



Community Update for American Cyanamid Superfund Site

Community Update

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Introduction

The U.S. Environmental Protection Agency (EPA) is issuing this update to inform the community and local officials about the status of the American Cyanamid Superfund Site (site) in Bridgewater Township, New Jersey. The previous update was distributed in November 2015; therefore, this update will focus on major tasks completed at the site over the previous three months, as well as provide important notice(s) to anticipated future events. EPA, CRISIS (the recipient of an EPA technical assistance grant) and the site owner (Wyeth Holdings LLC, a wholly-owned subsidiary of Pfizer, Inc.) provide updated site information at the following web sites:

- http://www.epa.gov/region02/superfund/npl/american_cyanamid/
- <http://www.amcyrestoration.com>
- <http://www.crisistoxicwatch.org>
- <http://www.bridgewaternj.gov/health-general-information/>

Site-wide Remedy Summary

EPA issued a Record of Decision in September 2012 to address contaminated soils, groundwater and impoundments that have not been previously addressed, with the exception of impoundments 1 and 2. This remedy, referred to as the site-wide remedy, called for the treatment via in-situ solidification/stabilization (S/S) and/or the installation of engineered capping systems to address three highly contaminated impoundments and all site soils, as well as the collection and treatment of site-related contaminated groundwater. The remedy also called for the completion of an ecological risk assessment to determine whether three additional impoundments would require excavation and relocation. The remedial design of the site-wide remedy is currently underway and is generally being addressed in two components: (1) impoundments and site-wide soils, and (2) groundwater. It is currently anticipated that the detailed design of the groundwater and impoundments/soils remedial components will be completed in 2017 and 2018, respectively.

Site-wide Remedy: Remedial Design Update for Groundwater

The groundwater remedy has two major design components, the groundwater treatment facility (which includes the treatment plant and the conveyance system) and the groundwater extraction and injection systems (which will remove contaminated groundwater from the shallow and deep aquifers and inject it back into the deep aquifer following treatment). The preliminary design report for the groundwater treatment facility, which presents the design of the treatment and conveyance systems, was approved by EPA in February 2016 and is available on EPA's American Cyanamid webpage. Under the preliminary design, a number of treatment processes (i.e., Fenton's oxidation, biological treatment, membrane filtration and carbon adsorption) will be used to treat site groundwater to levels developed by the state of New Jersey prior to its reinjection into the deep bedrock aquifer. It is anticipated that the detailed design of the groundwater treatment facility will be completed later in 2016.

The preliminary design report for the groundwater extraction and injection systems was submitted in December 2015 and remains under EPA review. The preliminary design report presents the layout of the extraction and injection networks, the extraction and injection flow rates and the design of the hydraulic barrier walls. Under the current project schedule, it is anticipated that the detailed design for the groundwater extraction and injection systems will be completed in 2017. The 2012 Record of Decision requires that the groundwater remedy be designed to capture contaminated groundwater and restore it to concentrations below state and federal standards.

Site-wide Remedy: Remedial Design Update for Impoundments/Soils

Overall, Wyeth continues to collect and/or evaluate additional data to support the design of the remedies for soils and impoundments. Under the current project schedule, it is anticipated that these data collection efforts will largely be completed by summer 2016 so that the site owner can proceed with the more detailed design of remedies for soils and impoundments. The following are the major highlights of design work completed for impoundments and soils since the previous EPA update:

- **Drying Bed Area Investigation**: Soil samples were initially collected from the drying bed area in April 2014, and further sampling was recently completed in February 2016 to delineate the western and southern boundaries of the drying bed area. Due to access restrictions associated with the Conrail railroad line (which runs through the site) and the interim treatment facility platform (located west of impoundment 2), the northern and eastern boundaries will be delineated later in the remedial design. The purpose of the drying bed area investigation is to determine which areas will require excavation and relocation to the North Area under the appropriate capping system.
- **Ecological Risk Assessment for Impoundments 13, 17 and 24**: In 2010 and 2013, surface soil sampling was completed for impoundments 13, 17 and 24 in order to determine the extent of contamination within the ecological exposure zone of the three impoundments. Additional sampling was completed in November 2015 to assess the geotechnical strength of these impoundments. Using the data collected from these sampling efforts, an ecological risk assessment will be performed to identify the impoundment contents which will require excavation and relocation to the North Area under the appropriate capping system. In advance of the submission of the ecological risk assessment, the site owner has indicated that it intends to excavate and relocate the ecological exposure zone of all three impoundments to the North Area. Per the Record of Decision, the site owner is still required to complete the ecological risk assessment, and it is anticipated that a draft will be submitted to EPA in spring 2016.

Focused Feasibility Study for Impoundments 1 and 2

Due to the unique and highly complex nature of the contaminants within impoundments 1 and 2 and their proximity to the Raritan River, these two impoundments were not included in the site-wide remedy and are being addressed separately through a focused feasibility study. As part of the focused feasibility study, a pilot study was completed in June 2014 to evaluate whether solidification/stabilization, thermal treatment, or a combination of the two technologies can effectively treat the material within the two impoundments. While the results of the pilot study continue to be evaluated, the three treatment approaches had varying success in neutralizing pH and reducing contaminant mass and leachability. A community information session will be held when the results of the pilot project have been thoroughly evaluated.

Monitoring Update:

Wyeth continues to implement monitoring of surface water on a quarterly basis, and monitoring of sediment, groundwater and ambient air on a semi-annual basis. EPA is continually evaluating modifications to the surface water, sediment and groundwater monitoring programs, including adjustments to sampling locations and analyte lists. The most recent monitoring results for these programs have generally remained consistent with previous monitoring events. Benzene concentrations in the Raritan River remain significantly lower following the installation of a groundwater collection and treatment system in 2012. For the October 2015 surface water monitoring event, benzene was not detected in the Raritan River and benzene was detected in Cuckel's Brook at levels consistent with historical concentrations. The groundwater remedy, which is currently being designed, will ultimately prevent the migration of contaminated groundwater to surface water and sediment.

If you have any questions about the information in this community update, please contact the EPA community involvement coordinator, Melissa Dimas at dimas.melissa@epa.gov 212-637-3677.

http://www.epa.gov/region02/superfund/npl/american_cyanamid/