

Audit



Report

OFFICE OF THE INSPECTOR GENERAL

REQUIREMENTS FOR THE NATIONAL DEFENSE STOCKPILE

Report Number 91-112

July 19, 1991

Department of Defense



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884

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MEMORANDUM FOR DIRECTOR, DEFENSE PROCUREMENT
ASSISTANT SECRETARY OF DEFENSE (PRODUCTION AND
LOGISTICS)

SUBJECT: Audit Report on Requirements for the National Defense
Stockpile (Report No. 91-112)

We are providing this final report for your review and comments. We made the audit from October 1989 through November 1990. The objective of the audit was to evaluate the process for determining the types, quantities, and qualities of materials to be acquired for and retained in the National Defense Stockpile (the Stockpile). The total inventory of the Stockpile included 91 line items of materials with a reported value of approximately \$9.6 billion (based on market referenced values as of August 31, 1990).

The audit showed that the process for determining the types, quantities, and qualities of materials to be acquired for and retained in the Stockpile needed improvement. The audit also showed that better management of acquisitions and disposals of Stockpile materials was needed. Procedures were not sufficiently specific to permit effective implementation of planned disposals and acquisitions as shown in the Annual Materials Plan, and internal controls were not adequate to ensure the disposal of excess materials and the acquisition of materials to fill deficits. The results of the audit are summarized in the following paragraphs, and the details and audit recommendations are in Part II of this report.

The requirements generation process used assumptions that were overly restrictive, the data base used to translate hardware requirements into raw material requirements was not updated, and models and data bases did not account for the qualitative or physical aspects of materials needed. Also, an Interagency Advisory Committee composed of subject matter experts from other Government agencies, which also have mobilization planning responsibilities, has not been formally established and implemented. Consequently, the Stockpile may not contain the correct quantities and mix of strategic and critical materials needed during a national security emergency (page 7).

DoD reported to Congress in 1989 that the Stockpile was about \$12.5 billion short of its goals in strategic and critical materials and had excess materials valued at about \$1.5 billion. The audit showed that procedures for planning the acquisition and disposal of materials were not sufficient to overcome the reported variances. Consequently, there is no assurance that the future plans and actions of the Stockpile Manager will provide the strategic and critical materials that will be most needed in the event of a national security emergency (page 17).

The Assistant Secretary of Defense (Production and Logistics) concurred with Recommendation A.1., which proposed that future annual Reports to Congress present Stockpile goals to reflect a more realistic force level; to reflect domestic production capacity from new and reopened facilities; and to consider foreign sources other than Canada and Mexico that can be relied on to supply materials during a crisis.

The Assistant Secretary concurred with Recommendation A.2., which proposed that DoD establish and institutionalize, in coordination with the Departments of Commerce, Interior, and State, an Interagency Advisory Committee, composed of Government experts, to provide information on the civilian and industrial tiers that affect the material requirements generation process and to assist in the computation of requirements for materials that cannot be quantitatively modeled.

The Assistant Secretary concurred in principle with Recommendation A.3., which proposed that the Charter of the Interagency Advisory Committee include specific responsibilities to assimilate the information necessary to formulate Stockpile requirements and to prioritize the Stockpile actions regarding those requirements.

The Assistant Secretary concurred with Recommendation B.1.a., which proposed submission of legislative proposals to permit a multiyear execution of materials plans and to remove the \$100 million cap on the unobligated balance of the National Defense Stockpile Transaction Fund.

The Assistant Secretary concurred in principle with Recommendation B.1.b., which proposed that specific procedures be established and implemented to prioritize and describe planned actions to acquire materials needed to meet goals.

The Assistant Secretary concurred with Recommendation B.1.c., which proposed that procedures be established to enable Government agencies to comply with the Federal Acquisition Regulation by making available on a supply bulletin the current availability of excess Stockpile materials.

The Assistant Secretary concurred in principle with Recommendation B.1.d., which proposed that a 5-year plan to prioritize and dispose of excess Stockpile materials be developed and implemented.

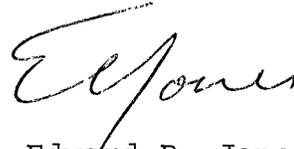
The Assistant Secretary concurred with Recommendation B.1.e., which proposed that the lack of internal management controls over the identification and disposal of Stockpile excesses and the acquisition of Stockpile deficits be reported as a material internal control weakness in the annual assurance statement.

The Assistant Secretary, in coordination with the Director, Defense Procurement, concurred with Recommendations B.2.a. and B.2.b., which proposed changes to the Federal Acquisition Regulation and the Defense Federal Acquisition Regulation Supplement that reflect the transfer of Stockpile management from the General Services Administration to the Department of Defense.

Although the Assistant Secretary concurred with Recommendations A.2., B.1.b., B.1.c., and B.1.d., we consider the comments on those recommendations to be nonresponsive for the reasons cited in the Audit Response to Management Comments section in Part II of the report. Accordingly, the Assistant Secretary of Defense (Production and Logistics) should provide final comments on those recommendations within 60 days of the date of this memorandum. DoD Directive 7650.3 requires that all recommendations be resolved promptly. Management's comments should describe corrective actions taken or planned and provide completion dates for actions taken or planned. We also request that the Assistant Secretary provide a concurrence or nonconcurrence with the \$1.5 billion in potential monetary benefits identified in Appendix L of this report. If you nonconcur with the estimated monetary benefits or any part thereof, you must state the amount you nonconcur with and the basis for your nonconcurrence. Recommendations and potential monetary benefits are subject to resolution in the event of nonconcurrence or failure to comment.

The audit identified a material internal control weakness and other control weaknesses as defined by Public Law 97-255, Office of Management and Budget Circular A-123, and DoD Directive 5010.38. Controls either were not established or were ineffective to ensure the disposal of excess materials and the acquisition of materials to fill deficits. Recommendations B.1.b., B.1.c., and B.1.d. in this report, if implemented, will correct the weaknesses. Therefore, copies of this final report will be provided to the senior officials responsible for internal controls within the Department of Defense.

The courtesies extended to the audit staff are appreciated. If you have any questions on this audit, please contact Ms. Mary Lu Ugone on (703) 693-0317 (DSN 223-0317) or Mr. Lloyd G. O'Daniel on (703) 693-0166 (DSN 223-0166). A list of the audit team members is in Appendix N. Copies of this report will be provided to the activities listed in Appendix O.



Edward R. Jones
Deputy Assistant Inspector General
for Auditing

cc:
Director, Defense Acquisition Regulatory Council
Director, Defense Logistics Agency

REQUIREMENTS FOR THE NATIONAL DEFENSE STOCKPILE

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Prepared By:
Readiness and Operational
Support Directorate
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REQUIREMENTS FOR THE NATIONAL DEFENSE STOCKPILE

PART I - INTRODUCTION

Background

The Strategic and Critical Materials Stock Piling Act (U.S.C., title 50, section 98) (the Act) established the National Defense Stockpile (the Stockpile) in 1946. The Act mandates that a stock of strategic and critical materials be maintained to decrease dependence on foreign sources of supply in times of a national emergency. Essential materials needed for military, industrial, and civilian needs are designated as strategic and critical when there is a dangerous and costly reliance on imports of the materials during a national emergency. Executive Order 12626, dated February 25, 1988, transferred management of the Stockpile from the General Services Administration and the Federal Emergency Management Agency to the Department of Defense and designated the Secretary of Defense as National Defense Stockpile Manager. In May 1988, the authority to manage the Stockpile under Executive Order 12626 was delegated to the Assistant Secretary of Defense (Production and Logistics). Authority to operate the Stockpile was further delegated to the National Defense Stockpile Center (the Center), Defense Logistics Agency. The accountability of Stockpile assets was transferred July 1988.

Executive Order 12656, "Assignment of Emergency Preparedness Responsibilities," November 18, 1988, addressed national security emergency preparedness functions and activities that are to enhance the ability of the United States to mobilize for, respond to, and recover from a national security emergency. This Order also provides that Federal departments and agencies support interagency coordination to improve preparedness and response to a national security emergency and to cooperate, to the extent appropriate, in compiling, evaluating, and exchanging relevant data related to all aspects of national security emergency preparedness. The Office of the Assistant Secretary of Defense (Production and Logistics) has 3 employees assigned to Stockpile functions, and the Center has about 265. The Center was appropriated operation and maintenance funds of \$31 million dollars for FY 1990.

The Act states that to modify Stockpile requirements, the Stockpile Manager, acting for the President, shall determine from time to time which materials are strategic and critical, the quality and quantity of each material, the materials to be disposed of or acquired, and the form in which each material shall

be acquired and stored. Each year, the Stockpile Manager must submit to the appropriate congressional committees an Annual Materials Plan (the Plan), which outlines proposed fiscal year sales and acquisitions for the Stockpile.

The National Defense Stockpile Transaction Fund (the Fund) is a revolving fund that finances acquisition, transportation, and other costs incidental to the acquisition of strategic and critical materials. The Fund was established by the Strategic and Critical Materials Stock Piling Revision Act of 1979 (Public Law 96-41). Receipts from the sales of excess materials are deposited in the Fund. Through FY 1985, Congress provided appropriations to the Fund. As of September 30, 1990, the unobligated balance of the Fund was about \$310 million. The legislated limit is a \$100 million unobligated balance in the Fund, but Congress has waived this limit in recent years.

DoD reported that the total value of materials needed to meet interim Stockpile goals was approximately \$20.6 billion, as of August 31, 1990. In the 1989 Report to Congress on National Defense Stockpile Requirements, the goals were shown as interim because the planning estimate of civilian and industrial requirements was preliminary, pending further refinement with civilian agencies. In addition, analysis of 20 Stockpile materials was deferred until the next annual report. The total inventory of the Stockpile consisted of 91 line items of material with a reported value of about \$9.6 billion based on market-referenced values, as of August 31, 1990. Of the 91 items, 84 items, comprising virtually all of the \$9.6 billion, have Stockpile goals. The 84 items, in 62 material categories, include 27 line items of materials valued at about \$1.5 billion that were excess to goals. The remaining 7 inventory line items of materials, valued at only about \$1.7 million, do not have Stockpile goals and are no longer classified as strategic and critical materials. Appendix A shows the Stockpile goal of \$20.6 billion for the 62 material categories. These categories include 40 items valued at \$12.5 billion that were deficit to goals.

Objectives and Scope

The objective for the audit was to evaluate the process for determining the types, quantities, and qualities of materials to be acquired for and retained in the Stockpile. Based on survey results, the audit scope was expanded to evaluate how requirements were determined for jewel bearings manufactured by the William Langer Jewel Bearing Plant (the Plant), the extent to which its manufacturing process relied on foreign-source items, and whether DoD requirements for dosimeters could be satisfied through the

Plant. Inspector General, DoD, Audit Report No. 91-029, "Utilization of the William Langer Jewel Bearing Plant," dated December 31, 1990, provides the results of the audit at the Plant.

We evaluated the Stockpile requirements generation process within the Office of the Assistant Secretary of Defense (Production and Logistics), the Joint Staff, the Defense Logistics Agency, the Department of Commerce, the Department of the Interior, and the Department of State. A list of activities visited or contacted is in Appendix M.

We reviewed the process and procedures for filling deficits to Stockpile goals and for disposing of materials identified as excess as of August 31, 1990. We surveyed the steps involved during 1979 through 1990 in developing and implementing the Plan, applicable public laws, and other relevant data for materials reported to be in deficit inventory position as of August 31, 1990. To determine when the materials were first identified as excess and when disposals were made, we reviewed prior inventory reports and other data on disposals dated from 1968 through 1990.

The audit was made in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD, and accordingly included such tests of internal controls as were considered necessary.

Internal Controls

The audit identified a material internal control weakness and other control weaknesses as defined by Public Law 97-255, Office of Management and Budget Circular A-123, and DoD Directive 5010.38. Controls either were not established or those established were not effective to ensure that all materials identified as being excess to established goals were disposed of or that the materials deficit to goals were acquired. Procedures were not sufficiently specific to permit effective implementation of the planned disposals and acquisitions. Recommendations B.1.b., B.1.c., and B.1.d. in this report, if implemented, will correct the weaknesses. We have determined that the monetary benefits that can be realized by implementing the recommendations are \$1.5 billion. A copy of the final report will be provided to the senior official responsible for internal controls within the Office of the Comptroller of the Department of Defense.

Prior Audits and Other Reviews

The 1984 National Security Council (NSC) Stockpile/Industrial Mobilization Planning Study, "U.S. National Defense Stockpile Goals, Mobilization Planning Factors and Implementation Measures,"

(the NSC Study) reviewed policy assumptions underlying planning and goal setting for the Stockpile. The NSC Study was requested by the Director of the Office of Management and Budget and the Council of Economic Advisers. NSC reviewed Stockpile materials and obtained data from each of 12 participating Federal agencies, industry representatives, and others with subject area expertise. NSC recommended that Stockpile goals be reduced from \$16.1 billion to \$700 million. The Federal Emergency Management Agency, the Stockpile oversight agency during 1984, said the NSC Study included some significant improvements but had serious limitations because some of the issues raised were not adequately addressed. In response to the NSC Study, Congress requested that the General Accounting Office (GAO) evaluate the NSC Study and obtain participating agencies' views. The GAO report is discussed below.

GAO Report No. NSIAD 87-146, "National Security Council Study Inadequate To Set Stockpile Goals," dated May 1987, (OSD Case No. 7090A) evaluated the methodology and assumptions used in the NSC Study and compiled the views of participating agencies. GAO concluded that the NSC Study did not fairly represent participants' views and that the assumptions used were not valid and did not provide a sufficient basis for setting Stockpile goals.

Logistics Management Institute (LMI) Report No. AL707R1, "Developing Material Requirements For Better Industrial Base Planning," dated November 1987, discusses a concept to use bills of materials to estimate material requirements for weapon systems. Bills of materials are lists of materials used by the prime contractors and their subcontractors to fabricate the parts, components, and assemblies of major weapon systems. The LMI report discusses limitations of the process and suggests an alternative method. The report recommended that the Office of the Secretary of Defense assemble available data from several sources outside the DoD, namely the Bureau of Census, the Bureau of Mines, and commercial vendors. DoD is in the process of analyzing alternatives to these recommendations.

Inspector General, DoD, Audit Report No. 89-061, "Inventory Records of the National Defense Stockpile of Strategic and Critical Materials," dated March 27, 1989, evaluated the accuracy of the quantitative data in the Stockpile inventory records for materials valued at \$6.7 billion, or 73 percent of the Stockpile total market value, at the time management of the Stockpile was transferred to the Secretary of Defense in 1988. The report stated that Stockpile material inventory records were essentially accurate. The accuracy of inventory records for the balance of the materials could not be determined because of inventory measurement

limitations. The report recommended actions to correct inventory record-keeping problems. Management concurred with the findings and recommendations and took corrective actions.

Inspector General, DoD, Audit Report No. 91-029, "Utilization of the William Langer Jewel Bearing Plant," dated December 31, 1990, evaluated the utilization of the the Plant as part of this ongoing project to evaluate the requirements process. The report stated that the Plant produced more jewel bearings than were needed for peacetime and contingency requirements, procedures to determine the quality and quantity of jewel bearings needed in the Stockpile had not been established, and that the Plant charged higher prices than commercial vendors. The report recommended that procedures for determining the quantitative and qualitative requirements for jewel bearings to be stored in the Stockpile be established, that Plant operations be discontinued, and that jewel bearings be procured from commercial sources. Management nonconcurred with the report and recommendations, and the auditors are verifying information in management's comments on the audit report.

General Accounting Office Report No. NSIAD 90-48, "Industrial Base, Adequacy of Information on the U.S. Defense Industrial Base," dated November 1989, (OSD Case No. 7921-A) evaluated the Federal Government's data collection and coordination efforts related to the U.S. defense industrial base. The report discusses efforts to improve collection and analysis of data concerning the defense industrial base and DoD dependencies on foreign sources for critical items in weapon systems; efforts to address the need for better coordination on and awareness of available data bases and models; agency views on data related problems; and procedures for consultation between DoD and the Department of Commerce on research, development, or production of defense equipment. The report contained no recommendations, and DoD comments were not required.

PART II - FINDINGS AND RECOMMENDATIONS

A. Requirements Generation Process

FINDING

The process to generate requirements for the National Defense Stockpile (the Stockpile) used assumptions that were overly restrictive. The models and data bases used to determine the quantities of strategic and critical materials required for stockpiling did not account for the qualitative or physical aspects of materials needed. Also, the data base used to translate hardware requirements into raw material requirements for stockpiling had not been updated. In addition, the process to use experts from other Government agencies, who are responsible for overall mobilization planning under Executive Order 12656, as advisors in determining strategic and critical material requirements had not been adequately implemented. As a result, the Stockpile goal, valued at about \$20.6 billion, may not be realistic given the overly restrictive assumptions, and may not represent the correct types, quantities, and qualities of strategic and critical materials needed in the event of a national security emergency. Also, there was no overall strategy developed in concert with other Government agencies to prioritize the application of limited resources to Stockpile requirements.

DISCUSSION OF DETAILS

Background. The Strategic and Critical Materials Stock Piling Act of 1979 (the Act) requires the Secretary of Defense, as the Stockpile Manager, to submit to Congress an annual report on Stockpile requirements. The quantities of materials to be stockpiled under the Act are to be sufficient to sustain the United States for a period of not less than 3 years during a national emergency. The requirements are reported by tier, that is, for military, civilian, and industrial requirements to support an emergency. Appendix B describes these requirements.

Executive Order 12656, "Assignment of Emergency Preparedness Responsibilities," November 18, 1988, assigns national security preparedness responsibilities to Federal departments and agencies. The Order also provides for interagency cooperation to improve overall preparedness to respond to national security emergencies.

DoD was revising guidance on the Industrial Base Program, which is a set of plans and actions required to establish and maintain an industrial base capable of meeting national defense requirements. Draft guidance required that analyses of the industrial production base also focus on strategic and critical materials.

Section 10 of the Act allows the Stockpile Manager to appoint knowledgeable individuals to advisory committees to advise and assist in managing the Stockpile. Various committees and working groups on specific materials have been established.

Requirements Generation Process. Requirements for the 1989 Stockpile Report to the Congress (the Report) were developed using quantitative models that estimated material demands on the economy and compared those demands to projections of domestic production capabilities and of reliable foreign suppliers. At the request of the Under Secretary of Defense for Acquisition, the Joint Staff estimated defense material requirements for the Report. First, using the Joint Industrial Mobilization Planning Process (JIMPP), the Joint Staff identified military hardware requirements. Then, the Materials Defense Economic Impact Modeling System was used to determine the amount of raw materials required to satisfy hardware needs.

Assumptions Used. In accordance with Section 14 of the Act, the planning assumptions in the Report included military force structure, domestic production of materials and availability of material from foreign suppliers. Planning force is a force level that is unconstrained by fiscal, manpower, logistics, mobility, basing, or similar limitations. In contrast, programmed force is a force level that has such constraints. In developing Stockpile requirements, DoD used the planning military force structure rather than a more realistic alternative, considered only existing operating facilities for domestic production of materials and did not consider new or reopened domestic facilities, and assumed that foreign supplies for defense purposes would be accessible only from Canada and Mexico. These conservatively restrictive assumptions resulted in Stockpile requirements that we believe are unreasonably inflated.

The Act requires that Stockpile requirements be based on total mobilization of the economy of the United States for a sustained conventional global war for a period of not less than 3 years. To implement this scenario into determining Stockpile requirements, the DoD used assumptions based on planning force. The continued use of the planning force to determine strategic and critical material requirements for the military and industrial tier is not realistic in light of recent, rapidly changing world conditions and threat analyses that are impacting the time necessary to field such a force and to mobilize the industrial base in support of that force. In our opinion, programmed forces more realistically represent major combat and tactical support forces that execute the national strategy because they are constrained by manpower, fiscal, and other limitations. The Joint Staff is developing a new global scenario and related planning factors based on threat

assessments that reflect the political, economic, and military restructuring in the Soviet Union and Eastern Europe.

Not all materials that could be produced domestically were included in determining the quantities of materials needed for stockpiling. Although the Report showed that new or reopened facilities could produce materials during a national emergency, the Stockpile goals were determined by using only existing production capacity. For example, the table below shows that six materials could be provided over a 1-year warning period and a 3-year period of conflict by domestic production facilities that are currently shut down but could be reopened. The value of these materials was approximately \$6 billion. The facilities are maintained during nonemergency periods at a minimum level of capacity to allow for restart during a national emergency.

Additional Capacity from Reopened Facilities

<u>Mineral</u>	<u>Quantity</u>	<u>Value In Millions</u>
Aluminum	420,000 (Short Tons)	\$ 171.0
Copper	1,253,756 (Short Tons)	3,331.2
Lead	880,000 (Short Tons)	686.4
Nickel	106,750 (Short Tons)	1,182.3
Tungsten	32,700,000 (Pounds Wolfram)	143.0
Zinc	413,363 (Short Tons)	578.0
Totals		<u>\$6,091.9</u>

In addition, according to the Report, new facilities could be established for an investment of approximately \$49 million that would result in the production of another six materials, valued at \$782 million, over a 1-year warning period and a 3-year period of conflict. Further, if alternatives for foreign suppliers other than Canada or Mexico were considered, requirements for stockpiling may further decrease. In the "Mineral Commodity Summaries, 1990," issued by the Bureau of Mines, 24 of the 40 line items of material currently in a deficit position could be provided by multiple foreign sources. For example, bauxite is available from four geographical locations, including Jamaica and Brazil.

In summary, by restricting assumptions to planning force, to existing domestic production facilities, and to only two viable foreign supplying nations, the resulting computed requirements for stockpiling materials are excessive. Given the changing world conditions and concomitant fiscal reductions, we believe that in the Stockpile Reports to the Congress, DoD should present

Stockpile goals that reflect a more realistic force assumption such as programmed force, reflect domestic production capacity from new and reopened production facilities, and consider foreign sources other than Canada and Mexico that can be relied on to supply materials during a crisis.

Joint Industrial Mobilization Planning Process. The JIMPP is a planning and analytical process used by the Joint Staff, Military Departments, and Defense agencies to correlate industry's production capabilities with potential military demands. The JIMPP Requirements Module (Requirements Module) was used to determine the military hardware needed to field and sustain United States forces in potential conflicts and to develop options for resolving or alleviating identified shortfalls. An explanation of the Requirements Module is in Appendix C.

The JIMPP Macro Module (Macro Module) was used to determine the added investment in new facilities necessary to avoid bottlenecks in the production of military and civilian goods and services. The results of the Macro Module were compared to available industrial capacity information that was part of the Defense Industrial Network (DINET) data base, which is being developed by the Office of Industrial Base Assessment, Office of the Assistant Secretary of Defense (Production and Logistics). A General Accounting Office Report No. NSIAD-90-48, "Industrial Base, Adequacy of Information on the U.S. Defense Industrial Base," November 1989, stated that DINET is an effort to provide accurate assessments of the production base essential to critical weapon systems and to achieve a more responsive, competitive, industrial base. The report also stated that DINET had not been completed and that it had limitations. For example, data collection was both difficult and time-consuming because the DoD Components and the Military Departments had varying formats, standards, and definitions for data. Also, data sources for industrial capacity and for foreign dependency at the plant level either were nonexistent or were fragmented among many sources with questionable reliability. The use of potentially incorrect industrial base information with any force data to determine material requirements could result in invalid strategic and critical material requirements. An explanation of the Macro Module is in Appendix D.

The JIMPP Requirements Module and the Macro Module cannot be used to develop requirements for all materials. The 1989 Report to the Congress on National Defense Stockpile Requirements stated that 20 materials were not modeled because they have little relevance to the economy as a whole and were excluded from the data bases used with the quantitative models. In addition, requirements for new materials used in emerging technologies could not then be estimated by the JIMPP modules. Military requirements for some of

the new materials being used in current and planned weapon systems were determined by a survey of the Military Departments. Another limitation of current quantitative models is that they frequently did not account for the different forms and quality levels of the materials that may be needed in event of a national emergency.

Materials Defense Economic Impact Modeling System.
The Materials Defense Economic Impact Modeling System (MDEIMS) is a subsystem of the Defense Economic Impact Modeling System (DEIMS). MDEIMS translates hardware requirements developed using the JIMPP Requirements Module and the Macro Module into raw material requirements for the Stockpile. Although the subsystem is a significant step in the requirements determination process, the MDEIMS has its limitations. The MDEIMS was last updated in 1987 with data collected in 1985 by the Department of Commerce. The MDEIMS system is explained in detail in Appendix E.

Interagency Participation. Although DoD is responsible for managing the Stockpile, other Federal agencies have expertise on overall mobilization planning requirements that impact the requirements and prioritization of strategic and critical materials needed in event of a national emergency. Executive Order 12656 assigns lead and support responsibilities for the various Federal departments and agencies involved in mobilization planning. Section 10 of the Act also allows the the Stockpile Manager, acting on the authority of the President, to appoint committees, composed of experts from various agencies, to assist in managing Stockpile materials.

As provided for in Executive Order 12656, DoD is responsible for developing, in coordination with the Department of Commerce, reliable capabilities to rapidly increase defense production including the industrial resources required for that production. The DoD also has the lead responsibility to direct the management of strategic and critical materials; to conduct storage, maintenance, and quality assurance operations for the stockpiling of strategic and critical materials; and to formulate plans, programs, and reports relating to stockpiling strategic and critical materials. Executive Order 12656 also assigns the Department of Commerce (Commerce) and the Department of the Interior (Interior) support responsibilities for assisting the DoD in formulating and carrying out plans for stockpiling strategic and critical materials. In addition, the Department of State (State) has the responsibility of assisting agencies in developing planning assumptions concerning accessibility of foreign sources of supply.

An interagency advisory committee composed of experts from other Government agencies such as Commerce, Interior, and State, who are also responsible for planning for the nation's preparedness under

Executive Order 12656, has not been formally established and operated to provide continuous joint efforts toward determining Stockpile requirements. The mobilization planning information collected by Commerce on industrial products and facilities, by Interior on the national supply of minerals, and by State on foreign source reliability significantly affect the requirements generation process for stockpiling strategic and critical materials needed in event of a national emergency.

Department of Commerce. In support of the Stockpile, offices within Commerce assist the Stockpile Manager in preparing market impact strategies and in developing requirements for specific items. Commerce, co-chairs the Market Impact Committee with the Department of State. However, from a broader perspective as prescribed in Executive Order 12656, Commerce can assist the Stockpile Manager with assessments of industry capabilities to respond to defense needs. Commerce also has the capability to estimate industrial output requirements for national defense, investments, and essential and nonessential civilian requirements and to relate stockpiled material consumption to these output requirements. Commerce also has an office that is responsible for international commodity negotiations and trade problems and issues. This office could assist in updating the material consumption ratios and in working with the Annual Materials Plan. Additional information on Commerce is in Appendix F.

Department of the Interior. In support of the Stockpile, the Bureau of Mines (the Bureau) provides information on current domestic production, potential production from facilities that have been closed but that could be reopened in case of a national emergency, and potential sources of new production that could be started in an emergency. The Bureau also provides supply information from foreign sources. However, using the Bureau's extensive subject matter expertise on minerals, maintained as part of its role in mobilization planning under Executive Order 12656, the Bureau's experts can also assist Stockpile personnel in determining the quality of the materials required to be stockpiled. The Bureau experts can also provide assistance in prioritizing the types of materials needed for the Stockpile and the composition of the groups of materials. Additional information on the Bureau is in Appendix G.

Department of State. The Department of State provides the Stockpile Manager with information on the reliability of foreign countries to provide Stockpile materials. However, the Department of State can also provide more specific reliability factors from an economic and political perspective such as price reliability of foreign countries. The Department of State also has the capability to work with other consumer and producer nations to avoid bilateral difficulties posed by perceived market

disruptions. Also, the various embassies worldwide may be able to provide information on specific commodities. Additional information on the Department of State's assistance to the Stockpile is in Appendix H.

Conclusion. The process used to estimate strategic and critical materials requirements for the Report needs refinement. The assumptions used to determine the quantities of materials to be Stockpiled need to be reassessed. The Report should provide viable Stockpile goals that are derived from more realistic assumptions such as a programmed force level. Although the 1989 Stockpile Report presented military, industrial, and essential civilian requirements, Stockpile officials indicated that the industrial and essential civilian requirements were tentative at best and that additional involvement by other Government agencies was needed before these requirements could be finalized. Because of the interrelationship between military, industrial, and essential civilian requirements needed in event of a national emergency, as shown in Executive Order 12656, we believe that an interagency advisory committee, composed of experts from other Government agencies, should be formally established and implemented to solidify and prioritize requirements on a continuing basis for the Stockpile. An advisory committee can provide valuable information to DoD on materials that cannot be obtained from current models, on advanced technology materials that could be classified as strategic and critical, and on industrial base capabilities. The experts can also help provide data to update the models and data bases.

RECOMMENDATIONS FOR CORRECTIVE ACTION

We recommend that the Assistant Secretary of Defense (Production and Logistics):

1. Present the National Defense Stockpile goals in future annual Reports to Congress that reflect a more realistic force level, such as programmed force; reflect domestic production capacity from new and reopened facilities; and consider foreign sources other than Canada and Mexico that can be relied on to supply materials during a crisis.

2. Formally establish and implement, in coordination with the Departments of Commerce, Interior, and State, an Interagency Advisory Committee composed of Government experts as provided for in section 10(a) of the Strategic and Critical Materials Stock Piling Act (U.S.C., title 50, section 98); as amended by the National Defense Authorization Act for Fiscal Years 1990 and 1991 (Public Law 101-189), to provide information on the civilian and industrial tiers that affects the material requirements generation process, and to assist in the computation of requirements for materials that cannot be quantitatively modeled.

3. Include in the Charter of the Interagency Advisory Committee established by Recommendation 2. above, specific responsibilities to assimilate the information necessary to formulate the National Defense Stockpile requirements and to prioritize the Stockpile actions regarding those requirements.

MANAGEMENT COMMENTS

The Assistant Secretary of Defense (Production and Logistics) concurred with Recommendation A.1. Management drafted legislation to remove statutory impediments to the use of program force, but the Office of Management and Budget did not clear this legislative proposal for submission to Congress because of objections from the staff of the National Security Council. However, management stated that the Joint Staff provided it a force structure that was somewhat smaller than the planning force used in the 1989 and 1990 annual Reports to Congress. (The 1990 annual report was not submitted to Congress because of potential changes in force structure). In addition, management agreed to use selected restarts of closed domestic production facilities and starts of new production facilities in determining future Stockpile requirements and to consider countries in the Caribbean Basin as assured suppliers in determining 1991 Stockpile requirements.

The Assistant Secretary concurred with Recommendation A.2. Management stated that DoD has established a Civilian Agency Work Group (the Work Group) for Stockpile requirements and that members of the Work Group are consulted on the nature of the economy during the war scenario, including civilian austerity, and the level of imports and exports in different sectors of the economy. However, the Work Group is convened on an "as needed" basis and does not have a formal charter. Management stated that steps will be taken to further institutionalize the Work Group.

The Assistant Secretary concurred in principle with Recommendation A.3. Management indicated that it did not object to a charter for an Interagency Advisory Committee that specified responsibilities for the Departments of Commerce, Interior, and State in advising the DoD on demand and supply data for strategic and critical materials, priorities in Stockpile acquisition and disposal activities, and other areas of support relevant to the Stockpile program as specified in Executive Order 12656. However, management stated that it would assign only advisory responsibilities to civil agencies. The complete text of management's comments is in Appendix K.

AUDIT RESPONSE TO MANAGEMENT COMMENTS

We consider management's actions to revise the overly restrictive mobilization planning assumptions to be responsive to Recommendation A.1.

We do not consider management's comments on Recommendation A.2. to be responsive in that actions planned and estimated dates for completion of planned actions to institutionalize an Interagency Advisory Committee have not been described. A Work Group that meets only when the Stockpile Manager determines the need does not allow for a continuous process of involvement by subject matter experts from other Government agencies who are also responsible for mobilization planning. As further described in Part I of the report, we maintain that although the DoD is the Stockpile Manager, Commerce and Interior also have roles and responsibilities in assisting the DoD in formulating and carrying out plans for stockpiling strategic and critical materials. State has the responsibility for assisting agencies in developing planning assumptions concerning accessibility of foreign sources of supply.

We consider management's comments to be responsive to Recommendation A.3. We revised Finding A to state that the data base used to translate hardware requirements into raw material requirements was not updated and to state that the results of the Macro Module were compared to industrial capacity information that was part of the Defense Industrial Network.

B. Management of Stockpile Acquisitions and Disposals

FINDING

The National Defense Stockpile (the Stockpile) was reported to be about \$12.5 billion short of its goals in strategic and critical materials and had reported excess materials valued at about \$1.5 billion. Some provisions of the Strategic and Critical Materials Stock Piling Act (U.S.C., title 50, section 98) (the Act) are unduly restrictive, the Stockpile Manager has not complied with all provisions of the Act and other public laws, and procedures for planning the acquisition and disposal of materials were not sufficiently specific to permit effective administration of Stockpile assets. Even though the requirements generation process needs to be refined before specific quantitative and qualitative requirements for all materials can be determined, as discussed in Finding A, the audit also showed that some materials that were in obvious shortage or overage positions were not prioritized so that near-term acquisition and disposal actions could be effected. Consequently, there is no assurance that the future plans and actions of the Stockpile Manager will provide the strategic and critical materials that will be most needed in the event of a national emergency. The lack of sufficiently specific procedures for planning the acquisition and disposal of materials is a material internal control weakness.

DISCUSSION OF DETAILS

Background. The Act provides for the acquisition and retention of stocks of certain strategic and critical materials that decrease, and preclude where possible, dependency by the United States on foreign sources in times of national emergency. The Act states that the Stockpile Manager, acting for the President, shall determine periodically the types, qualities, and quantities of strategic and critical materials that would be needed in the event of a national emergency. These determinations become stockpiling goals.

Because of changes in industrial capability, new manufacturing techniques, and technological developments, some types of materials that once were extremely important are now less important or no longer used. Excesses or deficits in Stockpile materials are identified when Stockpile goals are compared to existing Stockpile inventories. The Act requires that an Annual Materials Plan (the Plan) be prepared and submitted to the Congress detailing proposed Stockpile acquisitions and disposals.

The value of materials needed to meet the interim goals established for the Stockpile in the 1989 Report to the Congress is about \$20.6 billion. There are 62 material categories that

have Stockpile goals. Within these 62 categories are 84 inventory line items with a reported value of inventory on hand of about \$9.6 billion (based on market-referenced values as of August 31, 1990) and 9 line items with no inventory on hand. The majority of these materials in inventory were acquired during the 1950's and 1960's.

We evaluated the process used by the Stockpile Manager to identify materials in deficit to or in excess of goals as of August 31, 1990. We surveyed the steps involved during 1979 through 1990 in developing and implementing the Plan, applicable laws, and other relevant data for materials reported in deficit inventory position. To determine when the materials were first identified as excess and when disposals were made, we reviewed prior inventory reports and other data on disposals dated 1968 through 1990. We did not evaluate the accuracy of the market values applied to Stockpile materials.

Acquisition and Disposal Plans. Section 11 of the Act, "Reports to Congress," requires the Stockpile Manager to submit to Congress, not later than February 15 of each year, a report containing the Plans for the operation of the Stockpile during the next and succeeding four fiscal years. Each Plan is to contain detailed planned expenditures for acquisitions of strategic and critical materials and anticipated receipts from the disposal of excess materials for the next fiscal year. Any significant departure from the Plan or any unplanned transaction must be submitted to Congress for approval. Planned actions not executed in the fiscal year may be submitted either in subsequent Plans or directly to the appropriate congressional committees for approval in accordance with section 5(a)(2) of the Act.

The Center did not comply with provisions of the Act requiring the submission of Plans. No Plans for disposals and acquisitions were submitted for FY 1985 and FY 1986, during the period that the Stockpile was managed by the Federal Emergency Management Agency. Acquisitions and upgrades of \$611 million and disposals of \$760 million were planned for FY 1987 to FY 1990, with actual transactions predominately made in compliance with annually enacted legislative requirements but not consistent with the original Plans submitted. Original Plans were revised to reflect actual transactions.

Stockpile officials believed that requirements and specifications for material acquisitions could not be identified or fully developed within the required annual time frame and that having to develop plans that were to be executed on an annual basis did not afford them sufficient time or flexibility to adequately manage Stockpile operations. The FY 1987 Plan showed planned acquisitions of \$125 million and disposals of \$125 million to

occur in FY 1987. Actual planned acquisitions made on the initiative of the Stockpile Manager totaled about \$22 million, and \$65 million of acquisitions (upgrades) not originally planned were made pursuant to directions in public laws passed after the original Plan was published. Also, none of the planned sales were made, but about \$48 million in disposals through exchange were made, and about \$82 million in disposals were directed by public laws.

Starting with FY 1988, when DoD became the Stockpile Manager, Plans were submitted biennially showing planned acquisitions and disposals for two fiscal years. Stockpile officials told us that numerous variables impacting on operations made them unable to project transactions for the next and four succeeding fiscal years with any degree of certainty. Therefore, they submitted Plans biennially and submitted revisions as the Plans changed. Planned transactions were revised because of congressional dictates, the potential adverse effects on commodity market prices, and international political sensitivities. The Stockpile officials believed that authority for a multiyear execution of plan submissions was needed to allow added time and flexibility for operations over the course of the Plan. As discussed in the following paragraphs, "Stockpile Acquisitions" and "Excess Materials," we found this contention reasonable and agreed that this restriction of the Act should be amended to allow for the multiyear execution of Plan submissions.

Stockpile Acquisitions. Stockpile inventory records and the 1989 Report to Congress indicated that about \$12.5 billion in shortages existed for 40 line items of material as of August 31, 1990. Materials reported in deficit supply are listed in Appendix I. Of the 40 material items, 30 had been short of established goals since 1977 or earlier. Four of the 30 material items, valued at about \$195 million, have had no stocks on hand since 1977 or earlier. Materials needed to meet goals are acquired by purchase, by the exchange of excess Stockpile materials, and by upgrading existing Stockpile materials to meet specifications.

Since 1979, materials valued at about \$500 million have been acquired. During the period FY 1988 through FY 1990, acquisitions and upgrades of about \$486 million were planned. Actual acquisitions and upgrades were about \$428 million, of which \$360 million were directed by public laws. This amount excludes \$5.6 million in jewel bearings purchased with Stockpile operation and maintenance appropriations. While data and analysis processes for formulating overall long-term Stockpile requirements are being refined, as discussed in Finding A, the shortages for the 40 line items of material should be prioritized so that timely acquisitions of the most needed materials can be made.

Compliance with Public Law. From FY 1987 through FY 1990, the Center made progress in upgrading and acquiring materials. However, most of the upgrades and acquisitions were directed by public laws. For example, Public Law 99-500, section 520, dated October 18, 1986, states:

No later than October 1, 1988, the Administrator of General Services, or any Federal Office assuming the Administrator's responsibilities with respect to management of the Stockpile, shall use [emphasis added] all funds authorized and appropriated before January 1, 1985, from the National Defense Transaction Fund to evaluate, test, relocate, upgrade, or purchase Stockpile materials to meet National Defense Stockpile goals and specifications in effect on October 1, 1984.

According to documents at the National Defense Stockpile Center (the Center), the unobligated balance of the Fund as of January 1, 1985, was about \$215 million. Public Law 100-440, section 518, dated September 22, 1988, extended the date by which the \$215 million should have been used to October 1, 1989. In February 1988, the authority to manage the Stockpile was transferred to the Secretary of Defense and was subsequently delegated to the Assistant Secretary of Defense (Production and Logistics).

In response to congressional inquiries, the Stockpile Manager reported on April 26, 1989, that \$208.8 million had been obligated as of that date. However, the reported obligations included \$129.3 million for a program to upgrade ferroalloys (chromium and manganese). Terms of the ferroalloy upgrade contracts allowed payment through the exchange of excess materials. A General Accounting Office (GAO) legal opinion stated that the exchange of excess materials for upgraded materials did not meet the intent of the law to "use" the funds. The result of the GAO legal opinion was that "used" Stockpile funds were reduced from \$208.8 million to only \$79.5 million. OSD directed the Center to comply with the intent of the law by obligating \$130 million from the Fund to pay for the ferroalloy upgrade contracts for FY 1989, instead of exchanging excess materials as payment. The Center obligated \$130 million to comply with the intent of the law.

In addition to using the \$215 million in authorized and appropriated funds discussed above, Public Law 99-500, section 519, directed the use of all proceeds generated from the disposal of silver by October 1, 1988, to purchase materials needed to meet goals and specifications in effect on October 1, 1984. According to Stockpile documents, proceeds from

the disposal of silver yielded \$82 million. Thus, the two referenced sections of the Law directed acquisitions totaling \$297 million. The Stockpile Manager did not fully comply with the Law, in that only \$209 million of the \$297 million in directed acquisitions were made during the period.

Excess Materials. Our review showed that on August 31, 1990, 34 line items of material valued at about \$1.5 billion were reported excess to Stockpile goals. Goals no longer existed for seven material items. The quantities of excess materials on hand, their values, and the years they became excess are shown in Appendix J.

Excess stocks for 21 of the 34 materials had existed for 20 years or longer. Seven others became excess between 1973 and 1980, and the remaining six became excess in 1989. Two of the 34 materials, tin and silver, made up 80 percent of the total dollar value of the excesses. The tin and silver had been excess since 1968 and 1970, respectively. The market value of 13 materials had declined by \$16 million since becoming excess. Conversely, six materials increased in value by \$10 million. Two of the 34 materials, vegetable tannin wattle and zirconium, had no market value at the time of our audit.

The Stockpile disposes of excess materials by formally advertising the availability of excess materials for sale and by exchanging excess materials for needed materials. The Stockpile Manager's Plans showed that \$635 million in disposals had been planned for FY 1988 through FY 1990. During that period, Stockpile officials disposed of excess materials valued at about \$213 million. Of that amount, \$109 million was directed by public laws. Despite the shortcomings in the overall requirements generation process discussed in Finding A, materials in overage positions should be prioritized to identify obvious long-standing excesses, such as silver and tin, for disposal action.

Disposal through Use of Government-furnished Materials. Before the transfer of the Stockpile to the DoD, the General Services Administration (GSA) made excess materials available to Government agencies at prevailing market prices. The policies and procedures used by GSA are in the Code of Federal Regulations (the Code), title 44, part 328, section 2(o), "General Policies for Strategic and Critical Materials Stockpiling." The Code states that Government agencies that use strategic and critical materials directly or indirectly shall fulfill their requirements through the use of excess materials in Government inventories. Direct use is defined as use in a Government-owned facility operated either by the Government or by a contractor for the Government. Indirect use means use of materials by prime contractors and all tiers of subcontractors in the production of items being procured by the Government.

Also, title 41, subpart 101-14.2, of the Code, "Transfer of Strategic and Critical Materials Excess to Stockpile Requirements for Government Use," sets forth policy and procedures for the transfer of excess strategic and critical materials to agencies for their direct or indirect use. Section 101-14.203 requires that a list of excess materials be issued periodically to Government agencies. The most recent list was issued on November 13, 1987. The list did not show the excess materials that were available because the unobligated balance in the Stockpile transaction fund exceeded the statutory limit of \$100 million.

The Federal Acquisition Regulation (FAR), subpart 8.002 (f), "Use of Other Government Supply Sources," states:

Agencies shall satisfy requirements for the following supplies and services from or through specified sources, as applicable: . . .
. . . Strategic and critical materials from excess GSA inventories (see 41 CFR 101-14.2).

The DoD Federal Acquisition Regulation Supplement (DFARS), part 208, titled "Required Sources of Supplies and Services," section 208.002(f) states:

Examples of strategic and critical materials which are in excess of National Stockpile requirements are metals, ores, chemicals and similar raw material items. They are listed and described in a GSA Bulletin which is disseminated to contracting activities through Departmental channels. Detailed information is available from the Property Management and Disposal Service, General Services Administration, Washington, D.C.

The FAR and the DFARS have not been updated to reflect that strategic and critical materials are managed as excess DoD inventories and that the DoD, as Stockpile Manager, is responsible for disseminating information on those excess materials. The Stockpile Manager has not established procedures that would inform Government agencies that may have strategic and critical material requirements of the availability of excess Stockpile materials. We believe that appropriate procedures for disseminating information on available excess materials should be established at the Center.

FAR and DFARS provisions, as currently stated, allow excess Stockpile materials to be issued to Government contractors as Government-furnished material. We believe that potential savings

could result if the FAR provisions were complied with. For example, Inspector General, DoD, Audit Report No. 88-189, "Controls Over Government-furnished Silver at Eagle Picher Industries, Inc.," dated August 5, 1988, showed that the use of Government-furnished silver in the acquisition of batteries for missile systems would have reduced contract costs by \$1.3 million during FY 1989 through FY 1991.

Transaction Fund Limit. Section 5(b) of the Act states that no disposal of excess materials may be made unless the disposal has been authorized by law. The law specifies the materials and the total quantities authorized for disposal. The authority remains effective until rescinded. In accordance with the Act, the Stockpile Manager obtains disposal authority by submitting a list of materials and desired quantities for disposal to the appropriate congressional committees. However, Stockpile officials told us that their efforts to dispose of materials were hampered by provisions of the Act, which state that no disposal may be made if the disposal would result in an unobligated balance in the Stockpile Transaction Fund in excess of \$100 million. As of September 30, 1990, the unobligated balance in the Fund was \$310 million. Amending the Act to remove the cap on the Fund would facilitate a multiyear execution of the submitted plans for disposals and acquisitions.

The Center needs to develop plans leading to the prompt disposal of excess Stockpile materials to reduce both storage costs and the risk of diminished market values due to material obsolescence and deterioration. In our opinion, a plan to prioritize and dispose of excess stockpiled materials that includes sales, the use of excess materials as Government-furnished materials, and the exchange of excess materials for upgraded materials could be developed, implemented, and accomplished within 5 years.

During the March 1990 congressional hearings on Stockpile issues, the Chairman of the House Subcommittee on Seapower and Strategic and Critical Materials said:

As you know, the policy of the subcommittee has been to avoid attempts to micromanage your program. However, if there is continued inaction by DoD to implement its own plan, this subcommittee may have no alternative but to reconsider its position and direct a program by statute. After all, the bulk of your program in recent years has merely implemented the ferrochromium and ferromanganese upgrading requirements mandated by the Senate.

The bottom line is that you seem to be able to execute statutorily mandated upgrade programs but have difficulty in adhering to your own plans as presented to Congress.

We believe the implementation of the recommendations below will help the Stockpile Manager to meet the intent of the Act to acquire and retain strategic and critical materials in the proper quantities.

RECOMMENDATIONS FOR CORRECTIVE ACTION

1. We recommend that the Assistant Secretary of Defense (Production and Logistics):

a. Submit proposals for inclusion in the Department of Defense legislative program to amend Public Law 96-41, the Strategic and Critical Materials Stock Piling Revision Act of 1979:

(1) To permit a multiyear execution of materials plans submitted to Congress.

(2) To remove the \$100-million cap on the unobligated balance of the National Defense Stockpile Transaction Fund.

b. Establish and implement specific procedures that prioritize and describe the planned actions to acquire materials that are needed to meet goals.

c. Establish procedures that enable Government agencies to comply with the Federal Acquisition Regulation by making available on a supply bulletin the current availability of excess National Defense Stockpile materials.

d. Develop, implement, and accomplish a 5-year plan to prioritize and dispose of excess stockpiled materials. The plan should include sales, the use of excess materials as Government-furnished materials, and the exchange of excess materials for upgraded material.

e. Report the lack of internal management controls over the identification and disposal of Stockpile excesses and the acquisition of Stockpile deficits as a material internal control weakness in the annual assurance statement in accordance with DoD Directive 5010.38, and track the status of corrective actions until the identified weakness is resolved.

2. We recommend that the Director, Defense Procurement:

a. Propose that Federal Acquisition Regulation, subpart 8.002(f) be changed to state: "Strategic and critical materials from excess DoD inventories (see title 41 CFR 101-14.2)."

b. Direct the Defense Acquisition Regulatory Council to revise the Defense Federal Acquisition Regulation Supplement, part 208, titled "Required Sources of Supplies and Services," section 208.002(f), to reflect that the Department of Defense is the Stockpile Manager and is responsible for disseminating information on excess strategic and critical materials.

MANAGEMENT COMMENTS

The Assistant Secretary of Defense (Production and Logistics) concurred with Recommendation B.1.a. Management described actions already taken on legislative proposals to permit the multiyear execution of plans and to remove the cap on disposals when the unobligated balance in the National Defense Stockpile Transaction Fund exceeds \$100 million. However, the proposal to permit the multiyear execution of plans was not cleared by the Office of Management and Budget because of opposition from the civil agencies.

The Assistant Secretary concurred in principle with Recommendation B.1.b. However, management took exception to the statement that some materials that were obviously in shortage or overage positions were not prioritized so that near-term acquisition and disposal actions could be effected. Management stated that the Stockpile Manager's April 19, 1989, Report to Congress under section 14(c) of the Strategic and Critical Materials Stock Piling Act outlined a modernization program with priorities for acquisitions. Management was concerned that throughout the audit report there was an implicit assumption that the Annual Materials Plan is a production schedule whose numbers are set in concrete, and thus, success or failure can be precisely calculated by comparing the year-end statistics with the Plan forecasts.

The Assistant Secretary concurred with Recommendation B.1.c. However, management stated that the Stockpile materials in excess to requirements can be disposed of only at fair market value unless the special disposal provisions of section 7(a) of the Act are invoked by the President.

The Assistant Secretary concurred in principle with Recommendation B.1.d. Management stated that the audit report failed to adequately point out the constraints that limit the quantity of material that can be disposed of in any given year.

One of the constraints is that disposal authority for silver is limited by statute to transfers to the Department of Treasury for coinage programs. Additionally, tin sales have been informally constrained by memorandums of understanding between the Department of State and the Association of South East Asian Nations. Management also stated that a 5-year plan to dispose of all excess materials is not realistic or achievable, but that a 5-year plan to dispose of those amounts of materials that are not constrained by statute, an international agreement, or undue market disruption is achievable.

The Assistant Secretary concurred with Recommendation B.1.e., which proposed that the lack of internal management controls over the identification and disposal of Stockpile excesses and the acquisition of Stockpile deficits be reported as a material internal control weakness in the annual assurance statement in accordance with DoD Directive 5010.38, and that the status of corrective actions be tracked until the identified weakness is resolved.

The Assistant Secretary, in coordination with the Director, Defense Procurement, concurred with the intent of Recommendation 2.a., which proposed a change to the FAR, subpart 8.002, to reflect that excess strategic and critical materials were no longer a General Services Administration inventory. Management described actions already taken to meet the intent of the recommendation.

The Assistant Secretary concurred with Recommendation 2.b. Management described actions already taken to revise the Defense Federal Acquisition Regulation Supplement, part 208, section 208.002(f).

AUDIT RESPONSE TO MANAGEMENT COMMENTS

We consider management's comments on Recommendation B.1.a. to be responsive as described by the actions already taken. However, we believe that if an Interagency Advisory Committee composed of experts from other Government agencies is formally established and implemented to solidify and prioritize requirements on a continuing basis for the Stockpile, objections by the civil agencies to a legislative proposal permitting the multiyear execution of plans could be alleviated.

We consider management's comments on Recommendation B.1.b. to be nonresponsive because actions planned and estimated dates of completion of planned actions to establish and implement specific procedures that prioritize and describe actions to acquire 40 material items in deficit supply were not provided. As stated in our report, of the 40 material items that are in deficit

supply, 30 had been short of established goals since 1977 or earlier. The Stockpile Manager's April 19, 1989, Report to the Congress stated that the purchase program would extend beyond 10 years with priority placed on antimony and columbium and with second priority placed on rubber, tantalum, and titanium. These are only 5 of the 40 items that are in deficit supply, and 3 of the 5 materials had been short since 1977. Given a more than 10-year purchase plan, the Stockpile may still be short in the year 2000. In addition, the recommendation pertaining to the multiyear execution of the materials plans [B.1.a(1)] was made because we recognized that single-year execution of the materials plans was difficult given constraints, such as market forces.

We consider the comments on Recommendation B.1.c. to be nonresponsive because management did not provide planned actions and estimated dates of completion for planned actions to establish procedures that enable Government agencies to comply with the FAR by making available on a supply bulletin the current availability of excess Stockpile materials. We believe that the requirement to dispose of excess materials, such as silver, at fair market values should not hamper the Government in using excess materials as Government-furnished material. Rather, disposals would avoid actual outlays by the Government to pay for contractor purchases of silver for Government use and would avoid additional contractor add-ons of overhead and profit.

We consider the comments on Recommendation B.1.d. to be nonresponsive because management did not describe planned actions and estimated dates of completion for planned actions to develop, implement, and accomplish a 5-year plan to prioritize and dispose of excess stockpiled materials. As stated in the report, 34 line items of material valued at about \$1.5 billion were excess to stated requirements. Of the 34 items, 21 had been excess for the last 20 years and 2 items, silver and tin, made up 80 percent of the total dollar value. The plan should include sales, the use of excess materials, such as silver, as Government-furnished materials, and the exchange of excess materials for upgraded material.

We consider management's comments on Recommendations B.1.e., B.2.a., and B.2.b. to be responsive. We have revised Recommendation B.2.a. to correctly reflect the FAR subpart as 8.002(f) rather than 8.002.

We have also revised the report to reflect "national emergency" in referenced section 2(b) of the Stock Piling Act and to reflect that the Federal Emergency Management Agency had responsibility for Stockpile management during FY 1985 and FY 1986.

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STOCKPILE GOALS

<u>Materials</u>	<u>Value of Goals (in Millions)</u>	<u>Value of On- hand Quantity (in Millions)</u>	<u>Value of Shortage to Goals (in Millions)</u>	<u>Value of Overage to Goals (in Millions)</u>
1. Aluminum Metal Group	\$2,913.1	\$ 827.9	\$1,554.9	
Alumina <u>3/</u>				
Aluminum				
Bauxite, Metal Grade, Jamaica				
Bauxite, Metal Grade, Surinam				
2. Aluminum Oxide, Abrasive	163.6	128.6	32.6	
Grain Group				
Aluminum Oxide, Abrasive Grain				
Aluminum Oxide, Fused, Crude				
Bauxite, Abrasive Grade				
3. Antimony	190.3	63.7	92.9	\$ 23.8
4. Asbestos, Amosite	.0	23.8		8.6
5. Asbestos, Chrysotile	5.9	12.5		
6. Bauxite, Refractory	288.9	64.0	224.9	
7. Beryllium Metal Group	315.8	272.4	46.4	
Beryl Ore (11% BeO)				
Beryllium Copper Master Alloy				
Beryllium Metal				
8. Bismuth	6.5	6.1		2.9
9. Cadmium	85.9	18.9	18.8	
10. Chromium, Chemical and				
Metallurgical Group	1,195.8	1,163.8	19.9	
Chromite, Chemical Grade Ore				
Chormite, Metallurgical Grade Ore				
Chromium, Ferro, High Carbon				
Chromium, Ferro, Low Carbon				
Chromium, Ferro, Silicon				
Chromium Metal				
11. Chromite, Refractory				
Grade Ore	69.4	39.1	30.6	
12. Cobalt	602.1	443.3	274.0	
13. Columbium Group	122.6	27.8	54.5	
Columbium Carbide Powder				
Columbium Concentrates				
Columbium, Ferro				
Columbium, Metal				

See footnotes at end of table.

STOCKPILE GOALS ^{1/}
(Continued)

<u>Materials</u>	<u>Value of Goals (in Millions)</u>	<u>Value of On- hand Quantity (in Millions)</u>	<u>Value of Shortage to Goals ^{2/} (in Millions)</u>	<u>Value of Overage to Goals ^{2/} (in Millions)</u>
14. Copper	\$2,657.0	\$ 84.3	\$2,816.7	
15. Cordage Fibers, Abaca ^{3/}	82.2	.0	82.2	
16. Cordage Fibers, Sisal ^{3/}	22.7	.0	22.7	
17. Diamond, Industrial Group	267.2	286.4	1.6	\$ 18.1
Diamond Dies, Small				
Diamond, Industrial Crushing				
Bort				
Diamond, Industrial Stones				
18. Fluorspar, Acid Grade	166.5	.151.8	1.2	
19. Fluorspar, Metal Grade	38.8	40.5		12.6
20. Germanium	82.7	51.1	103.7	
21. Graphite, Natural Ceylon,	12.3	10.7		
Amorphous Lump				
22. Graphite, Natural,				
Malagasy, Crystalline	42.6	53.3		10.9
23. Graphite, Natural, Other				
than Ceylon and Malagasy	1.4	2.0		.6
24. Iodine	51.3	53.7		2.4
25. Jewel Bearings	98.1	39.6	58.5	
26. Lead	858.0	613.1	449.1	
27. Manganese, Battery Grade				
Group	3.9	19.0		12.8
Manganese, Battery Grade,				
Natural Ore				
Manganese, Battery Grade,				
Synthetic Dioxide				
28. Manganese, Chemical and				
Metallurgical Group	\$ 706.5	909.0		9.2
Manganese Ore, Chemical Grade				
Manganese Ore, Metallurgical Grade				
Manganese, Ferro, High Carbon				
Manganese, Ferro, Low Carbon ^{3/}				
Manganese, Ferro, Medium Carbon				
Manganese, Ferro, Silicon				
Manganese Metal, Electrolytic				

See footnotes at end of table

STOCKPILE GOALS ^{1/} (Continued)

<u>Materials</u>	<u>Value of Goals</u> (in Millions)	<u>Value of On-</u> <u>hand Quantity</u> (in Millions)	<u>Value of</u> <u>Shortage</u> <u>to Goals</u> ^{2/} (in Millions)	<u>Value of</u> <u>Overage</u> <u>to Goals</u> ^{2/} (in Millions)
29. Mercury	\$ 3.6	\$ 41.6		\$ 38.8
30. Mica, Muscovite Block, Stained and Better	13.4	27.8		10.5
31. Mica, Muscovite Film, 1st and 2nd Qualities	1.1	13.8		12.7
32. Mica, Muscovite Splittings	18.9	21.5		2.6
33. Mica, Phlogopite Block	1.1	.7	\$.4	
34. Mica, Phlogopite Splittings	1.9	3.0		1.1
35. Molybdenum Group Molybdenum Disulfide ^{3/}	.0	.0		
Molybdenum, Ferro ^{3/}				
36. Morphine Sulfate and Related Analgesics Crude	64.0	24.1	28.9	
Refined				
37. Natural Insulation Fibers ^{3/}	.0	.0		
38. Nickel	2,215.0	324.6	1,316.3	
39. Platinum Grade Metals, Iridium	25.4	9.2	17.6	
40. Platinum Grade Metals, Palladium	262.3	149.2	104.5	
41. Platinum Grade Metals, Platinum	680.9	224.1	424.4	
42. Pyrethrum ^{3/}	72.1	.0	72.1	8.2
43. Quartz Crystals	1.4	9.7		
44. Quinidine	42.7	8.9	27.5	
45. Quinine	10.8	6.8	2.6	
46. Ricinoleic/Sebacic Acid Products	17.1	10.2	7.8	
47. Rubber	1,165.3	133.1	768.7	
48. Rutile	41.3	22.1	37.8	.2
49. Sapphire and Ruby	.0	.2		10.4
50. Silicon Carbide, Crude	13.1	22.9		463.3
51. Silver, Fine	.0	463.3		
52. Talc, Steat, Block and Lump	.0	.4		.4

1/
STOCKPILE GOALS (Continued)

<u>Materials</u>	<u>Value of Goals (in Millions)</u>	<u>Value of On- hand Quantity (in Millions)</u>	<u>Value of Shortage of to Goals <u>2/</u> (in Millions)</u>	<u>Value of Overage to Goals <u>2/</u> (in Millions)</u>
53. Tantalum Group	\$ 505.8	\$ 170.2	\$ 226.1	
Tantalum Carbide Powder				
Tantalum Metal				
Tantalum Minerals	1.7	19.5		\$ 17.9
54. Thorium Nitrate	326.1	1,042.8		780.3
55. Tin	1,696.5	401.8	1,739.9	
56. Titanium Group	310.0	270.9		
57. Tungsten Group				
Tungsten Carbide Powder				
Tungsten, Ferro				
Tungsten, Metal Powder				
Tungsten Ores and Concentrates				
58. Vanadium Group	\$ 104.1	8.6	101.4	
Vanadium, Ferro <u>3/</u>				
Vanadium, Pentoxide				
59. Vegetable Tannin, Chestnut	3.4	7.9		4.5
60. Vegetable Tannin, Quebracho	19.2	84.0		64.7
61. Vegetable Tannin, Wattle	10.6	10.6		
62. Zinc	<u>\$1,991.6</u>	<u>\$ 617.4</u>	<u>\$1,705.4</u>	
Total Values	<u>\$20,671.5</u>	<u>\$9,557.2</u>	<u>\$12,465.9</u>	<u>\$1,517.4</u>

1/ Shown in the 1989 Report to the Congress on National Defense Stockpile Requirements.

2/ Some line items within the 62 material categories contain overages that are not excess to goals, but are overages used to offset shortages within the same material category.

3/ Nine line items that have Stockpile goals or are still classified as strategic and critical materials, but that do not have any inventory on-hand.

MILITARY, CIVILIAN, AND INDUSTRIAL REQUIREMENTS
FOR A NATIONAL EMERGENCY

The material requirements contained in each of the three tiers of the economy for which strategic and critical materials are stockpiled are specified below. For a national emergency, the military requirements include materials needed to produce required military goods; materials needed for replacement parts and equipment for existing Government-owned industrial facilities; and materials needed for construction of new plants and for equipment for Government-owned facilities that would operate at normal production levels.

The civilian requirements include materials needed to produce essential civilian goods, to provide replacement parts and equipment for existing commercial facilities and new plants, and to produce equipment for commercial facilities that would operate at normal production levels.

The industrial requirements consist of materials needed for the construction of new plants or for the manufacture of new equipment to overcome bottlenecks as a result of accelerated production by Government-owned and commercial facilities during a national emergency.

JOINT INDUSTRIAL MOBILIZATION PLANNING
PROCESS REQUIREMENTS MODULE

The Joint Industrial Mobilization Planning Process (JIMPP) Requirements Module was used to determine the military hardware needed to field and sustain United States forces in potential conflicts. The JIMPP is the generic term for the planning and analytic process used to prepare industrial mobilization plans linked to operation plans and crisis action development and execution; to perform the mobilization attainability analyses required by the Joint Strategic Planning System (JSPS); and to establish baseline national industrial capability goals tied to potential military demand identified in the JSPS. The JIMPP concept permits planners to systematically assess U.S. capability to provide the material resources needed to field and sustain U.S. forces in various potential conflicts and to develop options for resolving or alleviating any material shortfalls that may be identified.

JIMPP provides a device to draw together the best of the Military Departments' conflict planning factors and thereby allows JIMPP planners to assess U.S. military hardware and weaponry requirements when full-scale requirements estimates have not already been prepared by the Military Departments. JIMPP is intended to be used as a flexible planning tool, not as a replacement for the deliberate planning process. The JIMPP enables the user to specify time-phased force delivery profiles for each Military Department in a hypothetical conflict, and anticipated attrition, consumption, and munition requirement profiles for the scenario. JIMPP then calculates summary lists of the time-phased, end-item requirements in the scenario net of projected U.S. inventories at D-Day.

JIMPP has been structured to offer the user considerable flexibility in specifying key features of the conflict scenario including such dimensions as the year and month the conflict is to start, how long it is expected to last, the specific forces to be employed, the theaters involved, expected attrition and consumption profiles by month of conflict and theater, and the shares of projected U.S. D-Day inventories assumed available.

The process basically works as follows. The user selects from among a number of planning factor data bases provided by the Military Departments to rapidly build conflict planning assumptions concerning consumption, attrition, and other key parameters. These profiles may be modified quickly for specialized "what-if" analyses. The user will specify the particular force deployment schedules associated with the

JOINT INDUSTRIAL MOBILIZATION PLANNING
PROCESS REQUIREMENTS MODULE
(Continued)

particular conflict, by theater (up to four theaters may be used). JIMPP will then calculate the expected month-by-month, end-item requirements to field and sustain these forces, net of projected D-Day inventories. There are five major components that go into the overall profile: force unit start-up requirements, attrition replacement requirements, consumption item requirements, threat item requirements, and projected D-Day inventories assumed to be available for the conflict. The principal output of the JIMPP is a set of military requirements profiles, net of D-Day inventories, by month of conflict.

Shortfalls identified in this process are assumed to be the items that need to be supplied from new or additional U.S. production in order for the projected force deployment to be sustainable in a timely manner.

JOINT INDUSTRIAL MOBILIZATION PLANNING
PROCESS MACRO MODULE

The Joint Industrial Mobilization Planning Process (JIMPP) Macro Module converts hardware requirements developed by the JIMPP Requirements Module into a set of direct demands on each of 236 industries that have Standard Industrial Classification codes. The direct demands are then converted to total demands on the same industries. Direct defense demands are purchases made by the DoD, whereas indirect or intermediate defense demands are purchases, generated throughout the economy, of items used to produce goods bought by the DoD. The total civilian demands are entered into the Macro Module. The resultant total demands are compared, industry by industry and month by month, to the industrial supply estimated to be available from existing United States industrial emergency capability and imports. If industrial capacity fails to meet the industrial output demands, the Macro Module then estimates the feasibility, timing, and costs associated with the construction of new facilities. The decisions made to satisfy the shortfall in industrial capacity would result in the industrial requirements for strategic and critical materials.

MATERIALS DEFENSE ECONOMIC IMPACT
MODELING SYSTEM (MDEIMS)

The Defense Economic Impact Modeling System (DEIMS) consists of several economic models developed to estimate demands on the U.S. economy generated by defense spending. The Materials Defense Economic Impact Modeling System (MDEIMS) is the material portion of the system. The MDEIMS was used to translate the hardware requirements developed using the Joint Industrial Mobilization Planning Process Requirements Module and Macro Module into raw material requirements for the National Defense Stockpile. The MDEIMS data base estimates the amount of each strategic and critical material used in military goods and services. These estimates are based on historical ratios of consumption of a particular strategic and critical material (in physical units) to the real dollar value of domestic production of a given industry.

The process uses a translator system that breaks down outlays from defense programs into DoD purchases from various industries. A translator is made up of estimates of the shares of outlays from individual budget accounts and programs that are used to purchase the products of various industries. Applied to planned outlays from those accounts, the translator yields dollar estimates of DoD purchases from various Standard Industrial Classification (SIC) industries.

Each of the budget accounts may have from a few dozen to a few thousand subaccounts. In many cases, all of the outlays from a given subaccount go to a single SIC industry. Subaccounts that fund substantial purchases from two or more industries must be disaggregated further. Sorting through and disaggregating the various subaccounts could be done manually, but the process would be so time-consuming that projections of defense demands could not be updated annually to reflect changes in the defense budget. Consequently, to keep the projections current, a faster and more efficient means of classifying defense purchases by industrial sector was developed using the translator.

The translator automates the classification process for the procurement accounts. In these cases, DEIMS uses budgeted amounts in the subaccounts for each year of the forecast. Each subaccount includes a "subtranslator" composed of estimates of the shares of outlays from that subaccount for the purchased products from various industries. About 200 such subtranslators are used. The subtranslators are updated in a 3-year cycle.

The translators for the aggregate accounts are built up from subtranslators for the subaccounts. The aggregate translators vary from one year of the forecast period to the next as the mix

MATERIALS DEFENSE ECONOMIC IMPACT
MODELING SYSTEM (MDEIMS)
(Continued)

of items funded by the account varies. The translators for the operation and maintenance (O&M) and military construction (MILCON) accounts are not adjusted year by year. These translators were initially computed using detailed budget data from FY 1982 for several thousand categories of purchases, and updated periodically. Outlays from individual subaccounts, sometimes after further disaggregation, were classified by SIC industry. The dollar figures were then used to compute shares of total outlays from the aggregate accounts in FY 1982. The use of translators computed from actual data to project purchases in subsequent years rests on the assumption that the distribution of outlays from the O&M and MILCON accounts across industries remains relatively stable over time. The translators for the research, development, test and evaluation (RDT&E) accounts, like those for the O&M and MILCON accounts, are constant over the forecast period.

The translator works as a classification technique to the extent that it takes planned outlays from individual budget accounts and sorts them among the various SIC industries from which purchases will be made. The translator serves as a model to the extent that it breaks down the cost of complete products into purchases from various industries.

The Office of the Assistant Secretary of Defense (Program Analysis and Evaluation) is responsible for maintaining and updating the data bases and models in the DEIMS system.

DEPARTMENT OF COMMERCE ACTIVITIES
PROVIDING SUPPORT TO THE NATIONAL DEFENSE STOCKPILE

Industrial Resource Administration

The Office of Industrial Resource Administration (OIRA) is the focal point within the Department of Commerce for developing, promoting, and implementing policies that ensure a strong and technologically superior defense industrial base.

OIRA conducts a number of national security assessments of critical defense industries to ensure that industry is able to meet current and prospective national security requirements. This includes assessments of industry capabilities to respond to present and future needs in strategic and critical materials. The OIRA has analytic capabilities that are available to support DoD's administration of the Stockpile.

OIRA provides input for the Department of Commerce into policy development and ongoing operation of the Stockpile. OIRA prepares the Department of Commerce's input into DoD's development of an Annual Materials Plan (the Plan) for the proposed acquisition and disposal of stockpiled materials. OIRA co-chairs (with the Department of State) the interagency Market Impact Committee responsible for reviewing the impact of the Plan's proposed acquisitions and disposals on domestic and foreign producers and consumers. Since the transfer of the Stockpile to DoD, the Committee has not consistently met to review the effects of proposed acquisitions and disposals on domestic and foreign markets. Rather, assistance from the Committee is provided on a request basis from DoD. In the past, OIRA routinely assisted the Stockpile Manager in preparing market impact strategies and in developing requirements for specific items.

Office of Policy Analysis

The Office of Policy Analysis (OPA) is part of the Department of Commerce's Economics and Statistics Administration. Its responsibilities include the review of existing and proposed Federal policies for their effect on the economy and industry. OPA is active in emergency preparedness programs at the Department of Commerce.

In the 1984 National Security Council (NSC) Stockpile/Industrial Mobilization Planning Study, "U.S. National Defense Stockpile Goals, Mobilization Planning Factor and Implementation Measures," OPA provided estimates of industrial investment necessary to meet the requirements of increased industrial demands during mobilization and war; a review of the methodology employed by the Federal Emergency Management Agency (FEMA) to project

DEPARTMENT OF COMMERCE ACTIVITIES
PROVIDING SUPPORT TO THE NATIONAL DEFENSE STOCKPILE
(Continued)

materials consumption ratios; and assistance to FEMA in estimating industrial outputs for the emergency period for national defense, investment (basic industrial), and essential and nonessential civilian needs. Since the 1984 NSC Study, involvement in Stockpile-related issues has been limited.

OPA could provide assistance to the Stockpile program through its ability to estimate industrial output requirements for national defense, investment, and essential and nonessential civilian requirements and to relate stockpiled material consumption to these output requirements. Availability of resources for a new review of the Stockpile would depend on reimbursable arrangements with the DoD.

Office of Metals, Minerals, and Commodities

The Office of Metals, Minerals, and Commodities (the Office) provides expertise on metal-producing and fabricating industries and on numerous soft commodities such as sugar, coffee, rubber, etc., to the Department of Commerce, other Government agencies, and the business community. The Office is also involved in major policy issues affecting these industries. The Office is responsible for international commodity negotiations and trade problems and issues. The Office had been involved in mobilization and strategic material planning activities. Since the Stockpile was transferred to DoD, input to the Stockpile Manager on acquisition and disposal decisions for Stockpile materials has been limited.

The Office can assist Stockpile management in updating the material consumption ratios, in working with an Annual Materials Plan steering committee, and in preparing market impact studies. Although assistance has been provided in these areas in the past, loss of personnel and changes in work load will require funding or a change in workload priorities in order for the Office to provide assistance in the future.

DEPARTMENT OF THE INTERIOR ACTIVITIES
PROVIDING SUPPORT TO THE NATIONAL DEFENSE STOCKPILE

Bureau Of Mines

The Bureau of Mines (the Bureau) continuously monitors domestic production, imports, exports, stocks, and consumption of all major nonfuel minerals. Detailed reports are received monthly, quarterly, or annually from domestic mines, smelters, refineries, recyclers, and major users. Monthly import and export data are obtained from the U.S. Customs Service. Bureau experts continuously monitor developments in foreign supply areas. The Bureau publishes monthly "Mineral Industry Surveys," with up-to-date detailed statistics. U.S. and world production for more than 100 materials is discussed in annual "Mineral Commodity Summaries." Special reports are issued on mineral materials or producing nations or regions, giving details of production, technology, reserves, resources, and outlook.

As a result of its continual monitoring of mineral supply and demand and its technological competence, the Bureau has the framework needed to determine priorities, allocations, and supply expansion responsibilities. Although the Bureau continues to provide the same basic information each year to the Stockpile Manager, the frequency of meetings to discuss Stockpile issues has decreased since the mid-1980's.

The Strategic and Critical Materials Stock Piling Act provides for releases of materials by order of the President when required for the national defense, or in times of war declared by Congress, or during a national emergency. To release stockpiled materials, the DoD consults with other Government agencies, including the Bureau. The DoD then releases materials to specified recipients.

In a national emergency, the Bureau would be responsible for controls placed on the export of materials, on materials needed for defense production, and on releases from the Stockpile. Any long-lasting supply disruption would call for supply expansion programs covering not only domestic deposits, but also reliable foreign source deposits. The Bureau would recommend needed mineral supply expansion programs and implement any authorized by law.

DEPARTMENT OF STATE ACTIVITIES
PROVIDING SUPPORT TO THE NATIONAL DEFENSE STOCKPILE

Office of International Commodities

The Office of International Commodities of the Department of State is providing assistance to the National Defense Stockpile (the Stockpile). The Office of International Commodities serves as the co-chair of the Stockpile's Market Impact Committee (the Committee) with representatives from the Department of Commerce. However, comments obtained during our audit from the Department of State concerning the value of the Market Impact Committee were not favorable. It considers the meetings to be of a pro forma nature and believes Stockpile officials make decisions without consulting with the Committee. Because of these concerns, the Department of State would welcome a more formal definition of the Committee's relationship with Stockpile officials. Formalizing the function would ensure that Committee members have a clearer understanding of their roles and what is expected of them. A definition of roles would also result in more timely assistance from the Committee members.

The Department of State can provide a perspective on foreign political and economic factors, including prices and supply reliability. The Department of State can also assist when bilateral difficulties arise with other consumer or producer nations. The Office of International Commodities stated that the embassies possess information on specific materials. The information would be available to Stockpile officials if they informed the Department of State that an interest existed. The embassies can also fulfill special requests for information.

LIST OF MATERIALS DEFICIT TO GOALS
(As of August 31, 1990) ^{1/}

<u>Materials</u>	<u>Unit of Measure</u>	<u>Quantity Deficit</u>	<u>Value of Deficit (in Millions)</u>	<u>Deficit Since</u>
Aluminum	Short Ton <u>2/</u>	697,918	\$1,130.627	1980
Antimony	Short Ton	52,494	92.914	1989
Bauxite Abrasive Grade	Long Dry Ton <u>3/</u>	315,747	32.563	1980
Bauxite Metal Grade-Jamaica	Long Dry Ton	8,542,260	384.402	1980
Bauxite Metal Grade-Surinam	Long Dry Ton	800,403	39.860	1980
Bauxite Refractory	Long Calcined Ton <u>4/</u>	965,362	224.890	1977
Beryl	Short Ton	239	.214	1980
Beryllium Copper Master Alloy	Pound	513	7.970	1977
Beryllium Metal	Short Ton	85	38.250	1977
Cadmium	Pound	5,371,430	18.800	1977
Chromite-Chemical	Short Dry Ton <u>5/</u>	294,434	19.899	1977
Chromite-Refractory	Short Dry Ton	303,586	30.295	1977
Cobalt	Pound	32,621,858	274.024	1977
Columbium Carbide Power	Pound	78,628	2.220	1980
Columbium Concentrate	Pound	11,250,783	52.305	1977
Copper	Short Ton	970,953	2,816.735	1977
Cordage Fiber - Abaca	Pound	155,000,000	82.150	1977
Cordage Fiber - Sisal	Pound	60,000,000	22.680	1977
Diamond Industrial Dies Small	Piece	34,527	1.554	1980
Fluorspar Acid	Short Dry Ton	7,144	1.214	1977
Germanium Metal	Kilograms	97,801	103.669	1984
Jewel Bearings	Piece	41,778,682	58.490	1975
Lead	Short Ton	498,947	449.052	1977
Mica PB	Pound	79,255	.396	1977
Nickel	Short Ton	162,786	1,316.288	1977
Morphine Sulfate and Analgesics Refined	Pound	58,697	28.919	1977
Platinum	Troy Ounce <u>6/</u>	857,359	424.393	1977
Platinum - Iridium	Troy Ounce	56,410	17.628	1977
Platinum - Palladium	Troy Ounce	885,399	104.477	1977
Pyrethrum	Pound	500,000	72.080	1977
Quinidine	Ounce	7,626,950	27.457	1977

See footnotes at end of table.

LIST OF MATERIALS DEFICIT TO GOALS (Continued)
(As of August 31, 1990) 1/

<u>Materials</u>	<u>Unit of Measure</u>	<u>Quantity Deficit</u>	<u>Value of Deficit (in Millions)</u>	<u>Deficit Since</u>
Quinine	Ounce	1,253,935	\$ 2.633	1977
Rubber	Long Ton <u>7/</u>	3,790,303	7.751	1977
Ricinoleic/Sebacic Acid	Pound	724,568	768.668	1980
Rutile	Short Dry Ton	66,814	37.750	1977
Tantalum Minerals	Pound	5,290,868	226.116	1977
Titanium	Short Ton	158,169	1,739.859	1977
Vanadium Ferro	Short Ton	1,000	17.900	1977
Vanadium Pentoxide	Short Ton	6,979	83.473	1977
Zinc	Short Ton	1,046,240	<u>1,705.371</u>	1977
Total			<u>\$12,465.937</u>	<u>8/</u>

- 1/ Information taken from the Defense Logistics Agency, National Defense Stockpile, Inventory of Stockpile Materials as of August 31, 1990
- 2/ 2,000 pounds
- 3/ 2,240 pounds
- 4/ Long ton with moisture taken out; 2,240 pounds
- 5/ 907.18 kilograms
- 6/ 31.1035 grams
- 7/ 2,240 pounds
- 8/ Total is as shown on the National Defense Stockpile, Inventory of Stockpile Materials as of August 31, 1990

LIST OF EXCESS MATERIALS
(As of August 31, 1990)

<u>Excess to Goals</u>	<u>Unit of Measure</u>	<u>Excess Quantity</u>	<u>Dollar Value of Excess (in Millions)</u>	<u>Year Material Became Excess</u>
<u>Materials With Goals</u>				
1. Asbestos - Amosite	Short Ton ^{2/}	34,006	\$ 23.820	1968
2. Asbestos - Chrysotile	Short Ton	7,594	8.574	1973
3. Bismuth	Pound	956,355	2.888	1989
4. Diamond Industrial, Crushing Bort	Carat	19,020,961	18.069	1989
5. Fluorspar Metallurgical Grade	Short Dry Ton ^{3/}	100,822	12.602	1989
6. Graphite, Natural Malagasy	Short Ton	3,566	10.698	1989
7. Graphite Natural, Other than Ceylon and Malagasy	Short Ton	870	.609	1989
8. Iodine	Pound	268,460	2.373	1969
9. Manganese Ore, Chemical Grade	Short Dry Ton	2,745	.205	1980
10. Manganese, Dioxide Battery Grade, Natural Ore	Short Dry Ton	155,947	12.832	1968
11. Manganese, Metal	Short Dry Ton	903,167	9.031	1968
12. Mercury	Flask (76 Pounds)	147,856	38.811	1968
13. Mica, Muscovite, Blocked Stained and Better	Pound	1,879,134	10.450	1989
14. Mica, Muscovite Film, 1st and 2nd Quality	Pound	1,084,931	12.656	1973
15. Mica, Muscovite Splittings	Pound	1,707,000	2.560	1968
16. Mica, Phlogopite Splittings	Pound	565,247	1.124	1968
17. Quartz Crystals	Pound	1,370,737	8.224	1968
18. Sapphire and Ruby	Carat	16,305,502	.179	1973
19. Silicon Carbide	Short Ton	24,347	10.444	1980
20. Silver	Troy Ounces ^{4/}	92,980,616	<u>463.322</u>	1970
Subtotal			\$649.481	

See footnotes at end of table.

LIST OF EXCESS MATERIALS (Continued)
(As of August 31, 1990) 7/

<u>Excess to Goals</u>	<u>Unit of Measure</u>	<u>Excess Quantity</u>	<u>Dollar Value of Excess (in Millions)</u>	<u>Year Material Became Excess</u>
<u>Materials With Goals</u>				
21. Talc - Block & Lump	Short Ton	1,081	\$.432	1968
22. Thorium Nitrate	Pound	6,495,225	17.861	1968
23. Tin	Metric Ton	126,857	780.284	1968
24. Tungsten Ores & Concentrates	Tungsten <u>5/</u>	11,688	.33	1970
25. Vegetable Tannin Extract, Chestnut	Long Ton <u>6/</u>	6,690	4.533	1968
26. Vegetable Tannin Extract, Quebracho	Long Ton	94,211	64.744	1968
27. Vegetable Tannin Extract, Wattle	Long Ton	1	0	1978
Total - Materials with Goals			<u>\$1,517.375</u>	<u>7/</u>

Materials Without Goals

28. Asbestos - Crocidolite	Short Ton	36	\$.012	1968
29. Celestite	Short Dry Ton	13,415	.201	1968
30. Kyanite	Short Dry Ton	1,187	.127	1968
31. Mica MB Stained & Lower	Pound	181,374	.272	1978
32. Rare Earths	Short Dry Ton	504	1.058	1968
33. Talc - Ground	Short Ton	1,089	.005	1968
34. Zirconium	Short Dry Ton	15,991	0	1968
Total - Materials Without Goals			<u>\$1.677</u>	<u>7/</u>

1/ Information taken from the Defense Logistics Agency, National Defense Stockpile, Inventory of Stockpile Materials as of August 31, 1990

2/ 2,000 pound

3/ 907.18 kilograms

4/ 31.1035 gram

5/ pounds of pure tungsten contained in the ores and concentrates

6/ 2,240 pounds

7/ Totals are as shown on the National Defense Stockpile Inventory of Stockpile Material as of August 31, 1990



PRODUCTION AND
LOGISTICS

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D C 20301-6000

June 28, 1991

MEMORANDUM FOR THE DOD INSPECTOR GENERAL

SUBJECT: Draft Audit Report on Requirements for the National Defense
Stockpile (Project No. ORB-0009)

Attached are our comments on your draft audit report on National
Defense Stockpile Requirements. We concur with the findings and
recommendations. Because you have addressed some of the recommendations to
the Director, Defense Procurement, please be advised that the attached
comments have been coordinated with Director, Defense Procurement.

Colin McMillan

Attachment

ASD (P&L) and DDP Comments on DoDIG Draft Audit Report on
Requirements for the National Defense Stockpile (Project No. ORB-0009)

The major findings of the draft audit report on the National Defense Stockpile (NDS) Requirements are that, as of August 31, 1990: (1) the process for determining the types, quantities, and quality of materials to be acquired for and retained in the Stockpile needs improvement; (2) better management of acquisition and disposal of Stockpile materials is needed.

Our comments on the draft audit findings are as follows: We concur with the finding that the process for determining Stockpile requirements needs improvement. The draft audit report mentions that three mobilization planning assumptions are too restrictive, resulting in NDS requirements that are excessive: (1) the planning military force structure; (2) use of current domestic production facilities but not restarts of closed facilities or starts of new facilities; and (3) foreign supplies to meet military tier requirements only from Canada and Mexico. We have already taken steps to change all three of these assumptions.

First, for the 1991 scenario, the Joint Staff provided a force structure somewhat smaller than the planning force from the 1989 and 1990 reports. In addition, we drafted legislation to eliminate the statutory provision requiring that NDS requirements be based on a sustained, global conventional war of at least three years duration and involving total mobilization of the economy. This legislation would have removed statutory impediments to use of the program force. However, the Office of Management and Budget did not clear this legislative proposal for submission to Congress because of objections from the staff of the National Security Council.

Second, as a matter of policy, future NDS requirements studies will use selected restarts of currently closed domestic production facilities and starts of new production facilities. The only constraint on the use of restarts and new starts is how many of these facilities can be simultaneously brought on line before bottlenecks in the capital goods and special equipment industries cause serious delays in the start of production. Third, for the 1991 requirements report, the countries in the Caribbean Basin, in addition to Canada and Mexico, will be considered assured suppliers of strategic and critical materials that will be used to meet the material demands of the military tier of the economy. We are studying whether other foreign countries can be added to the list of assured suppliers for military requirements.

The draft audit report also asserts that the models and databases used to determine the quantities of strategic and critical materials required for stockpiling had not been updated. This is a largely inaccurate statement. All our databases relating to military and civilian demands and domestic and foreign supplies have been updated every year. However, it is true, as stated in the draft report, that one important database, MDEIMS, used to translate economic demands into their material component through material consumption ratios, has not been updated since 1987. It should be noted, however, that we requested the assistance of both the Departments of Interior and Commerce to provide consumption data needed to update the MDEIMS data. Interior did provide some

information but the Commerce Department stated that because of manpower and financial limitations they could not provide assistance. These manpower and financial limitations at the Commerce Department are confirmed in Appendix F of your draft report. We have taken steps to overcome this problem by arranging to transfer monies to the Commerce Department from the NDS Transaction Fund. In addition, while material consumption ratios in MDEIMS do change over time, they do so slowly. Any errors introduced by the age of the data are likely to be small for most materials.

The draft audit report also states that the models used for generating NDS requirements do not account for the qualitative or physical aspects of materials needed. This is true in most cases but we do not see this as an area that needs to be changed. The decisions about how much of a material requirement to inventory in upgraded forms are best made by material specialists in the Defense Logistics Agency with assistance of material specialists from other Government agencies.

In discussing one of the models used to generate NDS requirements, the draft report makes a misstatement of fact. It states on page 17 that "the [JIMPP] Macro Module used industrial capacity information that was part of the Defense Industrial Network (DINET) data base which is being developed by the Office of Industrial Base Assessment [now Production Base Division] of the Assistant Secretary of Defense (Production and Logistics). In fact, the JIMPP Macro Module does not use data from DINET. We agree with the draft report's comments (p. 17) about DINET (which are quoted from the General Accounting Office Report No. NSIAD-90-48) that "DINET had not been completed and that it had limitations." We are working to overcome those limitations.

It should also be noted that the description of the DEIMS model on pages 55-56 is not correct. The Office of the Assistant Secretary of Defense (Program Analysis and Evaluation) (PA&E) uses a less aggregate set of vectors (about 200 in all) than is described, and updates about a third of the vectors every year. The vectors for O&M, Military Construction, RDT&E and Procurement have all been substantially revised since 1982. In addition, PA&E adjusts the proportion of pay in each translator subvector each time the vector is used.

We agree in part with the final audit comment relating to the requirements generation process -- that the process to use experts from other Government agencies, who under Executive Order 12656 are responsible for overall mobilization planning, as advisors in determining strategic and critical material requirements has not been institutionalized. DoD has established a Civilian Agency Work Group for NDS requirements. Letters were sent to the Assistant Secretary or Deputy Assistant Secretary level inviting ten civilian agencies to participate. We receive foreign country reliability assessments from the Department of State, domestic and foreign production data for strategic and critical materials from the Departments of the Interior and Agriculture, consumption data for the MDEIMS database from the Department of the Interior and, soon, the Department of Commerce, and advice on what materials to upgrade from experts in several agencies. In addition, Work Group members are consulted on the nature of the economy during the war scenario, including civilian

austerity, and the level of imports and exports in different sectors of the economy. However, the Work Group does not have a formal Charter.

The draft report describes models and capabilities at the Commerce Department for estimating defense purchases of goods and services and suggests that these capabilities could be used in estimating NDS requirements. Many of the Commerce Department capabilities duplicate capabilities already present in the Office of the Secretary of Defense. We see no need to use duplicative models and capabilities from other Departments unless they provide data which is of higher quality than DoD models and capabilities. PA&E has sponsored a project at the Institute for Defense Analyses to compare and reconcile the DoD view of defense purchases, as expressed in DEIMS, with the view contained in the bridge tables maintained by the Bureau of Economic Analysis in the Department of Commerce. The purpose of the project is to improve one of both representations. In general, the defense bridge tables used by the Commerce Department appear to be less detailed (and perhaps less current) than the translator subvectors in DEIMS.

The draft audit recommendations as they relate to the requirements generation process are:

(1) base future Stockpile goals on a more realistic force level, such as the programmed force; use domestic production capacity from new and reopened facilities; and consider foreign production sources other than Canada and Mexico during a crisis.

(2) establish and institutionalize, in coordination with the Department of Commerce, Interior, and State, an Interagency Advisory Committee, composed of Government experts, as provided for in section 10(a) of the Strategic and Critical Materials Stock Piling Act, to provide information on the civilian and industrial tiers that affects the material requirements generation process and to assist in the computation of requirements for materials that cannot be quantitatively modeled.

(3) include in the Charter of the Committee established by Recommendation 2 above, specific responsibilities to assimilate the information necessary to formulate Stockpile requirements and to prioritize the Stockpile actions regarding those requirements.

We concur with the recommendation that the Stockpile goal in future annual Reports to Congress should reflect a more realistic force structure; use domestic production facilities for new and reopened facilities; and consider foreign sources other than Canada and Mexico to supply materials during a crisis. As noted above, we have already taken steps to change each of these planning assumptions.

We concur with the recommendation that DoD establish and institutionalize, in coordination with the Departments of Commerce, Interior and State, an Interagency Advisory Committee, composed of Government experts, as provided for in section 10 (a) of the Strategic and Critical Materials Stock Piling Act as amended, to provide information on the civilian and industrial tiers that

affects the material requirements generation process and to assist in the computation of requirements for materials that cannot be quantitatively modeled. Such an interagency advisory committee already exists and is convened on an "as needed" basis to provide information and advice on a broad range of issues as noted above. We will take steps to further institutionalize the committee.

We concur in principle with the recommendation that the Charter of the Committee established by Recommendation 2 above include specific responsibilities to assimilate the information necessary to formulate Stockpile requirements and to prioritize the Stockpile actions regarding those requirements.

We do not object to the Charter specifying responsibilities for each Department in advising the DoD on (1) demand and supply data for strategic and critical materials; (2) priorities in Stockpile acquisition and disposal activities; (3) other areas of support for DoD relevant to the NDS program as specified in E.O. 12656. However, we will not assign the civil agencies responsibilities that go beyond advisory responsibilities. Therefore, we will not specify in the Charter that agencies have responsibilities to "assimilate the information necessary to formulate Stockpile requirements" and to "prioritize the Stockpile actions regarding those requirements."

We concur in principle with the draft audit report finding that better management of Stockpile acquisitions and disposals is needed. However, we do have some reservations about specific statements in the draft report concerning NDS acquisitions and disposals. These are discussed below in the context of the draft report recommendations.

The draft audit recommendations as they relate to the management of Stockpile acquisitions and disposals are that the Assistant Secretary of Defense (Production and Logistics):

(1) submit proposals in the Department of Defense legislative program to amend Public Law 96-41, the Strategic and Critical Materials Stock Piling Act of 1979 [Hereafter referred to as Stock Piling Act] to:

(a) permit multiyear execution of materials plans submitted to Congress;

(b) remove the cap on disposals when the unobligated balance in the NDS Transaction Fund exceeds \$100 million.

(2) establish and implement specific procedures that prioritize and describe the planned actions to acquire materials that are needed to meet goals.

(3) establish procedures that enable Government agencies to comply with the Federal Acquisition Regulation by making available on a supply bulletin the current availability of excess NDS materials.

(4) develop, implement and accomplish a 5-year plan to prioritize and dispose of excess stockpiled materials.

(5) report the lack of internal controls over the identification and disposal of Stockpile excesses and the acquisition of Stockpile deficits as a material internal control weakness in the annual assurance statement in accordance with DoD Directive 5010.38, and track the status of corrective actions until the identified weakness is resolved.

We concur with the recommendation that ASD(P&L) submit legislative proposals to permit multiyear AMPs and remove the cap on disposals when the unobligated balance in the NDS Transaction Fund exceeds \$100 million. We drafted legislation this year for submission to Congress to achieve both these goals. The Office of Management and Budget would not clear the multiyear AMP proposal because of opposition from the civilian agencies. Therefore, DoD withdrew the proposal. However, the proposal to remove the cap on disposals when the unobligated balance in the Transaction Fund is over \$100 million was cleared by OMB and submitted to Congress on May 30, 1990 as part of DoD's legislative proposals on NDS.

We concur in principle with the recommendation that ASD(P&L) establish and implement specific procedures that prioritize and describe the planned actions to acquire materials that are needed to meet goals. However, we have two reservations about the supporting information in the draft report. First, the report states that "...some materials that were obviously in shortage or overage positions were not prioritized so that near-term acquisition and disposal actions could be effected...." This statement does not take into account the Stockpile Manager's April 19, 1989, Report to the Congress under Section 14(c) of the Strategic and Critical Materials Stock Piling Act which outlined on pages 5-6 a modernization program with priorities for acquisitions.

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The Stockpile Manager's report noted that, while acquisition rates for such priority items as rubber, tantalum, titanium and colombium were set at the maximum feasible rates under Section 6(b)(2) of the Act, the purchase program would extend beyond 10 years.

On the disposal side, the Stockpile Manager's report stated that the estimated disposal time for materials such as bismuth, fluorspar, graphite and mica ranged from seven to ten years. Also, as noted below, there are high value materials such as silver and tin for which disposals are formally constrained by legislation or informally constrained by memoranda of understanding between the U.S. and the ASEAN countries.

The second concern is the implicit assumption throughout the audit report that the Annual Materials Plan (AMP) is a production schedule whose numbers are set in concrete, and thus success or failure can be precisely calculated by comparing the year-end statistics with the AMP forecasts. We believe that the AMP was never intended to be a standard against which performance is to be measured in absolute terms. It is difficult to be an effective player in world commodity markets and avoid undue market disruptions. We believe that the AMP is a management plan for implementing stockpile purchases and sales in a way that maximizes national security preparedness subject to the limitations of market and budgetary conditions. It is not a firm commitment to buy or sell a

specific quantity of a specific material. Market forces and prudent management of resources are the dominant factors in disposal decisions.

We concur with the recommendation to ASD(P&L) to establish procedures that enable Government agencies to comply with the Federal Acquisition Regulation by making available on a supply bulletin the current availability of excess NDS materials. However, you should be aware that the Office of General Counsel has advised us that under Sections 6(b)(1) and 6(c)(2) of the Stock Piling Act, NDS materials that are excess to requirements can only be disposed of at fair market value unless the special disposal provisions of Section 7(a) of Act are invoked by the President. Therefore, there may not be savings that result from the transfer of excess NDS inventories to other Government agencies.

We concur in principle with the recommendation to ASD(P&L) to develop, implement, and accomplish a 5-year plan to prioritize and dispose of excess stockpiled materials.

However, the discussion of past NDS disposals on pages 35-41 fails to adequately point out the constraints that limit the quantity of material that can be disposed of in any given year. These constraints include the following:

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- the dollar value of two materials - silver and tin - represent 80 percent of the value of excess NDS materials under current NDS requirements. Despite several requests to the Congress for open market disposal authority for silver, disposal authority for silver is limited by statute to transfers to the Treasury Department for coinage programs. In addition, tin sales have been informally constrained by memoranda of understanding between the State Department and the Association of South East Asian Nations (ASEAN).

- Two excess materials - asbestos and thorium nitrate - have environmental problems which may preclude their sale.

- Until the amendments to the Stock Piling Act effected by Public Law 101-189 on November 29, 1989, disposals of NDS materials were limited to domestic consumption. For at least one material - talc - there were no domestic users.

- overall, disposals and acquisitions are constrained by Section 6(b)(2) of the Stock Piling Act which requires that "to the maximum feasible extent" efforts shall be made to "... avoid undue disruption of the usual markets of producers, processors and customers of such [NDS] materials...."

Because of all these factors that limit disposals, a five-year plan to dispose of all excess materials is not realistic or achievable. What is achievable is a five year plan to dispose of those amounts of materials that are not constrained by statute or international agreement or the market disruption provision.

We concur with the recommendation to ASD(P&L) to report the lack of internal management controls over the identification and disposal of Stockpile excesses and the acquisition of Stockpile deficits as a material internal control weakness in the annual assurance statement in accordance with DoD Directive

5010,38 and track the status of corrective actions until the identified weakness is resolved.

Finally, regarding the recommendations addressed to Director, Defense Procurement: (1) we concur that the language in Federal Acquisition Regulation, subpart 8.002, titled "Use of Other Government Supply Sources" should be changed. However, we disagree that the title of subpart 8.002 should be changed to state "Strategic and critical materials from excess DoD inventories (see 41 CFR 101-14.2)" because this subsection includes other types of government supply sources (e.g., leased motor vehicles, printing supplies). We do agree to revise the text of FAR 8.002(f) from "strategic and critical materials from excess GSA inventories (see 41 CFR 101-14.2)" to "strategic and critical materials from inventories exceeding National Defense Stockpile requirements (see 41 CFR 101-14.2)." This will appropriately reflect the stockpile transfer from the General Services Administration to DoD.

(2) We concur with the recommendation that Defense Federal Acquisition Regulation Supplement (DFARS), part 208, titled "required Sources of Supplies and Services," section 208.002(f) be revised to reflect that the Department of Defense is the Stockpile Manager and is responsible for disseminating information on excess strategic and critical materials. This proposed DFARS revision was published for public comment in the Federal Register on October 31, 1990 (55FR45906). Our final DFARS rule, which is scheduled for publication next month, will state: "Detailed information on strategic and critical materials in excess of national stockpile requirements (e.g., metals, ores, chemicals) is available from the Defense National Stockpile Center, 1745 Jefferson Davis Highway, Crystal Square Bldg #4, Suite 100, Arlington, VA 22202."

In addition, we recommend that the following misstatements or incomplete statements of fact in the draft audit report also be corrected:

- Page 1 - Section 2(b) of the Stock Piling Act addresses a "national emergency" not a "national security emergency." Also, on the same page, E.O. 12626 was effective when signed on February 25, 1988. 1
- Page 3 - Requirements for the 20 non-model materials were assessed in 1990 as part of the annual NDS Requirements Study. As a result of the assessment, additional disposal authority for four of the materials was requested in the revised AMP for FY90-91 which was submitted to Congress on June 21, 1990. Revised requirements for these materials will be included in the 1991 Report to Congress on NDS Requirements. 2
- Page 29 - Section 11(b) of the Stock Piling Act requires a report that includes "... details of all planned expenditures from the National Defense Stockpile Transaction Fund..." not just planned expenditures for acquisitions. 18
- Page 30 - The General Services Administration did not have responsibility for NDS policy and issuance of Annual Materials Plans during FY 1985 and FY 1986 when no AMPs were issued. This was the responsibility of the Federal Emergency Management Agency at that time. 18

Page 31 - Disposals from NDS normally are authorized by public law, not "directed" by public law.

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Page 34 - The audit report states in a discussion of Public Law 99-500 that sales of silver totaled \$82 million. Actually, sales of silver for cash have been prohibited since 1981. The \$82 million represents the dollar value of transfers of silver to the Treasury Department for coinage programs. The value of silver transfers was excluded from the amount available for materials purchases.

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Page 38 - The statement that "...the use of government-furnished silver in acquisition of the batteries for missile systems would have reduced contract costs by \$1.3 million" is incorrect. Sections 6(b)(1) and 6(c)(2) of the Stock Piling Act mandate that transfers of NDS inventories can only be made at fair market value. Therefore, no savings would have resulted unless the special disposal authority of Section 7 of the Stock Piling Act were invoked by the President. Also, silver is not authorized for disposal except for specifically authorized coinage programs.

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**SUMMARY OF POTENTIAL MONETARY AND OTHER
BENEFITS RESULTING FROM AUDIT**

<u>Recommendation Reference</u>	<u>Description of Benefit</u>	<u>Amount and/or Type of Benefit</u>
A.1.	Program Results. Requires presenting viable Stockpile goals derived from more realistic assumptions.	Nonmonetary
A.2.	Economy and Efficiency. Improves requirements generation process for the National Defense Stockpile (the Stockpile) and oversight of Stockpile operations.	Nonmonetary
A.3.	Economy and Efficiency. Improves overall management of the Stockpile.	Nonmonetary
B.1.a.(1)	Program Results. Allows multiyear execution of materials plans.	Nonmonetary
B.1.a.(2)	Program Results. Removes transaction fund limits allowing for disposal of excess materials.	Nonmonetary
B.1.b.	Internal Control. Establishes and implements specific procedures prioritizing and describing actions to acquire needed material.	Nonmonetary
B.1.c.	Internal Control. Informs Government agencies of availability of excess materials.	Included in B.1.d.

**SUMMARY OF POTENTIAL MONETARY AND OTHER
BENEFITS RESULTING FROM AUDIT**
(Continued)

<u>Recommendation Reference</u>	<u>Description of Benefit</u>	<u>Amount and/or Type of Benefit</u>
B.1.d.	Internal Control. Establishes and implements procedures to dispose of all excess materials.	Funds put to better use (one- time) by the Stockpile of \$1.5 billion by disposing of all excess material.
B.1.e.	Internal Control. Identifies material internal control weakness to be tracked in annual assurance statement.	Nonmonetary
B.2.a.	Program Results. Informs Government agencies that the Department of Defense manages excess strategic and critical materials inventory.	Nonmonetary
B.2.b.	Program Results. Informs Government agencies that the Department of Defense, as Stockpile Manager, is responsible for disseminating information on excess strategic and critical materials.	Nonmonetary

ACTIVITIES VISITED OR CONTACTED

Office of the Secretary of Defense

Assistant Secretary of Defense (Production and Logistics),
Washington, DC
Deputy Assistant Secretary of Defense (Production Resources),
Washington, DC
Director, Strategic and Critical Defense Materials,
Washington, DC
Director, Office of Industrial Base Assessment, Arlington, VA
Joint Staff
Director, J-4 (Logistics), Joint Staff,
Arlington, VA

Department of the Army

U.S. Army Materiel Command, Alexandria, VA
U.S. Army Natick Research, Development, and Engineering Center,
Natick, MA

Department of the Navy

Naval Air Systems Command, Washington, DC
Naval Supply Systems Command, Washington, DC

Department of the Air Force

Deputy Assistant Secretary (Management Policy and Program
Integration), Office of the Assistant Secretary (Acquisition)
Washington, DC
Aeronautical Systems Division, Air Force Systems Command,
Wright-Patterson Air Force Base, OH

Defense Agencies

Defense Logistics Agency
Defense National Stockpile Center, Arlington, VA
Defense Fuel Supply Center, Alexandria, VA

Non-DoD Federal Organizations

Department of Commerce
Bureau of the Census, Washington, DC
International Trade Commission, Baltimore Division,
Baltimore, MD
Office of Industrial Resource Administration, Washington, DC
Office of Metals, Minerals and Commodities, Washington, DC
Office of Policy Analysis, Washington, DC

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Non-DoD Federal Organizations (Continued)

Trade Development, Office of Chemical and Allied Products,
Washington, DC
Bureau of Mines, Department of the Interior, Washington, DC
Bureau of Economic and Business Affairs, Department of State,
Washington, DC
Library of Congress, Congressional Research Service,
Washington, DC

Non-Government Activities

Institute for Defense Analysis, Alexandria, VA

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Director, Joint Staff

Department of the Army

Secretary of the Army
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Department of the Navy

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Committee on Armed Services
Senate Subcommittee on Mineral Resources Development and
Production, Committee on Energy and Natural Resources
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Ranking Minority Member, Committee on Appropriations
House Committee on Government Operations
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Committee on Armed Services
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