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LETTER AND COMMENTS FROM FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REGARDING GENERAL PROCEDURE FOR BIOREMEDIATION OF HYDROCARBON CONTAMINATED CONCRETE SURFACES NS MAYPORT FL
4/24/1995
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

# Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

April 24, 1995

Mr. Harold McGill
Department of the Navy
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive, P.O. Box 190010
North Charleston, S.C. 29419-9010

file: rhs_conc.doc

RE: RHS Technical Services General Procedure for Bioremediation of Hydrocarbon Contaminated Concrete Surfaces, SWMU 14, Naval Station Mayport, Florida

Dear Mr. McGill:

I have reviewed the above document which was presented to me at our last partnering meeting in Atlanta on April 5, 1995. I offer the following comments:

1. The proposal is very general and I am unsure of the location(s) that will be investigated at SWMU 14. Where on SWMU 14 is the project proposed to be sited? I previously thought it would be at the sump.

2. In Section 1.0, Testing: it is stated that field TPH analyses will be conducted on the remediated process water prior to release or reuse. TPH may be utilized to judge the success of the process but since a surface water standard for TPH has not been promulgated, it cannot be used to justify direct surface discharge of the remediation effluent. Additionally, I am not aware of available analytical data that characterizes the residual material presently on the concrete. Because of this, the remediation effluent should be characterized prior to any release since it could contain metals and other residual compounds that were components of the burned materials. The Navy may want to dispose of the treatment water in the Mayport WWTP providing it can be shown to meet the criteria for such discharge. Since the WWTP presently accepts oily waste water, this may be a good option for disposal. Nevertheless, until the chemical nature of the material that is removed from the concrete has been determined to meet surface or ground water standards, it should not be discharged to them, including using the recycled bioremediation product in subsequent soil applications.

3. Because of the nature of the materials that are (and were) burned on the concrete surface (fuels and oils) and since a surface water standard exists for PAHs, they may be the proper analytes to use in assessing the success of the process, especially since the residual

material on the concrete surface is likely to be the less volatile PAHs. If used oil was utilized in the training, the possibility of high metal concentrations or other contaminants that may be in the residuum should also be considered (comment 2, above). In cases where metals are present, bioremediation would probably not be an effective solution and may possibly increase their mobility.

Mr. Greg Brown, P.E. also reviewed the proposal. I am attaching a memo from him for your additional information.

The proposed project may be a reasonable solution to the problem. As I have stated, my concerns are in assuring that proper disposal of the remediation effluent be accomplished. I appreciate the opportunity to comment on the proposal. If you have questions or require further clarification, please contact me at (904) 488-3935.

Sincerely,

James H. Cason
Remedial Project Manager

Atttachment (1)

cc: Cheryl Mitchell, NAVSTA Mayport
David Driggers, SOUTHNAVFACENGCOM, Charleston
Jay Bassett, EPA Region IV, Atlanta
John Mitchell, FDEP Natural Resource Trustee
Satish Kastury, FDEP, Tallahassee
Ashwin Patel, FDEP Northeast District, Jacksonville
Brian Cheary, FDEP Northeast District, Jacksonville
Jerry Young, City of Jacksonville

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