

Superfund Records Center
SITE: NEW BEDFORD
BREAK: 5.3
OTHER: 46725

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David Dickerson, Project Manager
U.S. EPA, Region I
HBO, JFK Building
Boston, MA 02203

(25)

5.3.10

Dear Mr. Dickerson:

I read the latest article on the PCB-contaminated sediment clean-up project in New Bedford harbor (21Nov96, Standard Times newspaper) the day after I telephoned your office requesting information on the same subject. I am finishing my studies at Rensselaer Polytechnic Institute in Troy, NY, in the graduate Environmental Management and Policy Program in the School of Management. I am currently working as an intern with the Buzzards Bay Project in Marion, Massachusetts, with the Stormwater Management Project. I will be writing an technical-based independent study to fulfill my final curriculum requirements, and am considering as my topic bioremediation of PCBs in dredged sediment from New Bedford Harbor.

I have a strong interest in bioremediation of PCBs; I became intrigued with this concept after taking a course in bioremediation of hazardous waste at RPI. I have often wondered if PCB-contaminated sediment and dredge spoils could be bioremediated, either by sequential anaerobic-aerobic dehalogenation, or through the use of white rot fungus. This latter method has been shown in research studies to almost completely mineralize PCB species to water and carbon dioxide (and probably some innocuous mineral salts), although I do not have that journal article for you to corroborate this claim.

Bioremediation of PCBs seems very promising, although I realize it is still mostly in a research phase. But I would be surprised if the U.S EPA, the State of Massachusetts, private industry and educational institutions have not yet developed some kind of team research effort in this area of bioremediation. This would seem to me a logical course of action; there are many research institutions in the area - MIT, U.Mass., URI, even RPI - that have the academic talent who could be willing and capable of conducting research in this growing field of environmental technology. There is also private industry, particularly General Electric Company, which has conducted extensive research on bioremediation of PCBs.

A united effort in this area of bioremediation would gain more support from the public for this project, and perhaps many others like it elsewhere, and put federal and state environmental protection agencies in a more positive light. Bugs (microbes) are cheap; it would make sense to me to pursue research in this area, with the active participation of the aforementioned entities. Capping the waste seems plausible, but only if there is a plan in place to eventually treat it when an acceptable, and energy and cost effective form of treatment is

found. Simply burying it seems both illogical and irresponsible, and I would hope the EPA is getting away from this kind of out-of-site, out-of-mind waste management approach.

I do have concerns, however, over the resuspension of sediments into the water column as a consequence of the vacuuming activities to take place. I would like to know what precautions or technologies will be utilized to prevent this from occurring. This has always been a point made by opponents to this method of removal, but I am hoping there is a competent and innovative company out there with the technology and competence to tackle this problem.

Upon removal of the sediments, will there be any effort to containerize the sediment prior to burial? I realize this would add to the cost of the project, but it would help to ensure its immobility, and give the public a greater piece of mind. Perhaps it may also facilitate easier removal once a technology has been identified to properly remediate the sediments in an energy and cost-effective manner.

I look forward to hearing from you with thoughts on my comments. Please do not hesitate to contact me, either by phone or letter. Your position as project manager for this site is a challenging one, to say the least, and I hope you can generate the support and team effort that I feel is needed to make this cleanup effort succeed. If it is possible, I am interested in what PCB species are in New Bedford Harbor, what toxic metals exist in the sediments, and if there has been any natural anaerobic dehalogenation observed in these sediments. If it would be easier to obtain this specific information from the Wilks Branch Library, please let me know.

Best wishes on successful remediation actions.

Sincerely,


Michael E. Berkal

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