

MERRILL HOFFMAN

RECEIVED

GIDLAB COMMENT ON "ENVIRONMENTAL NEWS -- REGION #1"
October 4, 1985

NOV 12 1985

New Bedford Harbor -- Plans for Additional Studies
and Enclosure (Introduction) of EPA, October 9, 1985 Letter

REGION I
WASTE MGMT. DIVISION

1. Leachate formed by water moving through dredging, p. 2, cites leachate formed by water (rainfall) moving through wastes and thereby dissolving contaminants (Env. News).

Note: If the site is appropriately capped as with a synthetic liner (over clean fill), or chemical clay, asphalt paving and properly designed slope (3%+), there will be substantially no water penetration or infiltration. cf. also paragraph 6, p. 3, "Introduction." See references "A" and "B"--Footnote.

2. Tests of Liner Materials

Paragraph 5, p. 4, "Introduction" and p. 15, E.F.S., to evaluate effect of chemicals on "long-term deterioration of commercially available liner materials."

Such a study is not recommended, as it would be inordinately expensive to investigate even 50% of the literally hundreds of commercially available liner materials. Time does not permit "long-term deterioration" tests, better data already exists on the long-term resistivity of the liners from the manufacturers of the liners and from the chemical producers of the basic synthetic polymers, and from field tests (many sponsored and reported by EPA and by independent investigations reported by ASTM, ASCE, AICE and technical journals). Also there are many studies of clay liners (e.g., Illinois Geological Survey, "Attenuation of Pollutants--Landfill Leachate by Clay . . .," April 1977.

3. Settling Tests (p. 17, E.F.S.)

Excellent--necessary--recommended

4. Thickness-(Cap) to Prevent Upward Movement of Contaminants, p. 4, "Introduction"

This study not needed if cap is appropriate to prevent infiltration. It will prevent fugitive emissions. e.g., 0.6 m. compacted clay and 10 mil liner. cf. drawing and text of Controlled PCB Landfill in North Carolina, p. 987, Environmental Science & Technology, Vol. 19, No. 10, 1985.

GIDLAB COMMENT ON "ENVIRONMENTAL NEWS --- REGION #1"
October 4, 1985

New Bedford Harbor --- Plans for Additional Studies
and Enclosure (Introduction) of EPA, October 9, 1985 Letter

5. Geotechnical Investigations (p. 3, "Introduction")

"Characteristics of soil, rock and groundwater flow" are largely available from existing data and maps of USGS (Boston Office).

6. Options not recommended as primarily environmentally unsafe and secondarily as exorbitantly costly or technically infeasible

- a. Capping contaminated sediments in open water
- b. Upland containment site
- c. Upside Down Cake Method
- d. Channelization without designing for storm-water and quarry drainage and basin surface run-off
- e. Containment on eastern shore only as last resort, following bulkheading of embayments and hot-spots on western shore (plus utilization of all space behind the western bulkheads).

REFERENCES for ITEM #1 Supra

- A. ASTM 686, "Measurement of Organic Pollutants in Water and Wastewater," Philadelphia, 1979.
- B. Lars Renberg, "Gas Chromatographic Determination of Chlorophenols in Environmental Samples," National Swedish Environmental Protection Board, Stockholm, 1981.

ENC-8814

October 20, 1985



Philip T. Gidley

GIDLEY LABORATORIES, INC.
Fairhaven, Massachusetts, U.S.A.