



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

May 27, 2003

Mr. David J. Levy, P.G.
Environmental Consulting Services, Inc.
217 South 3rd Street
Lantana, Florida 33462

Re: **Remediation Accelerated by Progressive Innovative Design (RAPID)**

Dear Mr. Levy:

The Bureau of Petroleum Storage Systems hereby accepts the Remediation Accelerated by Progressive Innovative Design (RAPID) system for in situ and ex situ remediation of soil and groundwater contaminated by petroleum. We note that it is capable of treating other types of contaminants that are beyond the jurisdiction of this bureau, which is the cleanup of petroleum pursuant to Chapter 62-770, Florida Administrative Code (F.A.C.). 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.

As indicated by Environmental Consulting Services, the RAPID system is a trailer-mounted unit that houses a combination of conventional equipment items that operate synergistically, and are capable of being augmented by microbial, nutrient, co-solvent and surfactant-type innovative remediation products that meet Florida's environmental regulations. As your submittal indicates, the RAPID system can make use of groundwater recovery wells, injection wells, sparge wells, and its aboveground equipment items to configure a recirculating re-injection type loop, or a soil flushing loop using shallow galleries, that are augmented by nutrients and microbes.

A copy of this letter should be provided in the appendix of site-specific Remedial Action Plans proposing the use of the RAPID system so that technical reviewers throughout the state will be informed that the bureau has evaluated the system from a regulatory standpoint. Enclosure 1 cites some regulatory considerations that may need to be taken into account, and provides some supplemental information.

While the bureau does not endorse specific or brand name remediation products or processes, it does recognize the need to determine their acceptability from an environmental standpoint with respect to applicable rules and regulations, and the interests of public health, safety and welfare. Vendors must then market the products and processes on their own merits regarding performance, cost and safety in comparison to competing alternatives in the marketplace. In no way, however, shall this regulatory acceptance letter be construed as certification of product performance. Additionally, the

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Department emphasizes a distinction between its regulatory "acceptance" and approval. Products and processes are accepted but they are not approved.

It is also not a requirement that a particular remediation product or process have an official acceptance letter in order for it to be proposed in a site-specific Remedial Action Plan. The plan, however, must contain sufficient information about the product or process to show that it meets all applicable and appropriate rules and regulations, especially those of the Florida Administrative Code.

The bureau reserves the right to revoke its acceptance of a product or process if any aspect of its nature, components, constituents, or performance has been falsely represented. Additionally, bureau acceptance of any product or process does not imply it has been deemed applicable for all cleanup situations, or that it is preferred over other treatment or cleanup techniques in any particular case. A site-specific evaluation of applicability and cost-effectiveness must be considered for any product or process, whether conventional or innovative, and adequate site-specific design details must be provided in Remedial Action Plans prescribing the product or process. You may contact me at 850/245-8911 if there are any questions.

Sincerely,

Rick Ruscito, P.E.
Bureau of Petroleum Storage Systems

c: Tom Conrardy, PCS3, Tallahassee

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ENCLOSURE 1

REGULATORY CONSIDERATIONS AND SUPPLEMENTAL INFORMATION

1. Treatment chemicals and additives: The RAPID system's conventional equipment components themselves are not associated with any specific treatment chemicals or additives, so the user is free to select those that are best-suited for each contaminated site. Since it is impossible for the Bureau of Petroleum Storage Systems to cover in this letter the specifics of every conceivable chemical or additive, the onus is on the user to make sure that applicable and appropriate rules and regulations are followed for each chemical and/or additive that is used.

This applies to all brands and types of chemicals and additives that may be introduced to the soil and groundwater by the RAPID system, regardless of whether or not they are officially accepted by the bureau. Such chemicals and additives, for example, may be oxidation chemicals, surfactants, microorganisms and their associated nutrients. Those who prepare Remedial Action Plans proposing the RAPID system should consider the toxicology and fate in the environment of the chemicals and/or the microorganisms themselves, and the intermediate and ultimate degradation products that are a result of interactions between those chemicals and the contaminants in the soil and groundwater being treated. In some cases, if a particular chemical or additive to be used in the RAPID system already holds an official product acceptance letter from the bureau, then the letter should be cited in the Remedial Action Plan and conditions or requirements set forth in the acceptance letter observed.

2. Safety: As in any remediation project, the Bureau of Petroleum Storage Systems expects attention to be paid to safety in both the design and operation of a RAPID remediation system. This includes, but is not necessarily limited to, safety considerations in the following categories: fire, electrical, mechanical, personnel, the handling and compatibility of chemicals, air emissions, and passersby.
3. Applicable regulations: For the RAPID remediation system, the chapters of the Florida Administrative Code (F.A.C.) that may be applicable include but are not necessarily limited to: Chapter 62-520 for minimum groundwater criteria in general; Chapter 62-522 for groundwater permitting and monitoring; Chapter 62-528 for underground injection control; Chapter 62-550 for groundwater criteria of drinking water contaminants; Chapter 62-770 for petroleum cleanup; and Chapter 62-777 for soil and groundwater cleanup target levels.
4. Mechanical components: The RAPID system is capable of performing pump and treat, soil washing, sparging, bioremediation, and recirculating/re-injection type closed loop remediation. The aboveground equipment items mounted on a trailer are blowers, an oil/water separator, air stripper/aeration tank, and nutrient and bioaugmentation tanks.