

# 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

July 9, 2008

Leonardo "Leo" Adames  
Bluestone Environmental, LLC  
655 West Flagler Street, Suite 206  
Miami, Florida 33130

Re: **OrganiCide™**

Dear Mr. Adames:

The Bureau of Petroleum Storage Systems hereby reaffirms its acceptance of OrganiCide™, which is used in Bluestone Environmental's OrganiCide™ System for in situ and ex situ remediation of petroleum hydrocarbons and other suitable organic contaminants in groundwater and soil. This reaffirmation supersedes the original acceptance that was issued January 31, 2006 in order to show that the OrganiCide™ trademark is now owned by Bluestone Environmental LLC. Since the formulation of OrganiCide™ remains the same, no changes have been made to the regulatory and technical aspects of the acceptance.

Having reviewed information that both you and the manufacturer have provided, we describe OrganiCide™ as a blend of different types of surfactants that produce colloidal micelles, which in turn act on the contaminants, breaking them down to a micro-emulsion that is more easily degraded by indigenous bacteria already present at a cleanup site. The biodegradable nature of the OrganiCide™ ingredients themselves -- derived from vegetable fatty acids -- is such that they too become part of the carbon food source for the indigenous bacteria. Enclosure 1 is a voucher for a confidential disclosure of the proprietary ingredients of OrganiCide™.

For vadose remediation, where the underlying groundwater will not be affected by the leaching of OrganiCide™, there are no special concerns beyond those that would normally be addressed in preparing a Remedial Action Plan and conducting a cleanup in accordance with Chapters 62-770 and 62-777, Florida Administrative Code (F.A.C.). However, for in situ, injection-type groundwater remediation, there are groundwater and underground injection control (UIC) regulations that must be observed. Since groundwater and UIC regulations

Leonardo "Leo" Adames

July 9, 2008

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usually receive the greatest amount of regulatory attention when a chemical product is used for aquifer remediation, the bulk of the discussion herein will be directed toward that topic.

The Bureau recognizes OrganiCide™ as a viable product for the remediation of contaminated sites in Florida. There are no objections to its use provided: (a) the considerations of this letter are taken into account; (b) Rule 62-522.300(2)(c), F.A.C., is observed with respect to surfactants, ammonia nitrogen, and phosphorus; and (c) a site-specific Remedial Action Plan is submitted pursuant to Chapter 62-770, F.A.C., and approved by the Department for each site where the use of OrganiCide™ is proposed. Regulations that apply are discussed in enclosure 2.

While the Department of Environmental Protection does not provide endorsement of 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 merits regarding performance, cost, and safety in comparison to competing alternatives in the marketplace. In no way, however, shall this regulatory acceptance be construed as Department certification of product or process performance. Additionally, the Department emphasizes a distinction between its regulatory "acceptance" and an approval. Products and processes are accepted but they are not approved.

Also, it is 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.


Those who prepare Remedial Action Plans are advised to include a copy of this letter in the appendix of the 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 the environmental acceptability of OrganiCide™. To aid those reviewers, the Bureau of Petroleum Storage Systems provides supplemental information as enclosure 3.

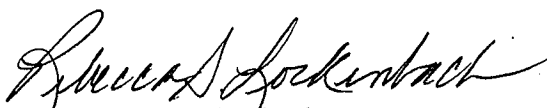
The Department reserves the right to revoke its acceptance of a product or process if it has been falsely represented. Additionally, Department acceptance of any product or process does not imply it has been deemed applicable for all cleanup situations, or that it is preferred over other treatment or 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 a

Leonardo "Leo" Adames  
July 9, 2008  
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Remedial Action Plan. You may contact me at (850) 877-1133, extension 3722 if there are any questions.

Sincerely,

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

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

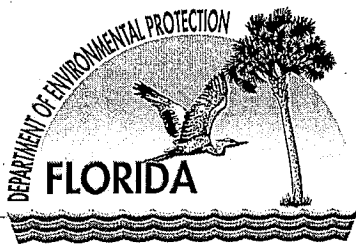
- Enclosures: (1) Proprietary Ingredients Voucher for OrganiCide™  
(2) Regulatory Information  
(3) Supplemental Information  
(4) Underground Injection Control Notification Memorandum

c: T. Conrardy – FDEP MS 4530/Tallahassee

History:

ppl #290  
IT 31644  
inn\_141.doc  
1/31/06

ppl #357  
inn\_141d.doc  
7/9/08



# Florida Department of Environmental Protection

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2600 Blair Stone Road  
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July 9, 2008

Leonardo "Leo" Adames  
Bluestone Environmental, LLC  
655 West Flagler Street, Suite 206  
Miami, Florida 33130

**Re: Proprietary Ingredients Voucher for OrganiCide™**

Dear Mr. Adames:

On January 24, 2006, the Bureau of Petroleum Storage Systems received a confidential disclosure describing the ingredients and their proportions in a remediation product called OrganiCide™, which is used in Bluestone Environmental's OrganiCide™ System remediation process. The disclosure was submitted by the manufacturer. The information in the disclosure was reviewed by the Bureau of Petroleum Storage Systems, for the purpose of identifying groundwater and underground injection control rules and regulations that apply when OrganiCide™ is used for the cleanup of contaminated sites.

OrganiCide™ is a blend of different types of surfactants that produce colloidal micelles, which in turn act on the contaminants, breaking them down to a micro-emulsion that is more easily degraded by indigenous bacteria already present at a cleanup site. As Bluestone Environmental and the manufacturer have indicated, OrganiCide™, which is shipped as a concentrate, is diluted by the user prior to application, and that a typical field dilution is 1 part OrganiCide™ concentrate to 1,000 parts water (expressed in writing as 1:1,000) and that the range of field dilutions is 1:500 to 1:2,000. It is the concentration of ingredients in the field-diluted solution introduced to the groundwater that the Bureau has compared to Florida's groundwater and underground injection control standards. The purpose of the comparison was to determine whether monitoring of the groundwater is necessary for any of the ingredients.

Having compared the concentrations of OrganiCide™ ingredients to groundwater standards for the most concentrated application (the 1:500 dilution) the Bureau hereby vouches for the chemical composition and advises that groundwater be monitored for the following: surfactants, ammonia nitrogen and phosphorus. Without divulging the specific identity of any proprietary ingredient, the Bureau provides a discussion below for users of OrganiCide™, and reviewers of Remedial Action Plans in which it is proposed. In this way, the reasons why

these parameters should be monitored for compliance with Florida's underground injection control and groundwater regulations can be known.

**Surfactants.** As a result of a literature search, the Bureau finds that OrganiCide™ contains the following types of surfactants: nonionic, anionic, amphoteric and cationic. Surfactants are regulated by the secondary drinking water standards set forth in Chapter 62-550, F.A.C., which describes them as "foaming agents" (although not all surface-active agents create foam). The secondary groundwater standard set for these agents by Chapter 62-550, F.A.C., is 0.5 milligrams per liter (mg/L) maximum. The Bureau agrees with a suggestion by the University of Florida Center for Environmental and Human Toxicology that surfactants should not be used in significant amounts when potable water wells are very close by. Additionally, the total residual concentration for all surfactants combined should not exceed 0.5 mg/L in the groundwater by the time an in situ aquifer remediation project is completed.

**Ammonia.** OrganiCide™ ingredients contain ammoniacal nitrogen, and the total concentration of this type of nitrogen in the remediation fluid applied or injected to the groundwater is in excess of the current 2.8 mg/L standard set by Chapter 62-777, F.A.C. For this reason, users of OrganiCide™ are advised to monitor the groundwater for ammonia nitrogen.

**Phosphorus.** OrganiCide™ ingredients contain a phosphate. Phosphorus is an element that is essential for life. It is not a regulated groundwater contaminant and it occurs naturally in Florida's groundwater. At a Panama City, Florida site, total phosphorus in the groundwater was measured at 800 to 1,100 micrograms per liter (ug/L), and at a Volusia County site it was measured at 1,200 ug/L, as PO<sub>4</sub>. For comparison purposes, the European Community Guide level for phosphorus in drinking water is 400 ug/L, as P<sub>2</sub>O<sub>5</sub>. While phosphorus may not be a matter of great toxicological concern for in situ injection-type groundwater remediation projects, the Bureau would like to remind users of OrganiCide™ that it could become an environmental concern if surface water is very close or present at a remediation site. In that case, if there could be any interaction between the groundwater being remediated and the nearby surface water body, then the state's surface water regulations should be reviewed first for information about phosphorus.

For underground injection control purposes, remediation plans proposing OrganiCide™ must provide the volume and composition of the fluid to be injected (or introduced by other means) into an aquifer. Since the composition is proprietary, it will suffice to indicate the overall volume and dilution ratio of the OrganiCide™ solution to be injected, and provide a footnote indicating that a one-time confidential disclosure regarding the proprietary composition was received by the Department on January 24, 2006. A copy of this voucher should be included as an appendix of the plan.

Leonardo "Leo" Adames  
Voucher  
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OrganiCide™

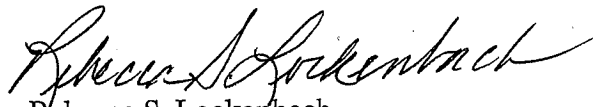
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Reviewers of remediation plans that propose the use of OrganiCide™ for the cleanup of a petroleum-contaminated site may contact Rick Ruscito at (850) 877-1133, extension 3722.

Sincerely,



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 2

REGULATORY INFORMATION

- a. Groundwater cleanup standards: The onus shall be on users of OrganiCide™ to ensure that all applicable groundwater contaminant standards will be met at the time of project completion for petroleum, other contaminants that may be present, any residuals associated with the ingredients of OrganiCide™, and any byproducts produced as a result of chemical or biochemical reactions involving those ingredients. The following chapters of the Florida Administrative Code are cited: Chapter 62-550, F.A.C., for primary and secondary water quality standards; Chapter 62-520, F.A.C. for groundwater classes and standards, and minimum criteria; Chapter 62-522, F.A.C., for groundwater permitting and monitoring requirements; Chapter 62-528, F.A.C., for underground injection control, particularly Part V, for Class V, Group 4 aquifer remediation projects; Chapter 62-770, F.A.C., for petroleum cleanup criteria; and Chapter 62-777, F.A.C., also for minimum groundwater criteria.

A noteworthy aspect of the minimum criteria set forth in Chapter 62-520, F.A.C., is that it requires groundwater to be free from substances that are harmful to plants, animals, and organisms, and free from substances that are carcinogenic, mutagenic, teratogenic or toxic to human beings. In effect, these "free from" requirements form a catchall. They close what would otherwise be a loophole in the regulations by preventing injection of a potentially harmful product in the event that any of its ingredients is not regulated as a specific primary or secondary drinking water contaminant.

- b. Injection well permit: The issuance of a site-specific Remedial Action Plan Approval Order by the Bureau of Petroleum Storage Systems, the Bureau of Waste Cleanup or a district office of the Florida Department of Environmental Protection, for remediation via injection of OrganiCide™ into an aquifer, constitutes the granting of a Class V injection well permit. [Ref. 62-528.630(2)(c) and 62-528.640(1)(c), F.A.C.]
- c. Groundwater injection standards: For in situ aquifer remediation, the composition of an injected fluid must meet the drinking water standards set forth in Chapter 62-550, F.A.C., pursuant to underground injection control Rule 62-528.600(2)(d), F.A.C.
- d. Zone of discharge by rule: For injection-type, in situ aquifer remediation using OrganiCide™, Rule 62-522.300(2)(c), F.A.C., requires that a site-specific Remedial Action Plan proposing its use: (a) indicate that the concentrations of surfactants and ammonia nitrogen in the fluid to be injected will be in excess of their groundwater injection standards, and that phosphorus, although not regulated as a groundwater contaminant, is also present; (b) specify a temporary zone of discharge size; (c) specify the period of time for which the temporary zone of discharge will be needed; and (d) propose groundwater monitoring of the surfactants, ammonia nitrogen and phosphorus. The current maximum allowable groundwater concentrations for these parameters are 0.5 milligrams per liter (mg/L) for surfactants (regulated as foaming agents) and 2.8 mg/L for ammonia nitrogen. Phosphorous does not have an established groundwater standard in the Florida Administrative Code. If the

groundwater's natural-occurring background level for surfactants or ammonia nitrogen at a specific remediation site do not meet the established standard, then the residual level of those parameters by the time remedial action ends shall be no greater than the pre-existing, pre-injection, natural-occurring background level. For phosphorus, which is not a regulated groundwater contaminant, the concentration by the time remediation ends shall also be no greater than the pre-existing natural-occurring background concentration.

- e. Surfactant analysis. In Chapter 62-550, F.A.C., surfactants are described as "foaming agents" and are regulated as secondary drinking water contaminants. The maximum allowable concentration is 0.5 mg/L. Method SM 5540 is cited in Chapter 62-550, F.A.C., as a recognized laboratory method for the measurement of surfactant concentration in water samples, and is published in *Standard Methods for the Examination of Water and Wastewater*.
- f. Utilization of wells: If a remediation site happens to have an abundance of monitoring wells, then the Department has no objection to the use of some wells for the application of OrganiCide™. However, no "designated" monitoring well, dedicated to the tracking of remediation progress (by sampling) shall be used to apply OrganiCide™. This will avoid premature conclusions that the entire site meets cleanup goals. By making sure that designated tracking wells are not also used for treatment, there will be more assurance that the treatment process has permeated the entire site and that it did not remain localized to the area immediately surrounding each injection well.
- g. Additives: If, in the future, either the manufacturer or Bluestone Environmental or a user of OrganiCide™ decides to augment it with other types of nutrients and/or chemicals, the injection of such nutrients and chemicals into an aquifer must also be in accordance with the underground injection control requirements of Chapter 62-528, F.A.C., which require that substances injected meet the drinking water standards set forth Chapter 62-550, F.A.C., and the minimum groundwater criteria of Chapter 62-520, F.A.C. Additionally, minimum groundwater criteria for specific chemicals are listed in Chapter 62-777, F.A.C.
- h. Groundwater monitoring:
  - 1. Active remediation monitoring: During the period of active remediation, groundwater contaminants of concern shall be monitored in accordance with the requirements set forth in Section 62-770.700, F.A.C.
  - 2. Post remediation monitoring: At least one (1) year of quarterly post remediation groundwater monitoring of the contaminants of concern shall be conducted at a minimum of two (2) wells, one located in the area of maximum contamination, the other downgradient of the area of maximum contamination, pursuant to Section 62-770.750, F.A.C.
  - 3. Underground injection control monitoring: For Underground Injection Control purposes, when OrganiCide™ is injected, the groundwater must be monitored for surfactant,

ammonia nitrogen and phosphorus, pursuant to Rule 62-522.300(2)(c), F.A.C., as discussed above in paragraph d.

- i. ~~Underground injection control inventory: Remedial Action Plans prescribing injection-type, in situ aquifer remediation shall include information pursuant to Rule 62-528.630(2)(c)1 through 6, F.A.C., for the inventory purposes of underground injection control. Per Rule 62-528.630(2)(c), F.A.C., aquifer remediation projects involving injection wells may be authorized under the provisions of a Remedial Action Plan, provided the construction, operation, and monitoring requirements of Chapter 62-528, F.A.C., are met. A memorandum outlining the inventory information about injection-type aquifer remediation plans to be transmitted by Department reviewers to the Underground Injection Control Section is provided as enclosure 4. Only reviewers within the Department, including its district offices, may approve in situ injection-type remediation plans in which the approval constitutes a Class V injection permit; local programs are not authorized to grant such approvals. See enclosure 3.~~
- j. Operation:
  1. Avoidance of migration: For injection-type, in situ aquifer remediation projects, injection of OrganiCide™ shall be performed in such a way, and at such a rate and volume, that no undesirable migration of either the product's ingredients or the petroleum contaminants in the aquifer results, pursuant to Rule 62-528.630(3), F.A.C.
  2. Underground injection control operating permit: Although an operating permit is not required for aquifer remediation wells pursuant to Rule 62-528.640(1)(b), and 62-528.640(1)(c), F.A.C., since no movement of the petroleum contamination plume is expected to accompany the OrganiCide™ treatment process, the Department requests that the information items listed in Rule 62-528.640(1)(b), F.A.C., be considered and included in Remedial Action Plan proposals as a matter of good and thorough design practice. Briefly summarized, they are: quality of water in the aquifer; quality of the injected fluid; existing and potential uses of the affected aquifer; and well construction details. Additionally, each Remedial Action Plan should clearly indicate the total volume of OrganiCide™ that will be injected.
  3. Operating parameter measurements: Rule 62-770.700(9)(h), F.A.C., sets forth frequency requirements for the measurement of bioremediation operating parameters such as dissolved oxygen levels, rates of nutrient addition, temperature, etc. It also includes an option for reduction in the frequency or discontinuation of some measurements in situations when appropriate.
- k. Abandonment of wells: Upon issuance of a petroleum Site Rehabilitation Completion Order, or a declaration of "No Further Action", injection wells shall be abandoned pursuant to Section 62-528.645, F.A.C. The Underground Injection Control Section of the Department shall be notified so that the injection wells can be removed from the inventory-tracking list.

ENCLOSURE 3

SUPPLEMENTAL INFORMATION

- a. Department of Environmental Protection reviewers of injection-type, in situ aquifer remediation plans, regardless of whether in Tallahassee or district offices, must fill in the blanks on the enclosure 4 memorandum, whose subject is "Proposed Injection Well(s) for In situ Aquifer Remediation at a Petroleum Remedial Action Site". The completed form must be submitted to the Underground Injection Control Section at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

Only reviewers within the Department and its district offices may approve injection-type, in situ remediation plans in which the approval constitutes the issuance of a Class V injection permit; local programs are not authorized to grant such approvals. Reason: Although an arrangement between the Environmental Protection Agency and the Department delegates underground injection control authority to the Department, it does not allow the Department to delegate that authority any further. This includes delegation to the Department's contracted remediation review agencies such as those operated by the counties and other local governments.

- b. Bluestone Environmental's OrganiCide™ System requires only common equipment items such as hoses, PVC tubing, metal piping, air compressors, generators and water.
- c. Pilot study: For an innovative technology, per rule 62-770.700(2), F.A.C., a pilot study proposal shall be submitted for review, and a pilot test shall be performed prior to designing a treatment system. If conditions or the situation at a site do not warrant a pilot study, then a proposal explaining the rationale for the decision not to perform a pilot study shall be submitted for review. Bluestone Environmental indicates that a pump test and a percolation test should be performed at a site in order to determine a flow rate for the design of a full-scale OrganiCide™ system.
- d. Dosage and application: Bluestone Environmental indicates that the typical dosage range (as a ratio of parts OrganiCide™ to parts water) for in situ petroleum soil remediation is 1:500 to 1:2,000. For the treatment of contaminated waters only (such as wastewater, ponds, rivers, and lagoons) the ratio can be as high as 1:10,000.

For in situ soil and aquifer remediation, OrganiCide™ can be applied using a recirculating/re-injection type system that continuously pumps an air/water/OrganiCide™ mixture through the contaminated area until total degradation of the contaminants is achieved. Bluestone Environmental indicates that cleanup times as brief as 30 to 90 days are possible. For in situ treatment of sandy areas, a typical radius of influence is 15 to 20 feet (and could be as great as 30 feet). For dense clays, a smaller design radius of influence of 3 to 5 feet is likely. For ex situ treatments, mixing, rather than a radius of influence is the

important factor. Either intensive mixers or the force of compressed air can be used to keep the treatment fluids and the contaminants in continuous contact.

- e. ~~Design factors and operating parameters.~~ Bluestone Environmental indicates that design factors should be identified on a case-by-case basis, but provides the following as a list of typical parameters: pH, conductivity, porosity, bio-activity, geochemical composition, groundwater flow speed, soil type, aquifer depth, and vertical and horizontal extent of contamination. Using this information, the following treatment system parameters can be established: OrganiCide™/air/water circulation rate, flux, and injection well screening. There is no optimum temperature or dissolved oxygen requirement for the treatment process but it is indicated that the rate of contaminant degradation increases as each of these parameters increase.
  
- f. Degradation products: Carbon dioxide, oxygen and water, and depending on the type of contaminants being treated, trace amounts of nitrate and/or halogens. Bluestone Environmental indicates that OrganiCide™ reacts strongly with certain halogens in the water phase.

**Memorandum**

**Florida Department of  
Environmental Protection**

TO: Cathy McCarty, Mail Station 3530  
Division of Water Resource Management  
Underground Injection Control Section  
Florida Department of Environmental Protection  
2600 Blair Stone Road, Tallahassee, FL 32399-2400

FROM: \_\_\_\_\_ [see Note 1.]  
\_\_\_\_\_  
\_\_\_\_\_

DATE: \_\_\_\_\_

SUBJ: **Proposed Injection Well(s) for In Situ Aquifer  
Remediation at a Petroleum Remedial Action Site**

Pursuant to paragraph 62-528.630(2)(c), F.A.C., inventory information is hereby provided regarding the proposed construction of temporary injection well(s) for the purpose of in situ aquifer remediation at a petroleum-contaminated site.

Site name: \_\_\_\_\_  
Site address: \_\_\_\_\_  
City/County: \_\_\_\_\_  
Latitude/Longitude: \_\_\_\_\_  
FDEP Facility Number: \_\_\_\_\_

Site owner's name: \_\_\_\_\_  
Site owner's address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Well contractor's name: \_\_\_\_\_ [see Note 2.]  
Well contractor's address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Brief description of the in situ injection-type aquifer remediation project:  
\_\_\_\_\_  
\_\_\_\_\_

Summary of major design considerations and features of the project:  
Areal extent of contamination (square feet): \_\_\_\_\_  
Number of injection wells: \_\_\_\_\_

Cathy McCarty

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Date: \_\_\_\_\_

Site name: \_\_\_\_\_

FDEP Facility No.: \_\_\_\_\_

Composition of injected fluid [see Note 3.]

(ingredient, wt. %): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Injection volume per well (gallons): \_\_\_\_\_

Single or multiple injection events: \_\_\_\_\_

Injection volume total (all wells, all events): \_\_\_\_\_

A site map showing the areal extent of the groundwater contamination plume, and the location and spacing of injection wells and associated monitoring wells is attached.

The following is a summary description of the affected aquifer:

Name of aquifer: \_\_\_\_\_

Depth to groundwater (feet): \_\_\_\_\_

Aquifer thickness (feet): \_\_\_\_\_

The injection well(s) features are summarized below, and/or a schematic of the injection well(s) is attached.

Direct-push or HSA/Mud rotary (*circle the appropriate well type*)

Diameter of well(s) (i.e., riser pipe & screen) (inches): \_\_\_\_\_

Total depth of well(s) (feet): \_\_\_\_\_

Screened interval: \_\_\_\_\_ to \_\_\_\_\_ feet below land surface

Grouted interval: \_\_\_\_\_ to \_\_\_\_\_ feet below land surface

Casing diameter, if applicable (inches): \_\_\_\_\_

Cased depth, if applicable: \_\_\_\_\_ to \_\_\_\_\_ feet below land surface

Casing material, if applicable: \_\_\_\_\_

The in situ injection-type aquifer remediation plan for this petroleum contaminated site is intended to meet the groundwater petroleum cleanup criteria set forth in Chapter 62-770, F.A.C. Additionally, all other groundwater standards will be met at the time of project completion for any residuals associated with the ingredients of the injected remediation products, and any by-products or intermediates produced as a result of the chemical or biochemical transformation of those ingredients or the contaminating petroleum during their use. Applicable primary and secondary drinking water standards are set forth in Chapter 62-550, F.A.C., and additional groundwater quality criteria are set forth in Chapters 62-520 and 62-777, F.A.C.

The remediation plan estimates that site remediation will take \_\_\_\_\_ months. We will notify you if there are any modifications to the remediation strategy which will affect the injection well design or the chemical composition and volume of the injected remediation product(s).

Cathy McCarty

Page 3 of 3

Date: \_\_\_\_\_

Site name: \_\_\_\_\_

FDEP Facility No.: \_\_\_\_\_

The proposed remediation plan was approved on \_\_\_\_\_ by an enforceable approval order. A copy is attached. The remediation system installation is expected to commence within 60 days. Please call me at \_\_\_\_\_ if you require additional information.

Note 1. Local programs are not authorized to approve underground injections into aquifers. Reason: Per agreement with the USEPA, the FDEP cannot delegate this authority. Local programs, after reviewing a Remedial Action Plan or an injection proposal document, should prepare the Approval Order and route it to Tallahassee for Bureau Chief's signature, and then complete this form. This form is primarily for use by state and local program technical reviewers, but petroleum remediation contractors may fill in all blanks except those labeled "FROM" and "DATE" on page 1, and the approval date and telephone number blanks in the last paragraph. Those blanks should be completed only by a state or local program reviewer.

Note 2. If an injection well installation contractor has not yet been selected, then indicate the name and address of the project's general remediation contractor/consultant.

Note 3. Complete chemical analysis of injected fluid is required by Chapter 62-528, F.A.C. Proprietary formulations shall make confidential disclosure. Injected fluids must meet drinking water standards of Chapter 62-550, F.A.C., unless an exemption or variance has been granted.