



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

March 16, 2001

Mr. Perry Hubbard, P.G.
Environmental Consulting & Technology, Inc.
3701 NW 98th Street
Gainesville, FL 32606

Re: **DynamOx**

Dear Mr. Hubbard:

The Bureau of Petroleum Storage Systems hereby accepts the DynamOx process as an Innovative Technology for remediation of petroleum contaminated groundwater at petroleum contamination sites. There may also be applications for this process in areas outside the regulatory jurisdiction of this bureau.

As you indicated in the process description included with your application, DynamOx is a process that allows the super-saturation of water (either tap water or groundwater recovered from the site) with oxygen. The oxygen-supersaturated water is then injected into the contaminated aquifer to augment and enhance the bioremediation of the contaminated groundwater by increasing the dissolved oxygen available to the indigenous microbe population present in the formation.

The bureau recognizes DynamOx as a technically feasible method for the remediation of contaminated groundwater at petroleum contamination sites in Florida. There are no objections to its use provided its application at a site is such that the contamination plume is not enlarged and the situation is not exacerbated by any further undesirable migration than that which has already occurred.

Please note that the Underground Injection Rule 62-528, Florida Administrative Code (F.A.C.), requires that any injected media used to remediate groundwater contamination at a petroleum contamination site must not exceed the Primary and Secondary Drinking Water Standards found in 62-550, F.A.C., or the minimum groundwater criteria established in 62-520, F.A.C. Therefore, if the site-specific cleanup strategy utilizes recovered groundwater from the site, it may be necessary to provide adequate groundwater treatment to insure that all of these standards are not exceeded in the injection or request a site-specific variance for the constituents of concern. Additionally, when the DynamOx process is used, all appropriate safety precautions associated with the handling of oxygen must be taken in order to protect workers and insure the safety of the public.

While the Department of Environmental Protection 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

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their own merits regarding performance, cost, and safety in comparison to competing alternatives in the marketplace. In no way, shall this letter stating regulatory acceptance (or conditions of regulatory acceptance) be construed as Department certification of product or process performance.

Those preparing Remedial Action Plans prescribing DynamOx may include a copy of this letter in the appendix of plans they submit, and call attention to it in the text of their document. In this way, technical reviewers throughout the state will be informed that you have contacted the Department of Environmental Protection to inquire about its acceptability from a regulatory standpoint.

The Department 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, Department 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 plans prescribing the product or process. You may contact Bert Conoly, P.E., at (850) 222-6446 ext. 256 if there are any questions.

Sincerely,

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

cc: T. Conrardy - FDEP/Tallahassee

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