



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

AUG 2 1999

OFFICE OF  
WATER

Elsie L. Munsell  
Deputy Assistant Secretary of the Navy  
(Environment and Safety)  
Department of the Navy  
Office of the Assistant Secretary  
1000 Navy Pentagon  
Washington, DC 20350-1000

Dear Ms. Munsell:

As you know, the Department of the Navy (Navy) and the United States Environmental Protection Agency (EPA) have been in discussions regarding the regulation of the SINKEX program, under which Navy vessels are used for target practice in ocean waters. The Navy currently holds a General Permit from EPA under the Marine Protection, Research, and Sanctuaries Act (MPRSA) for the SINKEX program (see 40 CFR 229.2, Transport of Target Vessels).

Polychlorinated biphenyls (PCBs) were raised as an issue in the late 1980s, when they were found to be present in certain solid materials on SINKEX vessels. Materials containing PCBs include insulation, wires, felts, and rubber gaskets. Therefore, vessels used for SINKEX in the last several years have had most of the solid PCBs removed, leaving estimates of as much as 100 pounds of PCBs on board when sinking took place.

The Navy began a monitoring study on a sunken Navy vessel in 1996 to determine if the PCBs on Navy SINKEX vessels presented an unacceptable risk to the environment or human health. This study is intended to verify the conclusions of an ecological analysis that was conducted by the Navy in March 1994. Although the sunken vessel study is not yet complete, sufficient data have been developed and transferred to EPA to indicate that there is little likelihood that the PCBs (even when estimated to be as much as 100 pounds) on future Navy SINKEX vessels would present an unacceptable risk to the environment or human health. Nothing we have reviewed to date from the sunken vessel study indicates that the environmental requirements of the MPRSA are not being met.

This letter is intended to clarify and specify, with regard to PCBs, the manner in which the Navy is to proceed with SINKEX activities under the existing EPA General Permit (40 CFR 229.2). We believe that SINKEX operations should continue under the MPRSA General Permit and the requirements therein, including the PCB-related requirements described below.

### Information to be Provided to EPA by the Navy

Under MPRSA section 104(d), EPA is to periodically review and, if appropriate, revise permits issued under the MPRSA. This section of the statute authorizes EPA to alter or revoke partially or entirely the terms of permits where it finds, based on monitoring data from the dump site and surrounding area, that such materials cannot be dumped consistently with the criteria and other factors required to be applied in evaluating a permit application. Further, MPRSA section 104(e) authorizes EPA to require permit applicants to provide such information as it considers necessary to review and evaluate permit applications.

EPA is requiring the Navy to conduct the studies listed below and produce the following information under the authority of these provisions.

- 1 The Navy is required to conduct the following studies of PCBs on SINKEX vessels:

The Navy must complete the sunken vessel monitoring study on the ex-U.S.S. Agerholm, including completion of the assessment of the samples collected during the September 1998 survey and additional sample collection and analysis as noted below.

- a. Analysis of sediments collected on the September 1998 sample collection survey. Analyses include: sediment PCB levels by congener analysis and Aroclor<sub>TM</sub> PCBs; sediment age-dating data, laboratory PCB toxicity testing (Acute S-phase and Chronic S-phase Rhepoxynius sp. and Neanthes sp. and combined 28-day bioaccumulation studies on Macoma sp. and Nephtys sp.) using the sediment samples collected and composited from the September 1998 samples, and sediment deposition measurements. Any current measurements collected near to the sea floor from the S4 current meter(s) shall also be reported.
- b. Analysis of existing cores from sample numbers 1-6 and 1-7 for 26 PCB congeners in the top ten centimeters (nearest the surface of the ocean floor) in one centimeter increments.
- c. Collection of additional fish from around the vessel and reference stations and analysis for PCBs in tissue in accordance with a plan approved by EPA Office of Water (EPA/OW).

- d. **Collection and analysis of additional sediment from at least 4 reference stations for chemical analysis, toxicity, and bioaccumulation potential using the procedures used on the September 1998 samples in accordance with a plan approved by EPA/OW.**

The Navy shall conduct a PCB Leachability Laboratory Study as described below:

- a. **Conduct a laboratory study to determine the leach rate of PCBs into sea water at the temperature and pressure present on a sunken vessel. If the actual or approximate conditions cannot be simulated, then EPA/OW-approved reasonable worst case conditions may be substituted. Materials to be tested are electrical cable insulation, air handling system gasket felt, paint, insulation, rubber gaskets and other rubber products. Tests must address each of these materials at two PCB concentrations: the highest concentration available for that material and the average concentration in the material as determined by the Navy historical data collection archives.**
- b. **Implementation of the leach rate study according to the technical/experimental approach agreed upon by EPA and the Navy at a meeting on June 17, 1999 (Enclosure A).**

2. **The Navy shall provide a report that presents an assessment of the potential human health and ecological risks associated with PCBs on SINKEX vessels. A draft of the report shall be provided to EPA/OW by early 2001 based on all data available at that time; the Navy must submit the final report to EPA/OW by the end of 2001. The report shall include the following:**

**Update the 1994 ecological evaluation that the Navy conducted of the potential effects of PCBs on SINKEX vessels;**

- **The results from studies of the ex-U.S.S. Agerholm; and**
- **The results of the PCB leachability laboratory study.**

## Requirements Relating to PCBs Under the General Permit

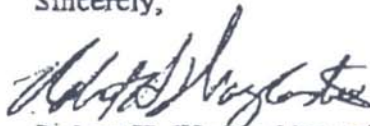
The Transport of Target Vessels General Permit requires that appropriate measures be taken to remove to the maximum extent practicable all materials which may degrade the marine environment (40 CFR 229.2(a)(4)). EPA believes that the requirements related to PCBs listed below are practicable and appropriate measures to remove materials which may degrade the marine environment. Therefore, they are required by the general permit.

- 1) Before engaging in a SINKEX, the Navy must conduct an inventory of each SINKEX vessel to ascertain the presence of PCBs. This inventory and list of items removed prior to sinking must be provided to EPA in the annual report (see item 4 below). Before sinking a SINKEX vessel, qualified personnel at a Navy or other approved facility shall:
  - a. Remove all transformers containing 3 pounds or more of dielectric fluid and all capacitors containing 3 pounds or more of dielectric fluid.
  - b. Use all reasonable efforts to remove any capacitors and transformers containing less than 3 pounds of dielectric fluid from the vessel. Reasonable efforts include, but are not necessarily limited to, the removal of capacitors from electrical and control panels by using hand tools such as wire or bolt cutters or a screw driver.
  - c. Drain and flush hydraulic equipment, heat transfer equipment, high/low pressure systems, cutting power machinery which uses cooling or cutting oil, and containers containing liquid PCBs at  $\geq 50$  ppm.
- 2) EPA believes it is often practicable to remove non-liquid PCBs, including: air handling system gaskets; rubber; plastic; dried applied paint that is flaked-off; electrical cable insulation; and other non-liquid coatings and material, before sinking the vessel. To the extent that their removal is practicable, these non-liquid PCBs are required to be removed under the MPRSA permit. However, when such objects cannot be practicably removed or their removal threatens the structural integrity of the vessels so as to impede the SINKEX, the Navy may leave such items in place (e.g., felt materials that are bonded in bolted flanges or mounted under heavy equipment, certain paints and adhesives). Objects may be considered not capable of practicable removal if equipment must be disassembled or removed for access to the objects, if the objects must be removed by heat, chemical stripping, scraping, abrasive blasting or similar process, or if removal would endanger human safety or health even when conducted with protective equipment and reasonable safety measures:
- 3) Navy shall dispose of all removed PCBs or items containing PCBs in accordance with the Toxic Substances Control Act PCB regulations.
- 4) Navy shall report annually to EPA the efforts taken to clean each vessel prior to SINKEX

and an estimate of the weight of PCBs present on board at the time of sinking; the locations of all SINKEX vessels sunk that year, presented as the vessels' location on the bottom within 500 yards; and the water depth at which the vessel rests. This information shall be included in the annual report to EPA that is required by the general permit at section 229.2(b). This annual report shall be due to EPA by February 1 each year, covering the previous calendar year.

We are pleased to be working with the Navy on this important project and look forward to the completion of the sunken vessel study. Please feel free to contact David Redford, Acting Chief of the Marine Pollution Control Branch (202-260-9179), if you or your staff have any questions regarding the above requirements.

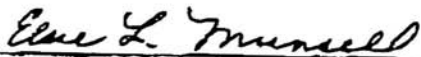
Sincerely,



Robert H. Wayland III, Director  
Office of Wetlands, Oceans, and Watersheds

Enclosure

The terms and conditions specified herein have been accepted by:



Elsie L. Munsell  
Deputy Assistant Secretary of the Navy  
Environment and Safety

Date: 8/2/99