BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re: EAGLE-PICHER INDUSTRIES, INC.
Petition for Variance

OGC File No.99-1766
_____/

FINAL ORDER GRANTING PETITION FOR
VARIANCE FROM RULE 62-522.300(2)(a)

On October 15, 1999, Eagle-Picher Industries, Inc. (Eagle-Picher), 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 an emergency variance from rule 62-522.300(2)(a), which prohibits a zone of discharge for discharges through wells, in order to use an in-situ remedial process at a site in Jacksonville, Florida. This process involves the installation of one or more temporary Class V underground injection control wells at the site of soil and ground water contamination, and injection through those wells of hydrogen peroxide and an iron catalyst. Notice of receipt of the petition was published in the *Florida Administrative Weekly,* Volume 25, Number 44, dated November 5, 1999.

On November 10, 1999, the Department denied the petition for emergency variance for failure to demonstrate an emergency.

However, the petition was then processed as a normal variance petition.

1. Petitioner is located at 250 East Fifth Street, Cincinnati, Ohio 45202.

2. Eagle-Picher proposes to perform in-situ chemical oxidation at the former Eagle-Picher site in Jacksonville, Florida, by using hydrogen peroxide and ferrous iron as a catalyst. That site is now owned by T&T Manufacturing (T&T), but Eagle-Picher is under a consent order with the Department to clean up the site.

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. The plan is to inject an iron catalyst (ferrous sulfate at 10 to 100 parts per million) then follow with an injection of diluted hydrogen peroxide (3 to 10 percent). This process is known as the Fenton Process. A minimum amount of 250 gallons of hydrogen peroxide will be injected into each of seven injection wells. The amount of iron sulfate solution injected will depend on the background concentration of ferrous iron. It is estimated that 50 to 100 gallons of the ferrous sulfate solution will be needed. Other items added to the catalyst solution to enhance the reaction will include small amounts of sulfuric acid. Upon injection of the catalyst into the ground water, it is expected

that the concentrations of iron will temporarily exceed the secondary drinking water standard of 0.3 mg/L within an area extending out in a radius of up to fifteen feet from the immediate point of injection. Concentrations of sulfate, total dissolved solids, and pH will also exceed their secondary standards of 250 mg/L, 500 mg/L, and 6.5 - 8.5, respectively only in an area of a fifteen-foot radius. No adverse impacts to human health are anticipated from the iron, sulfate, total dissolved solids, or pH because such exceedances will occur only within ground water already contaminated by organics, and the ground water is not being used for domestic purposes. No other constituents of the injected product or resulting chemical reaction will exceed any primary or other secondary drinking water standard. The iron, sulfate, total dissolved solids, and pH will return to meeting the respective secondary drinking water standard, or meet the naturally occurring background value, whichever is less stringent, within, at most, one year from the last injection event.

5. The type of underground injection control wells will be 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 use of the Fenton Process for remediation.

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.
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> 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. Eagle-Picher has stated in its petition that to apply the zone of discharge prohibition to its use of this remediation process would create a substantial hardship and would violate the principles of fairness because the use of the process is to remediate contaminated ground water. Remediation would improve the water quality, and to prohibit any exceedance of the iron, sulfate, total dissolved solids, or pH standards, all non-health-based standards, in such a small area of already contaminated

ground water would create a substantial hardship. Clean up would be more costly and would take longer. 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 Fenton Process, the clean-up of the contaminated ground water will be accelerated and returned to a usable condition. In addition, the use of the Fenton Process has been tentatively approved by the Department's Bureau of Waste Cleanup as being a sound environmental solution to the contamination, so long as Eagle-Picher is able to obtain a variance. Lastly, other uses of this and similar in-situ processes have been granted variances, and not to allow Eagle-Picher to use this process under the same constraints placed on other petitioners in variances would violate the principles of fairness.

9. Zones of discharge for the use of the Fenton Process are necessary because of the temporary exceedance of the iron, sulfate, total dissolved solids, and pH standards in the ground water immediately surrounding the injection from the well. Because this ground water is already contaminated and does not meet all applicable standards, allowing a zone of discharge as part of the approved remediation of organic 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 would not be 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, Eagle-Picher has demonstrated that it is entitled to a variance from the prohibition of zones of discharge in rule 62-522.300(2)(a) for use of the remedial process, with the conditions below:

a. Use of the Fenton Process must be through a Department-approved remedial action plan, or other enforceable document, 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 iron, sulfate, total dissolved solids, and pH shall be a fifteen-foot radius from the point of injection, and the duration of the zone of discharge shall be for 365 days from the date of last injection.

d. The injection of reagents shall be at such a rate and volume that no undesirable migration occurs of either the reagents or the contaminants already present in the aquifer.

e. The Department-approved remedial action plan (or other enforceable document) shall address appropriate ground water

monitoring requirements associated with the use of the Fenton Process for remediation based on site-specific hydrogeology and conditions. These shall include ground water monitoring before use of the Fenton Process for the parameters pertinent to that process, and monitoring of ground water down gradient from the injection points for at least one year after active remediation.

This final order will become final unless a petition for an administrative proceeding is filed pursuant to the provisions of sections 120.569 and 120.57 of the Florida Statutes. Any person whose substantial interests are affected by the Department's action may file such a petition. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, 3900 Commonwealth Boulevard, MS 35, Tallahassee, Florida 32399-3000. Petitions filed by Eagle-Picher or any of the parties listed below must be filed within 21 days of receipt of this order. 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. A petitioner must mail a copy of the petition to Eagle-Picher Industries, Inc., 250 East Fifth Street, Cincinnati, Ohio 45202 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 will only be 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 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.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department final action may be different from the position taken by it in this order. Persons whose substantial interests will be affected by any such final decision of the Department on the petitions 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.

A 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 15 day of December 1999 in Tallahassee, Florida.

Mimi Drew

Mimi A. Drew
Director
Division of Water Resource Management

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MS 3500
Tallahassee, Florida 32399-3000
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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.

Cheryl Burke
Deputy Clerk

12/16/99
Date

Copies furnished to:
Richard Dasher, NE District
Bill Neimes, Bur. Waste Cleanup
Brent Hartsfield, Bur. Waste Cleanup
George Heuler, UIC
Cynthia Christen, OGC