

Department of Environmental Protection

Jeb Bush Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

David B. Struhs Secretary

November 13, 2002

Mr. Jay H. Murland Envirologic Inc./SpillAway Brands 827 Glenside Avenue Wyncote, Pennsylvania 19095

Re: LIQUID REMEDIACT

Dear Mr. Murland:

The Bureau of Petroleum Storage Systems hereby accepts Liquid Remediact as a product for in situ and ex situ bioremediation of petroleum and other suitable contaminants in groundwater and soil. It is a mixture of natural-occurring, non-pathogenic, aerobic microorganisms and biodegradable emulsifiers, surfactants and dispersing agents. The product is shipped as a liquid that is diluted by the user prior to application at a remediation site. For the dilution prior to application, one part Liquid Remediact is mixed with 10 to 20 parts water.

Although this acceptance applies only to the jurisdiction of this bureau, other bureaus within the Department of Environmental Protection, or other state agencies and local governments may choose to recognize it if their needs and regulations are similar. This bureau, however, is not responsible for applications beyond its jurisdiction.

For vadose remediation where the underlying groundwater will not be affected by the leaching of Liquid Remediact, there are no special concerns beyond those which would normally need to be addressed in preparing a Remedial Action Plan and conducting a cleanup in accordance with the petroleum cleanup requirements of Chapter 62-770, Florida Administrative Code (F.A.C.). For ex situ groundwater treatment, where an aboveground treatment system produces effluent meeting the petroleum cleanup criteria of Chapter 62-770, F.A.C., and the drinking water standards of Chapter 62-550, F.A.C., for disposal via recharge gallery or NPDES permit, there are no special concerns. But for in situ groundwater remediation, via direct injection of Liquid Remediact into an aquifer, there are underground injection control (UIC) regulations that must be observed. Since in situ aquifer remediation via injection is likely to be the most common application of this product, the bulk of the regulatory requirements discussed herein will be directed to that topic.

The bureau recognizes Liquid Remediact as a viable product for the bioremediation of petroleum contaminated sites in Florida. There are no objections to its use provided: (a) the considerations of this letter are taken into account; (b) a Remedial Action Plan is prepared in accordance with Chapter 62-770 and Rule 62-522.300(2)(c), F.A.C., for approval by the Department; and (c) the terms of a October 11, 2002 variance granted by the Department to Envirologic Inc./SpillAway are observed.