

BEFORE THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re: Environmental Remediation  
Consultants, Inc.

Petition for Variance

OGC File No. 00-0986

FINAL ORDER GRANTING PETITION FOR  
VARIANCE FROM RULE 62-522.300(2)(a), F.A.C.

On May 5, 2000, Environmental Remediation Consultants, Inc., filed a petition for variance from requirements in rule 62-522.300(2)(a) of the Florida Administrative Code, under section 120.542 of the Florida Statutes and rule 28-104.002 of the Florida Administrative Code. The petition was for a variance from rule 62-522.300(2)(a), which prohibits a zone of discharge for discharges through wells, in order to use its in-situ remedial technology. This technology process involves the use of wells or borings which is considered installation of one or more temporary Class V underground injection control wells at the site of contamination. A notice of receipt of the petition was published in the Florida Administrative Weekly on May 26, 2000.

1. Petitioner is located at 677 North Washington Boulevard, Suite 27, Sarasota, Florida 34236.

2. Environmental Remediation Consultants, Inc., wants to use in-situ/ex-situ biodegradation using bacterial inoculum and aqueous abiotic co-treatment amendments in a process called BIO-

INTEGRATION (Note: this has a trademark, but the TM symbol does not appear) technology for the remediation of sites contaminated with chlorinated hydrocarbons, petroleum, and other suitable contaminants.

3. Under rule 62-520.420 of the Florida Administrative Code, the standards for Class G-II ground waters include the primary and secondary drinking water standards of rules 62-550.310 and 62-550.320 of the Florida Administrative Code.

4. BIO-INTEGRATION technology enhances natural attenuation processes in soil and ground water. The ultimate degradation products are carbon dioxide, water, and halogens if present. No intermediates are formed. The technology uses the injected amendments in an aqueous solution of 4.5% by weight, maximum, which may contain as much as 6.0 mg/L foaming agents, 15,000 mg/L nitrate (as N), 5,000 mg/L sodium, 40,600 mg/L TDS, could have a pH as low as 4.5, and if used at a halogen-impacted site, liberated chlorides could theoretically approach 782 mg/L. Upon injection of the BIO-INTEGRATION amendments into a plume of contaminated ground water, it is possible that the concentrations of foaming agents, chlorides, total dissolved solids (TDS), and pH may be exceed their respective secondary drinking water standards, and nitrate and sodium exceed their primary drinking water standards. The presence of foaming agents, chlorides, TDS, pH, nitrate, and sodium above the drinking water standards has no anticipated adverse impacts to human health because such

exceedances will occur only in ground water at a site already contaminated by organics, and the ground water is not presently used for domestic purposes. No other constituents of the injected product or resulting remediation by-products will exceed any primary or secondary drinking water standard. The foaming agents, chlorides, TDS, pH, nitrate, and sodium will return to meeting the their respective standards, or natural background, whichever is less, at most, one year from injection.

5. The injection of this product through temporary wells or borings is considered a type of underground injection control well, Class V, Group 4, "injection wells associated with an aquifer remediation project," as described in rule 62-528.300(1)(e)4 of the Florida Administrative Code. Under rule 62-528.630(2)(c), "Class V wells associated with aquifer remediation projects shall be authorized under the provisions of a remedial action plan . . . provided the construction, operation, and monitoring of this Chapter are met."

6. The rule (62-522.300(2)(a)) from which this petition seeks a variance prohibits the Department from granting a zone of discharge for a discharge through an injection well to Class G-II ground water. Strict adherence to this rule would preclude the Department from granting approval for the in-situ use of BIO-INTEGRATION for remediation of contaminated ground water and soils.

7. The applicable rules state in pertinent part:

62-522.300(1) . . . [N]o installation shall directly or indirectly discharge into any ground water any contaminant that causes a violation in the ground water quality standards and criteria for the receiving ground water as established in Chapter 62-520, F.A.C., except within a zone of discharge established by permit or rule pursuant to this chapter.

62-522.300(2) No zone of discharge shall be allowed under any of the following circumstances:

(a) Discharges through wells or sinkholes that allow direct contact with Class G-I and Class G-II ground water . . . .

8. Environmental Remediation Consultants, Inc., has stated in its petition that to apply the zone of discharge prohibition to its use of this remediation technology would create a substantial hardship because the use of the technology is to remediate contaminated ground water as quickly and inexpensively as possible, without causing further harm to the environment or public health. The petition also states that other methods of remediation not using in-situ products or processes are more costly and take longer. Remediation would improve the water quality, and to prohibit any exceedance of the drinking water standards in such a small area of already contaminated ground water and for short duration would cause a substantial hardship. This small and temporary exceedance is not the usual occurrence, nor are most dischargers involved in the remediation of contaminated ground water. By allowing the use of the in-situ BIO-INTEGRATION, the clean up of the contaminated ground water and soils will be accelerated and returned to a usable condition.

In addition, the use of the in-situ BIO-INTEGRATION has been tentatively approved by the Department's Division of Waste Management as being a sound environmental solution to the contamination, so long as Environmental Remediation Consultants, Inc., is able to obtain a variance.

9. Zones of discharge for the use of the in-situ BIO-INTEGRATION are necessary because of the temporary exceedance of foaming agents, chlorides, TDS, pH, nitrate, and sodium in the ground water immediately surrounding the injection. Because this ground water is already contaminated and does not meet all applicable standards, allowing a zone of discharge as part of an approved remediation strategy for contaminants meets the purpose of the underlying statute, which is to improve the quality of the waters of the state for beneficial uses. Such contaminated ground water is not presently used for drinking purposes, thus posing no threat to human health.

10. The Department received no comments about the petition for variance.

11. For the foregoing reasons, Environmental Remediation Consultants, Inc., has demonstrated that it is entitled to a variance from the prohibition of zones of discharge in rule 62-522.300(2)(a) for its remedial product, with the conditions below.

a. Use of the in-situ BIO-INTEGRATION must be through a Department-approved remedial action plan, or other Department-

enforceable document, for an aquifer remediation project and such approval shall not be solely by a delegated local program.

b. The discharge to the ground water must be through a Class V, Group 4 underground injection control well which meets all of the applicable construction, operating, and monitoring requirements of chapter 62-528 of the Florida Administrative Code.

c. The extent of the zone of discharge for foaming agents, chlorides, TDS, pH, nitrate, and sodium shall be a 50-foot radius from the point of injection and the duration of the zone of discharge shall be one year. This will allow ample time for the temporarily exceeded parameters to return to below their respective drinking water standards, or natural background, whichever is less (or above the standard for pH).

d. The injection of the product shall be at such a rate and volume that no undesirable migration occurs of either the product, its by-products, or the contaminants already present in the aquifer.

e. The Department-approved remedial action plan shall address appropriate ground water monitoring requirements associated with the use of the in-situ BIO-INTEGRATION for remediation based on site-specific hydrogeology and conditions. These shall include the sampling of ground water at monitoring wells located outside the contamination plume, before use of the in-situ BIO-INTEGRATION, to determine the background levels of foaming

agents, chlorides, TDS, pH, nitrate, and sodium which are the parameters pertinent to this variance. They should also include monitoring of these parameters in ground water downgradient from the injection points for at least one year after active remediation.

This order will become final unless a timely petition for an administrative hearing is filed under sections 120.569 and 120.57 of the Florida Statutes before the deadline for a filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the Department's action may file for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Petitions filed by the Environmental Remediation Consultants, Inc., or any of the parties listed below must be filed within 21 days of receipt of this written notice. Petitions filed by any other persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within 21 days of publication of the public notice receipt of the written notice, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency

action may file a petition within 21 days of receipt of such notice, regardless of the date of publication. The petitioner shall mail a copy of the petition to Environmental Remediation Consultants, Inc., 677 North Washington Boulevard, Suite 27, Sarasota, Florida 34236, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

(a) The name, address, and telephone number of each petitioner; the Department case identification number and the county in which the subject matter or activity is located;

(b) A statement of how and when each petitioner received notice of the Department action;

(c) A statement of how each petitioner's substantial interests are affected by the Department action;



(d) A statement of the material facts disputed by the petitioner, if any;

(e) A statement of facts that the petitioner contends warrant reversal or modification of the Department action;

(f) A statement of which rules or statutes the petitioner contends require reversal or modification of the Department action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

A petition that does not dispute the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301.

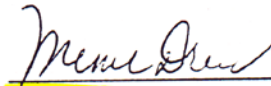
Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation under section 120.573 of the Florida Statutes is not available for this proceeding.

This action is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above.

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

DONE AND ORDERED this 12 day of July 2000 in  
Tallahassee, Florida.



Mimi A. Drew  
Director  
Division of Water Resource  
Management

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Mail Station 3500  
Tallahassee, Florida 32399-2400  
Telephone: (850) 487-1855

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to s. 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

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Clerk

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Date

Copies furnished to:

George Heuler, UIC Section  
Jeff Lockwood, Bur. Waste Cleanup  
Brent Hartsfield, Bur. Waste Cleanup  
Rick Ruscito, Petroleum Cleanup  
Cynthia Christen, OGC

CERTIFICATE OF SERVICE

I certify that a copy of the foregoing Final Order has been furnished to C.M. Parris II by facsimile at 941/957-3630, and by U.S. Mail at Environmental Remediation Consultants, Inc., 677 North Washington Boulevard, Suite 27, Sarasota, Florida 34236, on this \_\_\_\_\_ day of July 2000.

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Cynthia K. Christen  
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