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Report to the Ranking Minority Member, Committee on Governmental Affairs, U.S. Senate

October 1998

FEDERAL SURPLUS SHIPS

Government Efforts to Address the Growing Backlog of Ships Awaiting Disposal

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GAO

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

National Security and
International Affairs Division

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October 22, 1998

The Honorable John Glenn
Ranking Minority Member
Committee on Governmental Affairs
United States Senate

Dear Senator Glenn:

Federal agencies currently have a backlog of about 200 surplus ships waiting to be scrapped. The backlog of ships to be scrapped has grown by about 65 percent since 1994 and little progress has been made in reducing the backlog. Many of the ships to be scrapped are more than 50 years old and millions of dollars are required annually to maintain them.

In response to your request, we identified the status of federal ship scrapping programs. This report provides information on (1) the factors contributing to the backlog and (2) federal agencies' efforts to address the backlog. As requested, we focused our review on the Department of the Navy and the Maritime Administration (MARAD) because they own most of the surplus ships.

Background

Once a U.S. agency determines that a ship is obsolete and no longer useful for the purposes intended, that agency must find a way to properly dispose of it. Ships that are no longer needed are screened for other uses, including transfer to another country under proper legal authority, use by another federal agency, and donation to a state or private recipient for appropriate public use.[1] Ships may also be sunk as part of naval training exercises. Ships not used for any of these purposes are considered available for scrapping.

According to a July 1997 MARAD study,[2] ship scrapping is a labor-intensive industry with extremely high risks with respect to environmental and worker safety issues. Ships typically contain environmentally hazardous

[1]Screening for other uses takes place under the Federal Property and Administrative Services Act of 1949 (40 U.S.C. 471 et seq). Vessels over 1,500 gross tons and five specific types of Navy warships are exempt from the screening requirement.

[2]Environmental Assessment of the Sale of National Defense Reserve Fleet Vessels for Scrapping, Maritime Administration, U.S. Department of Transportation, July 1997.

materials such as asbestos, polychlorinated biphenyls (PCB),[3] lead, mercury, and cadmium. A ship is normally dismantled from the top down and from one end to the other with torches that cut away large parts of the ship. Pieces of the ship are lifted by crane to the ground where they are cut into the shapes and sizes required by the foundry or smelter to which the scrap is to be shipped. Remediation of hazardous materials takes place prior to, as well as during, the dismantling process. If done improperly, ship scrapping can pollute the land and water surrounding the scrapping site and jeopardize the health and safety of the people involved in the scrapping process.

Ship scrapping is subject to federal, state, and local government rules and regulations on the protection of the environment and worker safety. These rules and regulations implement pertinent laws in these areas. In the environmental area, these laws include the Toxic Substances Control Act, the Resource Conservation and Recovery Act, the Clean Air Act, and the Federal Water Pollution Control Act. In the worker safety area, the primary law is the Occupational Safety and Health Act. Various federal and state regulatory agencies work to enforce these laws. (See app. I for more information about these laws.)

Historically, government-owned surplus ships have been scrapped both domestically and overseas.[4] As shown in table 1, MARAD has relied primarily on overseas scrapping, while the Navy has relied primarily on the domestic industry to scrap its ships. From 1983 through 1994, MARAD sold almost all of its ships for overseas scrapping. Since 1982, the Navy has not directly sold any ships for overseas scrapping.

Table 1: Reported Navy and MARAD Ships Scrapped Overseas

	Number of ships scrapped		Percent of ships scrapped overseas	
Time frame	**Navy**	**MARAD**	**Navy**	**MARAD**
1970-82	533	781	10	38
1983-89	3	132	0	100
1990-94	10	81	0	99
1995-97	23	1	0	0

Source: Navy and MARAD ship scrapping program data.

[3]PCBs are a class of organic chemical compounds that are nonflammable and can conduct heat without conducting electricity. On ships, liquid PCBs are found in transformers and large capacitors. Solid PCBs are found in a wide range of ship components, including electric cables, felt gaskets, rubber mounts, adhesives, and paints.

[4]Ships scrapped overseas are subject to the host country's environmental and worker safety laws.

Federal agencies report that there are about 200 ships awaiting disposal or scrapping and that they are stored at various locations throughout the United States. As shown in table 2, the Navy and MARAD have the majority of ships to be scrapped, but the Coast Guard and the National Oceanic and Atmospheric Administration also have some. The Navy reports that, as of August 1, 1998, it had 127 surplus ships available to be sold for scrap. Seventy-two of these ships are expected to be sold though the Defense Logistics Agency's Defense Reutilization and Marketing Service (DRMS). The remaining 55 ships are expected to be transferred to MARAD for sale. MARAD, which is the U.S. government's disposal agent for surplus merchant-type ships of 1,500 tons or more, reports that it had 63 ships available for scrapping. By law, MARAD is required to dispose of all obsolete ships by September 30, 2001.[5] The combined tonnage of Navy and MARAD surplus ships amounts to about 1 million tons—about 600,000 tons for the Navy and 400,000 tons for MARAD.

Table 2: Reported Backlog of Federal Surplus Ships Awaiting Disposal

Agency	Number of surplus ships
Navy	127
MARAD	63
Coast Guard	15
National Oceanic and Atmospheric Administration	1
Total	**206**

Source: Agency ship disposal program managers.

Navy and MARAD officials have estimated that it will cost them at least $58 million (in fiscal year 1997 dollars) for storage, maintenance, and security of surplus ships between fiscal year 1999 and 2003 if they are not scrapped. Some ships are in such poor condition that they may need dry-docking for repairs to keep them afloat until they can be scrapped. MARAD estimates that its dry-docking and repair costs could be as high as $800,000 per ship.

Results in Brief

Key factors contributing to the current backlog of surplus ships awaiting scrapping are the Navy's downsizing following the collapse of the former Soviet Union, the unavailability of overseas scrapping, and a shortage of

[5]The National Maritime Heritage Act of 1994 directed MARAD to dispose of all of its surplus ships by September 30, 1999, in a manner that maximizes the return to the United States. That date was changed to September 30, 2001, by section 1026 of the National Defense Authorization Act of 1998, Public Law 105-85.

qualified domestic scrappers. As a result, the backlog of Navy ships to be scrapped, for example, has increased since 1991 from 25 to 127. Overseas scrapping has been suspended because of legal constraints on the export of PCBs for disposal. A 1997 agreement to resume overseas scrapping has been temporarily suspended largely because of concerns about environmental and worker safety problems in foreign countries and the impact of foreign scrapping on the domestic industry. Lastly, progress in reducing the backlog using domestic scrappers has been limited. One reason has been domestic contractor performance difficulties. For example, between 1991 and 1996, the Navy repossessed 20 of 62 ships it had sold to domestic firms for scrapping due to environmental pollution and worker safety compliance problems and other performance issues. A second reason has been a shortage of qualified domestic bidders. Between the beginning of 1996 and the end of 1997, the Navy and MARAD requested scrapping bids on 19 ships, but only 4 were actually sold—all to the same domestic bidder—because of the limited number of qualified bidders. Since then, MARAD has sold an additional 11 ships for scrapping.

Federal agencies have identified and begun implementing a number of initiatives to address some of the specific performance issues associated with domestic scrapping. Since a key performance issue was contractor noncompliance with environmental and worker safety requirements, several of the initiatives provide for increased screening of contractors prior to award and increased oversight of the performing contractor after award. Other initiatives are intended to help attract more qualified domestic bidders. It is too early to assess the impact of these initiatives because few ships have been scrapped since their implementation.

Additional recommendations for addressing both domestic and overseas scrapping issues were made in April 1998 by an interagency panel. The panel's recommendations expand on the actions to address contracting and oversight problems. However, they only generally address key issues relating to government actions to expand the domestic industry and the scrapping of federal ships in foreign countries. Further, the process for deciding whether to accept and ultimately implement the panel's recommendations is informal. For example, the agencies have not established specific time frames for completing their review of the recommendations. Also, no procedures have been established for implementing the recommendations that are accepted.

Factors Contributing to the Backlog of Ships

A number of factors have caused the current backlog of federal surplus ships awaiting scrapping. They include (1) reductions in the Navy's force structure following the collapse of the former Soviet Union and the Warsaw Pact; (2) unavailability of overseas scrapping; (3) difficulties experienced by some domestic scrappers in complying with environmental, worker safety, and other contract performance provisions; and (4) a shortage of qualified domestic bidders.

Navy Force Structure Reductions

Navy force structure reductions following the collapse of the former Soviet Union and the Warsaw Pact have resulted in an increased number of ships to be scrapped. Since 1990, the Navy has reduced its active fleet from 570 ships to 333 ships. The Navy's inactive fleet has increased by 82 percent since 1990 and the number of ships to be scrapped increased from about 25 in 1991 to 127 as of August 1, 1998.

Unavailability of Overseas Scrapping

Overseas scrapping by MARAD was suspended in 1994 in response to an April 1993 Environmental Protection Agency (EPA) letter advising the agency that the export for disposal of PCB materials with concentrations of 50 parts per million or greater was prohibited. In accordance with the Toxic Substances Control Act, EPA regulates all aspects of the manufacture, processing, distribution in commerce, use, and disposal of PCBs. In 1980, EPA banned the export of PCBs for disposal. In 1989, the Navy became aware of the presence of PCBs in solid materials on board some of its older ships and sought EPA's advice on how to properly handle and dispose of these materials. Subsequently, EPA confirmed that surplus ships could not be exported for scrapping if they contained solid materials with concentrations of PCBs at 50 parts per million or greater.

In 1997, the Navy and MARAD, each negotiated an agreement with EPA[6] to allow for the export of ships for scrapping provided (1) all liquid PCBs are removed prior to export, (2) items containing solid PCBs that are readily removable and do not affect the structural integrity of the ship are also removed, and (3) countries to which the ships may be exported for scrapping are notified so that they have the opportunity to refuse to accept the ships if they so choose.[7] The Navy and MARAD sought these agreements

[6]The agreements represent an exercise of EPA's enforcement discretion and were made in anticipation of upcoming comprehensive rulemaking on PCBs.

[7]On June 29, 1998, EPA issued a comprehensive revision of its rules on PCBs. However, the revision expressly deferred matters pertaining to the export of PCBs for a future rulemaking.

principally because they recognized a need to reduce their backlogs of surplus ships and the limitations of domestic scrapping efforts.

Despite the agreement with EPA, Navy officials decided in December 1997 to temporarily suspend any export of ships for scrapping due to (1) continuing concerns regarding environmental pollution and worker safety in foreign ship scrapping countries and (2) potential impacts on the domestic ship scrapping industry. In January 1998, MARAD also suspended the export of ships. As of August 1998, the voluntary suspension on exports was still in effect.

Specific environmental concerns revolve around the export of PCBs and other hazardous materials that could be dumped along the shorelines of developing nations and about the health and safety of foreign workers. For example, domestic industry representatives have stated that foreign ship scrapping operations would not be in compliance with the strict U.S. safety and environmental regulations. U.S. government officials have also stated that many of the major overseas ship scrapping countries have less stringent laws and regulations regarding environmental and worker safety issues than exist in the United States.

Domestic industry concerns are related to the history of foreign scrappers bidding significantly higher prices to scrap ships overseas. This is due, in part, to a greater demand and higher selling price for scrap metal in foreign countries and lower costs of overseas operations because of the less restrictive environmental and worker safety regulations and lower labor rates.

Domestic Industry Performance Difficulties

Between 1991 and 1996, the Navy repossessed[8] 20 of the 62 ships it had sold to domestic firms for scrapping due to environmental pollution and safety compliance problems and other contractor performance issues. For example, the former aircraft carrier, U.S.S. Oriskany, and five other ships located at a contractor's facility in the former Mare Island Naval Shipyard at Vallejo, California, were repossessed by the Navy due to the contractor's not obtaining the necessary environmental permits and the dissolution of the contractor's partnership. Some of these repossessions were costly. For example, according to a Navy official, it had to spend about $2 million to tow 14 ships back to federal storage facilities in Philadelphia from North Carolina and Rhode Island when a ship scrapping

[8]Repossessions can occur because the Navy retains legal title to its vessels while they are being scrapped.

contract was terminated due to contractor noncompliance with environmental and safety regulations. Also, the Navy and DRMS incurred additional costs for maintaining, storing, and reselling these ships.

Shortage of Qualified Bidders

The domestic ship scrapping industry has historically been small. During the 1970s, when hundreds of ships were scrapped domestically, the industry was comprised of about 30 firms. However, given the small number of ships available for domestic scrapping since then, many of the firms exited the industry. Currently, there are four private ship scrappers in the United States actively scrapping federal surplus ships. In addition, for national security reasons, one naval shipyard is scrapping nuclear submarines. The typical U.S. private sector ship scrapping site is located in an urban industrial area coincident with other industrial and maritime related facilities. The facilities area is generally small, fewer than 10 acres, and most of the firms, until recently, worked on only one ship at a time. According to a July 1997 MARAD study, ship scrapping companies tend to be thinly capitalized. The study concluded that the industry is a risky, highly speculative business.

Following the Navy's experience with high rates of ship repossessions between 1991 and 1996, both the Navy and MARAD considered fewer firms to be technically and financially acceptable.[9] For example, in response to MARAD's 1996 solicitation for scrapping eight ships, the agency received only five positive bids, and only one of these was considered technically acceptable by the agency.[10] MARAD awarded the bidder only two ships, in part, because of the bidder's limited scrapping capacity. Similarly, Navy/DRMS solicitations in 1996 and 1997, for a total of 11 ships, resulted in only two technically acceptable proposals for each solicitation and the award of only two ships. Both the MARAD and Navy awards were made to the same firm.[11]

Recent testimony to Congress and statements made by domestic industry officials raise doubts about the willingness of new firms to enter the industry and current firms to substantially expand their operations under

[9]To be financially acceptable, bids have to be positive—have a purchase price greater than $0.

[10]There was also a "negative bid"— a bid that would have required the government to pay for the scrapping.

[11]In December 1997, MARAD advertised 13 additional ships for scrapping. In May 1998, the agency awarded 11 ships to be scrapped, 8 of which went to the same firm that received the earlier MARAD and Navy awards. Three other ships were awarded to another firm. MARAD did not receive any domestic bids for two ships located on the west coast.

current conditions. Some domestic industry representatives stated that the profits from ship scrapping have not been commensurate with the financial risks and environmental liabilities associated with it, and one representative stated that his firm was no longer willing to assume such risks. However, other industry representatives believed that they could make a profit scrapping ships, as long as they could get enough ships to justify large scale and continuous production. As discussed later, the agencies have (1) taken action to sell ships in lots and (2) recognized that steps are needed to minimize environmental and worker safety risks associated with ship scrapping to make ship scrapping more financially attractive.

Agencies' Efforts to Address the Backlog

In 1996, the Navy and MARAD identified and began implementing a number of initiatives to address domestic ship scrapping performance problems. Also, in 1998, an interagency panel endorsed the 1996 initiatives but recommended that a number of steps be taken to further improve the ship scrapping process, both domestically and internationally. It is too early to assess the impact of the 1996 initiatives, and the agencies are still reviewing the extent to which they will implement the panel's recommendations. However, no specific time frames for completing the review have been established. Also, no procedures have been established for implementing the recommendations that are accepted.

1996 Actions Taken to Address Domestic Ship Scrapping Practices

In 1996, the Navy and DRMS realized that the then-existing ship scrapping practices had contributed to the domestic contractor performance problems previously discussed. For example, prior to January 1996, DRMS (1) accepted all technical proposals with the invitation for bid, (2) relied on the high bid without seeking an independent review of the company's business or financial background, and (3) performed only minimal contract oversight and on-site progress reviews. In an effort to correct these problems, the Navy and DRMS began taking several actions to improve their scrapping practices, as well as to make other improvements in the ship scrapping program. While sufficient experience with the actions taken is not yet available because only two Navy ships have been scrapped since 1996, the actions appear to be reasonable approaches to help address past contractor performance problems. Approaches adopted since 1996 to improve the ship scrapping practices include the following:

- Developing a two-step bid process requiring contractors to submit a technical proposal for approval before they can be considered viable

candidates to place a financial bid for the surplus ships. The technical proposals are to consist of an environmental compliance plan, an operations plan, a business plan, and a safety and health plan. A technical evaluation team is to evaluate each plan, and those contractors found to have acceptable technical proposals will be asked to submit a financial bid.

- Implementing quarterly progress reviews at each scrapping site to assess the contractor's progress and compliance with contract provisions, including environmental and safety requirements.
- Awarding contracts designed to (1) provide daily on-site surveillance of ship scrappers, (2) conduct environmental/safety site assessments, and (3) evaluate ship scrapping operations.
- Developing a contractor rating system for use in deciding on how closely to provide contract surveillance.

Actions taken to improve the general management of the ship scrapping program and to address contractor concerns about the profitability of ship scrapping included

- advertising and selling ships by lot and allowing contractors to remove the ships from government storage as they are ready to be scrapped,
- holding periodic industry workshops to inform contractors of what is expected of them in the scrapping of federal surplus ships and obtain feedback from the contractors on their concerns and desires,
- evaluating the potential for removing more of the hazardous materials before the ships are advertised for sale, and
- notifying state and local regulators where the ship scrapping will be performed after contracts are awarded.

The Navy and DRMS have also adopted, and are considering, other options for disposing of ships. For example, they obtained legislative authority to negotiate contracts for ship scrapping to obtain the most advantageous contract for the government rather than awarding the contract based solely on the highest bid.

MARAD also developed and adopted a number of new approaches similar to those of the Navy/DRMS. For example, MARAD has begun using contracting procedures that include the requirement for a technical proposal from bidders on how they would scrap ships. MARAD, like DRMS, is now considering only those bidders with acceptable technical proposals as suitable for contract award.

1998 Interagency Panel's Report

The Department of Defense, in December 1997, took the lead in establishing an Interagency Panel on Ship Scrapping.[12] This panel was tasked to review Navy and MARAD programs to scrap ships and to recommend ways to ensure that federal ships are scrapped in the most effective and efficient manner while protecting the environment and worker safety. While the 1996 initiatives and 1998 interagency panel recommendations, if implemented, offer the potential to address previously experienced problems, some domestic and foreign scrapping issues remain unresolved. They relate to whether the government should promote the expansion of the domestic industry and whether ships should be scrapped overseas. The actions most often discussed for addressing these issues have much different potential results. For example, federal agencies could generate higher revenues by scrapping ships overseas, but such scrapping may involve greater environmental and worker safety risks as well as adversely affect the domestic scrapping industry. Similarly, relying solely on the domestic industry for ship scrapping would avoid overseas scrapping concerns but would require a more prolonged approach to reducing the backlog or greater financial incentives to achieve domestic industry expansion.

Panel Recommendations

The panel made numerous recommendations to the various agencies participating in the panel on issues related to both domestic and overseas ship scrapping. While we did not do a detailed assessment of the panel's recommendations, they do appear to address some of the previously experienced problems. However, the panel's report does not resolve issues on the government's role in promoting domestic industry expansion and the use of foreign ship scrapping. The agencies to whom the recommendations are made are responsible for deciding what actions, if any, to take. As of August 6, 1998, the agencies were still reviewing the extent to which they will implement the panel's recommendations. Further, the process for deciding whether to accept and ultimately implement the recommendations is informal. For example, the agencies have not established specific time frames for completing their review of the recommendations. Also, once the recommendation review process is complete, lead responsibilities, tracking systems, and milestones for implementing the individual recommendations will be needed.

[12]The panel was chaired by the Office of the Deputy Under Secretary of Defense for Environmental Security, and its members included representatives from the Departments of State, Navy, Justice, Labor, and Transportation; Defense Logistics Agency; and EPA. In addition, the panel consulted with a number of other agencies, including the Department of Commerce, the National Oceanic and Atmospheric Administration, and the U.S. Trade Representative. The panel was disbanded after its April 20, 1998, report was issued.

The panel's April 20, 1998, report concluded that the Navy and MARAD had recognized the problems identified with past contracting and monitoring practices and taken steps to address many of them. The report also stated that more could be done to (1) improve the ship scrapping contracting process, (2) encourage the development of a viable domestic industry to handle a significant portion of the backlog, and (3) make the use of foreign scrapping to augment the domestic industry a more acceptable option. More specifically, the panel recommended that the Navy/DRMS and MARAD establish consistent ship scrapping contracting procedures. For example, the Navy/DRMS and MARAD should develop standardized performance bonds to make them equally attractive to bidders.

To encourage development of the domestic industry, the panel concluded that the industry needed to improve its knowledge and understanding of the ship scrapping contracting process. To accomplish this, the panel recommended that EPA and the Occupational Safety and Health Administration, in coordination with the Navy/DRMS and MARAD, continue to educate the industry through seminars and workshops and should develop an environmental and worker safety compliance manual for industry use. The panel asserted that the industry needed additional knowledge on the techniques for scrapping large ships and the range, types, and locations of hazardous materials to ensure that ships are scrapped in an environmental, safe, and economical manner. To accomplish this, the panel endorsed the Navy's plan to establish a pilot project that would quantify the scope and major costs associated with ship scrapping.

The panel indicated that the U.S. government could do more to promote better environmental and worker safety controls in foreign ship scrapping countries. To that end, the panel recommended, among other things, that (1) the Navy, MARAD, and EPA expand the notification to foreign countries of the materials commonly found on specific types of ships so that the countries could object to the import of a ship with unacceptable environmental risks and (2) the Navy, MARAD, EPA, the Departments of State and Labor, and the Agency for International Development evaluate how meaningful technical assistance could be provided to interested importing countries, including whether current statutory authorities and funding are adequate for this purpose. Another recommendation was for DRMS and MARAD to examine the use of enforceable contract terms that promote environmental protection and worker safety measures overseas, including requirements that foreign bidders submit technical plans to demonstrate how they intend to comply with applicable local rules and regulations, obtain information from the State Department on the

qualifications and past performance of foreign scrappers, and require a performance bond as an incentive for foreign scrappers to comply with contractual requirements. The panel recognized, however, that environmental and worker safety issues would have to be balanced against the economic realities of the countries doing the scrapping.

The panel also recommended to the Under Secretary of Defense for Acquisition and Technology that it or a similar panel be reconvened 1 year after the report's issuance to evaluate the results of implementing the recommendations and to consider whether any additional modifications should be made.

Conclusions

The interagency panel's specific recommendations generally represent steps directed toward correcting previously experienced problems. The effectiveness of these initiatives, if adopted, will not be known until some implementation experience has been gained. Two key issues relating to whether the government should involve itself in promoting the expansion of a domestic industry and whether to utilize the foreign ship scrapping industry are only generally addressed. Further, the process for deciding whether to accept and ultimately implement the panel's recommendations is informal. For example, the agencies have not established specific time frames for completing their review of the recommendations. Also, no procedures have been established for implementing the recommendations that are accepted.

Recommendations

We recommend that the Secretaries of Defense and Transportation take the lead and work with other agencies involved in ship scrapping such as the EPA and the Departments of State and Commerce to establish a specific time frame for completing the review of the interagency panel's recommendations. Further, we recommend that, once the review is complete, each agency establish milestones for implementing those recommendations that are adopted and that the Secretaries of Defense and Transportation designate lead responsibilities within their respective organizations for addressing individual panel recommendations.

Agency Comments

The Department of Defense provided comments on a draft of this report, which are presented in appendix III. The Department concurred with both of our recommendations. It also provided some technical comments, which we have incorporated as appropriate. We also requested comments

from the Department of Transportation and EPA. Neither agency had provided comments prior to report issuance.

We conducted our review between November 1997 and September 1998 in accordance with generally accepted government auditing standards. The scope and methodology for our review are discussed in appendix II.

We are sending copies of this report to the Chairman of the Senate Committee on Governmental Affairs, the Chairmen and Ranking Minority Members of the House and Senate Committees on Appropriations, the Senate Committee on Armed Services, and the House Committee on National Security. We are also sending copies of this report to the Secretaries of Defense and the Navy; the Secretaries of Commerce, Transportation, Labor, and State; the Administrators of MARAD, EPA, the National Oceanic and Atmospheric Administration, and the Occupational Safety and Health Administration; and the Directors of the Defense Logistics Agency and the Office of Management and Budget. We will make copies available to others upon request.

If you have any questions about this report, you may contact me on (202) 512-8412. Major contributors to this report are listed in appendix IV.

Sincerely yours,

David R. Warren

David R. Warren, Director
Defense Management Issues

Contents

Abbreviations

DRMS	Defense Reutilization and Marketing Service
EPA	Environmental Protection Agency
MARAD	Maritime Administration
PCB	polychlorinated biphenyl

Federal Environmental and Safety Legislation

Toxic Substances Control Act

The Toxic Substances Control Act provides the Environmental Protection Agency (EPA) with the authority to regulate substances that pose a risk to human health or the environment. Asbestos and polychlorinated biphenyls (PCB) are among the more common substances regulated. Ship scrapping contractors are required to comply with the applicable regulations promulgated by EPA under this legislation, including regulations for the proper removal, storage, transportation, and the disposal of materials containing asbestos and PCBs at concentrations of 50 parts per million or greater.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act of 1976, as amended, is a comprehensive authority for all aspects of managing hazardous wastes. The act and the Hazardous and Solid Waste Amendments of 1984 protect human health and the environment from the potential hazards of waste disposal, promote energy and natural resource conservation, reduce the amount and toxicity of waste generated, and ensure that wastes are managed in an environmentally sound manner. It places "cradle to grave" responsibility for hazardous waste on those personnel or units handling the waste. Waste oil, paints, and solvents are among the types of substances regulated under the act. The act is generally administered by the states under delegation of authority from EPA.

Federal Clean Air Act

The Federal Clean Air Act forms the basis for the national air pollution control effort. Basic elements of the act include establishing national ambient air quality standards for air pollutants and regulating hazardous air pollutants such as lead. EPA and the states administer the act.

Federal Water Pollution Control Act

The Federal Water Pollution Control Act of 1972 bans facilities from discharging pollutants such as metals and acids into lakes, rivers, streams, and coastal waters. Regulation is accomplished by means of discharge permits issued by the states and EPA.

Occupational Safety and Health Act

The Occupational Safety and Health Act of 1970 was enacted to ensure safe and healthful working conditions for workers. Federal standards developed under the act cover shipyard work and the ship scrapping industry. The Occupational Safety and Health Administration's regions, along with state and local regulatory agencies, are responsible for enforcing these worker safety standards.

Scope and Methodology

To identify the factors contributing to the backlog of federal ships available for scrapping, we performed relevant work at the principal agencies identified to possess and dispose of federal surplus ships for scrapping—the Departments of Defense, Navy, and Army; the Defense Logistics Agency and its Defense Reutilization and Marketing Service (DRMS); the Department of Transportation, including the Maritime Administration (MARAD) and the Coast Guard; the Department of Commerce's National Oceanic and Atmospheric Administration; and the General Services Administration. This work included discussing and obtaining information on the size and scope of the domestic ship scrapping industry, the historical data and current backlog of ships to be scrapped and factors contributing to the backlog, studies analyzing the domestic industry and its capabilities, visits to selected surplus ship storage locations, and identification of recent performance problems. We also made visits and inquiries to selected current and former ship scrapping contractors to obtain their comments and views on issues such as the state of the domestic ship scrapping industry and its capacity to handle the federal backlog of surplus ships.

To review the federal agencies' efforts to address the backlog, we examined the federal ship marketing and sales functions at each agency selling federal surplus ships and discussed with program personnel, the various options for disposing of the ships. At each agency, we identified their legislative authorities to dispose of and sell ships for scrapping; reviewed their policies, procedures, and practices for selling surplus ships; evaluated the most recent contracts used in the sale of these ships; and identified the actions taken to address ship scrapping problems and improve the agencies' respective programs. We also visited and requested information from selected ship scrapping contractors concerning the agencies' efforts to address the past performance problems. Further, we attended meetings of the federal joint ship disposal conference and other workshops held by Navy and DRMS personnel. In addition, we visited the regulatory agencies, EPA and the Occupational Safety and Health Administration, and met with agency program and legal representatives to discuss and obtain information on the standards used to regulate environmental and worker safety matters and the enforcement of their respective regulations within the ship scrapping industry. Furthermore, we reviewed the Department of Defense led interagency panel's April 20, 1998, report on ship scrapping, focusing primarily on its conclusions and recommendations.

We also reviewed the agreements between EPA and the Navy and MARAD for the export of ships for scrapping and various studies that include information on the overseas ship scrapping industry. We also held discussions with the agencies' program managers responsible for ship sales to identify the scope of the foreign market, the potential for reducing the backlog of surplus ships and the associated maintenance and storage costs, and the advantages and disadvantages of overseas scrapping. Furthermore, we asked for feedback from members of the domestic industry on the potential impact of the foreign scrapping on the domestic industry. We visited the State Department to discuss and obtain information on its involvement in the export of ships for overseas scrapping. At EPA, we also discussed and obtained information on the agency's proposed rulemaking on PCBs and the agreements the agency had made with other agencies for the export of ships for scrapping.

Comments From the Department of Defense

ACQUISITION AND TECHNOLOGY

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17 SEP 1998

Mr. David Warren
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Dear Mr. Warren:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "FEDERAL SURPLUS SHIPS: Government Efforts to Address the Growing Backlog of Ships Awaiting Disposal," dated August 17, 1998 (GAO Code 709312/OSD Case 1676).

The DoD concurs with the recommendation that the Secretaries of Defense and Transportation take the lead and work with other agencies involved in ship scrapping to establish a specific time-frame for completing the review of the Interagency Panel's recommendations. Furthermore, we concur that milestones be developed for implementing those recommendations that are adopted and that lead responsibilities be assigned.

General comments on the report that address factual and editorial matters were provided directly to your staff for consideration.

Very truly yours,

Sherri W. Goodman
Deputy Under Secretary of Defense
(Environmental Security)

Environmental Security *Defending Our Future*

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