



Frontier Fertilizer Superfund Site

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • January 2011

Cleanup Update Bulletin, Number 3

Introduction

The United States Environmental Protection Agency (EPA) is installing the final components for the Electric Resistive Heating Treatment System (Heating System) at the Frontier Fertilizer Superfund Site (Site). This bulletin gives an update on the Heating System, other project activities and invites you to a “Community Update Meeting” on January 18, 2011 at the Veterans Memorial Center (see the box at right for more information).

Site Background

Site contaminants include pesticides (e.g., 1,2-dibromoethane, 1,2-dibromo-3-chloropropane, 1,2-dichloropropane and 1,2,3-trichloropropane) and a chlorinated solvent, carbon tetrachloride. Since 1995, EPA has operated a groundwater extraction and treatment system to remove Site contaminants from affected groundwater. In addition to the extraction and treatment system, EPA is implementing the Heating System to enhance the cleanup efforts. EPA expects the Heating System to remove the majority of the pesticides from the soil within approximately 1.5 years. Using the Heating System will greatly reduce the time required to achieve Site clean-up goals. Groundwater treatment will continue until the contaminant concentrations are below cleanup goals or drinking water standards. For more information regarding the Heating System design, you may review EPA’s October 2009 Bulletin at EPA’s website: www.epa.gov/region09/FrontierFertilizer

Heating System Progress and Details

EPA is currently testing the Heating System, which includes 236 heating electrodes, that will heat the soil and groundwater to the boiling point of water (100 degrees Centigrade). Extraction wells strategically located in and around the heated areas will collect gas and liquids generated by the Heating System. Extracted gas and liquids are treated with granular activated carbon. Twenty-seven temperature-monitoring wells will be used to monitor the belowground operation.

The Heating System includes many safeguards to ensure the safety of neighbors and on-site workers. These include:

- Fencing to restrict and sensors to detect unauthorized access into the heating area;
- A back-up generator and vacuum system to maintain gas emission controls in the event of a power outage;
- A multi-layer cap over the shallow heating area to further contain contaminants; and
- Air monitoring to test and monitor air quality near the Heating System, adjacent residences and businesses.

EPA also requires that the system protect the community if safety features fail to perform. The Heating System is monitored continuously, and attendants will be notified and can respond immediately if there is a system malfunction. Also, if air monitoring detects pesticides, EPA’s contractors will immediately investigate and take action to address the situation and stop heating, if necessary.

Community Update Meeting Announcement

Tuesday, January 18, 2011
6:30 – 8:30 p.m.

Veterans Memorial Center
203 E. 14th Street
Davis, California

To discuss the “Heating System” start up
and answer questions from the community

Heating System Reports

EPA works with the Frontier Fertilizer Superfund Oversight Group (FFSOG) to review and revise technical documents. The FFSOG is the recipient of EPA’s Technical Assistance Grant to assist the community in understanding technical documents developed during the cleanup process. In the past year, EPA worked with the FFSOG to develop a Community Notification Plan (CNP) to supplement the existing Site Health and Safety Plan (HSP). The HSP documents activities to ensure that the workers are safe during on-site work, and the CNP outlines community notification procedures during the Heating System operation. The CNP calls for email notification of community members about any situations that concern them, such as unplanned disruption of the Heating System. If you would like to be added to the CNP email list, please contact Jackie Lane at (415) 972-3236 or email her at lane.jackie@epa.gov

In addition, an Ambient Air Monitoring Plan describes monitoring that will occur to ensure that the Heating System is working as designed. Air samples will be collected at intervals varying from every few days to weekly at four locations between the heated areas and the Mace Ranch neighborhood.

If you would like a copy of these documents, they will be listed on EPA’s web page at www.epa.gov/region09/FrontierFertilizer or you call or email Jackie Lane to request a copy.

Updates on Other Site Activities

Solar Power

EPA expanded the existing solar electric generation system used to power the groundwater treatment plant at the Frontier Fertilizer Superfund Site. A small local vendor won the contract, and the system was installed in the summer of 2010. The new solar panels occupy 0.5 acres south of the treatment plant. The solar system will completely offset the current non-renewable energy with renewable solar generated energy.

Target Corporation Sampling Below Building

EPA and the FFSOG have reviewed Target's plan for below building vapor sampling and expect Target to complete its first round of vapor sampling during January/February 2011. This sampling will assess risk to workers and/or shoppers from soil and groundwater contamination originating from the Frontier Fertilizer Site. Target will submit a brief report two months following the sampling and EPA will include an update in its Spring Bulletin.

Updated Activity Schedule

Below you will find the Heating System operation schedule and community involvement activities:

- Continued Monthly Conference Calls with the FFSOG, State of California and EPA.
- Testing of Heating System: November 2010 – January 2011
- Community Meeting: January 18, 2011
- Heating Starts: Late January – early February 2011
- Heating Complete: Approximately April 2012
- Update Bulletins: Quarterly
- Community Meetings/Open Houses: Quarterly



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**EPA 24-Hour
Emergency Line**
800-300-2193



Frontier Fertilizer Superfund Site Information Repositories

Yolo County Library
315 E 14 Street
Davis, CA 95616
(530) 757-5593



Shields Library
Government Documents Department
University of California
Davis, CA 95616
(530) 752-6561

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