



National Security and
International Affairs Division

B-283068

August 20, 1999

The Honorable Herbert H. Bateman
Chairman, Subcommittee on Military Readiness
Committee on Armed Services
House of Representatives

Subject: National Defense Stockpile: Sales Revenue and Inventory Data

Dear Mr. Chairman:

This report provides initial information in response to your request that we examine the management and funding of the National Defense Stockpile. The stockpile is maintained to minimize dependence on foreign sources of strategic and critical materials in times of national emergency. As agreed with your office, this report provides interim information on projected stockpile sales from the fiscal year 1999 through fiscal year 2010 and the projected remaining inventory from fiscal year 1998 through fiscal year 2010. Our final report to you will provide information on projected uses of funds and remaining cash balances and our overall views on stockpile funding, including whether expected sales revenues can cover stockpile expenses.

RESULTS IN BRIEF

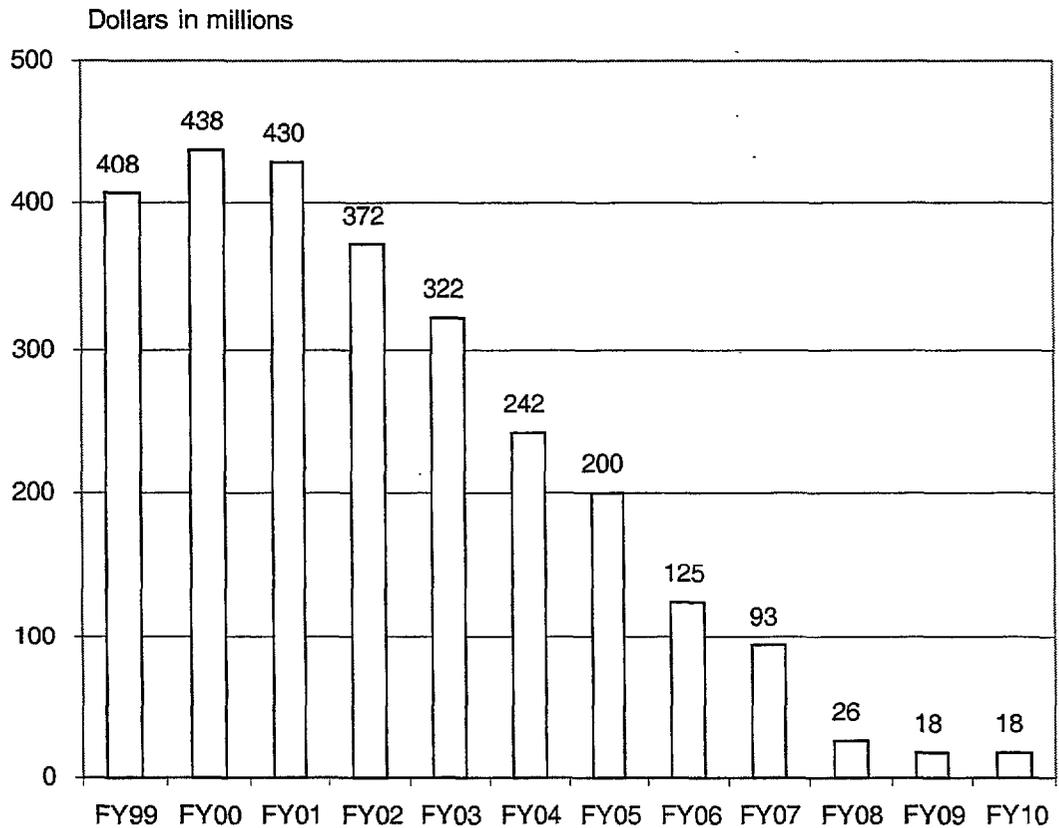
Projected stockpile sales between fiscal years 1999 and 2010 peak at about \$438 million in fiscal year 2000 (in current year dollars projected from September 30, 1998). The projected decline in sales during this period is rapid starting in fiscal year 2002, with anticipated sales of \$18 million by fiscal year 2010. Projected inventory levels decline from \$4.1 billion at the end of fiscal year 1998 to \$1.4 billion at the end of fiscal year 2010. Of the \$1.4 billion in remaining inventory, \$0.3 billion will be available for sale, and \$1.1 billion cannot yet be sold under current authorizing legislation.

SALES OF STOCKPILE COMMODITIES

Under the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98 et seq.), the stockpile is managed by the Defense National Stockpile Center and all proceeds are deposited in a U.S. Treasury transaction account that is used to fund all operations of the stockpile. Since fiscal year 1994, the primary source of funds for stockpile operations has been stockpile sales revenues deposited in the transaction fund. (Before that, stockpile operations were funded by an annual appropriation.) Gross sales of stockpile inventory resulted in deposits of \$504 million during fiscal year 1998. (Gross sales revenue would be reduced by expenses to arrive at net gains or losses for the fund.) Figure 1 shows estimated revenues from sales of the stockpile inventory for fiscal years 1999 through 2010.

162761

Figure 1: Estimated Gross Revenues from the Sale of Stockpile Inventory for Fiscal Years 1999 to 2010



Source: Defense National Stockpile Center.

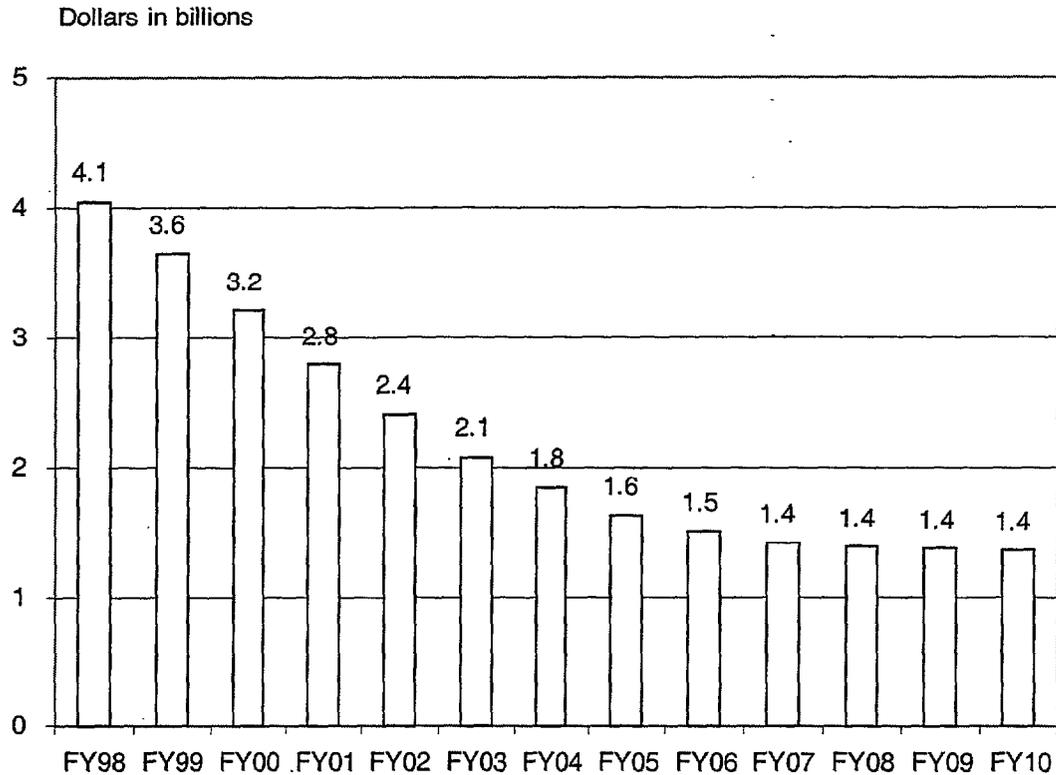
Figure 1 shows that gross sales revenues are expected to decline rapidly after peaking in fiscal year 2000 at over \$400 million. By fiscal year 2010, gross sales are projected to be about \$18 million. Details on estimated sales of stockpile commodities are in enclosure I.

REMAINING STOCKPILE INVENTORY

The stockpile inventory was valued at about \$4.1 billion as of September 30, 1998.¹ Figure 2 shows that as stockpile assets are sold off, the inventory will decline.

¹According to the Defense National Stockpile Center, this value is based on September 30, 1998, prices at which comparable materials are being traded. In the absence of current trading data, market values are estimated. Unaudited stockpile financial statements for fiscal year 1998 reported inventory and related property of about \$3.1 billion on a historical cost basis (acquisition plus fees) and \$4.4 billion at market value. According to stockpile staff, the difference in estimated market values presented in figure 2 and the fiscal year 1998 financial statements was because the financial statement disclosure of market value was not based on September 30, 1998, data.

Figure 2: Value of the Stockpile Inventory for Fiscal Years 1998 (reported) and 1999 to 2010 (projected)



Source: Defense National Stockpile Center.

The figure shows that inventory is projected to decline steadily from \$4.1 billion at the end of fiscal year 1998 and then flatten out after fiscal year 2006 at \$1.4 billion.

The \$1.4 billion worth of inventory remaining in fiscal year 2010, according to projections, consists primarily of about \$1 billion in materials not yet authorized for sale by Congress.² Over \$0.3 billion of the inventory is authorized for sale but will not have been sold by fiscal year 2010. Of this amount, DOD believes about \$13 million in critical materials should be retained—\$13.080 million in beryllium metal, \$0.067 million in quartz crystal, and only \$180 in mica.³ Enclosure II shows a breakdown of the inventory at the end of fiscal year 2010 by commodity.

² Current authorization legislation is contained in the National Defense Authorization Act for Fiscal Year 1999 (P.L. 105-261, Title III, §304).

³ Beryllium is used in electronics, electrical components, and aerospace and defense applications. Quartz is used in electronics. Mica is used in electrical devices, paints, plastics, and rubber products. Dollar values are taken from the fiscal year 1999 Stockpile Requirements Report.

SCOPE AND METHODOLOGY

Information on projected stockpile sales revenues and inventory was provided by the Defense National Stockpile Center. The Center used inventory balances as of September 30, 1998, as reported in the fiscal year 1998 stockpile report to Congress, in its projections through fiscal year 2010. Its estimates for the fiscal years 1998 through 2010 were in current September 30, 1998, dollars. The unit prices used in the Center's projections for commodities that the Center has sold are based on the past 3-year average price. The unit price used in the Center's projections for commodities that the Center has not sold are based on a 3-year average of quoted market prices. Changes in commodity prices could have a significant effect on the projections. In addition, recommendations by the stockpile advisory committee (Market Impact Committee) which advises the stockpile manager, could also have a significant impact on the Center's projections. We did not evaluate the methodology used by the Center to make projections. Also, the DOD Inspector General did not audit the stockpile transaction fund financial statements for fiscal year 1998. The stockpile is not considered material to DOD's consolidated financial statements prepared under the requirements of the Chief Financial Officers Act of 1990, as amended by the Government Management Reform Act of 1994.

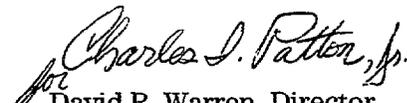
AGENCY COMMENTS AND OUR EVALUATION

The Department of Defense (DOD) concurred with the report. In addition, DOD stated that future environmental cleanup costs would substantially decrease the funds available for other projects. DOD also stated that the projections for future revenues are contingent on the fluctuating value of the marketable inventory. We are continuing to review these stockpile revenues and expenses and will evaluate the issues raised by DOD as part of that work. DOD's comments are included in appendix III.

As arranged with your office, we plan no further distribution of this letter until 30 days from its issue date, unless you publicly announce the letter's contents earlier. We will send copies to the Honorable William S. Cohen, Secretary of Defense; the Honorable Jacob J. Lew, Director, Office of Management and Budget; Lieutenant General Henry T. Glisson, Director, Defense Logistics Agency; and other interested parties.

Please contact me on (202) 512-8412 if you have any questions about this report. Major contributors to this report were Uldis Adamsons, Fred Lundgren, and Leo Clarke III.

Sincerely yours,


David R. Warren, Director
Defense Management Issues

DEFENSE NATIONAL STOCKPILE CENTER PROJECTED SALES OF COMMODITIES FOR FISCAL YEARS 1999 – 2010

Dollars in millions

Commodity	Fiscal year												Total for 1999-2010 ^{a/}
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Aluminum oxide, abrasive grain	\$1.4	\$1.4	\$1.4	\$1.4	\$1.4	\$1.3	0	0	0	0	0	0	\$8.3
Aluminum oxide, fused crude	10.3	10.3	4.4	0	0	0	0	0	0	0	0	0	25.0
Antimony	5.7	5.7	5.7	5.7	5.7	4.1	0	0	0	0	0	0	32.6
Asbestos amosite	0	0	0	0	0	0	0	0	0	0	0	0	0
Asbestos chrysotile	0	0	0	0	0	0	0	0	0	0	0	0	0
Asbestos crocidolite	0	0	0	0	0	0	0	0	0	0	0	0	0
Bauxite, metal grade, Jamaican	12.2	12.2	12.2	12.2	12.2	4.0	0	0	0	0	0	0	64.9
Bauxite, metal grade, Surinam	8.0	8.0	8.0	0.6	0	0	0	0	0	0	0	0	24.4
Bauxite, refractory	2.3	0	0.3	0	0	0	0	0	0	0	0	0	2.6
Beryl ore	0.3	0.3	0.3	0.3	0.3	0.3	\$0.3	\$0.3	0	0	0	0	2.6
Beryllium copper master alloy	5.0	5.0	5.0	5.0	5.0	5.6	0	0	0	0	0	0	30.6
Beryllium metal	4.2	8.4	8.4	5.2	0	0	0	0	0	0	0	0	26.2
Bismuth	0	0	0	0	0	0	0	0	0	0	0	0	0
Cadmium	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	\$0.2	\$0.2	\$0.2	\$0.2	2.0
Celestite	0	0	0	0	0	0	0	0	0	0	0	0	0
Chromite chemical	0.8	0.8	0.8	1.4	0	0	0	0	0	0	0	0	3.9
Chromite refractory	0.7	0.7	0.7	0.8	0.7	0.3	0	0	0	0	0	0	3.9
Chromite, metallurgical grade	3.7	3.7	1.9	0	0	0	0	0	0	0	0	0	9.3
Chromium metal	0	0	0	0	0	0	0	0	0	0	0	0	0
Chromium, ferro high carbon	11.1	44.8	49.8	28.0	0	0	0	0	0	0	0	0	133.7

Commodity	Fiscal year												Total for 1999-2010 ^{a/}
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Chromium, ferro low carbon	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	36.0
Chromium, ferro silicon	0	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	30.3
Cobalt	62.0	62.0	62.0	49.1	72.9	62.0	58.2	0	0	0	0	0	428.2
Columbium carbide powder	0.3	0.1	0	0	0	0	0	0	0	0	0	0	0.4
Columbium concentrates	0.5	0.5	0.5	0.5	0.2	0.2	0	0	0	0	0	0	2.4
Columbium metal	0.3	0.3	0.3	0.3	0.3	0.3	0	0	0	0	0	0	1.7
Columbium, ferro	2.0	2.2	1.6	0	0	0	0	0	0	0	0	0	5.8
Diamond dies	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0.3
Diamond industrial crushing bort	0.3	0.1	0	0	0	0	0	0	0	0	0	0	0.3
Diamond industrial stone	4.8	8.0	8.0	10.2	0	0	0	0	0	0	0	0	31.0
Fluorspar, acid grade	6.3	0.6	0	0	0	0	0	0	0	0	0	0	6.9
Fluorspar, metallurgical grade	1.3	1.3	1.3	1.3	1.3	0.3	0	0	0	0	0	0	6.7
Germanium	8.9	7.1	7.1	5.8	4.6	0	0	0	0	0	0	0	33.4
Graphite ceylon amorphous(lump)	0	0	0	0.3	0.9	0.5	0	0	0	0	0	0	1.6
Graphite, natural Malagasy	0.5	0.5	0.5	0.4	0	0	0	0	0	0	0	0	2.0
Graphite, other than Ceylon & Malagasy	0	0	0	0	0	0	0	0	0	0	0	0	0
Indium	0.1	0	0	0	0	0	0	0	0	0	0	0	0.1
Iodine	4.7	4.7	4.7	4.7	4.7	1.0	0	0	0	0	0	0	24.6
Jewel bearings	0	0	0	0	0	0	0	0	0	0	0	0	0
Kyanite	0	0	0	0	0	0	0	0	0	0	0	0	0

Commodity	Fiscal year												Total for 1999-2010 ^{a/}
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Lead	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	7.8	0	0	197.8
Manganese dioxide, battery grade, natural	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0	0	0	0	8.2
Manganese dioxide, battery grade, synthetic	0	0	0	0	0	0	0	4.5	0	0	0	0	4.5
Manganese ore, chemical grade	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4.5
Manganese ore, metallurgical grade	4.6	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	25.0
Manganese, ferro high carbon	9.2	6.5	6.5	6.5	6.5	7.5	9.2	9.2	9.2	9.2	9.2	9.2	97.9
Manganese, ferro medium carbon	0	0	0	0	0	0	0	0	0	0	0	0	0
Manganese, ferro Silicon	0	0	0	0	0	0	0	0	0	0	0	0	0
Manganese, metal	2.7	2.7	2.7	2.7	1.8	0	0	0	0	0	0	0	12.8
Mercury	0	0	0	0	0	0	0	0	0	0	0	0	0
Mica, muscovite block, stained & better	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0	0	1.0
Mica, muscovite block, stained & lower	0	0	0	0	0	0	0	0	0	0	0	0	0
Mica, muscovite film, 1st & 2nd Qualities	0	0	0	0	0	0	0	0	0	0	0	0	0
Mica, muscovite splittings	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0	0	0	2.3
Mica, phogopite block	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0.7

Commodity	Fiscal year												Total for 1999-2010 [#]
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Mica, phogopite splittings	0	0	0	0	0	0	0	0.1	0	0	0	0	0.3
Morphine sulfate (analgesics)	1.1	0.3	0	0	0	0	0	0	0	0	0	0	1.4
Nickel	12.7	0	0	0	0	0	0	0	0	0	0	0	12.7
Platinum group metals, iridium	0.9	0	0	0	0	0	0	0	0	0	0	0	0.9
Platinum group metals, palladium	17.6	23.4	23.4	23.4	22.0	0	0	0	0	0	0	0	109.9
Platinum group metals, platinum	29.6	36.9	36.9	36.9	22.1	0	0	0	0	0	0	0	162.5
Quartz crystals	0	0	0	0	0	0	0	0	0	0	0	0	0
Quinidine	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6
Quinine	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0	0	0	0	1.5
Ricinoleic/ sebacic acid products	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.9
Rubber, natural	0	0	0	0	0	0	0	0	0	0	0	0	0
Silicon carbide	2.0	0	0	0	0	0	0	0	0	0	0	0	2.0
Silver	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	9.30	0	0	0	105.0
Talc ground	0	0	0	0	0	0	0	0	0	0	0	0	0
Talc steatite block & lump	0	0	0	0	0	0	0	0	0	0	0	0	0.2
Tantalum carbide powder	0.2	0.2	0.2	0.2	0.2	0.2	0	0	0	0	0	0	1.2
Tantalum metal	2.2	3.5	3.5	3.5	1.0	0	0	0	0	0	0	0	13.5
Tantalum metal powder	3.4	6.8	6.8	4.3	0	0	0	0	0	0	0	0	21.4
Tantalum minerals	5.0	5.0	5.0	5.0	2.5	0.1	0	0	0	0	0	0	22.6
Tantalum oxide	0.6	0.6	0.6	0.6	0.6	0.6	0	0	0	0	0	0	3.4
Thorium nitrate	0	0	0	0	0	0	0	0	0	0	0	0	0
Tin	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	38.7	0	0	0	460.8

Commodity	Fiscal year												Total for 1999-2010 ^{a/}
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Titanium sponge	13.9	13.9	13.9	14.8	14.8	13.9	13.9	13.9	5.9	0	0	0	121.6
Tungsten carbide powder	8.9	8.9	4.8	0	0	0	0	0	0	0	0	0	22.7
Tungsten ferro	0.8	0.8	1.1	1.1	1.1	0.1	0	0	0	0	0	0	4.9
Tungsten metal powder	1.2	1.2	1.2	1.2	1.2	1.3	0	0	0	0	0	0	7.4
Tungsten ores & concentrates	8.4	8.4	8.4	8.4	8.4	8.4	0	0	0	0	0	0	50.3
Vanadium pentoxide	0	0	0	0	0	0	0	0	0	0	0	0	0
Vegetable tannin extract, chestnut	0.8	0	0	0	0	0	0	0	0	0	0	0	0.8
Vegetable tannin extract, quebracho	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	5.0
Vegetable tannin extract, wattle	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0	0	1.8
Zinc	33.0	33.0	33.0	33.0	33.0	33.0	21.7	0	0	0	0	0	219.5
Zirconium	0	0	0	0	0	0	0	0	0	0	0	0	0
Total^{a/}	\$408.0	\$437.7	\$429.9	\$371.6	\$322.0	\$241.8	\$200	\$124.6	\$93.5	\$26.1	\$18.2	\$18.2	\$2,694.1

^{a/}The sum of the columns and rows may not agree with the totals due to rounding.

Source: Defense National Stockpile Center.

DEFENSE NATIONAL STOCKPILE CENTER
ESTIMATED VALUE OF THE NATIONAL DEFENSE STOCKPILE INVENTORY
AT THE END OF FISCAL YEAR 2010

Status of commodity ^v	Estimated value of inventory at the end of fiscal year 2010
Available for sale	
Asbestos	0
Cadmium	\$12,963.18
Chromium, ferro low carbon	199,075,268.73
Chromium, ferro silicon	7,233,513.12
Manganese ore, chemical grade	10,659,976.00
Manganese, ferro high carbon	84,533,733.93
Manganese ore, metallurgical grade	41,495.22
Mercury	0
Quinidine	367,500.79
Ricinoleic/sebacic acid products	837,252.00
Vegetable tannin extract, quebracho	22,464,091.80
Subtotal	\$325,225,794.77
Material not authorized for sale	
Beryllium metal	\$78,480,000.00
Bauxite, refractory	3,187,600.00
Chromium metal	39,491,040.00
Chromium, ferro high carbon	308,762,939.00
Jewel bearings ^v	0
Manganese, ferro high carbon	48,179,012.56
Mica	180.00
Platinum group metals, iridium	4,902,300.00
Platinum group metals, palladium	72,846,840.18
Quartz crystal	1,026,626.10
Tantalum metal	12,984,624.00
Tantalum metal powder	6,156,898.60
Thorium nitrate	0
Zirconium	0
Subtotal	\$576,018,060.44
Remaining balances for inventory authorized for other programs^v	
Cobalt	\$75,414,211.50
Germanium	28,009,903.32
Rubber, natural	67,538,646.20
Columbium metal	1,139,652.50
Columbium concentrates	5,293,367.44
Tantalum minerals	52,479,050.32
Tantalum carbide powder	304,262.40
Tantalum oxide	935,550.00
Tungsten ores & concentrates	216,234,240.15
Tungsten ferro	1,917,974.24
Tungsten metal powder	11,847,394.65
Subtotal	\$461,114,252.72

Status of commodity ^a	Estimated value of inventory at the end of fiscal year 2010
Ending inventory value	\$1,362,358,107.92

Source: Defense National Stockpile Center.

^aAsbestos and mercury show no value because Defense National Stockpile Center estimates there is no demand for any remaining asbestos and environmental concerns prevent the sale of mercury.

^bJewel bearings are not authorized for sale; however, they are valued at zero because Defense National Stockpile Center estimates that there is no market demand for jewel bearings.

^cThese commodities can be sold until specific sales goals are reached and the receipts transferred to specific mandated programs. Once the sales goals are met, the commodities can no longer be sold. The Defense National Stockpile Center estimates that these will be the remaining balances as of the end of fiscal year 2010.

COMMENTS FROM THE DEPARTMENT OF DEFENSEIN REPLY
REFER TO

DEFENSE LOGISTICS AGENCY
HEADQUARTERS
8725 JOHN J. KINGMAN ROAD, SUITE 2533
FT. BELVOIR, VIRGINIA 22060-6221

AUG 4 1999

Mr. David R. Warren
Director, Defense Management Issues
National Security and Internal Affairs Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Warren,

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, 'NATIONAL DEFENSE STOCKPILE: Sales, Revenue and Inventory Data,' dated July 6, 1999 (GAO Code 709395/OSD Case 1860). We have reviewed and concur with the subject report. We think it is worth noting that future environmental cleanup costs will substantially decrease the funds available for other projects. Also, the projections for future revenues are contingent on the fluctuating value of the marketable inventory. We recommend the following addition to footnote 3 on page 4, "Dollar values taken from the 1999 Requirements Report."

If you have any questions, please contact Sharon Entsminger on (703) 767-6267.

Sincerely,


JEFFREY GOLDSTEIN
Chief, Internal Review Office

Federal Recycling Program  Printed on Recycled Paper

(709395)

Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. VISA and MasterCard credit cards are accepted, also. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Orders by mail:

**U.S. General Accounting Office
P.O. Box 37050
Washington, DC 20013**

or visit:

**Room 1100
700 4th St. NW (corner of 4th and G Sts. NW)
U.S. General Accounting Office
Washington, DC**

**Orders may also be placed by calling (202) 512-6000
or by using fax number (202) 512-6061, or TDD (202) 512-2537.**

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (202) 512-6000 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.

For information on how to access GAO reports on the INTERNET, send an e-mail message with "info" in the body to:

info@www.gao.gov

or visit GAO's World Wide Web Home Page at:

http://www.gao.gov

**United States
General Accounting Office
Washington, D.C. 20548-0001**

**Bulk Rate
Postage & Fees Paid
GAO
Permit No. G100**

**Official Business
Penalty for Private Use \$300**

Address Correction Requested
