



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III

STATEMENT OF BASIS

Callery, LLC
(formerly Mine Safety Appliances Co.)
1424 Mars-Evans City Road
Evans City, PA 16033

EPA ID NO. PAD004322913

Prepared by
Office of Remediation
Land and Chemicals Division
October 2018

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List of Acronyms

AR	Administrative Record
EI	Environmental Indicator
EPA	Environmental Protection Agency
COC	Constituent of Concern
FDRTC	Final Decision and Response to Comments
GPRA	Government Performance and Results Act
HSWA	Hazardous and Solid Waste Amendments
IC	Institutional Control
MCL	Maximum Contaminant Level
NPDES	National Pollutant Discharge Elimination System
PADEP	Pennsylvania Department of Environmental Protection
RCRA	Resource Conservation and Recovery Act
SB	Statement of Basis
UECA	Pennsylvania Uniform Environmental Covenants Act
WWPF	Wastewater Pretreatment Facility
VOC	Volatile Organic Compound

Section 1: Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) to solicit public comment on its proposed remedy for the Callery, LLC (formerly Mine Safety Appliances Co.) facility located at 1424 Mars-Evans City Road, Evans City, Pennsylvania (Facility or Site). This SB highlights key information relied upon by EPA in making its proposed remedy for the Facility which requires compliance with the Final Post Remedial Care Plan to be approved by EPA and the Pennsylvania Department of Environmental Protection (PADEP). The Final Post Remedial Care Plan requires groundwater monitoring; the operation of the groundwater remediation system and the implementation and maintenance of land and groundwater use restrictions to be implemented through institutional controls (ICs). ICs are non-engineered instruments such as administrative and/or legal controls that minimize the potential for human exposure to contamination and/or protect the integrity of the remedy by limiting land or resource use. EPA proposes to implement the final remedy for the Facility through an enforceable document such as an order, agreement and/or environmental covenant to be entered pursuant to the Pennsylvania Uniform Environmental Covenants Act, 27 Pa. C.S. Sections 6501-6517, (UECA) and recorded with the deed for the Facility property.

The Facility is subject to the Corrective Action Program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. Sections 6901 to 6992k. The Corrective Action Program is designed to ensure that certain facilities subject to RCRA have been investigated and that all releases of hazardous waste and hazardous constituents have been remediated. The Commonwealth of Pennsylvania (the Commonwealth) is not authorized for the Corrective Action program under Section 3006 of RCRA. Therefore, EPA retains primary authority in the Commonwealth for the Corrective Action Program.

The Administrative Record (AR) for the Facility contains all documents, including data and quality assurance information, on which EPA's proposed remedy is based. See Section 8, Public Participation, for information on how you may review the AR. Information on the Corrective Action Program as well as a fact sheet for the Facility can be found by navigating through the EPA website <https://www.epa.gov/hwcorrectiveactionsites/corrective-action-programs-around-nation#3>

Section 2: Facility Background

The Facility is located on Mars-Evans City Road, 2 miles southeast of Evans City, Butler County, Pennsylvania. The Breakneck Creek tributary flows northerly, along the Facility's western property line, turning to the east in the northern portion of the Facility, where it flows between the manufacturing plant and the plant's Wastewater Pretreatment Facility (WWPF). Several scattered residential properties are also located within a 2-mile radius of the Facility. Land use surrounding the Facility is mainly rural residential, agricultural and light industrial. The Site layout is presented on Figure 1.

The original manufacturing plant was constructed in the early 1900s. Mine Safety Appliances Co. (MSA) acquired the Site in the late 1930s. The number and footprint of the Site's mostly small, single-purpose buildings and their batch operations changed throughout MSA's ownership. MSA operated a variety of manufacturing and research operations for several of its divisions that included Safety Products, Filter Products, Callery Chemical Company, MSA Research, and Advanced Systems Division (collectively referred to as MSA). Specialty chemicals, rubber, respiratory protection devices, and oxygen generating devices using potassium superoxide were produced at the Facility.

On September 12, 2003, BASF Corporation (BASF) purchased the Site from MSA, and subsequently purchased two adjoining parcels that increased the Site size to 100 acres. Subsequently and in February 2017, BASF sold the Facility to Callery, LLC who currently owns the Site.

A variety of wastes are generated at the Facility. Hazardous wastes include caustic wastewater, spent materials from equipment clean-out and laboratory activities, and methanol scrubber solutions. Residual wastes include paper and cardboard, wood, and rubber wastes. The Facility maintains and operates a captive hazardous waste storage facility and several permit-by-rule treatment units. It also utilizes an on-site WWPF to manage its industrial and sanitary wastewater.

Section 3: Summary of Environmental Investigations

The Department of Justice Consent Decree

On January 15, 1990, the United States and MSA entered into a Consent Decree (Civil Action No. 87-1531) (Consent Decree) pursuant to RCRA Section 3008 (a) that required MSA to complete certain actions to settle and resolve complaints filed by EPA for injunction relief and penalties. In 2001 and under the oversight of PADEP, MSA fulfilled all its requirements under the Consent Decree to the satisfaction of EPA. A summary of each area investigated and remediated pursuant to the Consent Decree are presented below:

Acid Pond Closure:

The former acid pond was used for the treatment and/or storage of acid wastes and sewage generated at the Facility. Under PADEP oversight, MSA decontaminated the acid impoundment's liner; removed and disposed of the underlying contaminated soil, and then backfilled the excavated area. On October 11, 1990, PADEP approved the clean closure under RCRA of the former acid pond to industrial standards.

Caustic Pond Closure:

The former caustic pond was used for the treatment and storage of caustic wastes generated at the Facility. Under PADEP oversight, MSA decontaminated the caustic pond's liner; removed and disposed the underlying contaminated soil, and then backfilled and revegetated the excavated area. PADEP approved the clean closure of the former caustic pond on December 26, 1992 to industrial standards.

Installation of Neutralization Tank:

MSA installed a Neutralization Tank in 1987 to collect and neutralize acid and caustic wastes streams generated at the Facility. As required by the Consent Decree, MSA monitored the corrosivity of the Tank's discharge to confirm that the neutralization tank was treating the waste stream from the former Acid and Caustic Ponds for corrosivity. In 2001 and several years after the closure of the former ponds, MSA ceased the monitoring of corrosivity from the neutralization tank discharge.

Groundwater Monitoring Program:

As required by the Consent Decree, MSA installed a groundwater monitoring system and implemented an EPA-approved Groundwater Quality Assessment Plan (GWQA Plan) for the former Acid and Caustic Ponds, discussed above. Initially, seven downgradient and two background wells were installed in 1987. MSA installed three additional wells in 1990. Historic groundwater quality data from the wells indicate no significant groundwater impact is attributable to either of the former ponds.

Treatment Area #4 - Closure:

MSA used Treatment Area #4 from 1980 to 1984. Treatment Area #4 was an outdoor concrete area abutting Building 12 that consisted of a 4' by 4' by 4' metal hopper that treated alkali metal oxides with water. Treatment Area #4 produced a caustic solution that was transported to the onsite wastewater treatment facility for treatment prior to being discharged under a National Pollutant Discharge Elimination System (NPDES) permit. Under PADEP oversight, MSA decontaminated the treatment equipment, removed hazardous waste treatment residues and conducted confirmatory soil sampling to verify that the surrounding soils were not impacted. PADEP approved the clean closure of Treatment Area #4 on August 14, 2001.

Storage of Customer-Returned Hazardous Waste:

The former Storage of Customer-Returned Hazardous Waste Area is also referred to as Storage Area #5. This Area was in Building 12 and occupied a 14' by 8' area. From 1983 to 1985, MSA used this Area to temporarily store customer-returned alkali metal containers. MSA submitted to PADEP a spill certification that confirmed that no spills occurred from its operations in Area #5. In December 1988, PADEP approved the clean closure of Storage Area #5.

Waste Pile #1 – Unpermitted Disposal of Run-off:

Waste Pile #1 is located outside of and near Building 12. Waste Pile #1 is also referred to as the Salt Bins. MSA implemented corrective measures that eliminated the discharge of runoffs from Waste Pile #1. These measures consisted of sealing cracks in the concrete pad and installing trench drains and sewer lines to collect and transport the runoffs to the onsite wastewater treatment facility for pretreatment prior to offsite discharge.

Container Storage Area (B89):

On February 13, 1990, MSA submitted a revised RCRA Part B permit application in accordance to the Consent Decree. The revised application included the Container Storage Area (B89) in which hazardous waste containers were stored. In 2002, PADEP approved the clean closure of the Container Storage Area (B89).

Groundwater Control Project (GWC)

In 1998, MSA initiated the GWC to investigate and remediate groundwater contamination in response to a release of 1,1,1-trichloroethane (1,1,1-TCA) to groundwater. The GWC was a voluntary initiative under PADEP oversight. Since 1998, the GWC has expanded to encompass a Facility-wide groundwater monitoring and remediation program to address subsequent releases to groundwater and to include groundwater monitoring for the closures of several former waste management units that required source removal and soil remediation to industrial standards. The GWC also included surface water sampling along the Breakneck Creek to evaluate the potential impact of groundwater contamination to surface water. Historic surface water data showed that Facility-related groundwater contamination is not impacting Breakneck Creek. Consequently, surface water sampling is no longer required.

Currently the GWC consists of 64 groundwater sampling locations throughout the Site that are used to monitor and evaluate groundwater conditions. These locations consist of 38 shallow wells, 13 deep bedrock wells, and 13 other locations such as springs, standpipes and outfalls. Of the 51 wells, five are designated recovery wells to remediate groundwater contamination. The recovery wells have maintained hydraulic control and limited groundwater contamination migration within the Site property boundaries. The recovered contaminated groundwater is pretreated with activated carbon prior to discharging it to the Evans City Water & Sewer Authority (ECWSA).

The principal constituents of concern (COCs) in groundwater are chlorinated volatile organic compounds (VOCs). Below is a list of COCs, the range of concentrations detected in groundwater from 2012 to 2016, and the respective Maximum Contaminant Limit (MCL) promulgated pursuant to Section 42 U.S.C. §§ 300f et seq. of the Safe Drinking Water Act and codified at 40 CFR Part 141 or Pennsylvania's residential Statewide Health Standards (SHS), if there is no applicable MCL:

VOCs	Range of Concs. (µg/L)	MCLs or PA Act 2 (µg/L)	
Chloroethane	ND - 220	250	Act 2
1,1-Dichloroethane	ND - 13,900	31	Act 2
1,1-Dichloroethene	ND - 2,290	7	MCL
cis-1,2-Dichloroethene	ND	70	MCL
trans-1,2-Dichloroethene	ND	100	MCL
1,4-Dioxane	ND - 52,000	6.4	Act 2
Tetrachloroethene	ND - 1.8	5	MCL
Tetrahydrofuran	ND - 1,000	26	Act 2
1,1,1-Trichloroethane	ND - 26,400	200	MCL
Trichloroethene	ND - 6.7	5	MCL
Vinyl chloride	ND - 2.6	2	MCL

Note: ND = non-detect

The Facility is currently finalizing the Draft Post Remedial Care Plan to address EPA and PADEP's comments. The Agencies anticipate approving the Final Post Remedial Care Plan in the coming weeks. The Final Post Remedial Care Plan will set forth the conditions and requirements of the GWC to monitor and remediate the groundwater contamination. The Final Post Remedial Care Plan requires that the GWC continue to be operated at the Facility until MCLs, or SHSs, are met and to maintain hydraulic control to prevent groundwater contamination migration. In addition, the Final Post Remedial Care Plan also requires that institutional controls be implemented at the Site to limit land use to non-residential and to restrict groundwater use for non-potable purposes.

Environmental Indicators

Under the Government Performance and Results Act (GPRA), EPA has set national goals to address RCRA Corrective Action facilities. Under the GPRA, EPA evaluates two key environmental cleanup indicators for each facility: (1) Current Human Exposures Under Control and (2) Migration of Contaminated Groundwater Under Control. On October 16, 2002 EPA determined that both environmental indicators had been met. The approved environmental indicator determinations are available at:

https://www.epa.gov/sites/production/files/2016-01/documents/hh_pad004322913.pdf

https://www.epa.gov/sites/production/files/2016-01/documents/gw_pad004322913.pdf

Section 4: Corrective Action Objectives

EPA's Corrective Action Objectives for the specific environmental media at the Facility are the following:

A. Groundwater

EPA's corrective action objectives for groundwater are:

- 1) to remediate Facility-related contamination in groundwater to applicable MCLs, or SHS if there is no applicable MCL; and
- 2) to prevent groundwater contaminant migration beyond the Facility property boundaries while contaminants remain above MCLs, or SHSs, as applicable.

Section 5: Proposed Remedy

Under this proposed remedy, groundwater contamination will be cleaned up to meet MCLs or SHSs if no MCL is applicable. EPA's proposed remedy consists of the continued implementation of the Final Post Remedial Care Plan and the implementation of land and groundwater use restrictions. EPA proposes to implement the final remedy at the Facility

through an enforceable document such as a permit, order, or environmental covenant.

A. Groundwater

The GWC will continue to be operated and maintained. In addition to contaminant removal, the GWC must maintain hydraulic control and prevent groundwater contaminants from migrating beyond the Facility property boundaries. Because groundwater contaminants remain above their applicable MCLs, EPA’s proposed remedy requires groundwater use restrictions be implemented through ICs to restrict onsite groundwater use to non-potable purposes only.

B. Land Use Restriction

Because industrial soil standards were applied for the closure of several former waste management units, ICs will restrict land use at the Facility to non-residential use.

C. Implementation

EPA’s proposed remedy requires compliance with the Final Post Remedial Care Plan. EPA proposes that land and groundwater use restrictions for the Facility be implemented through an enforceable IC such as an order, agreement and/or an environmental covenant to be entered pursuant to the Pennsylvania Uniform Environmental Covenants Act, 27 Pa. C.S. Sections 6501-6517, (UECA) and recorded with the deed for the Facility property. Current owners and all subsequent owners will be required to comply with these requirements and restrictions.

Section 6: Evaluation of Proposed Remedy

This section provides a description of the criteria EPA used to evaluate the proposed remedy consistent with EPA guidance. The criteria are applied in two phases. In the first phase, EPA evaluates three remedy threshold criteria as general goals. In the second phase, for those remedies which meet the threshold criteria, EPA then evaluates seven balancing criteria.

Threshold Criteria	Evaluation
1. Protect human health and the environment	EPA’s proposed remedy is protective of human health and the environment. The primary human health and environmental threats posed by the groundwater contamination is direct exposures. EPA’s proposed remedy requires continued groundwater monitoring and remediation and the compliance with and maintenance of land and groundwater use restrictions at the Facility. Groundwater use will be limited to non-potable purposes only.
2. Achieve media cleanup objectives	VOCs remain in groundwater in concentrations above applicable MCLs. Under EPA’s proposed remedy, the GWC will be operated and maintained until VOCs in groundwater are remediated to

	MCLs.
3. Remediating the Source of Releases	In all remedy decisions, EPA seeks to eliminate or reduce further releases of hazardous wastes or hazardous constituents that may pose a threat to human health and the environment. Sources of release to groundwater have been removed and properly disposed offsite as part of the closures of the former waste management units. Residual contamination remains in the groundwater. The Facility will continue to monitor and remediate groundwater until contaminant levels meet regulatory standards.
Balancing Criteria	Evaluation
4. Long-term effectiveness	The proposed remedy will maintain protection of human health and the environment over time by reducing the levels of contaminants in groundwater. EPA's proposed remedy requires continued operation and maintenance of the GWC and the compliance with and maintenance of land and groundwater use restrictions at the Facility. EPA anticipates that the land and groundwater use restrictions will be implemented through an environmental covenant to be recorded with the deed for the Facility property. The environmental covenant will run with the land and as such, will be enforceable by EPA and the State against future land owners.
5. Reduction of toxicity, mobility, or volume of the Hazardous Constituents	The proposed remedy reduces the toxicity, mobility or volume of contamination in groundwater. The Facility will continue to monitor and operate the GWC until contaminant levels in groundwater meet drinking water standards. There are no direct exposures to the groundwater contamination. Groundwater use will be limited to non-potable purposes only.
6. Short-term effectiveness	EPA's proposed remedy does not involve any additional activities, such as construction or excavation that would pose short-term risks to workers, residents, and the environment. The Facility will continue to monitor groundwater and operate the GWC. EPA anticipates that the land and groundwater use restrictions will be fully implemented shortly after the issuance of the Final Decision and Response to Comments (FDRTC).
7. Implementability	EPA's proposed remedy is readily implementable. The GWC will continue to be operated and groundwater will be monitored. EPA anticipates that the land and groundwater use restrictions will be fully implemented shortly after the issuance of the FDRTC.
8. Cost	EPA's proposed remedy is cost effective. Callery, LLC will provide financial assurance to ensure the implementation of the GWC. The cost in implementing ICs at the Facility is minimal.
9. Community	EPA will evaluate community acceptance of the proposed remedy

Acceptance	during the public comment period for this SB and will describe community acceptance in the FDRTC.
10. State/Support Agency Acceptance	PADEP accepts and supports EPA's proposed remedy for the Facility.

Section 7: Financial Assurance

EPA has evaluated whether financial assurance is necessary to implement the proposed remedy as described in Section 5. The Facility will provide financial assurance to ensure the implementation of the groundwater monitoring and remediation system. The cost in implementing ICs at the Facility is minimal.

Section 8: Public Participation

Before EPA makes a final decision on its proposal for the Facility, the public may participate in the proposed remedy selection process by reviewing this SB and documents contained in the Administrative Record (AR) for the Facility. The AR contains all information considered by EPA in reaching this proposed remedy. It is available for public review during normal business hours at:

U.S. EPA Region III
 1650 Arch Street
 Mail code: 3LC30
 Philadelphia, PA 19103
 Contact: Mr. Khai Dao
 Phone: (215) 814-5467
 Fax: (215) 814-3113
 Email: dao.khai@epa.gov

and

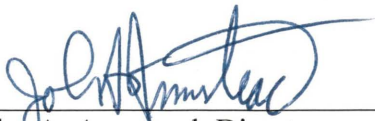
PADEP Northwest Regional Office
 230 Chestnut Street
 Meadville, PA 16335-3481
 Phone: (814) 332-6945

Interested parties are encouraged to review the AR and comment on EPA's proposed remedy. The public comment period will last thirty (30) calendar days from the date that notice is published in a local newspaper. You may submit comments by mail, fax, or e-mail to Mr. Khai Dao. EPA will hold a public meeting to discuss this proposed remedy upon request. Requests for a public meeting should be made to Mr. Khai Dao.

EPA will respond to all relevant comments received during the comment period. If EPA determines that new information warrant a modification to the proposed remedy, EPA will

modify the proposed remedy or select other alternatives based on such new information and/or public comments. EPA will announce its final remedy and explain the rationale for any changes in the FDRTC. All persons who comment on this proposed remedy will receive a copy of the FDRTC. Others may obtain a copy by contacting Mr. Khai Dao at the address listed above.

10.30.18
Date



John A. Armstead, Director
EPA Region III
Land and Chemicals Division

Section 9: Index to Administrative Record

USEPA Mine Safety Appliances Company, Environmental Indicator Inspection Report, prepared by Foster Wheeler Environmental Corporation, February 2002.

Status of Consent Decree Action Items, Mine Safety Appliances Company and USEPA, Civil Action No. 87-1531, Former Evans City, PA Plant, November 24, 2014.

2015 Groundwater Control Project Status Report, BASF Corporation, 1424 Mars-Evans City Road, Evans City, PA November 16, 2015.

Draft Post Remedial Care Plan, Groundwater Control Project, Callery, LLC, Evans City Site, Evans City, Pennsylvania, prepared by Christopher D. Tower, P.E., P.G., July 2018.

Attachments

EVANS CITY SITE PLAN

PREPARED FOR
CALLERY, LLC
EVANS CITY, PENNSYLVANIA

DATE: 1/17/2018

C. D. TOWER
AND
ASSOCIATES, INC.

REVISED:

DWG. NO.: C-B16

LEGEND:

- | | | | | |
|-------|--|--------------------------|--|------------------------------|
| 21-18 | | RECOVERY WELL | | FACILITY BUILDING AND NUMBER |
| 20-31 | | POINT OF COMPLIANCE WELL | | STREAM FLOW DIRECTION |
| 21-5 | | MONITORING WELL | | PROPERTY LINE |
| IM-SP | | STANDPIPE | | STORMWATER OUTFALL |
| | | GATE AND FENCE | | EDGE OF PAVEMENT |

