



**UNITED STATES ENVIRONMENTAL PROTECTION
AGENCY
REGION III
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, Pennsylvania 19103-2852**

SUBJECT: Long-Term Stewardship Assessment
BASF Corporation
EPA ID: PAD002348324
300 Brookside Avenue,
Ambler, PA 19002

DATE: 09/25/2023

TO: Alizabeth, Olhasso, RCRC Corrective Action South Section Manager
Long Term Stewardship File for BASF
RCRA Corrective Action

FROM: Linda Matyskiela, Remedial Project Manager

Remedy Assessment Summary:

On April 4, 2023, the United States Environmental Protection Agency's (USEPA) Land, Chemicals, and Redevelopment Division (LCRD) representative, Linda Matyskiela, conducted a long-term stewardship assessment site visit of the BASF Corporation (Facility) in Ambler, PA.

The information gathered concludes the Facility is meeting the objectives of USEPA's final remedy selected in the Final Decision and Response to Comments on September 30, 2019.

Introduction:

Long-term stewardship (LTS) refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be enforced. The purpose of the EPA Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e., ECs and ICs) and to update the community on the status of the RCRA Corrective Action facilities. The assessment is conducted in twofold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance with the final decision.

Facility Background and Remedy:

The Facility is located at 300 Brookside Avenue, in Ambler, Pennsylvania (Figure 1). The Facility was formerly owned by the Cognis Corporation (Cognis), Henkel Corporation, Amchem Products, Inc., Union Carbide Corporation, the Rorer Group, and several privately-owned companies.

The 44-acre Facility originally consisted of 26 buildings which housed administrative, research and development, manufacturing operations, and support facilities. Properties surrounding the Facility are primarily residential. A commuter railroad line borders the west side of the property.

The Facility manufactured metal treatment products between 1923 and 2003. Herbicides and pesticides were manufactured between 1938 and 1980.

In 2010, BASF purchased the Facility property from Cognis Corporation (Cognis). Specialty laboratory work and general business and site-support service were conducted by Cognis between 2003 and 2010. Operations at the Facility ceased in 2012. Currently the Facility property is being redeveloped and is known as Ambler Yards. Several of the buildings have been leased to tenants for commercial operations.

The Facility was subdivided into the following areas and parcels for purposes of investigation, and the Remedy elements (See Table 1, below, for a summary):

1. Building 14 Area and Building 23 Area housed manufacturing operations and were investigated individually, however the remedy is the same for both areas;

Remedy -

A) The existing caps at Buildings 14 and 23 Areas shall be maintained, consistent with their Post-Remediation Care Plans detailed in their respective Final Reports. Inspection, maintenance, reporting, and recordkeeping is required, in compliance with their Post-Remediation Care Plans detailed in their respective Final Reports.

B) Buildings 14 and 23 Areas shall be restricted to commercial/recreational and/or industrial purposes and shall not be used for residential purposes, unless it is demonstrated to EPA that such use will not pose a threat to human health or the environment or adversely affect or interfere with the selected remedy, and EPA provides prior written approval for such use.

C) Implementation of and compliance with the land-use controls to restrict the use of the Buildings 14 and 23 Areas to commercial/recreational and/or industrial purposes and prohibit use for residential purposes. (January 15, 2020 Environmental Covenant with PADEP signatory)

2. The Residential Parcel is an approximate 1.5-acre parcel that encompasses administrative (formerly residential) buildings in a southeast corner of the Site.

Remedy –

A) As the soils at the Residential Parcel meet residential Statewide Health Standards (SHS) under the Pennsylvania Land Recycling and Environmental Remediation Standards Act, no remedial action is necessary. This Parcel meets standards for unrestricted land use; groundwater use restriction applies.

3. The 18-acre Ballfields were transferred to Lower Gwynedd Township and the Borough of Ambler in 2002.

Remedy -

A) Implementation of and compliance with land-use controls to restrict the use of the

parcels to commercial/recreational and/or industrial purposes and prohibit use for residential purposes. (January 15, 2020 Environmental Covenant still under development. PADEP will be signatory)

4. Sitewide Soils (which consists of the remaining the 44 acres of the Facility, excluding the Building 14 Area; Building 23 Area; Residential Parcel and Ballfields Parcel)

Remedy –

A) Sitewide Soils shall be restricted to commercial/recreational and/or industrial purposes and shall not be used for residential purposes, unless it is demonstrated to EPA that such use will not pose a threat to human health or the environment or adversely affect or interfere with the selected remedy, and EPA provides prior written approval for such use.

B) Implementation of and compliance with land-use controls to restrict the use of the Sitewide Soils to commercial/recreational and/or industrial purposes and prohibit use for residential purposes. (January 15, 2020 Environmental Covenant with PADEP signatory)

5. Groundwater which was evaluated at each of the areas and parcels as well as site-wide.

Remedy –

A) Monitor and treat the groundwater until federal Maximum Contaminant Levels (MCLs) promulgated pursuant to Section 42 U.S.C. §§ 300f et seq. of the Safe Drinking Water Act and codified at 40 CFR Part 14, are met.

B) Compliance with, and maintenance of, groundwater-use restrictions that restrict groundwater-use to non-potable and non-agricultural uses at the Facility in order to prevent exposure to contaminants while levels remain above drinking water standards. (January 15, 2020 Environmental Covenant with PADEP as signatory)

C) Submission of update of the Groundwater Monitoring Plan (Plan) for EPA approval. This Plan must identify future monitoring activities, schedules, and additional treatment alternatives, as appropriate. This Groundwater Monitoring Plan may also include a proposal for alternative cleanup levels which are protective of human health and the environment based on Facility-specific scenarios and groundwater use. If EPA determines that any such alternative cleanup levels are appropriate, EPA will solicit public comments on such cleanup levels prior to amending the FDRTC and including them in the Final Remedy for the Facility.

Current Site Status:

Table 1 summarizes elements of the Remedy. All elements of the Remedy have been implemented, except for those in Bold.

Table 1

Parcel	Remedial Report	Control/Remedy	PADEP Act 2 Report Approval	Remedy Instrument/ Covenant Date
Sitewide Soils	<i>Final Report: Site Investigation Results & Remedial Action Report for Soil</i> , October 14, 2008	Non-residential land-use restriction.	June 18, 2015	July 11, 2011: superseded by January 15, 2020
Building 14 Area	<i>Final Report: Site Investigation Results & Remedial Action Report for Soil</i> , October 14, 2008	Building slab and Post-Remedial Care Plan. Non-residential use restriction.	June 18, 2015	July 11, 2011: superseded by January 15, 2020
Building 23 Area	<i>Final Report: Site Investigation Results & Remedial Action Report for Building 23 AEC Soil</i> , November 2015	Building slab and Post-Remedial Care Plan. Non-residential use restriction.	January 26, 2016	January 15, 2020
Residential Parcel	<i>Final Report: Site Investigation Results & Remedial Action Report for Residential Parcel Soil</i> , July 2015	None	September 29, 2015	None
Ballfields (18 acres sold to Lower Gwynedd Township and the Borough of Ambler 2002)	<i>Final Report Ball Field Area Investigation Results & Demonstration of Attainment of Statewide Health Standards</i> , March 2006	Non-residential land-use restriction. Ongoing further delineation of subsurface under PADEP request.	May 03, 2006	Covenant in progress with BASF, Lower Gwynedd Township and PADEP
Groundwater	Annual GW remediation progress monitoring reports	Non-potable use restriction. Continued monitoring. Ongoing further delineation of perimeter wells under EPA and PADEP request. Submit Groundwater Monitoring Plan	Non-use GW restriction in covenant subsequent to 2008 Sitewide Soils report approval. GW Report has not been submitted for Act 2 at this time.	July 11, 2011: superseded by January 15, 2020

All Proposed Remedy elements are completed except those in BOLD.

Long-term Stewardship Site Visit:

The attendees were:

Name	Organization	Email Address
Linda Matyskiela (via Teams call)	US EPA Region 3	Matyskiela.Linda@epa.gov
Lisa Strobridge	PADEP	lstrobridge@pa.gov
Ed Vanyo	BASF	Ed.vanyo@basf.com
Jay Ash	AMO	jash@amoed.com

Implementation Mechanism(s):

The Implementation Mechanism is the method for implementing IC and ECs required as a condition of the Statement of Basis and Final Decision. The summary of implementation mechanisms are described in Attachment 2.

Financial Assurance:

EPA estimates that the cost of implementing the two (2) Post-Remediation Care Plans and the continued groundwater monitoring will be \$10,000 annually. Therefore, EPA determined that no financial assurance was required at time of FDRTC.

Once the post-remedial groundwater monitoring program is established and groundwater data is generated, EPA will reevaluate the need for financial assurance if the additional treatment options are implemented.

Reporting Requirements/Compliance:

1. Submittals of groundwater investigation and data are ongoing, in compliance with EPA's and PADEP's expectations. The Groundwater Monitoring Plan is still in development.
2. Submittals of data for Ballfields subsurface delineation are ongoing, in compliance with EPA and PADEP requests. Environmental Covenant is still in development (PADEP will be signatory).
3. Reports compliance with January 15, 2020 Environmental Covenant to PADEP (signatory) for Buildings 14 and 23 Areas (cap and land use), Sitewide Soils (land use), and groundwater (use restriction).

Mapping:

The Facility Parcels have been geospatially mapped and is available on the Facility's EPA Factsheet.

Conclusions and Recommendations:

The facility is cooperatively working with EPA and PADEP to gather more groundwater data in order to develop a comprehensive groundwater monitoring plan. In addition, the Facility is assisting the City of Ambler to provide further characterization of the subsurface Ballfields Parcel as requested by PADEP, and intends to assist in developing an Environmental Covenant for that Parcel. All other elements of the Remedy have been successfully implemented.

Files Reviewed:

April 2023 materials for GW presentation for LTS meeting
December 2020 RIR and CP for Groundwater
January 15, 2020 Environmental Covenant
September 30, 2019 FDRTC

Enc.:

Attachments

Attachment 1. Map of facility.



Attachment 2: Remedial EC/IC Summary Table.

Facility Name	BASF Corporation			
Address	300 Brookside Ave., Ambler PA, 19002			
EPA ID#	PAD002348324			
Are there restrictions or controls that address:	Yes	No	Area(s)	Description of restrictions, controls, and mechanisms
Groundwater Use	X		GW	Restrict to non-potable uses
Residential Use	X		Bldgs 14, 23, Sitewide Soils, Ballfields	Residential Parcel does not have a land use restriction
Excavation	X		Bldgs 14, 23, Sitewide Soils, Ballfields	Residential Parcel does not have a land use restriction
Vapor Intrusion		X		NA
Capped Area(s)	X		Bldgs 14, 23, Ballfields	Restrict land use and excavation
Other Engineering Controls	X		Site-wide groundwater	Long term groundwater monitoring
Other Restrictions		X		

LTS Checklist Template

<u>IC Review and Assessment Questions:</u>	<u>Yes</u>	<u>No</u>	<u>Notes</u>
• Have the ICs specified in the remedy been fully implemented? Implementation mechanism in place?		X	Environmental Covenant for Ballfields still in progress
• Do the ICs provide control for the entire extent of contamination (entire site or a specific portion)?	X		
• Are the ICs eliminating or reducing exposure of all potential receptors to known contamination?	X		
• Are the ICs effective and reliable for the activities (current and future) at the property to which the controls are applied?	X		
• Have the risk of potential pathway exposures addressed under Corrective Action changed based on updated screening levels and new technologies?		X	
• Are modifications to the IC implementation mechanism needed? (i.e. UECA Covenant, Permit or Order)		X	
• Are there plans to develop or sell the property?		X	Parcels have already been sold/redeveloped.
• Have all reporting requirements been met?	X		

<u>Groundwater Review and Assessment Questions:</u>	<u>Yes</u>	<u>No</u>	<u>Notes</u>
• Is groundwater onsite used for potable purposes?		X	
• Is the Facility connected to a public water supply?	<u>X</u>		
• Have any new wells been installed at the facility?	<u>X</u>		
• Are the current groundwater flow rate and direction similar as mentioned in the previous studies?	X		Under evaluation with the new wells
• Groundwater contaminants stable or decreasing in concentration?	X		
• Are groundwater monitoring wells still in place (# wells)?	X		GW monitoring plan still under development. Currently, there are 12 wells in the network.

• Any evidence or reason to re-evaluate the number and location of monitoring points and/or monitoring frequency?			Under evaluation with the new wells
• For wells where groundwater monitoring is no longer required, have the wells be decommissioned?		X	
• Is there evidence of monitored natural attenuation occurring in groundwater?	X		
• Has (active remediation system) been maintained as necessary?			NA
• Is the (groundwater containment system) effectively containing COCs and protecting potential receptors (surface water body and/or groundwater resource) via hydraulic control?	X		
• Have notification letters been sent to the local POTW, County Department of Health, and Planning and Zoning Department regarding groundwater use restrictions?	X		

<u>Surface and Subsurface Soil Review and Assessment Questions:</u>	<u>Yes</u>	<u>No</u>	<u>Notes</u>
• Is the facility being used for residential purposes?	X		Residential Parcel only
• Have there been recent construction or earth-moving activities or plans for such?		X	

<u>Engineered Cap or Cover Review and Assessment Questions:</u>	<u>Yes</u>	<u>No</u>	<u>Notes</u>
• Have geosynthetic/vegetative landfill caps (name) been properly maintained?	X		Bldgs 14 and 23
• Have any repairs been necessary? (i.e. regrading, filling, root removal)	X		
• Is the leachate collection system operating and effectively preventing groundwater contamination?			NA

<u>Vapor Intrusion Review and Assessment Questions:</u>	<u>Yes</u>	<u>No</u>	<u>Notes</u>
• Have there been construction of new structures within the vapor intrusion restriction zone(s)?			NA
• Is the vapor intrusion mitigation system radius of influence effective for the structure in which its installed?			NA

<u>Miscellaneous Review and Assessment Questions:</u>	<u>Yes</u>	<u>No</u>	<u>Notes</u>
• Is the security fence intact?			NA
• Is the appropriate signage posted?	X		