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

SEP 1 1987

OFFICE OF
REGIONAL OPERATIONS

MEMORANDUM

SUBJECT: New Bedford Harbor

FROM: Renate D. Kimbrough, M.D.
Director for Health and Risk Capabilities

TO: Sarah Levision
Region I

Derivation of action levels for airborn PCBs-New Bedford Habor.

I have reviewed the material you sent me on the Pilot Project to determine the feasibilty of dredging New Bedford Habor.

It is difficult to determine whether their will be significant air emissions above those already present in the area. From a practical point of view, I have some concern about creating what appears to be a hazardous landfill adjacent to a playground.

When I reviewed the material you sent me, I felt that there was a great deal of information missing. As I recall there are other industries in the area. However, we have no information about metal levels in the sediment or whether there would be any chance of direct exposure to the dredgings by workers etc. There apparently is also a dye industry in the area. Have there been any discharges from that industry? In addition, there is a golfball manufacturer. Sometimes golfball manufacturers use waxes in their molds which they later discharge. Do you have any information about any of those discharges? You may have already checked with the group that issues permits.

Apparently, there are air emissions now which are above those found generally in the United States. This is summarized in a memo from Kevin Garrahan. I am enclosing a copy for your information.

In the Risk Assessment performed by Beth Ryan the length of exposure is probably to short since during the drying phase there would also be some exposure.

I have no idea how much PCB would be emitted. However, if we assume that the air levels on the average are 500ng/m3 and if we assume that 20m3 of air are inhaled then the total daily dose would be 10,000ng per person. If this were divided by body weight such as 70kg then the daily dose would be around 143ng/kg. This may make a significant contribution to PCB intake from food depending on the types of food that are consumed. However, only air monitoring data would give information on actual levels. The present calculations are merely based on assumptions and may not be representative. CDC recently completed an exposure survey in the area which was primarily focused on PCB intake from fish consumption. It may be possible to determine whether sufficient people living in close proximity to areas where the air levels are high have higher body burdens than the rest of the population. Most of the raw data are in the Massachusetts State Health Deparment. However, the sample may not be large enough. Still it would be worth a try Any concrete information like that would be better than any assumptions we can make. Let me know if you need any assistance in this. I am sorry that I could not be of any further help.

Sincerely yours,

Renate D. Kimbrough, M.D.
Director for Health and Risk
Capabilities

Attachment

cc: Kevin G. Garrahan, ORD