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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203

July 6, 1978

Honorable John Markey
Mayor, City of New Bedford
City Hall
P.O. Box A-2089
New Bedford, MA 02740

Dear Mayor Markey:

I am pleased to transmit to you the results of a short term air sampling program undertaken in New Bedford earlier this year. This work was a follow-up to the draft report "Environmental Assessment of PCBs near the New Bedford Municipal Landfill", which was forwarded to you in November 1977. A copy of the final report of that study is also enclosed for your files. There are no substantial changes from the draft.

The air sampling was conducted in January 1978 upwind and downwind of the landfill, the sludge incinerator, Aerovox and Cornell Dubilier by two methods with the analyses performed separately by EPA and Environmental Science and Engineering, Inc. (ESE). Reasonable correspondence between methods was obtained as evidenced by the results where replicate samples were collected.

All results were at concentrations below 1 microgram per cubic meter (1 microgram = 1000 nanograms), which has been cited by the National Institute for Occupational Safety and Health as recommended 8 hour work place exposure. The only samples that approached the NIOSH recommended exposure concentration were taken downwind of Aerovox. The landfill does not appear to be a significant airborne PCB source in winter when the ground is frozen, nor do any of the results indicate a health concern in residential areas in winter.

EPA is considering additional air monitoring at selected locations during the late summer when soil temperature and sunlight intensity are high. When plans for this work are drafted, your office will be contacted for comments and assistance.

If you have any questions or comments on any of this material, please call me (617) 223-5186. Your cooperation and that of the DPW staff has been appreciated during our previous visits to New Bedford, and I look forward to working further with the City.

Sincerely yours,



Merrill S. Hohman
Director
Air & Hazardous Materials Division

Enclosure (2)

CC: Chairman Board of Selectmen, Town of Dartmouth
David Standley, DEQE
Jonathan Fielding, DPH
Nicholas Roussos, MA Labor & Industry
Steve Ellis

SAMPLING PROGRAM

Two different sampling methods were utilized in this field sampling program - one method was developed by ESE and consisted of a modified "Hi-vol" with porous polyurethane foam as the collection media. After sample collection, these samples were returned to ESE in Gainesville, Florida, for subsequent analysis. This sampling method was utilized at all sites sampled in the study.

Replicate samples were run with the Florisil method at selected sites where higher concentrations were expected to determine the precision of the Florisil method and to assess the comparability of these two methods. The analysis of the Florisil samples were run at Region I, Surveillance and Analysis Division.

1. New Bedford Municipal Landfill - three sampling sites were selected: an upwind site, a site on the landfill itself, and a downwind site representative of population exposure in a residential area. The upwind site was located in the New Bedford Airport parking lot, 1,300 meters north of the landfill site. The landfill site was located in the identical area sampled previously by ESE in June of 1977. The downwind site was located at the end of Elmwood Street off of Hathway Street, 1,300 meters southwest of the landfill site. This area is on the edge of a single family residential area and was the closest population exposure downwind of the landfill.

The actual sampling took place on January 17, 1978. The day was characterized by cloudy skies with light snow falling throughout the day. The winds were light (0-5 mph) and variable (northeast to southeast). The ground was frozen with a surface temperature of $-1/2^{\circ}\text{C}$. There was an inch or two of snow covering the ground in most areas. The air temperature averaged -2°C for the sampling period.

A total of three samples were taken - one at each site, utilizing ESE's sampling technique and equipment. In addition, two Florisil samples were collected at the landfill site and also at the downwind site. All samples were collected over a four hour period.

2. Cornell Dublier Company - two sites were sampled for this part of the study. The upwind site was located 400 meters north northwest of Cornell Dublier on East Rodney French Boulevard. The downwind site was located 400 meters southwest of Cornell Dublier on Cleveland Street off of Rodney Street. This site was situated in a single family residential area and was within 100 meters of Roosevelt Junior High School.

These samples were taken on January 19, 1978. The day was partly cloudy with light north to northeast winds averaging less than 5 mph. The air temperature was 0°C .

One "Hi-vol" method sample was taken at each site and two Florisil samples were taken at the downwind site only. The samples collected were of three hours duration.

3. New Bedford Sludge Incinerator - three hour "Hi-vol" samples were collected on January 24, 1978, at an upwind site 35 meters southwest of the incinerator's stack and at a downwind site 110 meters northeast of the plant. Due to physical constraints, it was impossible to locate the downwind site proximate to a residential area.

It is due to the
nature of the document
being filmed

ADMINISTRATIVE RECORD

NBH 010

New Bedford Sludge Incinerator
Ambient air Sampling Results for PCBs:

March 1977

3/1/77

PCB Concentration

UPWIND	38 ng/m ³ 58 ng/m ³
DOWNWIND	150 ng/m ³ 240 ng/m ³

3/3/77

UPWIND -	20 ng/m ³
DOWNWIND -	95 ng/m ³ 110 ng/m ³

* Results are reported in (ng/m³) = Nanograms per cubic meter

$$1 \text{ ng} = .001 \text{ mg}$$

NRH 070

4. This sampling day was clear and had a strong southwest wind of 15-20 mph. The air temperature averaged 3°C for the sampling period.

Aerovox Industries, Inc. - two ambient sampling sites were selected; an upwind site 800 meters southwest of the facility on Desantels Street, and a downwind site in a single family residential area 400 meters northeast of the plant on Bitteau Street.

The sampling took place on January 27, 1978, and consisted of two 3 hour "Hi-vol" samples, one at each site, and two 3 hour Florisil samples taken at the downwind site. The day was characterized by cloudy skies, an air temperature of -1°C and gusty southwest to westerly winds varying from 10 to 25 mph.

Analysis of PCB Air Samples From New Bedford

Sampling Date	Site	Location	PCB (ng/m ³)*	PCB (ng/m ³)*
			ESE	EPA
01/17/78	New Bedford Landfill	Upwind	8.5	—
		On site	21	28 24
		Downwind	13	12 18
01/19/78	Cornell Dublier	Upwind	19	—
		Downwind	5.1	32 30
01/24/78	New Bedford Sludge Incinerator	Upwind	4.3	—
		Downwind	13	—
01/27/78	Aerovox	Upwind	5.6	—
		Downwind	490**	703 774

*Aroclor 1242/1016
 **Aroclor 1016 only
 — Not sampled

All results in nanograms per cubic meter