

OFFICE OF ENVIRONMENTAL PROGRAMS  
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

201 WEST PRESTON STREET • BALTIMORE, MARYLAND 21201 • AREA CODE 301 • 225- 5731

TTY FOR DEAF: Balto. Area 383-7555  
D.C. Metro 565-0451

Adele Wilzack, R.N., M.S., Secretary

William M. Eichbaum, Assistant Secretary

August 14, 1986

Captain James D. Tadlock  
Commanding Officer  
Department of the Navy  
Naval Ordnance Station  
Indian Head, Maryland 20640

Dear Captain Tadlock:

The Office of Environmental Programs and the Department of Natural Resources have completed review of the Confirmation Study submitted by you, to this office on November 25, 1985. The consensus review indicated that mercury and silver contamination is significant in areas of the tidal wetlands of the Naval Ordnance Station, Indian Head, Maryland. However, it was difficult to determine if the contamination is significant enough to offset damage to the wetlands that would be caused by the removal of contaminated sediments. It is our opinion that studies to determine the impact of continuing releases of metals from these sediments should be conducted for a period of five years. In addition, the Confirmation Study indicated that mercury contamination in soils near Building 766 poses a threat to human health and should be remediated. It is our intention to require the Navy to remediate the site and provide 5 years of environmental monitoring. The Waste Management Administration (WMA) would prefer to achieve that goal by a Consent Order. In the order, NOS would consent to perform the studies and remediation and the Waste Management Administration would agree not to take further enforcement actions while the order is in effect. If you are agreeable to this approach, it will be necessary for NOS to submit a plan within 180 days to address the following:

1. Mercury remediation

A plan shall be developed to remove or fix in place, mercury in soils and sediments in the stream bed near Building 766 that represents an endangerment to human health. The plan shall include measures to mitigate downstream effects of the remediation.

2. Aquatic Assessment

a) Water Column Studies.

A plan shall be developed to monitor the water column quarterly at Confirmation Study Stations 5, 6, 13 and 14 for the following constituents: As, Cd, Pb, Hg, Ag, and Zn. The monitoring will be repeated for 20 consecutive quarters.

b) Mercury and Other Metal Uptake Studies.

A plan shall be developed to assess the uptake of mercury and the other metals listed in 2a. by sport and commercial aquatic species indigenous to Mattawoman Creek. The study will report on metal accumulation in the edible portions of at least two indigenous finfish species and blue crabs (*Callinectes sapidus*). Species shall be selected based on abundance in the creek, feeding habits, size, and predilection to bioaccumulate methyl mercury. The species for this study will be collected during the spring and fall during the first year of the study at two locations in the Mattawoman and one control station. The edible portions, and for crabs, the hepatopancreas along with the meat, will be analyzed using FDA analytical techniques for accumulation of metals in tissue. Subsequent monitoring will be annual for each test species at that time of the year determined to leave the highest mercury accumulation potential from the first year's data.

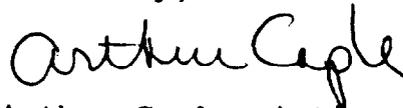
c) Reporting.

NOS shall provide annual summaries of the monitoring results to the Waste Management Administration within 45 days following the completion of each year's sampling except for the fifth and last year. After completion of five years of study, a report shall be prepared discussing any trends noted in the data along with a discussion of the potential risk to human populations posed by mercury and other heavy metal releases from NOS. The reports will include heavy metal data collected by the State at stations near the NOS facility. The final report shall be submitted on a date specified in the Consent Order.

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Following review and mutual acceptance of the plans outlined, the Naval Ordnance Station and the Waste Management Administration will enter into a Consent Order for these activities. Should it become impossible to agree on a course of action, the Waste Management Administration will issue a Corrective Action Order or reactivate Complaint and Order C-0-85-165 pursuant to the stipulation entered on November 8, 1985. Should, during the course of the five-year study, facts indicate that there exists an imminent threat to the environment or the public health, the NOS must immediately commence review and selection of a remedial alternative that will eliminate or reduce that threat to the public health or environment. Please note that the recommendations in this letter are tentative and may be modified following discussion between parties. If you should have any questions, please contact Mr. Harold L. Dye, Hazardous Waste Enforcement Division, at (301) 225-5731.

Sincerely,



Arthur Caple, Acting Administrator  
Enforcement Program

AC:dl

cc: Michael C. Powell, Esquire  
Mr. Ronald Nelson  
Mr. Arthur Caple  
Mr. Harold L. Dye, Jr.