

# Report to Congress

## Foreign-Manufactured PCBs At US Military Installations Overseas

*Prepared by*

**Department of Defense**

*In Consultation with*

**Department of State  
Environmental Protection Agency**

**March 1999**

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**DEPARTMENT OF THE NAVY  
CHIEF OF NAVAL OPERATIONS  
2000 NAVY PENTAGON  
WASHINGTON, DC 20350-2000**

**IN REPLY  
REFER TO**

5090  
N457C/SU598119  
27 Jun 95

Ms. Jean Marie Revelt  
Engines and Vehicles Regulations Branch  
U.S. Environmental Protection Agency  
2565 Plymouth Ave.  
Ann Arbor, Michigan 48105

Dear Ms. Revelt:

In response to your request for Navy ship engine exhaust emission data, we are forwarding enclosure (1) which contains the preliminary data we have assembled to assist in ship exhaust emission modeling. We are providing this information to assist in your comprehension of the typical air emission characteristics associated with military ships. The data was collected from manufacturer as well as Environmental Protection Agency (EPA) sources by Westinghouse Electric Corporation, Machinery Technology Division (MTD) under contract to the Navy. Enclosure (2) explains that the information being forwarded is for EPA use only and describes the process used by MTD to collect data.

Please contact Ms. Kathy Ellis at (703) 602-2568 if you have any questions.



R. L. STEINBRUGGE  
By direction

Encl: (1) Preliminary Engine Exhaust Emission Data Sheets  
(2) Disclaimer of Exhaust Emission Data Development



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

**MAR - 4 1999**

Ms. Sherri W. Goodman  
Deputy Under Secretary  
(Environmental Security)  
Office of the Undersecretary of Defense  
3000 Defense Pentagon  
Washington, D.C. 20301-3000

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Dear Ms. Goodman:

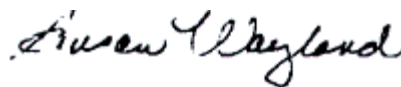
I am writing in response to your letter of Feb. 22 requesting concurrence on the Department of Defense Report to Congress entitled, "Foreign manufactured PCBs at U.S.

Military Installations Overseas," and which concerns the management of foreign-manufactured Polychlorinated Biphenyl (PCB) wastes under DOD control overseas.

While EPA has reviewed the Report and will concur in its release, we do so with comment regarding its recommendations. We believe that any potential legislative proposal that may be considered be developed with full consultation among all agencies, and that before an Administration position is determined, a proposal must be subjected to a full and complete interagency review process. While recognizing the existing problem of foreign-manufactured PCB waste under the control of DOD, we believe that any narrowly-based exemption for the import of DOD wastes requires further discussion to determine its impacts on the larger issue of the transboundary movement of PCB waste and would like to examine this and other approaches in greater depth in the future with all interested parties.

We look forward to working with DOD to ensure that all PCB wastes are properly handled, stored and disposed of in an environmentally sound manner, and appreciate your efforts in preparing this Report. We also look forward to working with DOD in assuring compliance with all existing laws and regulations pertaining to the importation of foreign-manufactured PCBs. Please let me know if I can be of further assistance.

Sincerely,



Susan H. Wayland  
Acting Assistant Administrator



ACQUISITION AND  
TECHNOLOGY

**THE UNDER SECRETARY OF DEFENSE**  
**3010 DEFENSE PENTAGON**  
**WASHINGTON, DC 20301-3010**

10 May 1999

Honorable John Warner  
Chairman, Committee on Armed Services  
United States Senate  
Washington, DC 20510-6050

Dear Mr. Chairman:

The Strom Thurmond National Defense Authorization Act for Fiscal Year 1999, section 324, directed the Secretary of Defense to submit a report to Congress regarding foreign-manufactured Polychlorinated Biphenyl waste under Department of Defense control overseas.

Enclosed is our report.

As required by the Act, the Department worked closely with the Department of State and the Environmental Protection Agency in preparing this report. Both have concurred with the release of the report. We have incorporated comments and included their letters in the report.

The Department is currently able to dispose of this foreign-manufactured polychlorinated biphenyl waste in an environmentally responsible manner at locations outside of the United States. However, it is becoming increasingly difficult to find disposal facilities that are able to accept these wastes. In the future, the Department expects to lose overseas disposal options for a variety of reasons. The Department will continue to monitor the situation carefully. If there are any changes that affect our overseas disposal options, we will meet with the Department of State and the Environmental Protection Agency to develop appropriate strategies.

The Department of Defense recommends that:

1. Congress enact a narrow statutory waiver to allow the importation of foreign-manufactured PCB waste used by and under the control of the Department of Defense for the purpose of disposal in the United States. This will enable the Department of Defense to dispose of such PCB waste in the United States when such disposal is in the best interest of the United States to do so. Shipping it to the United States will ensure its proper disposal and avoid exposing the United States to criticism for not accepting its own PCB waste while disposing of it in other countries using similar disposal technologies. The problem of disposal of foreign-manufactured PCB waste may extend to other US government agencies. The Department of Defense did not attempt to address other agencies in this report.
2. At a minimum, Congress enact legislation allowing the importation for disposal of foreign-manufactured PCB waste used by and under the control of the US Government that contains under 50 ppm PCBs, when such PCB waste cannot be disposed of in the country in which it is generated.
3. Congress enact legislation implementing the Basel Convention, which would permit the United States to become a party to the Convention. This will remove some of the impediments to transboundary movements of foreign-manufactured PCB waste for disposal outside the United States.

The above recommendations would be consistent with international law, including the Basel Convention on the Transboundary Movements of Hazardous Wastes and Their Disposal and the Protocol to the Convention on Long-Range Transboundary Air Pollution on Persistent Organic Pollutants.

We would be pleased to meet with you or your staff, along with representatives from the Environmental Protection Agency, to further elaborate on any of the findings or recommendations in the report.

Sincerely,



J. S. Gansler

Enclosure:  
As stated

cc: Honorable Carl Levin, Ranking Democrat  
Mr. Rafe Pomerance, Department of State  
Ms. Susan Wayland, Environmental Protection Agency

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**THE UNDER SECRETARY OF DEFENSE**  
**3010 DEFENSE PENTAGON**  
**WASHINGTON, DC 20301-3010**

10 May 1999

ACQUISITION AND  
TECHNOLOGY

Honorable Floyd Spence  
Chairman, Committee on Armed Services  
House of Representatives  
Washington, DC 20515-6035

Dear Mr. Chairman:

The Strom Thurmond National Defense Authorization Act for Fiscal Year 1999, section 324, directed the Secretary of Defense to submit a report to Congress regarding foreign-manufactured Polychlorinated Biphenyl waste under Department of Defense control overseas.

Enclosed is our report.

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Sincerely,



J. S. Gansler

Enclosure:  
As stated

cc: Honorable Ike Skelton, Ranking Democrat  
Mr. Rafe Pomerance, Department of State  
Ms. Susan Wayland, Environmental Protection Agency

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**THE UNDER SECRETARY OF DEFENSE**  
**3010 DEFENSE PENTAGON**  
**WASHINGTON, DC 20301-3010**

10 May 1999

ACQUISITION AND  
TECHNOLOGY

Honorable Bud Shuster  
Chairman, Committee on Transportation & Infrastructure  
House of Representatives  
Washington, DC 20515

Dear Mr. Chairman:

The Strom Thurmond National Defense Authorization Act for Fiscal Year 1999, section 324, directed the Secretary of Defense to submit a report to Congress regarding foreign-manufactured Polychlorinated Biphenyl waste under Department of Defense control overseas.

Enclosed is our report.

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We would be pleased to meet with you or your staff, along with representatives from the Environmental Protection Agency, to further elaborate on any of the findings or recommendations in the report.

Sincerely,

A handwritten signature in black ink, appearing to read "J. B. Stinson". The signature is fluid and cursive, with a long horizontal stroke at the end.



J. S. Gansler

Enclosure:  
As stated

cc: Honorable James L. Oberstar, Ranking Democrat  
Mr. Rafe Pomerance, Department of State  
Ms. Susan Wayland, Environmental Protection Agency

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ACQUISITION AND  
TECHNOLOGY

**THE UNDER SECRETARY OF  
DEFENSE**  
**3010 DEFENSE PENTAGON**  
**WASHINGTON, DC 20301-3010**

10 May  
1999

Honorable John H. Chafee  
Chairman, Committee on Environment & Public Works  
United States Senate  
Washington, DC 29510

Dear Mr. Chairman:

The Strom Thurmond National Defense Authorization Act for Fiscal Year 1999, section 324, directed the Secretary of Defense to submit a report to Congress regarding foreign-manufactured Polychlorinated Biphenyl waste under Department of Defense control overseas.

Enclosed is our report.

As required by the Act, the Department worked closely with the Department of State and the Environmental Protection Agency in preparing this report. Both have concurred with the release of the report. We have incorporated comments and included their letters in the report.

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We would be pleased to meet with you or your staff, along with representatives from the Environmental Protection Agency, to further elaborate on any of the findings or recommendations in the report.

Sincerely,

A handwritten signature in black ink, appearing to read "J. S. Gansler". The signature is fluid and cursive, with a long horizontal stroke at the end.

J. S. Gansler

Enclosure:  
As stated

cc: Honorable Max Baucus, Ranking Democrat  
Mr. Rafe Pomerance, Department of State  
Ms. Susan Wayland, Environmental Protection Agency

---



**THE UNDER SECRETARY OF DEFENSE**  
**3010 DEFENSE PENTAGON**  
**WASHINGTON, DC 20301-3010**

10 May 1999

ACQUISITION AND  
TECHNOLOGY

Honorable Tom Bliley  
Chairman, Committee on Commerce  
House of Representatives  
Washington, DC 20515

Dear Mr. Chairman:

The Strom Thurmond National Defense Authorization Act for Fiscal Year 1999, section 324, directed the Secretary of Defense to submit a report to Congress regarding foreign-manufactured Polychlorinated Biphenyl waste under Department of Defense control overseas.

Enclosed is our report.

As required by the Act, the Department worked closely with the Department of State and the Environmental Protection Agency in preparing this report. Both have concurred with the release of the report. We have incorporated comments and included their letters in the report.

The Department is currently able to dispose of this foreign-manufactured polychlorinated biphenyl waste in an environmentally responsible manner at locations outside of the United States. However, it is becoming increasingly difficult to find disposal facilities that are able to accept these wastes. In the future, the Department expects to lose overseas disposal options for a variety of reasons set forth in the report. The Department will continue to monitor the situation carefully. If there any changes that affect our overseas disposal options, we will meet with the Department of State and the Environmental Protection Agency to develop appropriate strategies.

We would be pleased to meet with you or your staff, along with representatives from the Environmental Protection Agency, to further elaborate on any of the findings or recommendations in the report.

Sincerely,



J. S. Gansler

Enclosure:

As stated

cc: Honorable John D. Dingell, Ranking Democrat  
Mr. Rafe Pomerance, Department of State  
Ms. Susan Wayland, Environmental Protection Agency

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**United States Department of State**

***Bureau of Oceans and International  
Environmental and Scientific Affairs***

***Washington, D. C. 20520***

Ms Sherri Goodman  
Deputy Under Secretary of Defense  
(Environmental Security)  
3000 Defense Pentagon  
Washington, D.C. 20520-7818

Dear Ms. Goodman:

The Department of State concurs in the Report of Congress entitled *Foreign-Manufactured PCBs at US Military Installations Overseas* dated March, 1999. With the suggestion, set out below, that the first recommendation be expanded to allow the importation of all foreign-manufactured PCB waste used by and under the control of U.S. government agencies abroad for the purpose of disposal, the Department also concurs in the recommendations made in the Report.

Allowing the importation for disposal of PCB waste under the control of the U.S. government and its agencies is good foreign policy and good environmental policy. It demonstrates that the United States is willing to take responsibility for managing wastes within its control in an environmentally sound manner. By ensuring access to disposal

facilities in the U.S., it also ensures that there will be an appropriate, permanent disposal option available for these wastes regardless of the availability, or lack thereof, of other facilities abroad that are suitable and able to accept imported PCB wastes. While the production of PCBs in the United States was phased out some time ago, the United States needs to be able to dispose safely of the remaining PCB wastes under its control. The proposed waiver would allow U.S. agencies to dispose of PCB wastes in an *environmentally responsible manner and in accordance with international agreements governing transboundary movements of hazardous waste and PCBs.*

Several years ago, the Department of State began a program to identify and safely dispose of equipment or material in its control that contained or was contaminated with PCBs. Although we believe that virtually all such equipment and material has now been disposed of, we would request that the language of the first recommendation be modified to allow the importation of foreign-manufactured PCB waste used by and under the control of the *U.S. government* for the purpose of disposal in the United States. This would ensure that there will always be an environmentally sound option for disposing of PCB wastes under U.S. government control.

Sincerely,

A handwritten signature in black ink, appearing to read "Rafe Pomerance", with a long horizontal flourish extending to the right.

Rafe Pomerance  
Deputy Assistant Secretary of State

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### **Executive Summary**

The Strom Thurmond National Defense Authorization Act for Fiscal Year 1999, Section 324, directed the Secretary of Defense to submit a report to Congress regarding foreign-manufactured Polychlorinated Biphenyl waste under Department of Defense control overseas. As required by the Act, the Department worked closely with the Department of State and the Environmental Protection Agency in the preparation of this report.

The Department is currently able to dispose of this foreign-manufactured polychlorinated biphenyl waste in an environmentally responsible manner at locations outside of the United States. However, it is becoming increasingly difficult to find disposal facilities that are able to accept these wastes. In the future, the Department expects to lose overseas disposal options for a variety of reasons. The Department will continue to monitor the situation carefully. If there are any changes that affect our overseas disposal options, we will meet with the Department of State and the Environmental Protection Agency to develop appropriate strategies.

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2. At a minimum, Congress enact legislation allowing the importation for disposal of foreign-manufactured PCB waste used by and under the control of the US Government that contains under 50 ppm PCBs, when such PCB waste cannot be disposed of in the country in which it is generated.
3. Congress enact legislation implementing the Basel Convention, which would permit the United States to become a party to the Convention. This will remove some of the impediments to transboundary movements of foreign-manufactured PCB waste for disposal outside the United States.

Department of State and the Environmental Protection Agency concur with the release of the Report. The concurrence of State and EPA, and their comments on the recommendations are attached as Enclosures 1 and 2.

The above recommendations would be consistent with international law, including the Basel Convention on the Transboundary Movements of Hazardous Wastes and Their Disposal and the Protocol to the Convention on Long-Range Transboundary Air Pollution on Persistent Organic Pollutants.

## **Foreign-Manufactured PCBs at US Military Installations Overseas**

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## INTRODUCTION

The Strom Thurmond National Defense Authorization Act for Fiscal Year 1999, Section 324 (The Act), directs the Secretary of Defense to submit a report to Congress regarding foreign-manufactured Polychlorinated Biphenyl (PCB) waste under Department of Defense (DoD) control overseas. The Act required the Department to consult with the Department of State and the Environmental Protection Agency (EPA) in preparing the report.

DoD worked closely with State and EPA while preparing this report. Both concurred with the release of the Report. The concurrence of State and EPA, and their comments on the recommendations are attached as Enclosures 1 and 2.

## **Disposal of Foreign-Manufactured PCBs**

DoD has foreign-manufactured PCBs at our installations in Belgium, Germany, Italy, Japan, Korea, Spain, Turkey, and the United Kingdom. While "foreign-manufactured" with respect to the United States, the PCBs for the most part were not manufactured in the country in which they are currently located, and therefore, they are "foreign-manufactured" with respect to both the United States and the country in which the PCBs had been used by the United States.

Although DoD is currently able to dispose of this PCB waste in an environmentally responsible manner at locations outside of the United States, it is becoming increasingly difficult to find disposal facilities that are able to accept these PCB wastes. Moreover, DoD cannot contract for such disposal without exporting to third countries the very same PCB waste it is prohibited from importing into the customs territory of the United States. Some of this PCB waste is shipped great distances (from Korea to the United Kingdom and the Netherlands, for example), because US law prohibits its entry into the United States for disposal and because there is inadequate environmentally protective disposal capacity in the country where the PCB waste has been generated by US government activities. Sending to third countries US government generated PCB waste that the United States itself will not accept is a potential embarrassment for the United States. DoD's continued ability to dispose of PCB waste overseas is not assured. There is a growing trend among members of the European Union and other countries to ban the importation of PCB waste and other hazardous substances. Moreover, some foreign countries tend to view wastes from U.S. military installations as U.S. waste, not their own domestic wastes, complicating the status of such wastes under the Basel Convention.

In the near future, DoD expects to lose overseas disposal options. As additional foreign-manufactured PCB-containing equipment comes out of service, we expect that we will need to transport PCB waste into the customs territory of the United States from all countries listed above except Belgium, Germany and the United Kingdom.

## **DoD Management of PCBs Overseas**

### ***Overseas Environmental Baseline Guidance Document***

Pursuant to section 342(b) of the National Defense Authorization Act for Fiscal Year 1991, the Department of Defense (DoD) has established applicable environmental requirements for military installations located outside the United States. The Overseas Environmental Baseline Guidance Document (OEBGD) provides minimum standards that overseas installations must meet. The OEBGD is designed to protect human health and the environment by incorporating requirements of US law that have extraterritorial application. Where such requirements do not exist, the OEBGD adopts generally accepted environmental standards applicable to DoD installations, facilities, and actions in the United States. In any country with a significant DoD presence, Final Governing Standards (FGS) establish environmental requirements for that country. A FGS is prepared by adopting the most protective of the standards found in the OEBGD, host-nation law (including transnational enforceable standards) and applicable international agreements.



The OEGBD has a chapter devoted to the management and disposal of PCBs. The chapter addresses:

*Purchase* -- Installations are required to minimize the use of PCBs and PCB items without degrading mission performance. Installations cannot purchase or otherwise take control of PCBs or PCB items for use.

*Inventory* -- Each installation having PCBs is required to maintain a written inventory that includes a current list by type of all PCB items in use and PCB wastes placed into storage for disposal or disposed of for that year. Each installation is required to maintain inventory records for a period of time at least 3 years after the last item on the list is disposed of.

*Storage* -- Installations should store PCB waste in a facility that will assure the containment of PCBs. These facilities should include roofs and walls that exclude rainfall; a containment berm; openings constructed to prevent any release from the bermed area; and continuous, smooth, and impervious flooring material.

*Disposal* -- Installations are required to dispose of PCB wastes in accordance with the destruction standards established by EPA. As the disposal agent for DoD, the Defense Logistics Agency (DLA) writes the disposal contracts for the disposal of foreign-manufactured PCBs. DLA's contracts require a specific level of destruction, not a particular technology. These disposal contracts allow for the use of alternative technologies that meet the destruction requirements and that the host country has approved for use.

### **Inventory of Foreign-Manufactured PCBs**

The Department of Defense (DoD) recently conducted an inventory to identify all foreign-manufactured PCB equipment either currently in use or ready for disposal at our military installations overseas.

Enclosure 3 is the inventory of the type, concentrations, and estimated quantity of foreign-manufactured PCBs for each country. The inventory includes all known foreign-manufactured PCB equipment currently in use overseas or foreign-manufactured PCB waste awaiting disposal at US military installations overseas. The inventory includes the weight of the equipment without liquid and the weight of the PCB liquid. When preparing the inventory, US military installations overseas projected when the equipment will be removed from service and designated for disposal over the next five years, with any equipment remaining in service beyond 2003 placed in a single group.

The PCB material in the "detect to 49 ppm" category, which accounts for 85 percent of the total inventory by weight, is based on labels and user knowledge. US military installations overseas did not do any additional testing for this inventory. They estimated quantities identified for debris and soil based on past history.

### **Risks**

The human health risks from direct and long-range exposure to foreign-manufactured PCBs are the same as the health risks from domestically manufactured PCBs. Although the commercial formulations vary between countries, the PCBs that have been tested appear to have similar targets for toxicity.

Risks and costs from long-term storage of any PCB waste increase with time, because storage containers deteriorate, increasing the likelihood that personnel, who must monitor such items and repack them if they suspect leakage, are exposed to the PCBs. Overseas, the situation is often exacerbated because installations are typically smaller, storage space is at a premium, and the surrounding civilian communities are located in very close proximity. Serious adverse mission impacts can occur when stored PCB waste takes up valuable storage space that would otherwise be available for mission requirements.

### **International Issues**

Shrinking access to adequate disposal facilities overseas is an impediment to the environmentally sound disposal of foreign-manufactured PCB wastes. Most of the facilities that can dispose of PCBs in accordance with DoD standards are located in Europe or North America. Over the past several years, the European Union (EU) member States have been revising their waste policies to restrict transboundary movements of hazardous waste. Currently, EU law prohibits imports into the EU of waste for disposal, except from parties to the Basel Convention. However, Basel parties wishing to export waste into the EU for final disposal must obtain prior approval from the importing country and must affirmatively show that they do not have and cannot acquire facilities to dispose of the waste in an environmentally sound manner domestically. It is not easy to obtain the cooperation of both the importing and exporting countries and the approval process is very time consuming.

The fact that the United States is not a party to the Basel Convention is an additional complicating factor. The Basel Convention, governing transboundary movements of hazardous waste, has been ratified by 122 parties, making it one of the most widely adopted international agreements. The Convention prohibits waste shipments between parties and non-parties absent a bilateral or multilateral agreement. While most of the countries where DoD installations are located are Basel parties, the importing countries vary on whether they view the PCB wastes as wastes of the exporting country or as U.S. government wastes. A number of countries believe that the United States has not ratified the Basel Convention because it wants to be able to "dump" its wastes in other countries. The fact DoD seeks to dispose of the PCB waste abroad that it cannot import to the United States for disposal serves to perpetuate this misperception. It is likely to be a factor affecting the willingness of other countries to accept US government-owned waste.

## **QUESTIONS**

The Strom Thurmond National Defense Authorization Act for Fiscal Year 1999, Section 324 included several specific questions. The answers follow.

**Question 1 – The identity of each foreign country from which the Secretary of Defense anticipates that the Department of Defense will need to transport foreign-**

**manufactured polychlorinated biphenyl waste into the customs territory of the United States.**

The Department of Defense (DoD) recently conducted an inventory to identify all foreign-manufactured PCB equipment either currently in use or ready for disposal at our military installations overseas. DoD has foreign-manufactured PCBs at our installations in Belgium, Germany, Italy, Japan, Korea, Spain, Turkey, and the United Kingdom. While "foreign-manufactured" with respect to the United States, the PCBs for the most part were not manufactured in the country in which they are currently located, and therefore, they are "foreign-manufactured" with respect to both the United States and the country in which the PCBs had been used by the United States.

Although DoD is currently able to dispose of this PCB waste in an environmentally responsible manner at locations outside of the United States, it is becoming increasingly difficult to find disposal facilities that are able to accept this PCB waste. Moreover, DoD cannot contract for such disposal without exporting to third countries the very same PCB waste it is prohibited from importing into the customs territory of the United States. Some of this PCB waste is shipped great distances (from Korea to the United Kingdom and the Netherlands, for example), because US law prohibits its entry into the United States for disposal and because there is inadequate environmentally protective disposal capacity in the country where the PCB waste has been generated by US government activities. Sending to third countries US government generated PCB waste that the United States itself will not accept is a potential embarrassment for the United States. DoD's continued ability to dispose of PCB waste overseas is not assured. There is a growing trend among members of the European Union and other countries to ban the importation of PCB waste and other hazardous substances as discussed more fully in response to question 6.

In the future, DoD expects to lose overseas contract disposal options. As additional foreign-manufactured PCB-containing equipment comes out of service, we expect that we will need to transport PCB waste into the customs territory of the United States from all countries listed above except Belgium, Germany and the United Kingdom.

**Question 2 - For each foreign country identified under paragraph (1), an inventory of the type, concentrations, and estimated quantity of foreign-manufactured polychlorinated biphenyl waste involved, the reasons why disposal of the polychlorinated biphenyl waste in the foreign country is not available, the identity of other locations or facilities where disposal of the polychlorinated biphenyl waste in an environmentally sound manner is available, and the availability of alternative technologies and mobile units for polychlorinated biphenyl waste treatment or disposal.**

**Inventory**

Enclosure 3 is an inventory of the type, concentrations, and estimated quantity of foreign-manufactured PCBs for each country identified above. This is an inventory of all known

foreign-manufactured PCB equipment currently in use at US military installations overseas and foreign-manufactured PCB waste awaiting disposal at US military installations overseas. The inventory includes the weight of the equipment without liquid and the weight of the PCB liquid. The inventory projects when the equipment will be removed from service and designated for disposal over the next five years, with any equipment remaining in service beyond 2003 placed in a single group.

The PCB material in the "detect to 49 ppm" category, which accounts for 85 percent of the total inventory by weight, is based on labels and user knowledge. US military installations overseas did not do any additional testing for this inventory. The estimated quantities identified as debris and soil are based on past history.

### **Disposal by Country**

The following provides the current status of in-country disposal options/impediments:

*Germany:* Adequate disposal facilities are available and the Department of Defense (DoD) is currently able to dispose of all foreign-manufactured PCB wastes in country. At this time, there is no need to export PCB waste for disposal.

*Belgium:* Adequate disposal facilities are available and DoD is currently able to dispose of all foreign-manufactured PCB wastes in country.

*Italy:* Incinerators in Italy do not meet DoD disposal standards for PCB waste greater than 50 ppm. Currently, DoD ships PCB wastes greater than 50 ppm to France for disposal. DoD disposes of their PCBs under 50 ppm in Italy.

*Japan:* Japan regulates PCB waste at a very low level (0.5 ppm). Presently no PCB waste disposal facilities are available in-country. All PCB waste must be shipped to a third country for disposal. DoD has recently awarded a disposal contract under which the contractor plans to take the PCB waste to France and Canada for disposal. The contractor has applied for and is awaiting the consent from each country pursuant to the Basel Convention requirements before each shipment.

*Korea:* Korea regulates PCBs at 2 ppm and no PCB waste disposal facilities are available in country presently. However, PCB waste under 50 ppm may be disposed of in-country. DoD must ship PCB waste greater than 50 ppm to a third country for disposal. Although currently we have no contracts in place, under past contracts DoD shipped PCB wastes to the United Kingdom and the Netherlands for proper disposal. DoD negotiates new contracts on an as-needed basis.

*Spain:* Incinerators in Spain do not meet DoD disposal standards for PCB waste greater than 50 ppm. Currently, PCB wastes greater than 50 ppm are shipped to France and the United Kingdom for disposal. DoD disposes their PCB wastes under 50 ppm in-country.

*Turkey:* Currently, DoD ships all PCB wastes greater than 50 ppm to Germany for disposal because Turkish disposal facilities do not meet DoD standards. While a

hazardous waste incinerator is due to begin operation soon in Turkey, DoD does not know if the facility will be permitted for PCB waste disposal. Also, legal impediments currently require DoD to dispose of PCB waste in a third country (see response to Question 6 below).

*United Kingdom:* Adequate disposal facilities are available and DoD is currently able to dispose of all foreign-manufactured PCB wastes in country. At this time, there is no need to export PCB waste for disposal.

### **Alternative Technologies**

Alternative technologies have been developed commercially although many of these focus on remediation of contaminated soil. Some alternative technologies, including two being considered for Japanese PCB waste, are available in pilot capacities and are being scaled up, but are not yet available on a commercial scale. Others are unproven as to efficacy or are not economically feasible at this time. DoD contracts for disposal of PCB waste require a specific level of destruction, not a particular technology. These disposal contracts allow for the use of alternative technologies that meet the destruction requirements and have been approved for use in the host country.

### **Question 3 - An accounting of all foreign-manufactured polychlorinated biphenyl waste that exists as of the date of the enactment of this Act and as of the date of the report.**

Enclosure 4 shows two inventories of the type, concentrations, and estimated quantity of foreign-manufactured PCB waste that DoD had awaiting disposal – one as of October 1998 and another at the end of January 1999.

### **Question 4 - An estimate of the volume of foreign-manufactured polychlorinated biphenyl waste that is likely to be generated annually in each of the next five calendar years, and the basis for each such estimate.**

Enclosure 3 is an inventory of the type, concentrations, and estimated quantity of foreign-manufactured PCBs for each country. This is an inventory of all known foreign-manufactured PCB equipment currently in use overseas or foreign-manufactured PCB waste awaiting disposal at US military installations overseas. The inventory includes the weight of the equipment without liquid and the weight of the PCB liquid. The inventory projects when the equipment will be removed from service and designated for disposal over the next five years, with any equipment remaining in service beyond 2003 placed in a single group.

The PCB material in the "detect to 49 ppm" category, which accounts for 85 percent of the total inventory by weight, is based on labels and user knowledge. US military

installations overseas did not do any additional testing for this inventory. They estimated quantities identified for debris and soil based on past history.

**Question 5 - A description of any hazards to human health or the environment posed by foreign-manufactured polychlorinated biphenyl waste.**

The human health risks from direct and long-range exposure to foreign-manufactured PCBs are the same as the health risks from domestically manufactured PCBs.

Commercial PCBs have been marketed primarily under the following trade names: Aroclor (US), Clophen (Germany), Fenclor (Italy), Kanechlor (Japan) and Phenoclor (France). Companies produced PCBs commercially in the US from 1929 to 1977, with approximately 99 percent of the PCBs produced by Monsanto Chemical Company. In 1973 and 1974, the US imported PCBs primarily from Italy (Fenclor) and France (Phenoclor). Companies stopped manufacturing PCBs in the United States in 1977 because of evidence that the compounds build up in the environment and may cause harmful effects (Agency for Toxic Substances and Disease Registry (ATSDR) 1995)). In 1979, pursuant to the Toxic Substances Control Act (TSCA), the United States banned PCB manufacturing (including import), use, processing, and distribution in commerce, unless authorized by the Environmental Protection Agency (EPA).

Although companies no longer manufacture PCBs in the United States or in foreign markets (with the possible exception of the Russian Federation), exposure to PCBs may still occur. PCBs may be present in old transformers, capacitors, fluorescent lighting fixtures, and other electrical devices and appliances that were made before PCB use was discontinued.

PCBs are a family of man-made chemicals that contain 209 individual compounds (congeners) with varying levels of toxicity. Although the commercial formulations vary between countries, the PCBs that have been tested appear to have similar targets for toxicity. The percent of chlorine in the compound is the primary difference between congeners. Because of their insulating and nonflammable properties, PCBs have been widely used as coolants and lubricants in transformers, capacitors, and other electrical equipment. In the United States and overseas, companies have used and manufactured PCBs. There are no known natural sources of PCBs in the environment.

**Storage Risks**

Delays in the disposal of foreign-manufactured PCBs, increase the risk of exposure:

- to military personnel working in and around the storage area,
- to those people living on or around the installation where the PCBs are stored, and
- to the environment.

Risks and costs from long-term storage of any PCB waste increase with time, because storage containers deteriorate, increasing the likelihood that personnel, who must monitor

such items and repack them if they suspect leakage, are exposed to the PCBs. Each time an item is handled, another opportunity for exposure is created. Moreover, avoiding the increase in risk caused by long-term storage of foreign-manufactured PCB waste is consistent with the purpose of the Environmental Protection Agency's PCB domestic U.S. regulations to reduce environmental and human health risks by requiring disposal of PCB waste in a timely fashion.

Overseas, the situation is often exacerbated because installations are typically smaller, storage space is at a premium, and the surrounding civilian communities are located in very close proximity. Serious adverse mission impacts can occur when stored PCB waste takes up valuable storage space that would otherwise be available for mission requirements.

### **Risks to Human Health and the Environment**

As noted above, foreign-manufactured PCBs do not differ chemically from domestically manufactured PCBs, and they present the same risks to human health and the environment. The following information on PCBs is compiled from available literature and relies heavily on material publicly available from the Agency for Toxic Substance Disease Registry (ATSDR, 1995).

In the environment, persistence is determined by the degree of chlorination. Higher chlorobiphenyls (i.e., those with five or more chlorine atoms) are more persistent in the environment than those with three or fewer chlorines. PCBs have significant environmental toxicity to invertebrates, fish, birds and mammals. PCB toxicity is further enhanced by their ability to bioaccumulate and biomagnify in the food chain. PCBs do not appear to significantly impact plants (Eisler, 1986).

EPA classifies PCBs as probable human carcinogens, based on the occurrence of liver tumors in animals exposed to PCBs in the diet. Inconclusive evidence of PCB-related cancer has been reported in occupational studies (ATSDR, 1995).

Potential reproductive and developmental effects in humans have been associated with occupational exposure to PCBs and ingestion of PCBs in contaminated fish. Studies indicate that PCBs may concentrate in human breast milk and may be transferred from mother to child during breastfeeding. In addition, PCBs have been found to pass through the placental barrier from the mother's bloodstream to the fetus. Effects on birth weight, gestational age and/or impaired neurological development have been reported in infants of mothers exposed to PCBs in contaminated fish (ATSDR, 1995).

Inhalation and dermal contact with PCBs may also occur. Irritations, such as acne, rashes, and burning eyes have been reported in PCB-exposed workers (ATSDR, 1995). In animal studies, ingestion of PCBs resulted in effects on the liver (enzyme induction, necrosis), stomach (gastritis), thyroid gland (decreased hormone levels), blood (anemia), skin (acne, irritation), reproduction (decreased fertility) and development (neurobehavioral effects) (ATSDR, 1995).

**Question 6 - A description of any international or domestic legal impediments that the Department has experienced in disposing of foreign-manufactured polychlorinated biphenyl waste in an environmentally sound manner.**

**Domestic**

The principal legal impediment to the environmentally sound disposal of the Department of Defense's (DoD's) foreign-manufactured PCB waste within the United States is the prohibition on importing PCBs in section 6(e) of the Toxic Substances Control Act (TSCA), 15 USC section 2605(e). Section 6(e) prohibits the manufacture of any PCBs, absent an exception granted by rule upon certain findings by the EPA Administrator, and TSCA defines the term "manufacture" to include the import of PCBs. In 1997, in Sierra Club v. EPA, 118 F3d 1324 (9th Cir. 1997), the United States Court of Appeals for the Ninth Circuit held that the prohibition on importing PCBs extended to imports for any purpose, including disposal. The court further held that an Import for Disposal Rule (40 CFR section 761.93), promulgated by EPA in 1996, was invalid. The rule had established conditions under which entities could import PCBs for disposal after notice to EPA. The court, however, concluded that EPA could not construe TSCA to allow PCB imports for disposal under this type of general rule but, instead, was required to undertake rulemakings in response to individual petitions. For a brief period before the Sierra Club decision, DoD was able to import foreign-manufactured PCB wastes for disposal in an environmentally sound manner at appropriate facilities in the United States pursuant to the Import for Disposal Rule. However, in the period since the Sierra Club decision, DoD has been unable to ship foreign-manufactured waste under its control to the United States for disposal and has had to seek appropriate disposal facilities overseas.

Section 342 of the FY 91 DoD Authorization Act required DoD to develop a policy for determining the applicable environmental requirements for military installations located outside of the United States. When developing this policy, DoD was required to give consideration to adequate protection to the safety and health of military and civilian personnel assigned to such installations. In response to this directive, DoD developed baseline and country-specific disposal standards for hazardous and toxic waste generated at overseas installations. These standards, which covered PCB waste, are found in what is called the DoD Overseas Environmental Baseline Guidance Document (OEBGD). Because PCB disposal facilities adequate to meet DoD standards under the OEBGD do not exist in all countries, DoD is often required to dispose of PCB wastes in countries other than the country in which the waste is located.

**International**

Shrinking access to adequate disposal facilities overseas is the second impediment to the environmentally sound disposal of foreign-manufactured PCB wastes. Most of the facilities that can dispose of PCBs in accordance with DoD standards are located in Europe or North America. Over the past several years, the European Union (EU) member States have been revising their waste policies to restrict transboundary movements of hazardous waste. Currently, EU law prohibits imports into the EU of waste for disposal except from parties to the Basel Convention. However, Basel parties wishing to export waste into the EU for final disposal must obtain prior approval from the importing



country and must affirmatively show that they do not have and cannot acquire facilities to dispose of the waste in an environmentally sound manner domestically. It is not easy to obtain the cooperation of both the importing and exporting countries and the approval process is very time consuming.

The EU member States are also being required to develop waste management plans imposing a quota system to control transboundary movements of waste and to foster self-sufficiency in waste disposal. Pursuant to this requirement, the EU States have been preparing plans that significantly restrict waste imports, both from other member States and from outside of the EU. A significant part of the PCB waste that DoD has disposed of overseas since 1997 has gone to a acceptable facility in the United Kingdom (UK). Recently, however, UK officials have informed DoD that pursuant to the UK's new waste management plan, the UK will soon forbid waste imports from other EU countries and will severely limit waste imports from other countries. Other EU countries are expected to take similar measures, which will seriously restrict DoD's ability to find environmentally sound disposal facilities overseas capable of accepting DoD's PCB wastes. The UK also recently turned down a request from a DoD contractor to allow PCB wastes to transit the UK on their way to Germany for disposal.

In some cases, the domestic laws of another country interfere with DoD's ability to dispose of waste in an environmentally sound manner. Turkey, for example, is building a hazardous waste processing facility that might meet DoD standards. However, Turkey considers waste leaving Incirlik Air Base to be "imported" into Turkey. Because Turkey's domestic laws do not permit this import of hazardous waste, DoD will not be able to use the new facility and will have to continue to seek out-of-country disposal sites. Although Turkey is not an EU member, its trade and customs rules have been harmonized with the EU, and it is likely to be difficult to continue shipping waste from Turkey to the UK or elsewhere in the EU.

Another potential problem that does not yet constitute a legal impediment, but could become one, involves DoD's current shipments of foreign-manufactured PCB waste to Canada. The Canadian government has advised DoD that taking DoD PCB waste that the United States itself will not accept is becoming a political problem, and they hope that an alternate solution soon becomes available.

Finally, the fact that the United States is not a party to the Basel Convention is an additional complicating factor. The Basel Convention, governing transboundary movements of hazardous waste, has been ratified by 122 parties, making it one of the most widely adopted international agreements. The Convention prohibits waste shipments between parties and non-parties absent a bilateral or multilateral agreement. While most of the countries where DoD installations are located are Basel parties, the importing countries vary on whether they view the PCB wastes as wastes of the exporting country or as U.S. government wastes. A number of countries believe that the United States has not ratified the Basel Convention because it wants to be able to "dump" its wastes in other countries. The fact DoD seeks to dispose of the PCB waste abroad that it cannot import to the United States for disposal serves to perpetuate this misperception. It is likely to be a factor affecting the willingness of other countries to accept US government-owned waste.

**Question 7 - A description of any efforts undertaken by the Department to seek relief from legal impediments to the disposal of foreign-manufactured polychlorinated biphenyl waste, including the relief available pursuant to section 6(e) or 22 of the Toxic Substances Control Act (15 U.S.C. 2605(e), 2621).**

From December 1990 to June 1994, the Department of Defense (DoD) imported 300,000 pounds of foreign-manufactured PCB waste from Japan pursuant to a compliance agreement negotiated with the Environmental Protection Agency (EPA). Just prior to the agreement's end, DoD determined that additional foreign-manufactured PCB waste located in Japan, Korea and other countries required disposal. To accomplish this additional disposal, DoD and EPA discussed the execution of a revised compliance agreement. DoD submitted a draft agreement for EPA's consideration in 1994. Because action on such requests is extremely time and labor intensive and EPA was very close to proposing an import for disposal rule, which would provide the relief sought by DoD, a joint decision was made not to pursue a revised compliance agreement. The Import for Disposal Rule was subsequently finalized in 1996, but then was invalidated by the *Sierra Club* decision in 1997.

In response to a March 4, 1996 notice in the Federal Register (61 FR 8323), DoD notified the Department of State that it may need bilateral agreements or arrangements under Article 11 of the Basel Convention to permit the transboundary movement of PCB waste and other wastes from foreign countries to the United States. From March 1996 until July 1997, DoD imported 43,343 pounds of foreign-manufactured PCB waste from Japan to the United States for disposal and treatment pursuant to EPA's "Import for Disposal" rule. When this option was eliminated by the *Sierra Club* decision, DoD again solicited EPA's support for a compliance agreement similar to that previously negotiated. In addition, the Administration submitted on behalf of DoD proposed legislation for the 105<sup>th</sup> Congress that would have allowed limited importation of foreign-manufactured PCB waste for disposal or treatment, but it was not enacted.

DoD has also discussed with EPA the possibility of obtaining an exemption to the import ban under section 6(e) of the Toxic Substances Control Act (TSCA) (16 USC section 2605(e)). EPA has informed DoD that the section 6(e) exemption could take in excess of three years to complete for each one-year exemption. DoD believes that section 6(e) of TSCA is generally not appropriate as a means of satisfying DoD's recurring disposal requirements for foreign-manufactured PCB waste. Thus, DoD has not submitted a section 6(e) petition to EPA.

**TSCA Section 6(e) Exemption**

EPA's response to the DoD inquiry was consistent with past practices. EPA has never relied on the import waiver available under TSCA section 6(e)(3)(B) to allow the importation of large quantities of PCB waste for disposal. EPA has granted only a few import petitions, all of which involved very small amounts of PCBs or PCB-containing material. For example, EPA allowed Unison Transformer Services to import up to 250 samples of 5 ml or less per year for purposes of research and development work (55

Federal Register 21023, 21029 (May 22, 1990)). It also allowed Dow Corning to import approximately 7 liters of PCBs in 5 ml vials per year for testing transformers (49 Federal Register 28154, 28166 (July 10, 1984)) and American Hoechst to import up to 2.5 pounds of inadvertently generated PCBs in pigment (50 Federal Register 35182, 35185 (August 29, 1985)). EPA also allows on a class basis the import of up to 500 grams of pure PCBs per year, packaged in 5 ml vials, primarily for use as analytical reference standards for lab equipment (63 Federal Register 35419, 35460 (June 29, 1998)). EPA has, however, denied or proposed to deny many other requests for import exceptions, including some for large quantities of PCBs and others for small amounts. For example, EPA proposed to deny:

- S.D. Myers' request to import almost 100 million pounds per year of PCB and PCB-containing equipment from Canada for disposal at Myers' facility and other US facilities (59 Federal Register 62875, 62877 (December 6, 1994));
- Gene Rideout Dangerous Goods Consultants' request to import 260 kg. of soil for laboratory analysis (*id.* at 62879); Jaco Analytical Lab's request to import a total of 6 gallons of PCB liquids for laboratory analysis (*id.* at 62879); and
- ERTHCO Environmental Service's request to import up to 3 liters of PCB-contaminated liquids for laboratory analysis (*id.* at 62880).

EPA has denied:

- Alcoa's request to import undetermined quantities of drained heat transfer and hydraulic equipment (50 Federal Register 35182, 35186 (August 29, 1985));
- Honeywell's request to import approximately 1000 small capacitors per year in computer equipment that needed repair (49 Federal Register 28154, 28165 (July 10, 1984)); and
- National Chemical Laboratory petition to import 5 ounces or less of PCB per year of oil and soil samples for analysis (59 Federal Register 16991 (April 11, 1994)).

### **TSCA Section 22 National Defense Waiver**

DoD has not yet considered the use of the national defense waiver in Section 22 of TSCA to waive the prohibition on importation for disposal, because we view the waiver as being applicable only in extreme situations directly impacting national security. It is possible that circumstances could arise that could make use of the waiver necessary to allow import of PCB waste, particularly if rumored import bans in countries we now rely on for contract disposal prove true. Nonetheless, given the time period dictated by the life expectancy of some PCB-containing equipment and the health risks from long-term storage, we believe this issue is more appropriately dealt with through narrowly tailored legislation than a presidential national security waiver.

**Question 8 - The identity of the possible disposal or treatment facilities in the United States that would be used if foreign-manufactured polychlorinated biphenyl waste were transported into the customs territory of the United States, and the method of disposal or treatment at each such facility.**

If it became necessary and legally possible to dispose of or treat foreign-manufactured PCB waste in the United States, DoD would solicit contracts from those firms providing such services at that time. DoD has considerable experience and expertise in awarding disposal contracts for PCB waste in the United States. DoD enters into any contracts for disposal or treatment on a non-discriminatory basis in accordance with all applicable federal procurement statutes and the Federal Acquisition Regulations (FAR). However, only those companies that are properly permitted by the Environmental Protection Agency and any applicable state or local regulatory entities would be eligible for award of such contracts. DoD cannot say at this time what disposal/treatment companies would be willing to bid on our contracts. Because there is no reason to believe that foreign-manufactured PCB waste require different disposal or treatment methods than domestically-manufactured PCB waste, DoD would not limit or restrict in our contract solicitations these types of EPA-approved technologies.

**Question 9 - A description of Department policy and practice concerning procurement or purchase of foreign-manufactured polychlorinated biphenyls or materials containing foreign-manufactured polychlorinated biphenyls.**

**Department of Defense Policy**

Pursuant to section 342(b) of the National Defense Authorization Act Fiscal Year 1991, the Department of Defense (DoD) has established applicable environmental requirements for military installations located outside the United States. The Overseas Environmental Baseline Guidance Document (OEBGD) provides minimum standards that overseas installations must meet. The OEBGD is designed to protect human health and the environment by incorporating requirements of U.S. law that have extraterritorial application and by adopting generally accepted environmental standards applicable to DoD installations, facilities, and actions in the United States. For any country with a significant DoD presence, the process is further refined by the preparation of Final Governing Standards (FGS) for that country. An FGS is prepared by adopting the most protective of the standards found in the OEBGD, host-nation law, including transnational enforceable standards, and applicable international agreements. The OEBGD is reviewed regularly. A major revision was begun in 1997, which should be published shortly.

This revision to the OEBGD includes the following policy with regard to the purchase of polychlorinated biphenyls (PCBs) by overseas installations or units:

C.14.3.6. Elimination of PCB Products

C.14.3.6.1. Installations shall minimize the use of PCBs and PCB items without degrading mission performance.

C.14.3.6.2. Installations shall not purchase or otherwise take control of PCBs or PCB items for use.

C.14.3.6.3. All procurement of transformers or any other equipment containing dielectric or hydraulic fluid shall be accompanied by a manufacturer's certification that the equipment contains no detectable PCBs (less than 2 ppm) at the time of shipment.

C.14.3.6.3.1. Such newly procured transformers and equipment shall have permanent labels affixed stating they are PCB-free (no detectable PCBs).

The PCB chapter in the OEBGD also addresses:

*Purchase* -- Installations are required to minimize the use of PCBs and PCB items without degrading mission performance. Installations cannot purchase or otherwise take control of PCBs or PCB items for use.

*Inventory* -- Each installation having PCBs is required to maintain a written inventory that includes a current list by type of all PCB items in use and PCB wastes placed into storage for disposal or disposed of for that year. Each installation is required to maintain inventory records for a period of time at least 3 years after the last item on the list is disposed of.

*Storage* -- Installations should store PCB waste in a facility that will assure the containment of PCBs. These facilities should include roofs and walls that exclude rainfall; a containment berm; openings constructed to prevent any release from the bermed area; and continuous, smooth, and impervious flooring material.

*Disposal* -- Installations are required to dispose of PCB wastes in accordance with the destruction standards established by EPA. As the disposal agent for DoD, the Defense Logistics Agency (DLA) writes the disposal contracts for the disposal of foreign-manufactured PCBs. DLA's contracts require a specific level of destruction, not a particular technology. These disposal contracts allow for the use of alternative technologies that meet the destruction requirements and that the host country has approved for use.

The OEBGD reflects existing Navy and Marine Corps policy. As early as 1983, the Chief of Naval Operations directed overseas units to minimize their use of PCBs and PCB items in foreign countries "insofar as possible, provided that mission performance is not degraded." In 1994, this policy was strengthened to prohibit the purchase or acceptance of any PCBs or PCB items overseas without the express permission of the Deputy Chief of Naval Operations (Logistics). Air Force policy has been to eliminate transformers and large capacitors containing PCBs in concentrations greater than 50 ppm by the end of 1998 (a goal it has been about 96% successful in meeting). The Army continues to maintain a watch on its PCB inventory in foreign countries, eliminating these items at the end of their useful life.

### **International Policies**

DoD's policy against PCB purchases is bolstered by the fact that most of the countries in which DoD installations are located have phased out the manufacture and sale of PCBs. Other countries allow existing uses in closed systems, such as transformers and capacitors, to continue under specified conditions, as in the United States. For example, the European Union 1996 PCB Disposal Directive (96/59/EC) requires the phase-out of

all PCBs by 2010, or 1999 for North Sea states. The European Union (EU) derived this requirement from the Third International Conference on the Protection of the North Sea in 1990. The EU directive and the North Sea agreement, however, allow for sealed transformers and ancillary equipment to continue in use until the end of their useful lives. Much of this equipment has an economic life span of over 50 years.

PCBs are also being phased out under other regimes, making it less likely that DoD will inadvertently acquire additional PCBs overseas. In 1987, the Organization for Economic Cooperation and Development (OECD) issued the Decision-Recommendation of the Council concerning further measures for the Protection of the Environment by Control of Polychlorinated Biphenyls, February 13, 1987, C(87)2(Final). This Decision-Recommendation directed OECD member countries to ensure that the manufacture and sale of PCBs and products, articles or equipment containing PCBs cease by January 1, 1989. The OECD is now comprised of the following 29 countries: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Republic of Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. As with other prohibitions on the sale of PCBs, however, the OECD Decision authorized existing uses of PCBs to continue with appropriate controls. The Decision also recommended that countries accelerate phase-out of existing PCB uses and take a number of actions to ensure proper disposal of PCBs (at concentrations of 100 ppm or greater).

In addition, in June 1998, members of the United Nations Economic Commission for Europe (UN-ECE) completed negotiations on a legally binding protocol on persistent organic pollutants (POPs) under the Convention on Long-Range Transboundary Air Pollution (LRTAP). The UN-ECE region covers the Russian Federation, the Newly Independent States, Central and Eastern Europe, Western Europe, Canada, and the United States. The protocol, which was signed in June 1998, will enter into force once sixteen LRTAP parties have ratified it. The protocol will ban production of PCBs when the protocol enters into force, except for countries with economies in transition (Russia, Ukraine, Poland, Czech Republic, Slovakia, Hungary, Croatia, and Slovenia). These countries will have until the end of 2005 to cease production. The protocol requires countries to make determined efforts to phase out existing PCB uses in electrical equipment at PCB concentrations of 500 ppm or greater by 2010 (or 2015 for countries with economies in transition) and to dispose of or decontaminate that equipment in an environmentally sound manner. Also, destruction or decontamination of liquids at PCB concentrations 50 ppm or greater should occur as soon as possible, but no later than 2015 (or 2020 for countries with economies in transition). Once countries are parties to the protocol, DoD's final governing standards will be revised accordingly, and any remaining equipment, even if still functional, may require disposal. Additionally, legal restrictions covering the production and use of PCBs will be included in a global convention on persistent organic pollutants now being negotiated under the auspices of the UN Environmental Program.

Notwithstanding the fact that DoD policy is to prohibit the purchase or acceptance of PCBs or material containing PCBs and the sale of PCBs is prohibited in many countries,

DoD overseas installations, on occasion, unintentionally acquire equipment that contains some PCBs. This happens infrequently and results from the lack of worldwide standards for what is considered "non-PCB" equipment or a uniform methodology for determining PCB concentrations. Moreover, under some Status of Forces Agreements, DoD uses facilities provided by the host-nation, and such facilities occasionally contain electrical equipment containing some level of PCBs, even when marked "non-PCB."

## RECOMMENDATIONS

**Subsection (C) of Section 324 requires that the report include recommendations "...necessary regarding changes to United States law to allow for the disposal, in an environmentally sound manner, of foreign-manufactured polychlorinated biphenyl waste..."**

The Department of Defense recommends that:

1. Congress enact a narrow statutory waiver to allow the importation of foreign-manufactured PCB waste used by and under the control of the Department of Defense for the purpose of disposal in the United States. This will enable the Department of Defense to dispose of such PCB waste in the United States when such disposal is in the best interest of the United States to do so. Shipping it to the United States will ensure its proper disposal and avoid exposing the United States to criticism for not accepting its own PCB waste while disposing of it in other countries using similar disposal technologies. The problem of disposal of foreign-manufactured PCB waste may extend to other US government agencies. The Department of Defense did not attempt to address other agencies in this report.
2. At a minimum, Congress enact legislation allowing the importation for disposal of foreign-manufactured PCB waste used by and under the control of the US Government that contains under 50 ppm PCBs, when such PCB waste cannot be disposed of in the country in which it is generated.
3. Congress enact legislation implementing the Basel Convention, which would permit the United States to become a party to the Convention. This will remove some of the impediments to transboundary movements of foreign-manufactured PCB waste for disposal outside the United States.

Department of State and the Environmental Protection Agency concur with the release of the Report. The concurrence of State and EPA, and the comments on the recommendations are attached as [Enclosures 1](#) and [2](#).

The above recommendations would be consistent with international law, including the Basel Convention on the Transboundary Movements of Hazardous Wastes and Their Disposal and the Protocol to the Convention on Long-Range Transboundary Air Pollution on Persistent Organic Pollutants. A principal goal of the Basel Convention is that transboundary movements of hazardous waste be minimized to the extent consistent with the environmentally sound management of the waste. However, transboundary

movements of waste are permitted under the Convention, provided the Convention's notice and consent provisions are complied with, and the exporting country has no reason to believe that the wastes will not be handled in an environmentally sound manner by the importing country. The Convention strongly urges each party to take responsibility for treating or disposing of its own hazardous wastes, and discourages parties from engaging in transshipments of hazardous waste with non-parties.

When adequate disposal facilities for foreign-manufactured PCBs are not available in-country, DoD must move the wastes across national boundaries if they are to be disposed of in an environmentally sound manner. Allowing the importation of PCB wastes generated by the United States government through the operations of the Department of Defense to the United States for purposes of disposal would ensure that at least one environmentally sound disposal option exists for all PCB waste in DoD's control. Adopting implementing legislation to allow the U.S. to ratify the Basel Convention would also make it easier for DoD and its contractors to undertake transboundary movements of PCB wastes in accordance with the Convention's provisions.

The Protocol on Persistent Organic Pollutants to the U.N. Economic Commission for Europe's Convention on Long-Range Transboundary Air Pollution, which is expected to enter into force in 2 to 5 years, contains provisions phasing out production and providing for the safe disposal of certain persistent organic pollutants. With regard to disposal, the basic obligation of parties to the Protocol is to ensure that listed substances, including PCBs, are disposed of in an environmentally sound manner. The Protocol states a preference for domestic disposal when environmental considerations permit. When transboundary movements of waste do occur, they should be conducted in an environmentally sound manner, and in accordance with other applicable agreements, such as the Basel Convention. The above recommendations would further the goals of the Protocol by allowing DoD to dispose of PCB wastes safely by allowing access to disposal facilities in the United States when appropriate facilities in-country are not available.

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