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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203-0001

OFFICE OF THE
REGIONAL ADMINISTRATOR

July 14, 1994

Honorable George Rogers
Councillor at Large
New Bedford City Council
133 William Street
New Bedford, MA 02740

Dear Councillor Rogers:

I am writing in response to your letter of June 22, 1994, which inquired about the circumstances of a PCB measurement recorded on June 16, 1994, during the air monitoring program for the clean up of the New Bedford Harbor Hot Spots.

I asked my staff for a review of the procedures followed by the Environmental Protection Agency's New England Regional Office (EPA) and the Corps of Engingeers in evaluating this data and making the decision to resume dredging. I have included a copy of that review as an attachment to this letter. The process for making the decision to resume dredging is currently under review, and may be changed in the future.

I believe you will find that the data and a brief explanation were provided to the community in the Weekly Progress Reports of June 23 and 30, 1994, copies of which I have also included. The Weekly Progress Report is sent by facsimile to the City Council on Thursdays, and is published in the New Bedford Standard Times on Saturday morning. It is also mailed to the site mailing list each Thursday. If you are not receiving the Weekly Reports, please contact Kristen Fadden at (617) 565-4154.

It was a pleasure to meet with you and Councillors Geratowski and Kalicz during my site visit of June 15, 1994. For further assistance, please feel free to contact me or Gayle Garman, Remedial Project Manager for the New Bedford Harbor Superfund Site at (617) 223-5522.

Sincerely,

Hope to see you soon.

John P. DeVillars
Regional Administrator

Enclosures

Memorandum of July 7, 1994.
Weekly Progress Report of June 23, 1994.
Weekly Progress Report of June 30, 1994.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
J.F.K. FEDERAL BUILDING, BOSTON, MA 02203-2211

MEMORANDUM

DATE: July 7, 1994

SUBJ: New Bedford Harbor Hot Spot Remediation;
PCB Measurement of 1800 ng/m^3 on June 16

FROM: Gayle Garman, RPM GG

TO: Frank Ciavattieri, Acting Director
Waste Management Division

This memorandum describes the sequence of events and decisions which followed receipt of preliminary data indicating PCB concentrations in air greater than 1000 ng/m^3 on June 16, 1994.

Early in the afternoon of Tuesday, June 21, preliminary data for Thursday, June 16, was received which indicated an exceptionally high measurement on the Sawyer Street property. The Sawyer Street property is the location of the Confined Disposal Facility and is more than one mile south of the current dredging location.

When the data was received, on June 21, daily dredging operations had already been completed, on a morning high tide.

In accordance with site operating procedures, the Corps of Engineers immediately notified EPA of the high reading. In addition, the preliminary data was provided in the daily report sent by facsimile to Mr. Roland Pepin, chairman of the dredging subcommittee. The Corps of Engineers and the contractor also began a review of site activities which had occurred during the time the sample was being collected. This review and evaluation indicated that:

> On the day the sample was collected, June 16, dredging operations occurred on the high tide, from 11:00 am to 4:30 pm. Preliminary data collected from the six samplers nearest the dredging area, averaged 87 ng/m^3. This is less than the average measurement from these samplers during dredging operations in June, and no greater than background measurements taken when there is no dredging underway. This information indicated that dredging operations were not the cause of the high value recorded at Sawyer Street, which is a mile south of the dredging area. In addition, during the time dredging was underway, the wind direction was from the south and southwest, blowing from the CDF toward the dredge. The wind direction is an additional indication that PCBs from dredging would not have

reached the CDF, more than a mile upwind.

Based upon the described analysis, I agreed with the Corps of Engineers that it was appropriate to resume dredging as scheduled, because the air monitoring data indicated that dredging operations were not the cause of the high PCB measurement.

I called Mr. Pepin at 4:50 on June 21 and provided him with the foregoing evaluation that dredging had not caused the high measurement at the CDF. He inquired whether it had been determined that dredging should proceed, and I indicated that because dredging was not the cause of the high measurement, the decision had been made to continue dredging, as scheduled.

The Corps of Engineers, EPA and Massachusetts DEP then evaluated all of the data, including the hourly measurements taken by the meteorological station on the Sawyer Street property, to determine the cause of the high measurement at the CDF. This evaluation was discussed with the dredging subcommittee on June 23:

> Sampler #3 is located on the north side of the CDF, immediately adjacent to Sparky's Cove. From noon June 15 to noon June 16, when the samples were collected at Sawyer Street, the predominant wind direction was from the northeast. In addition, a severe rain and windstorm on June 14 had roiled the water throughout the area, which would lead to increased transfer of PCBs to the air. Thus, most of the air entering the sampler had just crossed over the Acushnet River and Sparky's Cove, which were severely disturbed by the previous day's storm event. In addition, this was a 24 hour sample, which includes periods of low tide, when Sparky's Cove is exposed as mudflats. Prior sampling by EPA has demonstrated that the transfer of PCBs to the air is greatest when the contaminated sediments are exposed to the air. EPA, the Army Corps of Engineers, and MA DEP agreed that the high measurement at Sampler #3 on June 16 probably resulted from the weather conditions.

In summary, the contract requirements were followed: Upon receipt of data that air PCB levels in excess of 1000 ng/m^3 had been recorded, dredging operations did not proceed until a review of site activities and air monitoring data determined that dredging was not the cause. The chairman of the dredging subcommittee was provided with all the information used to make the decision, and called promptly by the EPA Project Manager.

U. S. Environmental Protection Agency

US Army Corps of Engineers
New England Division

NEW BEDFORD HARBOR SUPERFUND SITE

Contacts: Gayle Garman, EPA Project Manager, (508) 999-7270

Kristen Fadden, Community Relations, (617) 565-4154

Progress Report for June 23, 1994

1.) Dredging of Hot Spot sediments to remove the principal source of PCB contamination in New Bedford Harbor occurred during daytime high tides on June 16, 17, 20, 21, and 23. No dredging occurred on June 15 or 22 in order to collect background samples.

The background samples measure PCBs in the environment when there isn't any dredging going on. A comparison of background samples to the samples collected during dredging is an indication of the changes, if any, in air levels from dredging.

2.) Air monitoring data from the previous week was reviewed.

a.) June 13, Mon: 5 hrs dredging, 83 ng/m3
b.) June 14, Tue: 2 hrs dredging, 96 ng/m3
c.) June 15, Wed: no dredging, background at 77 ng/m3
d.) June 16, Thu: 3 hrs dredging, 87 ng/m3
e.) June 17, Fri: 5 hrs dredging, 78 ng/m3

3.) The most recent background sampling data was added to the calculation of the Notice Level, which increased from 153 ng/m3 to 172 ng/m3. The Notice Level is used to notify the dredge operators of the potential need to adjust the dredging process to minimize increases in PCBs air levels. The Notice Level was not exceeded during the past week.

There is a general trend of increasing levels of PCBs in the air at the dredging area, on the Sawyer Street property, and in surrounding areas. This increase is because the transfer of PCBs into the air is greater when the air and water temperatures are greater. Because air and water temperatures will increase as the summer progresses, it is expected that the air levels will also increase. EPA and COE will continue to monitor the increasing levels of PCBs in the air by collecting background samples.

4.) Monitoring of personnel on the dredge and in the wastewater treatment plant continues to indicate that all exposures are less than the NIOSH recommended exposure limit.

5) Collection of air samples around the Confined Disposal Facility at the end of Sawyer Street occurs twice weekly. Each sample is collected over a 24 hour duration. Preliminary data for June 16 indicates an average of 308 ng/m3 for six monitors, with a maximum of 1852 ng/m3 at the monitor on the north side of the CDF, next to the cove. A review of the laboratory procedures indicate that these samples should be re-analyzed to check the reported value. After the samples are re-analyzed, the reported values may change. None the less, EPA and COE are investigating possible causes for this unusually high preliminary reading reported for June 16.

6.) Monitoring of water for biological toxicity and for PCB and metal concentrations continues. There has not been any increase over similar measurements taken before dredging began.

7.) EPA, COE and MA DEP met with the dredging subcommittee on June 23 to review data collected over the previous two weeks. Daily reports, including preliminary air monitoring data, are provided to the chairman of the subcommittee.

8.) The next New Bedford Harbor Forum meeting is on July 5, at 6:00 pm in the New Bedford Vocational Technical High School. The public is encouraged to attend. Meetings are recorded and broadcast on local cable television channels in New Bedford, Fairhaven, and Acushnet.

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U. S. Environmental Protection Agency

US Army Corps of Engineers
New England Division

NEW BEDFORD HARBOR SUPERFUND SITE

Contacts: Gayle Garman, EPA Project Manager, (508) 999-7270

Kristen Fadden, Community Relations, (617) 565-4154

Progress Report for June 30, 1994

1.) Dredging of Hot Spot sediments to remove the principal source of PCB contamination in New Bedford Harbor occurred during morning high tides on June 23, 24, 28, and 29. No dredging occurred on June 27 in order to collect a high tide background sample.

Dredging is scheduled on afternoon high tides Tuesday through Friday of next week, July 5-8.

Approximately 1200 cubic yards of Hot Spot sediment has been removed to date. This represents 12% of the 10,000 cubic yards of Hot Spot sediments to be dredged in this phase of the project.

2.) The average PCB levels in air from samples collected over an 8 hour duration, including all dredging activities, at six locations near the dredge were:

a.) June 20, Mon: 3.5 hrs dredging, 67 ng/m3
b.) June 21, Tue: 2.0 hrs dredging, 77 ng/m3
c.) June 22, Wed: no dredging, low tide background 116 ng/m3
d.) June 23, Thu: 4.0 hrs dredging, 79 ng/m3
e.) June 24, Fri: 1.5 hrs dredging, 98 ng/m3

None of these levels exceeded either the Notice Level or the Action Level.

3.) Air samples are also collected on the Sawyer Street property, around the Confined Disposal Facility, twice weekly. Each sample is collected over a 24 hour duration.

a.) Wed, June 22: average 32 ng/m3 for six monitors, maximum of 86 ng/m3;
b.) Fri, June 24: average 44 ng/m3 for six monitors, maximum of 95 ng/m3.

Both maximum on-site readings occurred at the monitor on the north side of the CDF next to the cove (Sampler 3).

4.) On June 16 Sampler 3 recorded a reading of 1852 ng/m3. EPA, COE and DEP reviewed all of the sampling data and weather conditions from this date and determined that this exceptionally high reading was likely caused by a storm and persistent strong winds which disturbed the existing contamination in the River and Cove and blew it into the sampler, rather than by the more distant dredging operation. The EPA and the ACOE followed all the procedures in this event.

Air samples collected immediately around the dredge during the same day were substantially lower, averaging 87 ng/m3.

In addition, dredge operators have noticed wide-spread oily sheens on the water surface after recent heavy rain storms. It appears that the wind and increased rain runoff from storms stir up the contaminated sediments on the bottom of the River, releasing PCB oils which spread over large areas of the water's surface.

5.) Monitoring of water for biological toxicity and for PCB and metal concentrations continues. There has not been any increase over similar measurements taken before dredging began.

6.) EPA, COE and MA DEP met with the dredging subcommittee on June 29. Daily reports, including preliminary air monitoring data, is provided to the chairman of the subcommittee upon receipt by EPA. The next meeting of the subcommittee is scheduled for July 13.

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