

**United States Environmental Protection Agency**  
**Region III**  
**POLLUTION REPORT**

**Date:** Monday, December 14, 2015

**From:** Ann DiDonato

**Subject:** 2015 Injection Activities Completed  
Precision National Plating Site  
198 Ackerly Road, Clarks Summit, PA  
Latitude: 41.5105000  
Longitude: -75.7155000

|                          |              |                            |                   |
|--------------------------|--------------|----------------------------|-------------------|
| <b>POLREP No.:</b>       | 74           | <b>Site #:</b>             |                   |
| <b>Reporting Period:</b> |              | <b>D.O. #:</b>             |                   |
| <b>Start Date:</b>       |              | <b>Response Authority:</b> | CERCLA            |
| <b>Mob Date:</b>         |              | <b>Response Type:</b>      | Non-Time-Critical |
| <b>Demob Date:</b>       |              | <b>NPL Status:</b>         | Non NPL           |
| <b>Completion Date:</b>  |              | <b>Incident Category:</b>  | Removal Action    |
| <b>CERCLIS ID #:</b>     | PAD053676631 | <b>Contract #</b>          |                   |
| <b>RCRIS ID #:</b>       |              |                            |                   |

**Site Description**

The Precision National Plating Site is located at 198 Ackerly Road, Clarks Summit, Pennsylvania, approximately 10 miles north of Scranton, Pennsylvania. The property measures 46 acres, approximately five acres of which were used for site operations and the remainder of which are undeveloped and largely wooded. A 45,000 square foot operations building that was demolished in 2000 was the principal structure on the site. Portions of the concrete slab floor remain and are utilized as a staging area for materials during cleanup.

The site began operation as a chromium electroplating facility for locomotive crankshafts in 1956. This operation continued when Precision bought the facility in 1971. Precision operated an industrial component reconditioning facility on site from 1971 until 1999. Site operations ceased in April 1999.

In September of 2005, EPA approved a Remedial Action Plan, submitted on behalf of Precision National Plating by the Retec Group. The Plan details procedures for use of calcium polysulfide to reduce the hexavalent chromium in the soils and groundwater to trivalent chromium, a less toxic form of chromium, which will precipitate and remain in the soil/bedrock matrix.

In July 2006, Precision injected calcium polysulfide into source areas at the site. The goal of the treatment was to reduce hexavalent chromium levels in soil to below 60 mg/Kg, and hexavalent chromium levels in Ackerly Creek to below 11 ug/L.

In March 2007, Precision began excavation of the basement of the former facility. The purpose of the removal was to mitigate impacts by potentially contaminated soils beneath the basement. Any visually contaminated soil and concrete encountered during the excavation was shipped offsite to an appropriate disposal facility.

Additional site investigation activities were performed in the Fall of 2007 and February/March 2008. The soil boring, rock coring and groundwater sampling activities completed in October 2007 and March 2008 confirmed that residual source contamination remains at the Site in the shallow weathered and competent bedrock (18 - 30 feet below the ground surface).

In August 2008, Precision began using calcium polysulfide in-situ chemical injections to treat these residual areas of contamination in the shallow bedrock. Hexavalent chromium levels have dropped in Ackerly Creek due to chemical injection treatments in July 2006, the basement excavation in March 2007, and subsequent injection activities, however they still remain above the target ecological goal of 11 ug/L.

Precision and EPA signed an Administrative Settlement Agreement and Order on Consent on May 3, 2012. On July 30, 2012, Precision's contractor, Arcadis U.S. Inc, submitted a new Response Action Plan, detailing ongoing activities. Injections of calcium polysulfide were conducted in the Fall 2012. A

total of 100,885 gallons of 1% solution were injected into 57 wells and 25,252 gallons of 2% solution were injected into 34 wells between September 6th, 2012 and November 20th, 2012.

Injections of calcium polysulfide were again conducted in the Fall of 2013. A total of 103,047 gallons of 1% and 12,689 gallons of 2% calcium polysulfide solution were injected into 62 separate points within the overburden, shallow bedrock, and intermediate bedrock zones. Injection points included areas near the lagoon, in the area of the trolley tracks, along Paper Road, within the former Precision facility area, and along a trail often used as a public hiking area.

No injections occurred during 2014 and early 2015 in order to allow quarterly sampling events to document groundwater hexavalent chromium concentrations without recent effects of calcium polysulfide. Sampling conducted in April 2015 documented elevated concentrations of hexavalent chromium south of the former building slab in intermediate bedrock monitoring well MW-C at a concentration 9,390 ug/L and the wells near Ackerly Creek, mainly in the shallow bedrock aquifer, at a maximum concentration of 952 ug/L.

Historically, hexavalent chromium had generally not been detected at elevated concentrations in this MW-C. Based on this change in conditions identified in the recent sampling, Precision conducted installation of new monitoring wells in the vicinity of MW-C and modified MW-C between May and September 2015 to further delineate impacts to groundwater.

### **Current Activities**

Injections of calcium polysulfide resumed on September 21st, 2015. This round of injections focused on the areas around and downgradient of MW-C, along the Trolley Trail near the end of Arch Ave, and in the vicinity of the former lagoon. These areas were determined based on sampling results from January and April 2015. Injections along the Trolley Trail area aimed at addressing downgradient contamination documented near Ackerly Creek. Details regarding the injection activities are documented in the September 2015 Supplemental In Situ Chemical Reduction Work Plan.

During the week of November 30th, 2015, 3,892 gallons of 2% and 252 gallons of 5% calcium polysulfide solution were injected into 15 points in the vicinity and downgradient of MW-C. 3,220 gallons of 2% calcium polysulfide solution were injected into 5 points in and around the former lagoon area. Injections were completed on Thursday, December 3rd, 2015.

Friday, December 4th and the week of December 7th, 2015, personnel packed up the site and materials following completion of activities. During this round of injections, a total of 242 gallons of 1%, 34,487 gallons of 2%, and 252 of 5% calcium polysulfide solution were injected into 26 separate points in the vicinity and downgradient of MW-C. A total of 21,787 gallons of 1% calcium polysulfide solution were injected into 10 separate points along the Trolley Trail. A total of 3,146 gallons of 1%, and 3,220 gallons of 2% calcium polysulfide were injected into 5 separate points in and around the former lagoon area.

Prior to, during, and the week following injection activities, hourly air monitoring readings were taken with a Jerome hydrogen sulfide meter from locations around the injection area, product lines, and product storage areas. Air monitoring was also recorded by two 24-hour monitoring stations located along Arch Avenue and at the lagoon. Hydrogen sulfide was not detected by any of the air monitors, which can detect hydrogen sulfide down to 3 ppb. The hydrogen sulfide Site specific action level for nuisance odors is 30 ppb.

During injection activities, selected wells were monitored for water elevations and water quality readings such as pH and ORP to determine what zones are currently being influenced by calcium polysulfide. Field monitoring was conducted once a day during injection activities.

### **Planned Removal Actions**

Post injection sampling will be conducted in January 2016. This will consist of sampling all injection points, surface water samples of Ackerly Creek, residential wells, and all semiannual sampling groundwater monitoring wells. EPA will collect split samples of Ackerly Creek. Any locations determined to still contain calcium polysulfide solution will not be sampled.

The lagoon treatment system and seep shed treatment system will continue operation. Systems will be maintained monthly including sample collection of influent, midfluent, and effluent water.

Semiannual sampling will be conducted in April 2016.

