

GAO

Report to the Chairman, Committee on  
Armed Services, House of  
Representatives

December 1993

# NATIONAL DEFENSE STOCKPILE

## Disposal of Zinc



**RESTRICTED--Not to be released outside the  
General Accounting Office unless specifically  
approved by the Office of Congressional  
Relations.**

**RELEASED**

---

---

10



United States  
General Accounting Office  
Washington, D.C. 20548

National Security and  
International Affairs Division

B-255196

December 13, 1993

The Honorable Ronald V. Dellums  
Chairman, Committee on Armed Services  
House of Representatives

Dear Mr. Chairman:

This report responds to your February 16, 1993, letter asking us to provide you with our position regarding the disposal of zinc from the National Defense Stockpile. The Delegation of the Commission of the European Communities<sup>1</sup> has expressed concern that proposed disposal of U.S. government-owned zinc would unduly disrupt the zinc market,<sup>2</sup> since the market already has large warehouses of stocks and is facing the emergence of Eastern European countries as net exporters of zinc.

## Background

The Department of Defense (DOD) reported to Congress in 1992 and 1993 on strategic and critical material requirements for the National Defense Stockpile. In these reports, DOD stated that the requirement for zinc was zero. A total of 378,768-short tons<sup>3</sup> of slab zinc was in the stockpile as of February 28, 1993. Legislation enacted on October 23, 1992 (50 U.S.C. 98d note) authorized the disposal of stockpiled zinc over a 5-year period, beginning in fiscal year 1993. The legislation also formally established the Market Impact Committee<sup>4</sup> that makes recommendations on disposal quantities and provides guidance on whether proposed disposal would result in undue market disruption. The Defense National Stockpile Center, part of DOD's Defense Logistics Agency, is responsible for managing the stockpile, including the disposal of excess materials.

<sup>1</sup>The organization represents the European Community in its dealings with the U.S. government for all matters within the Community's authority. Member countries include Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, and the United Kingdom.

<sup>2</sup>The zinc market refers to the Western World countries, as categorized in the international lead and zinc statistics. The Western World countries include major countries in Western Europe, America, Africa, Asia, and Australia. The zinc market excludes Eastern European and socialist countries, including the former Soviet republics, Vietnam, Peoples Republic of Korea, and China because reliable international statistics for these countries were generally not available.

<sup>3</sup>A short ton represents 2,000 pounds, whereas a metric ton represents 2,204.6 pounds, or approximately 1.1-short tons.

<sup>4</sup>A committee to be composed of representatives of the Departments of Agriculture, Commerce, Defense, Energy, Interior, and State; the Federal Emergency Management Agency; and other persons the President considers appropriate.

---

Major zinc purchases for the stockpile ended in 1960. Over the years, industry specifications for zinc have been revised. The number of grades have been reduced from five to three (prime western, high grade, and special high grade). The purity of zinc (in terms of calcium, iron, and lead content) has improved. Stockpiled slab zinc includes five grades purchased under then existing specifications. Samples of the first slab zinc offered for sale were analyzed by a commercial company and verified by the Bureau of Mines. The analyses of the samples showed that the zinc met industry's current specification for high grade material.

The zinc market produced about 5.4-million metric tons of zinc (5.9-million short tons of zinc) in 1992. To avoid undue disruption of the zinc market, the Defense National Stockpile Center has followed the suggestions and recommendations of the Market Impact Committee. The Center reduced proposed disposal quantities for fiscal years 1993 and 1994, which had been set at 75,000-short tons each year, to 48,000- and 50,000-short tons, respectively. The Center disposed of approximately 7,000-short tons of zinc from March 24 through July 31, 1993, a projected rate of about 19,000 tons a year.

---

## Results in Brief

The Defense National Stockpile Center has taken actions to avoid undue market disruption in carrying out its plans for disposing of excess zinc. We found no evidence that zinc disposals from the stockpile, thus far, have caused undue market disruption. We believe reasonable, cautious disposal, in concert with Market Impact Committee review of market conditions, should result in continued zinc disposal without undue market disruption.

The Department of the Treasury, DOD, and industry representatives have expressed interest and support for noncompetitive sales of stockpile zinc to the Treasury. According to the General Counsel, Defense National Stockpile Center, no legislative change would be necessary for sales of excess stockpile materials to other government agencies.

---

## Market Conditions

Mines in the United States produce more zinc ore than is used by domestic smelters. The excess ore is exported from the United States. The U.S. smelter capacity declined after World War II due to economic conditions, including price controls, high costs, and obsolescence. As a result of the decline in smelter capacity, the United States imports over one-half of its

slab zinc<sup>5</sup> consumption. For example, imports represented 69 percent of the 1.1-million metric tons consumed in the United States during 1988, and 63 percent of the 1-million metric tons consumed during 1992.

The U.S. slab zinc consumption of 1-million metric tons in 1992 represented about 18.5 percent of the zinc market's consumption. The zinc market produced and consumed 5.4 million metric tons in 1992. The U.S. zinc prices have tended to be slightly higher than world prices and in recent years, have generally followed the trend in world prices. (See apps. I and II.)

The zinc market inventories have steadily increased and prices have decreased. For example, zinc market inventories of slab zinc stood at 779,000-metric tons at the end of 1991, compared with 1,124-million metric tons at the end of 1992, a 44.3-percent increase. Annual average prices for high grade slab zinc in the United States have ranged from 82.06 cents per pound in 1989 to 59.74 cents per pound in 1992. The June 1993 average price was 47 cents per pound. The U.S. and Western world prices followed similar trends. (See apps. I and II.)

Annual zinc market inventories have increased despite the fact that production and consumption of slab zinc was relatively equal through 1992. In recent years, Eastern European and socialist countries have shifted from being net importers to becoming net exporters; they have steadily increased zinc exports. Starting in 1990, this shift contributed to the increasing inventories and declining prices. Actions in response to this situation were taken or planned by some producers, including production cutbacks and facility closures. For example, major producers Pasminco, Cominco, and Metallgesellschaft headquartered in Australia, Canada, and Germany, respectively, announced cutbacks totaling 100,000-metric tons of smelter production.

## U.S. Stockpile Zinc Disposal

A revised 1993 annual materials plan was developed by DOD, reviewed and approved by the Market Impact Committee, and submitted to Congress in November 1992 as required by law. As suggested by the Market Impact Committee, the Defense National Stockpile Center held meetings with zinc industry representatives. As a result of these meetings, several adjustments were made in the proposed disposal and sale of zinc. Most importantly, industry's concerns about market impact resulted in

<sup>5</sup>Slab zinc is produced through the smelting process and is the form in which most processed zinc is traded commercially.

reductions of the planned disposal to 4,000-short tons per month (2,000 twice a month) or a rate of 48,000-short tons for fiscal year 1993 instead of 75,000. The Center's efforts not to disrupt the zinc market included initial sales of only 2,184-short tons out of the planned 8,000-short tons from March 24 through May 12, 1993. The Center limited sales by accepting bids at price levels it considered reasonable in relation to then-current market prices and by rejecting lower bids. Initial sales indicate a projected rate of 13,000-short tons a year. Updated sales through July 31, 1993, approximated 7,000-short tons for a rate of about 19,000-short tons a year. The sales prices were about 15 percent below the monthly average U.S. market prices.

The government zinc specialists we consulted believed that average sales prices obtained were reasonable due to differences in sales requirements, such as exclusion of transportation costs in stockpile sales prices and inclusion of transportation costs in the U.S. market prices. Given the amount of zinc sold and the prices received from March through July 1993, disposal sales do not appear to have had an undue impact on the zinc market.

Comments from industry representatives and other interested parties were solicited by DOD and the Market Impact Committee on the fiscal year 1994 annual materials plan that included proposed zinc disposal of 75,000 tons. Foreign embassies, industry, and associations voiced their concerns with the proposed zinc disposal level and the potential market impact. They suggested postponing disposal and accepting lower disposal volumes. Their comments and other information were considered by the Committee. As a result, the Committee recommended lowering planned zinc disposal to 50,000-short tons. The lower quantity was incorporated in the fiscal year 1994 annual materials plan submitted to Congress in May 1993 and approved in September 1993. The Defense National Stockpile Center has published the disposal listing and has stated that, as in fiscal year 1993, moderation would continue to be exercised in disposing of zinc during fiscal year 1994.

---

## Potential Alternative Government Use

The Defense National Stockpile Center and industry representatives are interested in reducing stockpiled zinc by providing it to the U.S. Mint for its coinage programs. DOD advised industry representatives that disposal of 25,000-short tons of zinc was being discussed with U.S. Mint personnel. An American Zinc Association official stated that sales to the government would have little or no impact on the total market. He recognized that

---

some companies may lose some sales to the government. The Treasury Department is interested in acquiring one grade of zinc and other excess metals from the stockpile.

The present law (50 U.S.C. 98e(b) and 98d note) requires that stockpiled materials, except for silver, must be disposed of by formal advertising or through competitive negotiation procedures, to the maximum extent possible. According to the General Counsel, Defense National Stockpile Center, no legislative change would be necessary for sales of excess stockpile materials to other government agencies. Disposal of silver may occur only in the form of coins and as government-furnished material to contractors.

---

## Scope and Methodology

We determined the market conditions from domestic and world production, consumption, and inventory statistics and domestic market prices from various publications. In assessing actual and planned zinc disposal, we reviewed documentation and discussed zinc disposal with officials from the Defense National Stockpile Center, DOD, Market Impact Committee, Bureau of Mines, and other selected interested parties.

Our review was performed from April 1993 to August 1993 in accordance with generally accepted government auditing standards.

We did not obtain written agency comments on this report. However, we discussed this report with officials of DOD and the Market Impact Committee. They concurred with the information and conclusions in this report.

---

We plan no further distribution of this report until 7 days after its issue date. At that time, we will send copies to the Secretary of Defense and other interested parties. We will also make copies available to others upon request.

---

Please contact me on (202) 275-8412 if you or your staff have any questions concerning this report. The major contributors to this report were Victor Zangla, Assistant Director and Jerome Pederson, Evaluator-in-Charge.

Sincerely yours,



Donna M. Heivilin  
Director, Defense Management  
and NASA Issues

---

---

# Slab Zinc Market Conditions

	Thousands of metric tons <sup>a</sup>				
<b>United States</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
Production	330	358	358	377	394
Consumption	1,089	1,060	992	933	1,029
Import for consumption	749	712	632	549	710
<b>Western World</b>					
Production	5,239	5,215	5,176	5,385	5,398
Consumption	5,264	5,191	5,219	5,403	5,365
Inventory	628	703	661	779	1,124
<b>Eastern Europe and Socialist Countries Net (Imports) and Exports</b>					
	(43)	(42)	39	107	280

<sup>a</sup>Statistics are reported differently among the reporting countries and are recognized by the International Lead and Zinc Study Group as never being in balance with other reported information, including production, consumption, and imports. However, the group believes the inventory figures represent the industry trend.

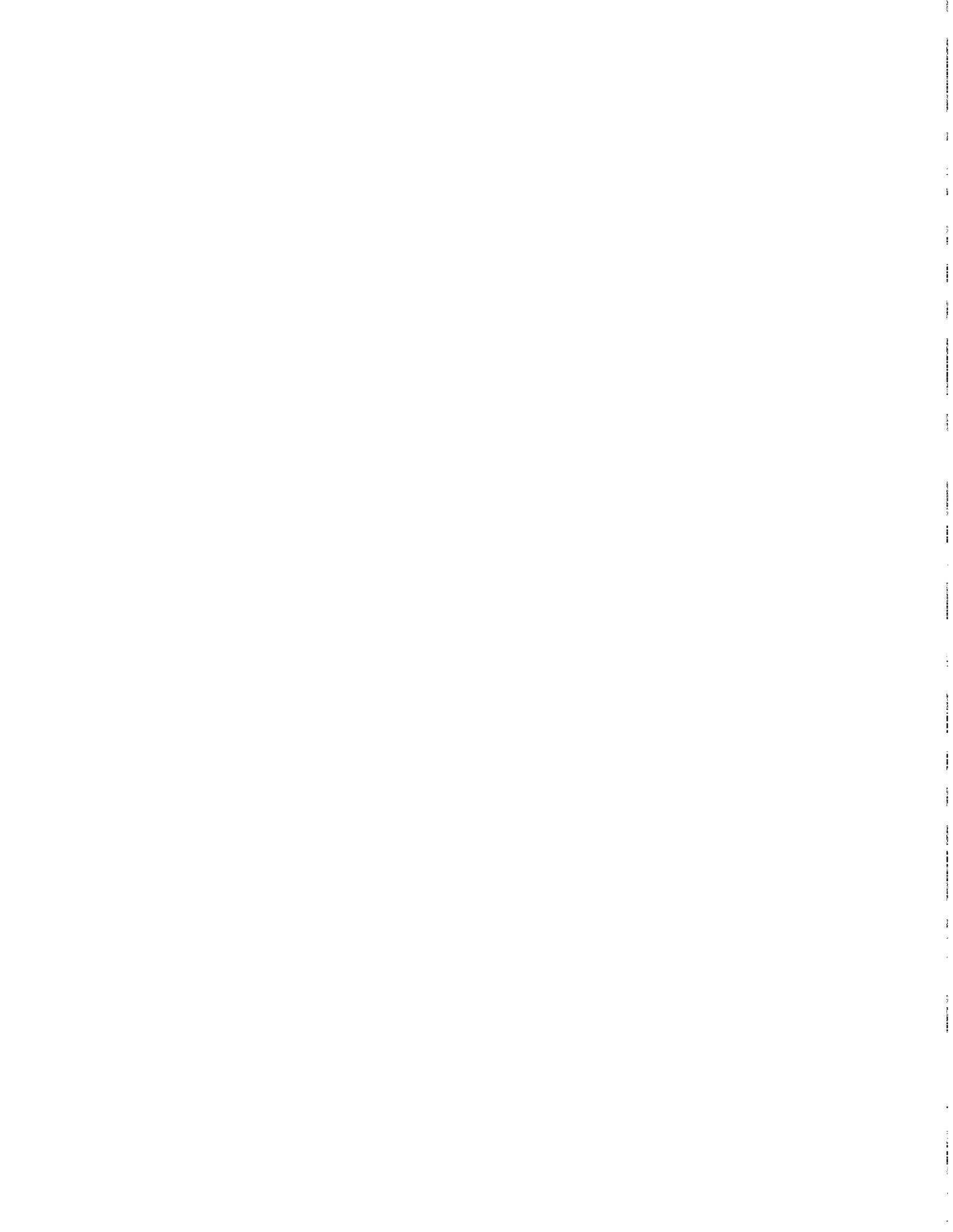
Source: Statistics Du Plomb Et Du Zinc, 1993, except for United States imports for consumption from U.S. Department of Interior, Bureau of Mines 1991 & 1992 annual reports, and Mineral Commodities Summaries 1992.

# Comparison of United States and World Slab Zinc Prices Per Pound

Period	United States <sup>a</sup>	London Metal Exchange <sup>b</sup>
<b>Annual Average Market Price</b>		
1987	0.419	0.362
1988	0.602	0.511
1989	0.821	0.776
1990	0.746	0.665
1991	0.528	0.507
1992	0.597	0.562
<b>Monthly Average Market Price</b>		
January 1993	0.532	0.481
February 1993	0.536	0.486
March 1993	0.499	0.452
April 1993	0.501	0.456
May 1993	0.493	0.444
June 1993	0.470	0.420

<sup>a</sup>High grade zinc published prices from the publication American Metal Market. Prior to 1991, published prices was a composite of producers prices. Thereafter, pricing was based on the London Metal Exchange cash price plus a price adjustment for differences in quality. U.S. prices also includes delivery and requires payment in 30 days.

<sup>b</sup>High grade zinc prices through April 1989, thereafter, special high grade zinc prices. Prices obtained from various Bureau of Mines publications that used the Metal Week publication as its source. Prices are the exchange cash prices.



---

### 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. 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 6015  
Gaithersburg, MD 20884-6015**

**or visit:**

**Room 1000  
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 (301) 258-4066.**

United States  
General Accounting Office  
Washington, D.C. 20548

