

United States Environmental Protection Agency
Region III
POLLUTION REPORT

Date: Monday, October 28, 2013

From: Ann DiDonato

Subject: Precision National Plating Site

198 Ackerly Road, Clarks Summit, PA

Latitude: 41.5105000

Longitude: -75.7155000

POLREP No.: 66

Site #:

Reporting Period: 10/12/13 - 10/25/13

D.O. #:

Start Date:

Response Authority: CERCLA

Mob Date:

Response Type: Non-Time-Critical

Demob Date:

NPL Status: Non NPL

Completion Date:

Incident Category: Removal Action

CERCLIS ID #: PAD053676631

Contract #

RCRIS ID #:

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. Quarterly monitoring of select wells and surface water locations has occurred throughout 2013.

Injections of calcium polysulfide resumed on September 10th, 2013. Additional details regarding the injection activities are documented in the July 2012 Response Action Plan and August 2013 Supplemental Bedrock Injection Plan.

Current Activities

The current round of injections began on September 10th, 2013. Injections are currently being conducted Monday through Friday each week, during working hours.

A total of 12,342 gallons of 1% calcium polysulfide solution was injected into ten points the week of October 14th. A total of 13,002 gallons of 1% calcium polysulfide solution was injected into nine points the week of October 21st. During the first four weeks of injection activities, a total of 73,066 gallons of 1% calcium polysulfide solution was injected into thirty one 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, and along a trail often used as a public hiking area.

As temperatures continue to drop, injection activities will be pulled back towards the vicinity of the pad and lagoon areas. This is to limit the amount of injection line between the calcium polysulfide on the pad and the injection point. As temperatures drop well below 40 degrees, freezing in the lines becomes a concern. Each evening lines are cleared of chemical and water used for flushing the lines to avoid any freezing overnight.

In publicly accessible areas, site personnel remain at active injection points at all times. Site personnel also conduct walks of the area to document and repair any leaks or surfacing of calcium polysulfide.

Prior to, and during injection activities, hourly air monitoring readings were taken with a Jerome hydrogen sulfide meter along the perimeter of the site fence, along Arch Avenue, and along Paper Road. Air monitoring is also recorded by two 24-hour monitoring stations located along Arch Avenue and from the lagoon. The maximum concentration of hydrogen sulfide that was detected over the past two weeks is 4 ppm. The hydrogen sulfide site specific action level for nuisance odors is 30 ppm, and the NIOSH recommended exposure limit is 10,000 ppm.

During injection activities, selected wells are 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 is conducted once a day during injection activities. Various monitoring wells are documenting increased pH as high as 10, showing influence of chemical injection throughout the area, including monitoring wells along Paper Road.

Sample collection from residential wells and surface water locations is being conducted on a bi-weekly schedule during injection activities by Precision contractors. Bi-weekly sampling occurred on October 15th. The next sampling activity is scheduled for October 29th.

Semi-annual sampling activities were conducted during the week of October 14th. All monitoring wells not impacted by injection activities or calcium polysulfide influence were sampled by Precision for concentrations of hexavalent and total chromium. EPA and Precision contractors split surface water samples from Ackerly Creek on October 16th. Results of this sampling activity will be posted on the web site as soon as they are validated.

Planned Removal Actions

Injection activities are currently planned to continue into late November 2013. Air monitoring will be conducted for concentrations of hydrogen sulfide 24 hours a day at two fixed point monitoring stations within the lagoon and on Arch Avenue for one additional week following the completion of injection activities.

Bi-weekly sampling of select locations will continue throughout the duration of injection activities.

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