. We were told that, because the demand for steel was greater than the industries' capacity, the producers were having to turn down orders and stretch out delivery schedules.

Prices and leadtimes

The wholesale price index for steel rose about 35 percent from April 1973 to May 1974; the overall industrial commodity index rose about 26 percent. Steel producers attributed the rise to (1) a 174-percent rise in the cost of scrap from July 1973 to July 1974, (2) increased competition with public utilities for low-sulphur coal, 1/ and (3) rises in the cost of raw materials, such as iron ore, chromium, magnesium, and zinc.

Since 1972 leadtimes have increased considerably. In 1972 the leadtimes for such items as steelplates, sheets, strips, bars, and rods ranged from 2 to 6 weeks; in mid-1974 they ranged from 30 to 50 weeks.

Expectations

At the time of our review, steel producers were expecting the early 1974 situation to last through 1975 and were

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1/Because of increasing air quality standards, low-sulphur, less polluting coal has become a highly sought after fuel.

expecting the industry to produce about 148 million tons in 1974 compared with 151 million tons in 1973. The reduction was attributed to several factors, including shutdowns to repair equipment that had been running at capacity for 18 months.

The industrial associations indicated an awareness of plans to expand annual steel production capacity by 13 to 15 million tons, about 10 percent, by 1977. All of this expansion was expected to be accomplished by modifying existing facilities rather than constructing new mills. After our review, one large steel producer announced plans to construct a completely new plant that would considerably increase its capacity.

ALUMINUM PRODUCERS

From producers and trade associations, we learned that the supplies of processed aluminum in the domestic and foreign markets were very tight because sales exceeded production. Supplies were tight even though inventories were being augmented from the U.S. stockpile, which we were informed had been essentially depleted. From 1971 to 1973 aluminum shipments increased 38 percent, from 5.2 to 7.2 million tons.

Prices and leadtimes

The wholesale price index for aluminum rose about 51 percent from April 1973 to May 1974, while the overall industrial commodity index rose about 26 percent. Aluminum producers attributed the rise to high taxes being levied by foreign suppliers of bauxite, the primary raw material for making aluminum. The high taxes have a major effect on the industry because about 87 percent of the bauxite consumed in the United States is imported.

Leadtimes for aluminum also increased greatly. An industry association official said that in 1971 leadtimes for aluminum plate, skins, wire, cable, bars, and rods averaged about 2 weeks. In mid-1974 the leadtimes were ranging from 34 to 52 weeks.

Expectations

Most aluminum producers told us that aluminum supplies were expected to continue to be tight in 1975 and that they were planning some modest expansion which was to be completed by mid-1977. This expansion would increase the primary aluminum-smelting capacity by about 600,000 tons, or about 12 percent, over the 1973 capacity. This increase was to be primarily from expanding existing facilities rather than

from constructing new plants. The producers told us that, although continued high demand and high prices could encourage expansion, it would still take at least 3 years to get a new smelting facility on line.

CASTING AND FORGING PRODUCERS

According to the casting and forging producers, they had been operating at or near 100 percent of capacity since mid-1973. They told us that their order backlogs grew because the demand increased and that their existing production capacity was not enough to meet the demand. Casting production increased from 16.3 million tons in 1971 to 20 million tons in 1973. With the higher demand in 1974, it was expected that production would be increased. Forging production figures were not available.

Prices and leadtimes

The prices of castings and forgings increased greatly for several reasons. Representatives of the two industries cited increased costs of raw materials, such as pig iron, coke, nickel, and petrochemicals, and the high cost of meeting EPA and OSHA legal requirements as the two main causes for their higher prices.

Major increases in leadtimes between 1971 and 1974 were reported for both industries. Leadtimes for such items as nonferrous metal castings and forgings ranged from 2 to 3 months in 1971 and had increased to about 10 months in mid-1974.

Expectations

Representatives of the casting and forging industries expected strong demand and large order backlogs to continue at least through 1977, with predicted growth in their production through 1978. Estimates of the increase were not available for forgings producers, but castings producers predicted a 28-percent increase in 5 years over 1973's production.

ELECTRONIC COMPONENT PRODUCERS

Electronic component producers also experienced demand in excess of their production capacity. Electronic industry association officials attributed this situation to the rapid growth in applications of electronics to consumer products. These officials indicated that demand grew rapidly for production of such things as components for automotive safety devices, desk and pocket calculators, watches, and data

processing and communications equipment. Additionally, foreign component producers reportedly became less price competitive with U.S. producers because of the dollar devaluation, and as a result, an increased number of buyers looked for U.S. sources of supply.

Electronic component producers indicated that at one time Government contracts were their number one source of income, but they are now considered to be a minor portion of their business. This situation has compounded the procurement problem for Government contractors because they have less leverage with the producers.

We were unable to obtain data on specific industrywide output levels for electronics producers because the data was considered proprietary information. However, on the basis of growing backlogs of orders and increasing contractor difficulties in obtaining needed components, we believe that the electronic component producers were operating at or near capacity in mid-1974.

Prices and leadtimes

Government contractors indicated that prices for electronic components increased greatly in 1974. One major contractor for missile systems developed statistics showing that during the first half of 1974 overall price increases averaged 38 percent for microelectronics, capacitors, connectors, and resistors.

Leadtimes for electronic components increased 400 to 500 percent from June 1973 through May 1974. One Government contractor for aircraft flight-control systems said procurement of elecronic components was its largest area of concern because of the lengthening leadtimes. Another contractor for space systems was also concerned and told us about leadtimes up to 60 weeks, compared with a typical leadtime of 8 to 14 weeks in July 1973.

Expectations

Electronic component producer representatives indicated that some modest expansion was planned but pointed out that, because the industries' total production capacity was very hard to quantify, future capacity could not be realistically projected. As an explanation for only modest expansion, these representatives cited EPA and OSHA regulations and Government contracting methods and controls as disincentives to expansion.

CHAPTER 5

CONCLUSIONS, AGENCY COMMENTS, AND RECOMMENDATIONS

CONCLUSIONS

Because of insufficient producer capacity to handle upward surges in demand, Government contractors have experienced difficulties in obtaining a variety of materials. In 1973 and 1974 Government contractors were faced with producer-imposed material allocations, rapidly increasing procurement leadtimes, and rising prices. The contractors' primary response has been to devote more efforts to managing their procurements. The contractors believe that these efforts can serve to alleviate only the immediate problem, so as to minimize the impact, and probably will not prevent long-term impacts, such as schedule stretchouts or large cost increases. Although we agree that the actions taken probably will not preclude long-term impacts, we believe that many of the actions taken were basically good management practices which should have been employed earlier. The increased management attention given to material procurement should continue to minimize the effects of shortages.

The improvement in the availability of materials in late 1974 could be misleading, since it is related to the Nation's economic recession which has caused demand for materials to fall off rather than caused increases in production capacity to meet the mid-1974 demand levels. It appears that, without development of more production capacity, Government procurements and the Nation's economy could be stifled, if demand exceeds the recessionary levels that existed late in 1974.

It is difficult to fully assess what delayed effects shortages will have on the Government's programs, but it seems apparent that they will include lengthened procurement cycles and increased costs. We believe that, for the Government to cope with a recurrence of material shortage problems, an identification of industries' current and future capability to produce key processed materials is needed. The effect of Government regulations on production capacity and the possible use of incentives should also be considered. However, we are making no recommendation on these matters, pending the completion of the study by the National Commission on Supplies and Shortages.

Additionally, we believe that the shortage situation was complicated by producers' imposing allocation systems on

their customers and refusing to accept orders from new customers. When producers impose allocation systems, the normal operations of the marketplace tend to cease and the mix of the companies receiving allocations dictates which product lines or programs receive their materials.

The primary exceptions to the producer allocation systems were programs assigned priority under the Defense Production Act. With this designation contractors without allocations were at least able to place their orders. The programs assigned priority included most DOD programs and very few nondefense programs, such as those for transportation or energy.

We feel that the decision of whether to provide priority support for civil and civilian programs should depend upon a more independent and more balanced assessment of urgent needs. We also feel that, in making such decisions, FPA should rely more on independent analysis and less on DOD certification or noncertification. The procedures followed in the pipeline case imply such a shift in reliance. We question whether demonstrable relevance to the military programs should continue to be the only prerequisite to the provision of priority support for programs. Other programs, like those promoting development of energy resources, have an urgent national interest and should be considered for production priorities. We believe that, to insure effective administration of a broadened priority system, a single agency should be designated to administer all priority programs.

AGENCY COMMENTS

DOD recognizes that there are other areas of critical importance to the economy involving the national security or the national interest, as contrasted to the more narrow considerations of the "national defense" referred to in the Defense Production Act. The relative emphasis upon these areas in shortage situations during peacetime, emergency, or wartime are appropriate matters for the Congress to consider. Any concern that DOD might have is centered around possible impacts on defense readiness.

The Domestic and International Business Administration said that, with the growing awareness that mineral and other resources are not limitless, it may be inevitable that such broadening will become necessary. It was also concerned that such broadening of priorities and allocations authority not lead to competing systems which would create confusion, added burdens, and resentment in the business community that could lead to the breakdown of all the systems.

FPA said that any legislation to amend the Defense Production Act to broaden the application of priority and allocation authority to include nondefense programs would dilute the purpose of the act. FPA is concerned that use of priorities under other acts be made compatible with the system employed under the Defense Production Act.

The Maritime Administration said that, from the standpoint of its financial assistance programs (e.g., construction differential subsidy and title XI ship-financing guarantees), enactment of this recommendation would be of immense value but would do nothing to correct the material shortage situation experienced by the Nation as a whole. The Maritime Administration believes the Federal environmental standards and regulations have had adverse consequences on the mobilization base that have not been analyzed in any depth and agrees that the impact of these environmental requirements should be more fully explored.

EPA said that the report seemed to accept foundry industry claims of large impacts by EPA-OSHA regulations while ignoring other factors which have led to a continual consolidation of the number of establishments in the industry over the last 20 years. Although we have not verified the comments of producers and industry representatives, we believe the impact of environmental regulations on production capacity should be studied. Such a study appears to be implied in the charter of the National Commission on Supplies and Shortages.

OSHA doubts that its regulations are affecting production capacity but agrees that a study would be beneficial since the absence of valid data on this subject has led to controversy which is not conducive to deliberative decisionmaking.

RECOMMENDATIONS

We recommend that the Congress consider amending the Defense Production Act to broaden application of the priority and allocation authority to include nondefense programs of vital national interest.

We also recommend that the Congress, to prevent competition among the various priority programs, consider authorizing a single agency to administer all priority programs.

APPENDIX I

UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Administration
Washington, D.C. 20230

June 9, 1975

Mr. Victor L. Lowe
Director
General Government Division
U.S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Lowe:

This is in reply to your letter of April 25, 1975, requesting comments on the draft report entitled "Observations of the Impact of Shortages in Processed Materials on Government Procurements."

We have reviewed the attached comments of MARAD and DIBA and believe they are responsive to the matters discussed in the report.

Sincerely yours,

Guy W. Chamberlin, Jr.
Acting Assistant Secretary
for Administration

Attachment

APPENDIX II

UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Maritime Affairs
Washington, D.C. 20230

MAY 28 1975

Mr. Victor L. Lowe
Director, General Government Division
United States General Accounting Office
Washington, D.C. 20548

Dear Mr. Lowe:

As requested in your letter of April 25, 1975, the following are our comments on the draft report entitled "Observations of the Impact of Shortages in Processed Materials on Government Procurements."

The Maritime Administration is in general agreement with the report's findings and conclusions. We have one general observation. Although the report discusses significant cost increases due to many factors, it does not address itself to the sharp increase in the cost of energy in recent years. Unless this issue is considered in depth, any analysis or evaluation of shortages in processed materials will be incomplete.

The report recommends [See GAO note, p. 24.] [that the Congress]:

. Consider legislation to amend the Defense Production Act to broaden application of the priority and allocation authority to also include non-defense programs of vital national interest.

From the standpoint of Maritime Administration's financial assistance programs (e.g., construction-differential subsidy and Title XI ship financing guarantees), this proposed legislation would be of immense value. The report correctly states that the Office of Preparedness has, in effect, abnegated its responsibility in the area of commercial shipbuilding to the Department of Defense (DOD), and that DOD has acted on priority requests by the Maritime Administration more or less in accordance with what we believe to be its own narrow interests. However, it must be pointed out that although legislation of this type could benefit our programs it would do nothing to correct the material shortage situation experienced by the nation as a whole.

[See GAO note, p. 24.]

The entire U.S. industrial complex has come under considerable pressure during the past few years from OSHA, EPA, local governments and environmentally concerned citizens activist groups. This has resulted in diminished productive capacity and higher costs to the consumer. We believe

that these newly enacted Federal environmental standards and regulations have had adverse consequences on the mobilization base, which have not yet been analyzed in any depth. We suggest, therefore, that the impact of these environmental requirements be more fully explored.

[See GAO note.]

The development and implementation of a quickly expandable productive capacity to respond to the cyclical requirements of the national economy and to provide a mobilization safeguard should be given high Congressional priority.

The material shortages experienced during the past two years prompt the serious question of whether or not the U.S. shipbuilding and ship repair industry can respond effectively to a large-scale mobilization effort. Recent studies conducted by the Maritime Administration have produced valuable insights regarding shipyard facility capability and manpower availability but the industrial capacity to supply the yards with materials has not been fully analyzed. Similarly, energy and transportation availability have also not been analyzed.

[See GAO note.]

We also suggest the following minor change. Since the last sentence on page 1 appears to contradict the first sentence on page 15, the wording on page 1 should be revised to read:

> "It is expected that future contracts will reflect the significantly higher costs of materials."

We appreciate the opportunity to comment on the draft report.

Sincerely,

for ROBERT J. BLACKWELL
Assistant Secretary
for Maritime Affairs

GAO note: Deleted comments refer to material not included in this final report.

APPENDIX III

UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Domestic
and International Business
Washington, D.C. 20230

JUN 5 1975

Mr. Victor L. Lowe
Director
General Government Division
U.S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Lowe:

The Secretary of Commerce has asked me to reply to your letter of April 25, 1975, in which you asked for this Department's comments on the General Accounting Office's draft of a report to the Congress entitled "Observations of the Impact of Shortages in Processed Materials on Government Procurements."

The Department of Commerce generally concurs with the observations of the General Accounting Office with respect to the 1973-1974 experiences with industrial materials shortages.

The suggestion that the Congress consider broadening the application of the defense priorities and allocations systems to include non-defense programs of vital national interest is of particular interest to this Department inasmuch as it has administered these systems for many years. With the growing awareness that mineral and other resources are not limitless it may be inevitable that such broadening will become necessary. In fact, some recent Congressional enactments, including the Federal Nonnuclear Energy Research and Development Act and the Safe Drinking Water Act, have included authority for material allocations and priorities. We are concerned that such broadening of priorities and allocations authorities not lead to competing systems which would create confusion, added burdens, and resentment in the business community leading to the breakdown of all the systems. We are working with other Executive agencies to develop delegations of authority to assure compatible programs administered by a single agency. We urge that any

APPENDIX III

future congressional enactments calling for priorities and allocations support of programs of national urgency recognize the necessity for administration of such authority by one agency.

Sincerely,

Tilton H. Dobbin
Assistant Secretary for Domestic
and International Business

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

9 JUN 1975

INSTALLATIONS AND LOGISTICS

Mr. R. W. Gutmann
Director, Procurement and Systems
Acquisition Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Gutmann,

This is in response to your April 23, 1975 letter to the Secretary of Defense requesting comments on your draft report entitled "Observations of the Impact of Shortages in Processed Materials on Government Procurements" (OSD Case #4077).

The observations of your report confirm certain information presented during a January 1975 interagency/industry workshop on materials shortages. The DOD sponsored this three-day workshop with the objective of establishing an exchange of ideas that could lead to methods for solving shortage problems. A copy of the proceedings of this workshop is attached for your information. The Aerospace Industries Association (AIA) presentation (Section M) on lead times, price increases and suggested government actions should be of particular interest to you. It is noted that the lead time data in your report differs from the AIA information and also from data presented in a Defense Supply Agency lead time report, copy attached. The third day of the workshop consisted of five working panels, without industry, scoping the shortages problem and identifying possible solutions. The problems associated with EPA and OSHA compliance were specifically addressed during the workshop.

In order to insure that the efforts of the workshop were not wasted a senior level DOD Steering Committee for Materials Shortages was established. Major functions assigned to the Committee were: (1) explore the establishment of a materials data base (2) maintain liaison with other government agencies and industry and (3) plan a long range program for material substitutes. This improved liaison between agencies has been of great assistance.

Because of the interests expressed by other agencies and the benefits derived from interagency participation we have initiated action to establish an interagency steering committee for materials shortages. The letters to 13 various agencies, one copy attached, also append the workshop panel reports. This was done to highlight the various areas affecting materials shortages that are outside of DOD's responsibility but need consideration.

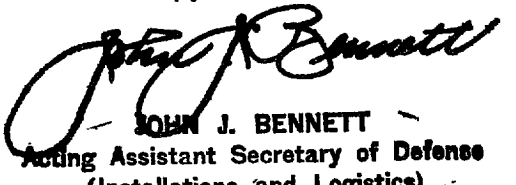
APPENDIX IV

Specific information on the Priorities and Allocations chapter of your report are included as attachment #1. In general we recognize that there are other areas of critical importance to the economy involving the national security or the national interest, as contrasted to the more narrow considerations of the "national defense" presently encompassed by the Defense Production Act. The relative emphasis upon these areas in shortage situations during peacetime, emergency or wartime are appropriate matters for the Congress to consider. Any concern that we might have is centered around possible impacts on defense readiness. Final comment on expanding the Defense Production Act is withheld until this area is reviewed in more detail.

The DOD cannot solve the national material shortages problem. We have however initiated various actions to solve materials problems that might affect our defense needs. We have established that there are many studies of materials shortages currently being conducted by industry, non-profit institutions, and congressional and executive agencies. A central source for this data could be of use to decision makers. We have initiated the establishment of a small scale data base to determine its usefulness.

We appreciated the opportunity to comment on your draft report.

Sincerely,



JOHN J. BENNETT
Acting Assistant Secretary of Defense
(Installations and Logistics)

Attachments
1. P/A Specific Comments
2. Proceedings of DOD Workshop
3. DSA Lead Time Report
4. Interagency Letters

COMMENTS ON CHAPTER 3, PRIORITIES & ALLOCATIONS

Page 21 states that there are situations in which narrow interests can too readily influence DOD's discretion as to certification or non-certification of a particular civil or civilian program. It also observes that DOD presently is not obligated to insure that its decisions on certification give adequately balanced consideration to urgent national interests for which other departments & agencies have responsibility. It is further stated that the narrow considerations affecting DOD's certification decisions are evident in DOD actions with respect to determining that commercial shipbuilding is directly related to programs for military production & construction.

The Office of Preparedness has in general properly looked to the DOD for certification or non-certification to establish whether a particular non-DOD program is directly related to military programs. We provide certification where such a direct relationship can be established by the DOD. However, whether a particular program is directly related to "national defense" cannot always be readily established by the Department of Defense alone, particularly where that program is the responsibility of another agency. Where a program appears to have little or no discernable relationship to military programs, or when we do not have the information to make a reliable judgement as to whether the effort "promotes the national defense", we believe that DOD cannot certify or comment on such a relationship. We believe that assumption of such information or speculation in this regard is not a proper basis for the DOD to make any determination or recommendation as to the direct relationship to the national defense or to the extent the national defense may (or may not) be promoted.

Arguments can be made in connection with almost any effort in the nation involving the manufacture & utilization of products & materials that such effort will contribute in some degree to the national defense. In considering the legislative history of the 1953 amendments to the Act & the narrowing of the definition of the term "national defense" in the Act at that time, it is our opinion that efforts which only indirectly relate to the national defense can not be certified or supported for ratings by the DOD. We believe that we have properly followed both the terms of the statute and the intent of the Congress as reflected in the legislative history in this regard.

We recognize that there are many programs of important national interest that fall within the purview & responsibilities of other departments & agencies of the Government. Where we have been unable to certify or to identify a direct relationship of another agency's program to the national defense (as that term is defined in Section 702(d) of the Act), we have recommended to the OP that the views & position of the responsible agencies be considered in the OP evaluation. The lack of DOD certification or support does not preclude the Office of Preparedness from making an independent determination to grant or withhold priorities support based on information from other

APPENDIX IV

interested agencies.

We do not agree with the inference set forth on page 22 that a more restrictive standard for granting priorities to merchant ships was made, in effect, to eliminate competition with Naval shipbuilding. The factual basis for departing from a "traditionally routine approach" was passage of the 1970 amendment to the Merchant Marine Act of 1936, which for the first time, allowed construction differential subsidy payments to new types of ships of no direct use to the military. This background has been fully explained in Admiral Holloway's testimony before the Seapower Subcommittee (see Volume III, page 1504, "Hearings before the Seapower Subcommittee of the Committee on Armed Services (H.A.S.C. No 93-82).

APPENDIX IV

TECHNICAL COMMENTS ON THE PRIORITIES & ALLOCATION ASPECTS OF REPORT

PAGE 2

Line 4 Change to read: "...but defense programs were not as adversely affected as non-defense programs because the contractors had defense priority ratings."

REASON: Accuracy

PAGE 8

Comment on lines 6-8: A statement is made concerning the evaluation of the Defense Priority System in supporting programs of importance to the national security. We take no issue with this statement as such, but wish to point out that as the Defense Production Act as now written, the priority powers are directed to "promoting the national defense", within a rather restrictive definition of the term "national defense". This would exclude many efforts that contribute to the national security in a broader sense.

REASON: Accuracy

APPENDIX V

U.S. DEPARTMENT OF LABOR
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON

MAY 19 1975

Mr. Gregory J. Ahart
Director, Manpower and
Welfare Division
United States General
Accounting Office
Room 6860, 441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Ahart:

Secretary of Labor John T. Dunlop has asked me to comment on your draft report "Observations of the Impact of Shortages in Processed Materials on Government Procurements."

The report cites several factors which have contributed to the failure of certain industry groups to expand production capacity to meet increased demand. This problem is of direct concern to the Department and directly impacts our national goal of full employment.

Two industrial segments which are listed as being impacted by the Environmental Protection Agency and the Occupational Safety and Health Administration's (OSHA) regulations are the casting and forging industry (page 26) and the electrical components industry (page 33). A review of OSHA standards which apply to these industries does not indicate safety or health hazards which are particularly expensive to remedy or any newly discovered hazards which might create uncertainty or alarm. It does not appear to be probable that OSHA standards, per se, have been the central factor in limiting productive capacity in these industries.

OSHA has for several years conducted economic assessments of proposed rules which might create significant cost impacts and has consistently sought to assure that no costs were imposed on industry which were not required to protect the safety and health of workers. During the last year a major effort has been underway to revise standards into performance language to encourage more innovative and economical solutions to recognized safety and health problems.

In addition, OSHA has publicized the availability of Small Business Administration funds to offset costs of compliance with OSHA regulations. Although these efforts have been undertaken to make safety and health regulations more cost-effective, it is probable that Federal regulations will never be popular with those who are regulated.

OSHA concurs with the [need] [See GAO note.]
to investigate the actual contribution OSHA regulations might have on decisions to close plants or to postpone expansion of productive capacity. The absence of valid data on this subject has led to controversy which is not conducive to deliberative decision making.

It is our intention to continue the evaluation of the impacts which OSHA regulations may cause and to make these findings available to the public in the form of environmental and inflationary impact statements.

Sincerely,

Fred G. Clark
Assistant Secretary for
Administration and Management

GAO notes: Page references in this appendix refer to our draft report and may not correspond to the pages of this final report.

Deleted comments refer to material not included in this final report.

APPENDIX VI

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 4 1975

OFFICE OF
PLANNING AND MANAGEMENT

Mr. Henry Eschwege
Director, Resources and Economic
Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Eschwege:

This letter is in response to your April 24 request for comments on your draft of a proposed report to Congress entitled "Observations of the Impact of Shortages in Processed Materials on Government Procurements."

I believe the report has a number of deficiencies which should be corrected prior to submission to the Congress. By way of general comment, the discussion of the causes of the shortage situation needs to be more fully examined and developed in the narrative. The industry discussions are not in sufficient depth to give the Congress the proper perspective on the fundamental causes of the shortage situation. Rather than accepting industry assertions without critical analysis, the report should provide an objective analysis of all the causal relationships. For example, the report seems to accept foundry industry claims of large impacts by EPA/OSHA regulations while ignoring other factors which have led to a continual consolidation of the number of establishments in the industry over the last twenty years (starting long before the imposition of environmental regulations). Furthermore, the report incorrectly generalizes about the impact of EPA/OSHA regulations on all of U.S. industry based on contentions of only a few industries (e.g., foundries and electronics).

[See GAO note, p. 35.]

There has been a great deal of public discussion and written material generated about shortages in our society before the situation was ameliorated by the present economic turndown. If recommendations for mitigating the impact of shortages in government procurement are to result from the study, full analysis of the fundamental causes of these shortages must be used as a basis.

APPENDIX VI

One of the primary reasons for recent shortages was the shortage of capacity in certain materials-producing industries. Commenting on the lack of investment in new industrial capacity which contributed to the shortage situation in 1973-74, the First National City Bank of New York said that "the question of pollution control seems somewhat academic. Most of the basic industries could not justify new investment -- with or without pollution controls -- with profits at the 1970-71 levels." Also in this regard, it is noteworthy that a Department of Commerce (Bureau of Economic Analysis) survey of investment plans for 1973-74 revealed that only 2 percent of the firms surveyed reported that pollution control investment had actually caused a reduction in expenditures for new plant and equipment made in 1973 or planned for 1974. Nor is there any evidence that environmental regulations have had any marked impact upon existing production capacity. Our own intensive monitoring of the apparent impact of environmental regulations, through a nation-wide reporting network, clearly supports this conclusion. In the period 1971-74 we have found only 69 plants employing 12,000 workers where environmental regulations were alleged to be a significant factor in plant closings or production curtailments. The majority of these plants were marginal operations -- small, old, obsolete plants -- which would have had limited economic life even in the absence of pollution control costs. Even if the causal effect of these closings were attributed entirely to the environmental program, without any weight given to other highly significant factors, the overall impact on the supply situation charged to pollution control costs would be extremely slight.

In sum, I believe the report should not go forward in its present form. Recommendations to mitigate the shortage problems encountered in government procurement should be based on a firm understanding and expression of the fundamental causes of the shortage situation. In the interest of credibility of the report, the significance of minor factors impacting on the situation should not be inadvertently distorted or overemphasized. If this letter does not convince you to alter the report along the lines I have suggested, I would request that you or your staff discuss these issues in more detail with Roy Gamse, Director of EPA's Economic Analysis Division.

Sincerely yours,

Alvin L. Alm
Assistant Administrator for
Planning and Management

GAO note: Deleted comments refer to material not included in this final report.

APPENDIX VII

UNITED STATES OF AMERICA
GENERAL SERVICES ADMINISTRATION
Office of Preparedness
Washington, D C 20405

MAY 23 1975

Mr. R. W. Gutmann
Director
Procurement and Systems
Acquisition Division
United States General
Accounting Office
Washington, D.C. 20548

Dear Mr. Gutmann:

This is in reference to the GAO proposed report to Congress on "Observations of the Impact of Shortages in Processed Materials on Government Procurement." Your letter of April 23, 1975, requested our comments.

Our comments are directed to (a) discussions of the GAO study of priorities and allocations (chapter 3) and (b) the GAO conclusions and suggestions for Congress (chapter 5). While the material in Chapter 3 on priorities and allocations is provocative, it does not seem to be reflected in any of the conclusions or suggestions in Chapter 5. Nonetheless, we feel it is important to attempt to clarify the facts in Chapter 3 so that the record will more accurately reflect the rationale and procedures followed by the Office of Preparedness in reviewing requests for priorities assistance.

In particular, the GAO view that Department of Defense unduly influences OP decisions in evaluating new priorities requests is in error. The fact that the Office of Preparedness asks the Department of Defense for its observations and recommendations is a result of the Defense Production Act itself. "Promoting the national defense," and "necessary and appropriate" are requirements established in the Act, and it is our responsibility to determine the extent to which any proposed beneficiary of priorities meets these criteria. The Department of Defense is looked upon as the Department with special competence to measure the impact on defense of a priority request. Any determination the Office of Preparedness made without Department of Defense recommendation would be imprudent and inconsistent with Office of Preparedness responsibility for interagency coordination. However, we do not consider the

Department of Defense recommendation as the sole determinant. Thus, in the case of certain Maritime ship construction programs and other programs disallowed, as well as the Alaska pipeline, we include the views of other agencies along with those of Department of Defense in evaluating the facts and opinions before reaching a decision. A Department of Defense recommendation is an essential ingredient in an Office of Preparedness determination whether to support a request for priorities assistance, but it is not the only input.

As to Matters for Consideration by Congress, any legislation to amend the Defense Production Act to broaden the application of priority and allocations authority to include non-defense programs would dilute the purpose of the Act. The same purpose of broader use of priorities is coming about as a result of current legislation (the non-nuclear Energy Research and Development Act, proposed energy legislation, and other). We are concerned that the implementation of these be made compatible with the system employed under the Defense Production Act but are pursuing administrative solutions to this problem. Procedural solutions to many of the problems you raise are also being undertaken, but many problems of supply distribution cannot be addressed in the narrow terms of benefits to government procurement. Free market mechanisms may provide a healthier environment for all than any induced measures by government.

I appreciate the opportunity to review your draft report.

Sincerely,

LESLIE W. BRAY, JR.
Director

THE 10 MAJOR RECOMMENDATIONS OF THE DEPARTMENT OF DEFENSE MATERIALS SHORTAGES WORKSHOP

The Department of Defense materials shortages workshop recommended that DOD:

1. Participate in the National Commission on Supplies and Shortages.

2. Establish strong coordination mechanisms with EPA and OSHA.

3. Participate in planning and maintaining the National Stockpile of Strategic and Critical Materials.

4. Participate in developing a national materials information system, when such a system is established, and develop its own materials data base.

5. Consider, in the planning and implementation of DOD research and development and manufacturing technology programs, principles of conservation technology, such as energy consumption and recycleability.

6. Continue to eliminate duplicative, marginal, and obsolete specifications through the Defense Material Specifications and Standards Board.

7. Reexamine the feasibility of the arsenal concept and the maintenance of an inventory of essential materials.

8. Update and synchronize its procurement policies to reflect the changing regulatory environments confronting defense producers.

9. Determine the extent of the problem of attrition of the skilled work force as it impacts upon national defense programs.

10. Promote a consciousness of the imperative for developing a national self-sufficiency in materials.

PRINCIPAL OFFFICIALS

RESPONSIBLE FOR ADMINISTERING

ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
DEPARTMENT OF COMMERCE		
SECRETARY OF COMMERCE:		
Elliot L. Richardson	Feb. 1976	Present
Rogers C.B. Morton	May 1975	Feb. 1976
John K. Tabor (acting)	Mar. 1975	Apr. 1975
Frederick B. Dent	Feb. 1973	Mar. 1975
Peter G. Peterson	Feb. 1972	Feb. 1973
ASSISTANT SECRETARY FOR DOMESTIC AND INTERNATIONAL BUSINESS:		
Travis E. Reed	Aug. 1975	Present
Tilton H. Dobbin	June 1973	Aug. 1975
Lawrence A. Fox (acting)	Jan. 1973	June 1973
DEPARTMENT OF DEFENSE		
SECRETARY OF DEFENSE:		
Donald H. Rumsfeld	Nov. 1975	Present
James R. Schlesinger	July 1973	Nov. 1975
William P. Clements, Jr. (acting)	May 1973	June 1973
Elliot L. Richardson	Jan. 1973	May 1973
DEPARTMENT OF LABOR		
SECRETARY OF LABOR:		
W. J. Usery, Jr.	Feb. 1976	Present
John T. Dunlap	Mar. 1975	Feb. 1976
Peter J. Brennen	Feb. 1973	Mar. 1975
James D. Hodgson	July 1970	Feb. 1973
ASSISTANT SECRETARY FOR OCCUPATIONAL SAFETY AND HEALTH:		
Morton Corn	Nov. 1975	Present
Vacant	July 1975	Nov. 1975
John H. Stender	Apr. 1973	July 1975
Vacant	Jan. 1973	Apr. 1973

APPENDIX IX

	Tenure of office	
	From	To
ENVIRONMENTAL PROTECTION AGENCY		
ADMINISTRATOR:		
Russell E. Train	Sept. 1973	Present
John R. Quarles, Jr. (acting)	Aug. 1973	Sept. 1973
Robert W. Fri (acting)	Apr. 1973	Aug. 1973
William D. Ruckelshaus	Dec. 1970	Apr. 1973
GENERAL SERVICES ADMINISTRATION		
ADMINISTRATOR OF GENERAL SERVICES:		
Jack M. Eckerd	Nov. 1975	Present
Dwight A. Ink (acting)	Oct. 1975	Nov. 1975
Arthur F. Sampson	June 1972	Oct. 1975
DIRECTOR, FEDERAL PREPAREDNESS AGENCY:		
Maj. Gen. Leslie Bray, Jr.	Oct. 1973	Present
Edward Saunders (acting)	Aug. 1973	Oct. 1973
Haakon Lindjord (acting)	July 1973	July 1973
Darrell Trent (acting)	Jan. 1973	June 1973

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