6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 300

[EPA-HQ-SFUND-1983-0002; FRL-9958-96-Region 4]

National Oil and Hazardous Substances Pollution Contingency Plan; National Priorities List: Deletion of the Perdido Ground Water Contamination Superfund Site

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: The Environmental Protection Agency Region 4 is publishing this direct final Notice of Deletion for the Perdido Ground Water Contamination Superfund Site (Site), located in Perdido, Baldwin County, Alabama, from the National Priorities List (NPL). The NPL, promulgated pursuant to Section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, is an appendix of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This direct final deletion is being published by the EPA with the concurrence of the State of Alabama, through the Alabama Department of Environmental Management (ADEM), because the EPA has determined that all appropriate response actions under CERCLA have been completed. However, this deletion does not preclude future actions under Superfund.

DATES: This direct final deletion is effective [insert date 60 days from the date of publication in the *Federal Register*] unless the EPA receives adverse comments by [insert date 30 days from date of publication in the *Federal Register*]. If adverse comments are

received, the EPA will publish a timely withdrawal of the direct final deletion in the *Federal Register* informing the public that the deletion will not take effect.

ADDRESSES: Submit your comments, identified by Docket ID No., EPA-HQ-SFUND-1983-0002, by one of the following methods:

- www.regulations.gov Follow the on-line instructions for submitting comments.
- Email: cox.deborah@epa.gov
- Fax: (404) 562-8896, Attention: Deborah P. Cox, PE.
- Mail: Deborah P. Cox, PE, Remedial Project Manager, Superfund Restoration and Sustainability Branch, Superfund Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960.
- Hand Delivery: U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. Such deliveries are only accepted during the Docket's normal hours of operation and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID no. EPA-HQ-SFUND-1983-0002. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at http://www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through http://www.regulations.gov or e-mail. The http://www.regulations.gov website is an "anonymous access" system, which means the EPA will not know your

identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to the EPA without going through http://www.regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the http://www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in the hard copy. Publicly available docket materials are available either electronically in http://www.regulations.gov or in hard copy at:

U.S. EPA Record Center, attn: Ms. Tina Terrell, Atlanta Federal Center, 61 Forsyth Street, SW., Atlanta, Georgia 30303-8960, Phone: (404) 562-8835, Hours 8 a.m. - 4 p.m., Monday through Friday by appointment only; or, Atmore Public Library, 700 East Church Street, Atmore, AL 36502, Phone: 251- 368-5234, Hours 8 a.m. - 5 p.m., Monday thru Friday, Saturday 9 a.m. - 1 p.m.

FOR FURTHER INFORMATION CONTACT: Deborah P. Cox, PE, Remedial Project Manager, Superfund Restoration and Sustainability Branch, Superfund Division,

U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960, phone 404-562-8317, email: cox.deborah@epa.gov.

SUPPLEMENTARY INFORMATION:

Table of Contents:

I. Introduction

The EPA Region 4 is publishing this direct final Notice of Deletion of the Perdido Ground Water Contamination Superfund Site (Site) from the National Priorities List (NPL). The NPL constitutes Appendix B of 40 CFR part 300 which is the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), which the EPA promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended. The EPA maintains the NPL as the list of sites that appear to present a significant risk to public health, welfare or the environment. Sites on the NPL may be the subject of remedial actions financed by the Hazardous Substance Superfund (Fund). As described in the Section 300.425(e) (3) of the NCP, sites deleted from the NPL remain eligible for Fund-financed remedial actions if future conditions warrant such actions.

Section II of this document explains the criteria to delete sites from the NPL. Section III discusses procedures that the EPA is using for this action. Section IV

discusses the Perdido Ground Water Contamination Superfund Site and demonstrates how it meets the deletion criteria. Section V discusses the EPA's action to delete the Site from the NPL unless adverse comments are received during the public comment period.

II. NPL Deletion Criteria

The NCP establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL where no further response is appropriate. In making such a determination pursuant to 40 CFR 300.425(e), the EPA will consider, in consultation with the State, whether any of the following criteria have been met:

i. responsible parties or other persons have implemented all appropriate response actions required;

ii. all appropriate Fund-financed response under CERCLA has been implemented, and no further response action by responsible parties is appropriate; or

iii. the remedial investigation has shown that the release poses no significant threat to public health or the environment, and, therefore, the taking of remedial measures is not appropriate.

III. Deletion Procedures

The following procedures apply to deletion of the Site:

(1) The EPA consulted with the State of Alabama prior to developing this direct final Notice of Deletion and the Notice of Intent to Delete co-published today in the "Proposed Rules" section of the Federal Register.

(2) The EPA has provided the state 30 working days for review of this notice and the parallel Notice of Intent to Delete prior to their publication today, and the state, through ADEM, has concurred on the deletion of the site from the NPL.

(3) Concurrently with the publication of this direct final Notice of Deletion, a notice of the availability of the parallel Notice of Intent to Delete is being published in a major local newspaper, *The Atmore Advance*. The newspaper notice announces the 30-day public comment period concerning the Notice of Intent to Delete the Site from the NPL.

(4) The EPA placed copies of documents supporting the proposed deletion in the deletion docket and made these items available for public inspection and copying at the Site information repositories identified above.

(5) If adverse comments are received within the 30-day public comment period on this deletion action, the EPA will publish a timely notice of withdrawal of this direct final Notice of Deletion before its effective date and will prepare a response to comments and continue with the deletion process on the basis of the Notice of Intent to Delete and the comments already received.

Deletion of a site from the NPL does not itself create, alter, or revoke any individual's rights or obligations. Deletion of a site from the NPL does not in any way alter the EPA's right to take enforcement actions, as appropriate. The NPL is designed primarily for informational purposes and to assist the EPA management. Section 300.425(e)(3) of the NCP states that the deletion of a site from the NPL does not preclude eligibility for future response actions, should future conditions warrant such actions.

IV. Basis for Site Deletion

The following information provides the EPA's rationale for deleting the Site from the NPL:

Site Background and History

The Perdido Ground Water Contamination Site is located in Perdido, Baldwin County, Alabama, and is the site of a train derailment, which occurred on May 17, 1965. The Site originated as a borrow area which provided sand and fill material to the County for local use. In 1965, a train derailment by the Louisville and Nashville Railroad (a predecessor of CSX Transportation, Inc., CSXT) occurred approximately 200 yards east of the intersection of State Highways 47 and 61. Chemicals from the derailed tank cars spilled into the drainage ditches along State Highway 61 and caught fire. Later, as a result of the accident, an unknown quantity of benzene that had not been destroyed by the fire eventually penetrated the soil and entered the ground water aquifer.

In 1982, benzene was identified in several residential domestic water supply wells within the community of Perdido. An alternate supply of drinking water was provided by CSXT by constructing a waterline six miles from the nearby town of Atmore. Approximately 150 Perdido homes within a one mile radius of the derailment were connected to the alternate water supply.

Due to the benzene in the ground water, the EPA proposed listing the Site on the National Priorities List (EPA ID: ALD980728703) on December 30, 1982 (47 FR 58476), and finalized the listing on September 8, 1983 (48 FR 40658) under the CERCLA Act of 1980.

Remedial Investigation/Feasibility Study (RI/FS)

On October 11, 1985, CSXT executed an Administrative Order of Consent with the EPA to conduct a Remedial Investigation/Feasibility Study (RI/FS) at the Site. The RI was then initiated and submitted in August 1986. In March 1987, the EPA's Ground Water Technology Unit constructed a solute transport ground water model and predicted the extent of the ground water plume in the Perdido area. In April 1987 the Environmental Response Team (ERT) performed a soil vapor study. The revised RI was submitted in November 1987. Based on review of the data, the EPA requested the installation of additional monitoring wells further down gradient of the derailment area. CSXT's contractor completed a supplement to the revised RI report in May 1988. The supplement to the revised RI confirmed the presence of benzene in the ground water and led to the conclusion that by approximately 1985, all of the benzene in the soils had leached to the ground water, volatilized to the atmosphere, or biodegraded. As a result of these actions, the "source" of contamination at the Site had been "remediated" by natural processes.

A risk assessment of current and potential routes of exposure at the Site identified several exposure pathways. The potential exposure pathway for humans was determined to be ingestion of contaminated ground water. Additional pathways investigated included ingestion of and dermal contact with surface water for humans and ingestion of surface water by cattle. These additional pathways were removed from further consideration because the benzene spill occurred over 20 years ago, benzene is a highly volatile substance and benzene had been detected only in ground water. The EPA ultimately determined that continued migration of contaminated ground water was a threat to public

health and the environment in the area surrounding and down gradient of the contaminant plume.

In May, 1988, CXST submitted the FS report, which evaluated three remedial alternatives to address contaminated ground water. These three alternatives were as follows:

- Ground water withdrawal with off-site benzene removal
- Ground water withdrawal with on-site benzene removal
- No action, with natural attenuation/degradation of benzene in ground water

Selected Remedy

The EPA's Record of Decision (ROD) was signed on September 30, 1988, and ADEM concurred with the selected remedy of ground water extraction with on-site treatment. The selected remedy for the ground water contamination included the following:

- Recovery of the contaminated ground water by means of a recovery well field;
- Treatment of the recovered contaminated ground water by air stripping to achieve the 5 parts per billion (ppb) maximum concentration limit (MCL) cleanup level established for benzene;
- Re-injection of the treated ground water back into the aquifer and into the surface water.

Operation and maintenance activities required to ensure the continued effectiveness of the remedy included:

- Periodic monitoring of the pump and treat system to ensure continued effectiveness in attaining cleanup standards;
- Periodic ground water monitoring to ensure that long term performance goals have been achieved.

The ROD also specified that once the ground water cleanup level was attained, ground water monitoring would be required for an additional five years to ensure cleanup levels were maintained.

The remedial action objectives for the Site were to eliminate potential health hazards due to the impact of benzene in ground water that resulted from the May 1965, train derailment in Perdido, Alabama, and restoration of the contaminated ground water to levels protective of human health and the environment. The EPA's MCL of 5 µg/L benzene in ground water was to be used as the criteria for measuring whether the remedial action objective had been met. During start-up of the treatment system in December 1992, the reinjection system was unable to accept the design flows. In May 1993, the EPA approved an Explanation of Significant Differences (ESD) for a surface water discharge system to discharge excess treated water to the Perdido Creek.

Response Actions

The remedial design (RD) Report for the Site was submitted in December 1991, and construction of the ground water treatment system was completed between May and November 1992, with a Pre-Final Remedial Action (RA) Inspection completed on July 7, 1993. On September 3, 1993 the Revised RA Report, documenting that all construction requirements were met and installation of the treatment system was complete, was submitted to the EPA, and subsequently approved on September 13, 1993. The initial

treatment system included twelve ground water withdrawal wells, which delivered contaminated ground water to the treatment plant. The treatment plant consisted of nine air strippers that transferred benzene from the contaminated water into the air stream, which in turn passed through the carbon adsorption unit prior to release to the atmosphere. The treated water passed through bag filters for removal of solids prior to being pumped to the reinjection system. The ten reinjection wells were each equipped with controllers to regulate the flow of injection water back into the aquifer. Twenty-four observation wells were also installed between 1986 and 1991, primarily for water level or benzene concentration monitoring. An additional observation well was installed in 1999.

During start-up of the treatment system in December 1992, the reinjection system was unable to accept the design flows. The excess water flooded the injection system and activated a high-level cut-off switch that shut down the entire system. To alleviate this problem and allow the ground water remediation to start, a surface water discharge system was proposed to handle the excess water. The EPA subsequently approved the proposal for a surface water discharge system to the Perdido Creek in the Site's May 1993 ESD. In June 1993, the surface water discharge line and the originally designed Hazleton Maxi-Strippers^{TM} were installed. Modifications were made to divert treated water to the surface water discharge system once capacity of the reinjection system was reached. Ground water recovery withdrawal and treatment began in 1992 after start-up of the treatment system.

CSXT conducted more frequent inspections during January through March 1997 that revealed significant improvements could be made to optimize treatment system performance. Originally, the extraction wells were installed with pneumatic pumps,

which tended to vibrate the wells and to cause an influx of sand into the system. In fall 1997, these pumps were replaced with electric submersible pumps, increasing system reliability and performance. Additionally, because of the high levels of iron and sand content in the influent ground water, the small orifices in the original Hazleton Maxi-Stripper™ system would become plugged. Considerable maintenance efforts were required to clean each of the orifices of the stripper by hand using a small drill. In April 1998, the Hazelton Maxi-Strippers™ system was replaced with a New England Environmental Products low profile, four tray air stripper. Maintenance efforts and costs were significantly reduced after these changes were implemented.

In 1999 CSXT further optimized treatment by installing three biosparge wells (BS-1, -2, and -3). These wells were intended to provide dissolved oxygen to areas of the benzene plume that were exhibiting decreased levels of dissolved oxygen, subsequently increasing the natural degradation of the benzene plume. In February and April 2000, nine additional biosparge wells were added on Site north of Highway 47 (BS-4 through BS-12). Twelve new biosparge wells (BS-13 thru BS-24) were installed in September 2003 on Site south of Highway 47.

Clean-up Levels

Based on the success of remedial activities in reducing the benzene plume, the EPA, ADEM, CSXT and CSXT consultant, AMEC Earth & Environmental, Inc. (AMEC), met on August 2, 2005 to discuss an Interim Evaluation Work Plan (IEWP) that would involve shutting down the ground water treatment system and monitoring ground water conditions for a period of one year in order to determine future remedial actions. A primary goal of the plan was to determine whether ground water benzene concentrations

would remain below the 5 µg/L MCL cleanup goal or "rebound" after the pump-and-treat and biosparge systems were turned off. The EPA and ADEM approved the plan on July 25, 2006. On September 24, 2006, the ground water treatment system was turned off.

Results of the first-quarter and second-quarter ground water sampling under the IEWP were submitted in January 2007 and April 2007, respectively. The results indicated that benzene concentrations in ground water remained consistent with historical data and did not rebound. Based on the data, implementation of the IEWP continued. On May 21, 2007, all parties agreed that the fourth-quarter sampling event would be replaced with a closure strategy if the third-quarter monitoring results continued to follow the positive trend. ADEM also requested the use of a low-flow micro-purging method to collect samples at different depths in two wells (Observation Well 41 (OW-41) and Withdrawal Well 14 (WW-14)). After approval from ADEM, this sampling approach was followed during the third-quarter sampling under the IEWP in June 2007. Based on the sampling results, a Closure Monitoring Plan (CMP) was drafted to make changes to the current ground water monitoring program, remedial actions and site closure procedures in a series of phases to bring the Site to closure in accordance with the 1990 Consent Decree (CD) with CSXT.

Addendum I to the CMP dated January 16, 2008 was submitted after a team conference call. ADEM and the EPA approved the CMP with Addendum I in January and February 2008, respectively. Recommendations in the approved CMP included: Continued monitoring the 10 out of 42 total site observation and withdrawal wells that had not yet achieved sample results below the benzene clean-up goal of 5 µg/L for five consecutive years; Monitoring of these 10 wells on a semi-annual basis and reporting the

data on a semi-annual basis; Discontinuation of the monitoring of observation and withdrawal wells located south of Highway 47 once a well has remained below the benzene cleanup goal of 5 µg/L for five consecutive years and properly plugging and abandoning all the wells (including observation, withdrawal, biosparge and injection wells) located south of Highway 47 once ground water benzene concentrations have remained below the benzene cleanup goal of 5 µg/L for five consecutive years; Discontinuation of the monitoring of observation and withdrawal wells located north of Highway 47 once a well has remained below the benzene cleanup goal of 5 µg/L for five consecutive years and properly plugging and abandoning all wells located north of Highway 47 once ground water benzene concentrations within all observation and withdrawal wells have remained below the benzene cleanup goal of 5 µg/L for five consecutive years.

Addendum II to the CMP dated October 9, 2008 presented the minor revisions discussed during the September 3, 2008 team conference call. Clarification was provided to identify the type of public notification to be implemented prior to conducting closure type of events. ADEM approved the actions proposed in Addendum II on December 2008.

Community Involvement

Throughout the removal and remedial process, the EPA has kept the public informed of the activities being conducted at the Site by way of public meetings, progress fact sheets, and the announcement through local newspaper advertisement on the availability of documents such as the RI/FS, Risk Assessment, ROD, Proposed Plan, ESD and Five-Year Reviews.

On July 25, 2006 representatives from the EPA, ADEM CSXT, and AMEC held a public availability session, regarding the upcoming IEWP for the Site. The purpose of the availability session was to inform the general public and local residents living near the Site, of the success of the long term cleanup activities at the Site. At the time of the meeting, benzene was detected in only three of the monitoring wells, with two of those exceeding the 5 µg/L cleanup level.

On September 16, 2009 representatives from the EPA, ADEM, CSXT, and AMEC held a public availability session to discuss the closure of a portion of the monitoring network, located south of Highway 47. These wells had completed five years of sampling with laboratory results below the 5 µg/L cleanup goal. In accordance with the approved CMP, this milestone achievement allowed the southern portion of the former plume to be eligible for closure.

On March 19, 2014 representatives held a public availability session to discuss the attainment of cleanup goals for five consecutive years in each of the remaining monitoring wells. With the attainment of all cleanup goals set forth for the Site, this public availability session served to inform the local community that all monitoring and site related activities would cease.

Public participation activities have been satisfied as required in CERCLA Section 113(k), 42 U.S.C. 9613(k) and CERCLA Section 117, 42 U.S.C. 9617. Documents in the deletion docket, which the EPA relied on for recommendation of the deletion from the NPL, are available to the public in the information repositories identified above.

Determination that the Site Meets the Criteria for Deletion from the NCP

Region 4 has followed the procedures required by 40 CFR 300.425(e) as mentioned above and the implemented remedy achieves the degree of cleanup specified in the ROD for all pathways of exposure. Specifically, ground water sampling results have been below the benzene clean-up goal of 5 µg/L for five consecutive years. These results verify that the Site has achieved the ROD cleanup standards, and that all cleanup actions specified in the ROD and ESD have been implemented. All selected remedial and removal action objectives and associated cleanup levels are consistent with agency policy and guidance. This Site meets all the site completion requirements as specified in Office of Solid Waste and Emergency Response (OSWER) Directive 9320.22, *Close-Out Procedures for National Priorities List Sites*. No further Superfund response is needed to protect human health and the environment.

V. Deletion Action

The EPA, with concurrence of the State of Alabama through ADEM, has determined that all appropriate response actions under CERCLA have been completed. Therefore, the EPA is deleting the Site from the NPL.

Because the EPA considers this action to be noncontroversial and routine, the EPA is taking it without prior publication. This action will be effective [insert date 60 days from the date of publication in the *Federal Register*] unless the EPA receives adverse comments by [insert date within 30 days of this publication in the *Federal Register*]. If adverse comments are received within the 30-day public comment period, the EPA will publish a timely withdrawal of this direct final notice of deletion before the effective date of the deletion, and it will not take effect. The EPA will prepare a response

to comments and continue with the deletion process on the basis of the notice of intent to delete and the comments already received. There will be no additional opportunity to comment.

List of Subjects in 40 CFR Part 300

Environmental protection, Air pollution control, Chemicals, Hazardous waste, Hazardous substances, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Superfund, Water pollution control, Water supply.

Dated: September 6, 2016.

V. Anne Heard
Acting Regional Administrator
Region 4

For the reasons set out in this document, 40 CFR part 300 is amended as follows:

PART 300—NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN

1. The authority citation for part 300 is revised to read as follows:

Authority: 33 U.S.C. 1321(c)(2); 42 U.S.C. 9601-9657; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; E.O. 12580, 52 FR 2923; 3 CFR, 1987 Comp., p. 193.

Appendix B to Part 300 – [Amended]

2. Table 1 of Appendix B to part 300 is amended by removing “AL”,

“Perdido Ground Water Contamination”, “Perdido”.

[FR Doc. 2017-05290 Filed: 3/16/2017 8:45 am; Publication Date: 3/17/2017]