STATEMENT OF BASIS

BOC Gases
Newell, West Virginia
EPA ID NO. WVD980554760

Table of Contents

I. Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis for the BOC Gases site in Newell, West Virginia (Formerly Airco Welded Products). The purpose of this Statement of Basis is to explain the RCRA Corrective Action investigation and corrective measures for soil and groundwater. After a site inspection of the facility and several rounds of groundwater sampling, EPA recommends that no further corrective action, other than assigning institutional controls, is necessary at the facility at this time. The purpose of this document is to solicit public comment on EPA's recommendation for this facility.

For more information on the RCRA Corrective Action Program, visit the Region III web site at www.epa.gov/reg3wcmd/correctiveaction.htm. The corrective action program is designed to ensure that facilities have investigated and cleaned up any releases of hazardous waste or constituents that may have occurred at their property. Region III is using the administrative procedures found in 40 CFR Part 270 to solicit public comment prior to making its final corrective action decision for BOC Gases.

II Facility Background

The facility is located along State Route 2 in Newell, West Virginia. The site is bounded on the west by the Ohio River, on the north by the Mountaineer Race Track and Gaming Resort, on the east by the Marsh Bellofram Corporation manufacturing facility, and on the south by an inactive sand and gravel company. The western portion of the facility is presently occupied by an active industrial gas manufacturing plant, and the eastern portion of the site is vacant and covered by grass and wooded areas. A portion of the vacant eastern section of the property was purchased by the Mountaineer Race Track and Gaming Resort in 2004.

Airco had manufactured wire electrodes for welding machines at a section of the original facility located along State Route 2. When Airco operated the facility, process wastewater generated by manufacturing operations was discharged to two lagoons located on the site. These lagoons were approximately 2000 square feet each. The wastewater that was discharged to these lagoons was classified as spent pickle liquor (K062) and solid waste exhibiting the characteristics of corrosivity (D002). All discharges to the lagoons ceased in January 1984 when facility operations were terminated. Lagoon closure activities were initiated in September 1984. Lagoon sludge and bottom sediments were excavated and disposed of off-site. The lagoons were backfilled with clean soil and in October of 1990, the lagoons were capped using a 30-mil PVC geo-textile liner, placed within a sand bed, and overlain by topsoil, that was then re-vegetated.

III Groundwater Investigations

Environmental concerns at the facility were limited to the two wastewater lagoons. After the lagoons were excavated and the sludge and contaminated soil were removed for off-site

disposal, potential impacts to groundwater became the focus of environmental concern. Several rounds of groundwater samples were collected from 26 on-site monitoring wells during the 1980's to assess groundwater quality. Analyses of groundwater samples from site monitoring wells revealed the presence of volatile organic compounds above benchmark concentrations. In 1991, a consent order (Order Number HW-271-91) was issued by the State of West Virginia to Airco requiring the quarterly monitoring of compliance wells at the site for a minimum of 2 years, and the statistical evaluation of the monitoring data to identify any statistically significant increases in the monitored parameters.

Groundwater Monitoring Program 1991 through 1993

Airco retained BCM Engineers, Inc. (BCM) to perform the required quarterly monitoring and statistical analyses for the 1991 to 1993 monitoring program. The results of the monitoring were presented in quarterly reports submitted to the State of West Virginia. Based on the results of earlier rounds of groundwater sampling the number of monitoring wells to be sampled was reduced to eight. During the January 1993 quarterly monitoring episode, which represented the last quarterly round of sampling, two compounds identified in monitoring well B-6-111 exceeded the USEPA drinking water Maximum Contaminant Levels (MCLs). Tetrachloroethene (PCE) was found at 25 ug/l and trichloroethene (TCE) was found at 7.8 ug/l. The MCL for these two compounds is 5ug/l. Although these results did not represent a statistically significant increase from earlier sampling events, the results were above their respective MCL. A few additional volatile organics were identified at low levels in some of the other wells; however the results were all below their respective MCLs.

1997 Groundwater Sampling Event

On June 3, 1996, the West Virginia Division of Environmental Protection (WVDEP) issued a letter to BOC (Airco's successor) expressing concern that concentrations of some groundwater contaminants detected during the January 1993 monitoring episode exceeded the USEPA drinking water MCLs. A telephone conference was held between the WVDEP, BOC, and BOC's consultant on August 12, 1996 to discuss that issue. Although BOC felt that it had satisfied the requirements of the 1991 Consent Order, they agreed to perform an additional round of sampling. BOC submitted a work plan to WVDEP in August 1996, and the work plan was approved in a January 17, 1997 letter from WVDEP. Based on previous sampling results, the work plan called for sampling of four monitoring wells; B-6-111, B-7-122, B-11-105 and B-13-109.

The groundwater sampling occurred in February 1997. Analytical results of the samples collected during this groundwater monitoring event revealed only one contaminant above an MCL, and that was PCE in monitoring well B-6-111 at a concentration of 6 ug/l. The MCL for this contaminant is 5ug/l.

2004 Sampling Activities

In an attempt to finalize investigation activities at the facility and to make a determination as to what remedial action, if any, needed to be taken, EPA Region III discussed the groundwater situation with WVDEP. The Agencies decided to request that another round of groundwater samples be collected to include 13 groundwater monitoring wells and two production wells. The sampling plan included ten monitoring wells and one production well from the BOC facility property and three monitoring wells and one production well from the nearby Mountaineer Race Track and Gaming Resort property. Sampling activities were conducted on June 23 through June 25, 2004.

The analytical results from this sampling event were consistent with results from previous monitoring events. A few volatile organics were identified in some of the wells at concentrations that were below MCLs. The only contaminant found at a concentration above an MCL was PCE in well B-6-111 at a concentration of 6ug/l, just slightly above the MCL of 5ug/l.

IV Groundwater Remediation and Monitoring Plan

Based on the history of groundwater monitoring and results at the facility, WVDEP requested that BOC address the persistent PCE exceedence identified in monitoring well B-6-111. WVDEP requested that BOC identify and implement groundwater remedial measures at the well to reduce the PCE concentration in groundwater to at or below the MCL. To accomplish this, WVDEP stated that BOC should conduct groundwater treatment at well B-6-111 and verify the effectiveness of the selected treatment method through completion of four quarters of groundwater monitoring.

In an effort to resolve the outstanding issue of the PCE contamination in monitoring well B-6-111 at a concentration just slightly above the MCL, BOC presented a proposal to WVDEP on August 26, 2005 to address the situation. Based on a review of available in-well groundwater treatment technologies, BOC's consultant, MACTEC Engineering and Consulting, Inc. ("MACTEC") had determined that injection of Hydrogen Release Compound ("HRC"), a proprietary compound trademarked by Regenesis, was the best option due to its proven effectiveness and costs. HRC is a non-hazardous compound that has been demonstrated to promote natural degradation of chlorinated organics like PCE. MATAC proposed to conduct one injection application at well B-6-111. The HRC would be pumped into the well and the surrounding aquifer through the well screen and sand pack. A packer would be installed to isolate the screened interval during the application of HRC. Regenesis has indicated that after the injection it typically takes between one to three months for the HRC to begin achieving maximum effect.

An application of HRC was completed at well B-6-111 on February 10, 2006. Seven rounds of groundwater samples were collected from well B-6-111 from March 2006 through August 2007. The results of the first five rounds of sampling revealed levels of PCE ranging from 1.3 ug/l to 7.3 ug/l. The results of the last two rounds of sampling revealed levels of PCE

in well B-6-111 below the MCL of 5ug/l. The May 2007 and August 2007 sampling events revealed concentrations of PCE at 0.5 ug/l and 4.7 ug/l respectively. In accordance with the proposed groundwater remediation plan, because two consecutive rounds of below MCL results for PCE were achieved, further groundwater sampling would not be required. WVDEP will require that the groundwater monitoring wells that had been installed as part of the groundwater investigation for the BOC Gases (formerly Airco Welding) site be abandoned in accordance with WVDEP regulations.

V Summary of Proposed Corrective Measures/Remedial Action

EPA acknowledges that an evaluation of multiple alternatives is not always necessary, particularly if a remedy decision can be determined based on previous investigations/remedial actions, and RCRA site characterization investigations. In this case, a review of several groundwater investigation reports revealed that the former wastewater collection lagoons located in the eastern portion of the property had been the source of groundwater contamination. These lagoons were taken out of service when Airco Welding Products shut down the wire electrodes manufacturing operation in 1984. These lagoons had been identified and remediated starting in 1984 with excavation and removal for off-site disposal of lagoon sludge and bottom sediments. Final closure was completed in 1990 with a 30-mil PVC geotextile liner, sandwiched between two layers of sand placed on top of the old lagoons. Top soil was placed on the upper sand layer, and the area was seeded. A drainage system, designed to minimize rainwater infiltration in the lagoon area, was put into place. Several rounds of groundwater data over the past 20 years have demonstrated a decrease in site related contamination. The past two sampling events revealed no contaminants in the groundwater that exceed MCLs. Therefore, EPA has determined that further groundwater sampling at this site is not necessary. EPA will require that institutional controls be assigned to the site to include maintainence of the lagoon cover and the limiting of groundwater use at the facility property for non-potable purposes only. EPA proposes to have the proposed remedy implemented through a module to be included in the WVDEP RCRA permit for the facility.

VI State Acceptance

The investigation and decision making process for assessing environmental issues at the BOC Gases site has been a joint effort between EPA and WVDEP. The WVDEP staff provided much of the direction for BOC and also provided oversight for several of the sampling events. WVDEP is in agreement with the final determination for the site that no further groundwater sampling is required and that the aforementioned institutional controls shall be applied.

VII Public Participation

EPA is requesting comments from the public on its proposal that no additional corrective action, other than the assigning of institutional controls will be required at this facility at this time. The public comment period will last forty-five (45) calendar days from June 12, 2008, the

date that this matter is publicly noticed in a local newspaper. Comments may be sent to EPA in writing at the EPA address listed below, and all commentors will receive a copy of the final decision and a copy of the response to comments.

A public meeting will be held upon request. Requests for a public meeting should be made to Mr. Bill Wentworth of the EPA Regional Office at the address below or at (215) 814- 3184.

The Administrative Record contains all information considered by EPA when making this proposal to not require additional corrective action at this facility at this time. The Administrative Record is available at the following locations:

U.S. Environmental Protection Agency
Region III
1650 Arch Street - 3WC23
Philadelphia, PA 19103-2029
Contact: Bill Wentworth Voice: (215) 814-3184
Fax: (215) 814-3113
Hours: Mon-Fri, 9:00 A.M - 5:00 P.M.
E-mail: wentworth.william@epa.gov

Swaney Memorial Library
100 Court Street
New Cumberland, West Virginia 26047
(304) 564-3471
Hours: Mon., Tues., Thur., Fri. 9:00 AM – 4:00 PM
Wed. 11:00 AM – 7:00 PM

Following the forty-five (45) calendar day public comment period, EPA will prepare a final decision which will address all written comments and any substantive comments presented verbally at a public meeting. This final decision will be incorporated into the Administrative Record. If the comments are such that significant changes are made to the proposal that no further action is needed other than groundwater monitoring and institutional controls at this facility, EPA will seek public comments on the revised proposal.

APPENDIX A

References

1- Quarterly Groundwater Monitoring January, 1993 Sampling Episode for Airco Welding Products, Inc., Chester, West Virginia Facility, March 1993.

2- Groundwater Sampling and Well Abandonment Report, Former Airco Welding Inc. Site, Newell, West Virginia. Harding Lawson Associates, May, 1997.

3- Groundwater Monitoring Report, June 2004 Sampling Event, Former Airco Welding Site, Newell, West Virginia. MATEC, Engineering and Consulting, Inc. January, 17, 2005.

4- Proposed Groundwater Remediation and Monitoring Plan, Former Airco Welded Products Facility, Newell, West Virginia. Correspondence. Dated August 26, 2005. To Jim Duranti and Keith Stuart (WVDEP) from Jim Merriam (BOC).

5- Groundwater Results Table. E-mail. Dated Wednesday, October 3, 2007. To Julie Szymanek (Triad Engeneering) from John Scrabis (MACTEC).