

BEFORE THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re: Department of the Air Force

Petition for Variance

OGC File No. 00-2035

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FINAL ORDER GRANTING PETITION FOR  
VARIANCE FROM RULE 62-522.300(3), F.A.C.

On October 20, 2000, the Department of the Air Force filed a petition for variance from requirements in rule 62-522.300(2)(a) (renumbered in August 2000 as and hereafter cited as 62-522.300(3)) 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(3), which prohibits a zone of discharge for discharges through wells, in order to use an in-situ remedial process in a pilot study to evaluate the effectiveness in remediation of ground water at Operable Unit 30 of the former Homestead Air Force Base. This 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 November 17, 2000.

1. Petitioner is located at 29050 Coral Sea Boulevard, Building 736, Homestead Air Force Base, Florida 33039-1299.

2. The Department of the Air Force wants to use ferric chloride as an adsorption enhancement for the removal of arsenic in ground water during the remediation of Operable Unit 30. At this time, such use would be as a pilot study. Petitioner is required to conduct this pilot study as part of a Record of Decision for Operable Units 20/21, 30, and 31 at the former Homestead Air Force Base, approved and signed by the Department and the US Environmental Protection Agency, Region 4.

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. Ferric chloride solution is shipped as liquid, which is mixed with clean water prior to application by injection. The ferric chloride to be used is a 1% solution. Upon injection into the ground water, the pH, total dissolved solids (TDS), and concentrations of iron, chloride, and manganese may exceed their secondary drinking water standards established in rule 62-550.320, F.A.C.; and possibly chromium and nickel may exceed their primary drinking water standards established in rule 62-550.310; and molybdenum, vanadium, and thallium may temporarily exceed their respective ground water clean-up target levels in chapter 62-777. No exceedance would extend further than a small

area of fifty feet around the immediate point of injection. The presence of pH, TDS, iron, chloride, manganese, chromium, nickel, molybdenum, vanadium, and thallium above the drinking water standards, (maximum contaminant levels "MCLs") or ground water cleanup target levels (GWTLs), has no anticipated adverse impacts to human health because such exceedances will occur only in ground water at a site already contaminated by arsenic, 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 or ground water target level. The pH, TDS, iron, chloride, manganese, chromium, nickel, molybdenum, thallium and vanadium will return to meeting the their respective standards or levels, or natural background, whichever is less, within 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(3)) 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 ferric chloride for remediation of contaminated ground water.

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(3) Other discharges through wells or sinkholes that allow direct contact with Class G-I, F-I, or Class G-II ground water shall not be allowed a zone of discharge.

8. The Department of the Air Force 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 or ground water clean-up target levels 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 injected ferric chloride as part of the pilot study, the clean up of the contaminated ground water at the former Homestead Air Force Base will be accelerated and returned to a usable condition. In addition, the use of the injected ferric chloride has been tentatively approved by the Department, and was part of the Record of Decision, which required Petitioner to evaluate its effectiveness.

9. Zones of discharge for the use of the injected ferric chloride are necessary because of the temporary exceedance of pH, TDS, iron, chloride, manganese, chromium, nickel, molybdenum, vanadium, thallium 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, the Department of the Air Force has demonstrated that it is entitled to a temporary variance from the prohibition of zones of discharge in rule 62-522.300(3) for use of ferric chloride as a pilot study at the former Homestead Air Force Base, Operable Unit 30, with the conditions below.

a. Use of ferric chloride 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 that 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 pH, TDS, iron, chloride, manganese, chromium, nickel, molybdenum, vanadium, and thallium shall be a 50-foot radius from the point of injection and the duration of the zone of discharge shall be one year from last injection. This will allow ample time for the temporarily exceeded parameters to return to below their respective drinking water standards or clean-up target levels, or natural background, whichever is less.

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 injected ferric chloride 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 ferric chloride, to determine the background levels of pH, TDS, iron, chloride, manganese, chromium, nickel, molybdenum, vanadium, and thallium which are the parameters pertinent to this variance. Monitoring shall be required of all 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 Department of the Army 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 AFBCA/DA Homestead, 29050 Coral Sea Boulevard, Building 736, Homestead AFB, Florida 33831, 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 19 day of December 2000 in  
Tallahassee, Florida.

Mimi A. Drew

Mimi A. Drew  
Director  
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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.

Lisa Suarezengue  
Clerk

12/26/00  
Date

Copies furnished to:

George Heuler, UIC Section  
Jeff Lockwood, Bur. Waste Cleanup, MS 4535  
Brent Hartsfield, Bur. Waste Cleanup  
Rick Ruscito, Petroleum Cleanup  
Cynthia Christen, OGC