



Community Update for American Cyanamid Superfund Site

Quarterly Update

Volume VI, Fall 2014

Introduction

The U.S. Environmental Protection Agency (EPA) is issuing this quarterly update to inform the community and local officials about the status of the American Cyanamid Superfund Site (site) in Bridgewater Township, New Jersey. 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.crisistoxicwatch.org>
- <http://www.amcyrestoration.com>
- <http://www.bridgewaternj.gov/health-general-information/>

Site-wide Remedy Summary

EPA issued a Record of Decision (ROD) 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 two remedial components will be completed in 2016.

Site-wide Remedy: Remedial Design Update

Impoundments 3, 4 and 5 Investigation: Additional sampling of the three impoundments is required to further delineate the impoundments prior to S/S treatment. The sampling of the dry areas of impoundments 3, 4 and 5 was completed in July 2014, while the sampling of the wet areas was completed in November 2014. Based upon the results, a laboratory treatability study will be designed and implemented to test how effective the different reagent mixtures are at solidifying and stabilizing the impoundment materials.

Investigation of Tar Bloom Areas: In November 2014, an investigation was completed to delineate approximately 30 surficial tar bloom areas located in the North Area of the site. The results of the investigation will be used to define the materials which will require relocation into impoundments 3, 4 and 5 for S/S treatment.

Impoundments 13, 17 and 24 Ecological Risk Assessment: An investigation of impoundments 13, 17 and 24 was completed in November 2013 and the results are available. An ecological risk assessment will be performed using this data, as well as data from a 2010 investigation, in order to identify any impoundment contents which will require excavation and relocation to the North Area under the appropriate capping system.

Evaluation of Vapor Control Areas: In order to refine the areas identified in the 2012 ROD as requiring vapor controls, the measurements of air emissions from surface soils were performed in September 2014, and the evaluation of the results is ongoing. The surface emission results, as well as other lines of evidence, will be compared to risk-based screening levels to refine the areas of the site that will require controls to mitigate air emissions.

Drying Bed Area Investigation: An investigation of the former drying bed area was completed in April 2014, and the analytical results are available. An additional investigation will be required to further delineate the drying bed area to determine which areas will require excavation and relocation to the North Area under the appropriate capping system.

Groundwater Reinjection Testing: A series of hydrogeological tests are being completed to evaluate the feasibility of reinjecting treated groundwater into the overburden and bedrock aquifers.

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 (FFS). As part of the FFS, a pilot study was initiated on impoundment 2 to evaluate whether solidification/stabilization, thermal treatment, or a combination of the two technologies can effectively treat the material within the two impoundments. The pilot study was completed in June 2014 and the evaluation of the results is ongoing.

Monitoring Update:

Ambient Air Monitoring: The first two years of the quarterly ambient air monitoring program have been completed and the baseline results were reported to EPA in August 2014. The baseline results demonstrate that the site is not a significant source of air emissions beyond urban background levels measured by the New Jersey Department of Environmental Protection (NJDEP). The monitoring of ambient air at the site perimeter and near impoundments 1 and 2 will continue on a semi-annual basis throughout the remedial design. Additional activity-specific air monitoring will be required for any intrusive design work which may cause a change in conditions.

Surface Water and Sediment Monitoring: EPA has approved a number of modifications to the surface water and sediment monitoring programs, including adjustments to the sampling locations, analyte list and frequency of monitoring events, and EPA continues to evaluate further modifications to these monitoring programs. The most significant change to these programs is the reduction in the frequency of sediment monitoring from quarterly to semi-annually due to low contaminant levels and the consistency of sediment concentrations. Because of the seasonal fluctuations and elevated concentrations of contaminants in surface water, surface water monitoring will continue on a quarterly basis. This change was implemented in August 2014 so that the August 2014 event included both surface water and sediment monitoring, while the October 2014 event included surface water monitoring only. Benzene was not detected above the regulatory standard in the Raritan River for both the August and October 2014 events, while benzene concentrations in Cuckel's Brook remained elevated but consistent with previous monitoring events. The August 2014 sediment monitoring results were generally consistent with previous monitoring events. The next monitoring event will be completed in early 2015 and will include the collection of both surface water and sediment quality data. The monitoring of surface water and sediment will continue through the design phase to assess potential impacts to the Raritan River and Cuckel's Brook.

Groundwater Monitoring: The site owner continues to implement a semi-annual groundwater monitoring program, which includes monitoring of groundwater quality and the extraction of bedrock groundwater at a minimum rate of 650,000 gallons per day. The site owner has proposed modifications to the groundwater monitoring program, which are currently under review by the EPA and NJDEP. The groundwater monitoring report for the second half of 2013 is available, while the groundwater monitoring report for the first half of 2014 is under EPA review and will be finalized in the next quarter.

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

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