Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

May 19, 2009

Trenton D. Perkins
Perkins Enterprises
P.O. Box 427
Lake Wales, Florida 33859

Re: Polyzyme 2000

Dear Mr. Perkins:

The Bureau of Petroleum Storage Systems hereby accepts Polyzyme 2000 for the encapsulation of petroleum and other suitable hydrocarbons. As the information you provided indicates, Polyzyme 2000 is a polymer/enzyme that encapsulates liquid petroleum, in quantities up to 5 times its own weight, and then cures to form a floating rubber-like mat that can easily be removed and handled. Additional information is provided in Enclosure 1. This letter supersedes the original May 7, 2009 acceptance, in order to clarify Polyzyme 2000 is capable of encapsulating not just petroleum but other suitable hydrocarbons as well.

This acceptance is applicable to the regulatory jurisdiction of the Bureau of Petroleum Storage Systems, which is the cleanup of petroleum contaminants in groundwater and soil, typically from leaking underground storage tanks, pursuant to Chapter 62-770, Florida Administrative Code (F.A.C.). For applications that are not within our jurisdiction, it is possible that other Bureaus within the Florida Department of Environmental Protection, or other state agencies, may honor this acceptance if it meets their needs and regulatory requirements. The Bureau of Petroleum Storage Systems, however, is not responsible for applications beyond its jurisdiction. For the use of absorbents to recover free petroleum product as an Interim Source Removal in accordance with Rule 62-770.300(1)(b)1, F.A.C., it is not necessary to obtain prior approval from the Florida Department of Environmental Protection or one of its contracted local programs.

Additionally, for Remedial Action pursuant to Section 62-770.700, F.A.C., there is no requirement that a remediation product or process first obtain an acceptance letter of this type in order to be proposed in a site-specific remediation plan. The Remedial Action Plan, however, must contain sufficient information to show that the product or process meets all applicable and appropriate regulations.

While the Bureau of Petroleum Storage Systems 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 and safety. Vendors must then market the products and processes on their own merit 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.

The Bureau reserves the right to revoke its acceptance of a remediation product or process if it 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 a Remedial Action Plan proposing the product or process. Copies of this letter can be made, provided each copy is of the letter in its entirety, including Enclosure 1. You may contact me at (850) 877-1133, extension 3722 if there are any questions.

Sincerely,

Rick Ruscito

Rick Ruscito, P.E.
Ecology and Environment, Inc.
Bureau of Petroleum Storage Systems
Petroleum Cleanup Section 6

Rebecca S. Lockenbach
FDEP Section Leader
Bureau of Petroleum Storage Systems
Petroleum Cleanup Section 6

Enclosure: (1) Additional Information

c: Tom Conrardy - PCS3, Tallahassee

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ENCLOSURE 1

ADDITIONAL INFORMATION

1. Description: The Material Safety Data Sheet for Polyzyme 2000 indicates that it is a white polymer/enzyme powder.

2. Toxicity testing: Perkins Enterprises provided to the Bureau of Petroleum Storage Systems the results of a 96-hour toxicity test performed on rainbow trout fry, with Polyzyme 2000 at a concentration of 100 milligrams per liter. The survival rate was 100%. The test was conducted by Pollutech Enviroquatics Ltd, Point Edward, Ontario.

3. Disposal of spent media: The onus shall be on the user to prevent pollution of air, water and soil by properly disposing of spent Polyzyme 2000 media, taking into account the hazards of the fluid that it was used to recover. For disposal of spent Polyzyme 2000 used for fuel oil recovery, via incineration, Perkins Enterprises indicates that the heating value is approximately 19,000 BTUs per pound.

   As for disposal via landfill, spent Polyzyme 2000 that has recovered used oil as a result of spills or accidental releases can be disposed at a permitted, lined Class I or Class II landfill per Solid Waste Management Facilities Rule 62-701.300(11)(b), F.A.C. Like petroleum-contaminated soil that is disposed at such lined landfills in accordance with Rule 62-701.520(4), F.A.C., the spent Polyzyme 2000 that is laden with encapsulated liquid must not be classifiable as a hazardous waste due to ignitability, corrosivity, reactivity and toxicity. See Chapter 62-730, F.A.C., Hazardous Waste, for additional information about hazardous waste classifications.