



OFFICE OF ENVIRONMENTAL PROGRAMS
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

201 WEST PRESTON STREET • BALTIMORE, MARYLAND 21201 • AREA CODE 301 • 383-6650

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

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

William M. Eichbaum, Assistant Secretary

January 31, 1985

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

Dear Captain Tadlock:

On Thursday, January 24, 1985, representatives of the Naval Ordnance Station (NAVORSTA), CHESDIV, and yourself met with Mr. Ronald Nelson, Director, Waste Management Administration (WMA) and other members of WMA's Enforcement and Technical Services staff, in order to discuss efforts undertaken at the NAVORSTA to effect a clean up of mercury contaminated earth caused by a spill of mercury. The WMA had formally ordered this clean up under Complaint and Order #C-0-85-165. Naturally occurring background concentrations of total mercury have been indicated as 0.1 mg/kg.

From your presentation at the meeting, you have indicated that over 200 barrels of contaminated earth have been removed from the site of the spill. Samples of the site still exhibit concentrations in the hole as high as 11.60 mg/kg total mercury and around the perimeter of the area of excavation as high as 15.90 mg/kg total mercury. Due to the readily dispersive nature of liquid mercury, you have indicated the difficulty in containing and removing the contaminated soil. However, due to the fact that no protection from the elements was provided at the site, clean up has most likely been aggravated by rainfall, as exhibited by the fluctuations of mercury concentrations in the bottom of the excavations.

Further vertical excavation may endanger the surficial aquifer. However, due to the high concentrations of total mercury exhibited on the perimeter surface of the site, it is evident that further lateral excavation must continue until the stated background levels have been achieved.

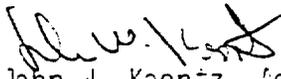
Enclosure (1)

Following additional excavation, you will be required to submit a plan for backfilling the excavated area which will ensure no further migration of any residual mercury.

Again, the Complaint and Order issued against you may be appealed if you have made a timely request for such action.

If you have any questions regarding this matter, please communicate with Mr. Harold L. Dye, Jr., at (301)-383-6650 or Mr. Reid Rosnick at (301)-383-5734.

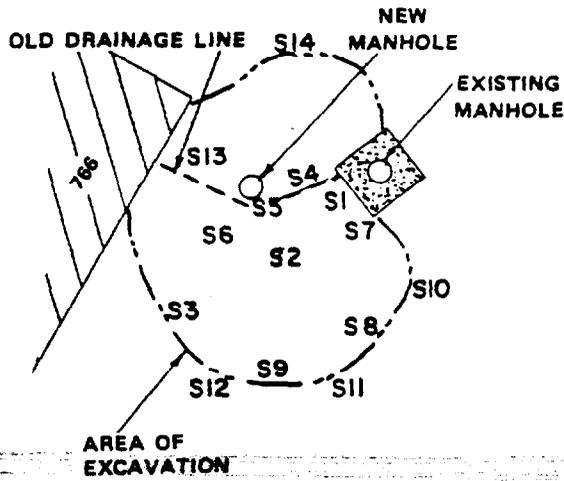
Sincerely,


John J. Koontz, Administrator
Enforcement Program

JWK:amj

cc: Mr. Ronald Nelson
Mr. Arthur N. Caple
Mr. Harold L. Dye, Jr.
Mr. Reid Rosnick

MERCURY SPILL SITE & EXCAVATION AREA



SITE PLAN
SCALE: 1"=10'

| TOTAL MERCURY CONCENTRATIONS mg/kg | | | | EXTRACTION PROCEDURE (EP) TOXICITY mg/l | | |
|---------------------------------------|----------|--------|---------|--|---------|---------|
| SITE | 12-10-84 | 1-8-85 | 1-15-85 | SITE | 1-8-85 | 1-15-85 |
| S1 | 5.25 | 14.00 | 11.60 | 1 | 0.10100 | 0.01040 |
| S2 | 1.07 | 2.60 | | 2 | 0.00078 | |
| S3 | 1.62 | 1.50 | | 3 | 0.00032 | |
| S4 | 1.30 | 6.80 | 5.70 | 4 | 0.00020 | 0.01810 |
| S5 | 5.60 | 6.30 | 6.20 | 5 | 0.00032 | 0.00031 |
| S6 | 15.00 | 1.40 | | 6 | 0.00020 | |
| S7 | 0.21 | 0.23 | | 7 | 0.00400 | |
| S8 | 0.10 | 0.15 | | 8 | 0.00020 | |
| S9 | 0.10 | 0.15 | | 9 | 0.00020 | |
| S10 | 9.20 | 2.90 | | 10 | 0.00020 | |
| S11 | 92.20 | 0.49 | | 11 | 0.00020 | |
| S12 | 2480.00 | 0.96 | | 12 | 0.00020 | |
| S13 | 0.41 | 17.00 | 0.43 | 13 | 0.00020 | 0.00020 |
| S14 | 6.80 | 16.00 | 15.90 | 14 | 0.07000 | 0.00520 |

AVERAGE 187.06 5.03 7.97

BACKGROUND 0.1

0.01272 0.00684

MAXIMUM ALLOWABLE CONCENTRATION:
0.2 mg/l