DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION
Interim Final 2/5/99
RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)
Current Human Exposures Under Control

Facility Name: **Brenntag Northeast, Inc.**
Facility Address: **1085 Allegheny Avenue, Oakmont, Pennsylvania 15139**
Facility EPA ID #: **PAD004318960**

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

   [X] If yes – check here and continue with #2 below.

   [ ] If no – re-evaluate existing data, or

   [ ] If data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility [i.e., site-wide]).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subjectto RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	Yes	No	?	Rationale/Key Contaminants
Groundwater		X		Act 2 Final Report results and EPA Site Investigation Letter Report results
Air (indoors)[2]		X		No known/documented releases to air from operations.
Surface Soil (e.g., <2 ft)		X		Act 2 Final Report results and EPA Site Investigation Letter Report results
Surface Water		X		No known/documented releases to surface water from operations.
Sediment		X		No known/documented releases to sediment from operations.
Subsurf. Soil (e.g., >2 ft)		X		Act 2 Final Report results and EPA Site Investigation Letter Report results
Air (outdoors)		X		No known/documented releases to air from operations.

X If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

____ If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

____ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

The Brenntag Northeast, Inc. facility (Brenntag Northeast or facility) is located at 1085 Allegheny Avenue in Oakmont, Allegheny County, Pennsylvania. Brenntag Northeast is part of the Brenntag-Group, the global market leader in full-line chemical distribution. The Oakmont branch office is a full line distribution company, servicing western Pennsylvania, northeast Ohio, and northern West.

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[1] "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range)

[2] Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

The facility was originally built in the late 1800s. It is believed that the facility was originally a foundry. Prior to 1926, the main area of the property was operated by Gifford-Wood Company, whose operations at the facility are unknown. On December 8, 1926, the Gifford-Wood Company transferred the property to Thompson & Company, which operated the facility as a paint manufacturing plant. In 1944, several smaller areas of land located to the southwest of the manufacturing area, which contained five small buildings including a lacquer building and four apparent residences, were deeded to Thompson & Company. Thompson & Company changed names to Technical Coatings Company (TCC) on August 30, 1966 and was subsequently purchased by Benjamin Moore & Co. (after the transfer of the facility to Textile Chemical). According to Benjamin Moore & Co. representatives, TCC ceased operations in at the facility in 1977 or 1978; other documentation indicates the facility was used to manufacture paint products until late October 1981, when TCC closed.

TCC filed a Notification of Hazardous Waste Activity form with the USEPA on July 18, 1980 and was issued USEPA Generator No. PAD004318960 on October 9, 1980. A Part A hazardous waste permit application for treatment, storage, or disposal (TSD) and generation was submitted to the USEPA on November 10, 1980.

In 1981, Stinnes Oil and Chemical (SOCO), a German parent company, purchased Textile Chemical which moved the Pittsburgh warehouse to this facility in Oakmont, Pennsylvania. The property was transferred from TCC to Textile Chemical (6.44 acres per Allegheny County tax records; Parcel 362-G-364]) on March 31, 1982. TCC retained a 1.53-acre parcel (362-G-360), purchased on October 28, 1944, located in the southwest section of the original parcel. On June 29, 1983, Textile Chemical transferred the facility to Brenntag Northeast, Inc. In 1998, the parent company, SOCO, changed its name to Brenntag. In May 2001, Textile Chemical officially changed its name to Brenntag Northeast.

The 1.53-acre parcel is a subject site for the Pennsylvania Department of Environmental Protection's (PADEPs) Land Recycling Program (Act 2) remediation. Currently, the 1.53 acre parcel is owned by the Borough of Oakmont.

As reported in the 1989 Preliminary Assessment (PA), notable features of the property included several large warehouse buildings connected to form a building complex, an office building, a maintenance building, a storage building, and ASTs. During the November 2013 site visit, the facility includes several dilapidated buildings and storage areas (former maintenance building, former waste solvent storage area, former bulk solvent storage area [ASTs all removed]), and active chemical storage buildings, a storage building, and an office. The facility is enclosed by a metal fence containing two gates, both located along Allegheny Avenue. One gate is adjacent to the office, and the second gate is located near the southern end of the warehouse complex.

Releases
No spills or releases are known to have occurred at the identified SWMUs during TCC's, Textile Chemical's, or Brenntag Northeast's operations. Small spills and releases to paved areas are generally contained with absorbents.

SWMUs
Three SWMUs were identified as AOCs and SWMUs, and described in the PA: 1) waste solvent storage area, 2) resin drum storage area, and 3) AST tank area (bulk solvent storage area).

<u>SWMU 1 - Former Waste Solvent Storage Area</u>
The former waste solvent storage area was located in the northern corner of the facility, adjacent to the maintenance building (Building 8). The waste solvent storage area consisted of concrete pad, approximately 30 by 60 feet in size. The concrete pad was surrounded by metal support beams, which suggested that this area may have been part of a structure at one time. A photograph of this area, submitted by TCC in its hazardous waste permit application in 1980, shows the waste solvent storage area to be uncovered. It appeared that 55-gallon drums of waste solvents were stacked on top of one another in this area.

TCC began operations at this facility in 1980. TCC stopped production at this facility in November 1981, and the facility was sold to Textile Chemical in March 1982. There are no startup or closure dates for this SWMU. The wastes managed at this SWMU included waste solvents created in the facility's manufacturing operations (industrial paints and coatings). The specific waste solvents stored in this area are unknown.

The drummed waste solvent was stored on a flat-lying concrete pad. This pad did not contain any floor drains. In 1989 and 2012, the concrete pad was noted to be in a state of disrepair, containing numerous cracks and holes. The condition of this area when it was used by TCC is not known. Wastes managed during closure included D001 and K078. No releases from the former waste solvent storage area were documented.

SWMU 2 - Former Resin Drum Storage Area
In 1989, the former resin drum storage area was located northwest of Building 5. Historically, the drums of resin were stored on a concrete pad, approximately 50 by 50 feet in size. The amount of resin and the manner in which it was stored in this area are unknown.

TCC began operations at this facility in 1980. TCC stopped production at this facility in November 1981, and the facility was sold to Textile Chemical in March 1982. The waste managed by this SWMU was resin. It is not known if the resin was a raw product or material generated in the facility's manufacturing process. The drums of resin were stored on a concrete pad in this area. This concrete pad is flat and does not contain any floor drains. No releases from the former resin drum storage area were documented.

SWMU 3 - Former AST Area
The former AST area (bulk solvent storage area) was located in the northwest portion of the facility adjacent to the former resin drum storage area. This area was approximately 80 by 50 feet in size. This area contained eleven 12,500-gallon and five 3,000-gallon ASTs. The ASTs were constructed of steel and used to contain bulk solvents (raw product). The material stored included naphtha, mineral spirits, xylol (xylene solvent), butyl alcohol, and methyl ethyl ketone (MEK). The ASTs were located on slightly lower ground than the surrounding area. This lower ground was surrounded by a two- to four-foot earthen embankment. When Textile Chemical started operations, the ASTS were empty. In 1989, Textile Chemical utilized 1 of the 16 ASTs to store diesel fuel. The tank farm was removed sometime between 1993 and 2004 (two Google aerial photographs). The 2012 Google aerial photograph shows the area overgrown with vegetation. No releases from the former bulk solvent storage area were documented.

AOCs

The three AOCs identified in the PA were also identified as SWMUs. No other AOCs have been formally identified for this facility.

Storage Tanks

The AST area (bulk solvent storage area) was approximately 80 by 50 feet in size. This area contained eleven 12,500-gallon and five 3,000-gallon ASTs. The ASTs were constructed of steel and used to contain bulk solvents (raw product). The material stored included naphtha, mineral spirits, xylol, butyl alcohol, and MEK. The ASTs were located on slightly lower ground than the surrounding area. This lower ground was surrounded by a two- to four-foot earthen embankment. The tank farm was removed sometime between 1993 and 2004 (two Google aerial photographs). Pennsylvania's eFACTS database identified storage tank registration/permitting for permit 02-80576 for the 16 ASTs in the former bulk solvent storage area; last received on January 6, 2003. A modification was issued on March 21, 2003. PADEP considers the permit inactive, as the ASTs have been removed.

Surface Water/Sediment: Surface runoff from the facility is expected to flow to the northwest, down a 40-foot

embankment, to the Allegheny River. Several stormwater drains are present at the facility; the Borough of Oakmont sewer line runs parallel to the river along the back slope of the property. The facility does not maintain an NPDES permit. Small spills and releases to paved areas are generally contained with absorbents.

Air (Indoors/Outdoors): No air permits are recorded for Brenntag Northeast's operations at this facility. As of 2010, the total Oakmont population is 6,303. Land usage within a three-mile radius of the facility is a mixture of residential, commercial, and industrial areas. Harmar Township and Harmarville are located across the Allegheny River to the west and north, respectively. East Oakmont and Oakmont are located to the east and south of the facility, respectively. Land use to the west and southwest of the facility is residential; several of the residences have boat docks on the river. Immediately east of the facility is Allegheny Avenue and the railroad. Further east is Oakmont Avenueand another residential area. Northeast of the facility is the Thermo Twin Window manufacturers. Northwest of the facility is the Allegheny River.

Soil (Surface/Subsurface): Approximately 50 percent of the facility is covered by structures and pavement. The soil mapped at the facility is the Urban land - Rainsboro Complex, gently sloping. The complex is about 75 percent Urban land, 15 percent Rainsboro soils, and 10 percent other soils. The natural soils have been cut from some places and used as fill in other places. Many of these areas are covered by buildings and other structures. The exposed cut and fill material is medium acid to very strongly acid (NUS, 1989).

Groundwater: Potable water within three miles of the facility is obtained from surface water and groundwater sources. The Oakmont Water Authority supplies Oakmont and a large surrounding area. Water for the system is obtained from the Allegheny River from an intake upstream of the facility and the Authority's Hulton Purification Plant. The Authority serves a population of approximately 40,000 through 16,200 connections.

Eight wells are recorded in the Pennsylvania Ground Water Information System (PaGWIS) within 0.5 miles of the facility. An industrial withdrawal well location is placed on Twelve Mile Island located in the Allegheny River north of the facility. The owner of the well is the US Gypsum Company (USG), which was formerly located in Oakmont. The well drilled in 1939 is identified in Harmar Township, which is across the Allegheny River.

Five wells are located approximately 0.3 miles southwest (downstream) of the facility near the Riverview High School. Four of the wells are shallow monitoring wells (17-19 feet below the ground surface [bgs]) associated with a 1987 Exxon gas station investigation. Note: the Exxon station was probably located on Allegheny Avenue, the main road through town, and the well coordinates are incorrect. The fifth well is an undated industrial withdrawal well (81 feet bgs) for the Edgewater Corporation. As the municipality is identified as Plum Borough (over 3 miles from Oakmont), the coordinates are probably incorrect. If the municipality is incorrect, the former Edgewater Steel Company was located over a mile south-southwest of the facility.

One domestic well is located 0.45 miles south-southwest of the facility in the middle of Oakmont. No date of installation is included. As the municipality is identified as Plum Borough (over 3 miles from Oakmont), the coordinates are probably incorrect.

Based on groundwater level measurements from three pre-existing shallow monitoring wells, groundwater flow is toward the north-northwest, and generally coincides with local topography. Depth to groundwater ranged between 20 and 30 feet. Groundwater elevations ranged from 744.18 feet above mean sea level (msl) at MW-3, to 722.48 feet above msl at MW-1R. The hydraulic gradient across the Site was approximately 0.045 feet/feet. It was concluded that groundwater likely discharges to the adjacent Allegheny River.

Investigations and Remedial Actions

On February 22, 2006 (and again dated March 8, 2006), TCC submitted to PADEP a Notice of Intent to Remediate

(NIR) soil contaminated with lead above the Pennsylvania Land Recycling Program's (Act 2) Statewide Health Standard direct contact residential and soil to groundwater used aquifer residential and nonresidential medium-specific concentrations (MSCs) and naphthalene above the soil to groundwater used aquifer residential and nonresidential MSCs (seeking liability protection). Remnant 55-gallon drums and paint cans were found discarded within the Site (vicinity of a wooded ravine - 1.53 acres). Soil and debris removal in conjunction with follow-up sampling demonstrated that the Site would meet the nonresidential Statewide Health Standard. Subsurface groundwater sampling identified bis(2-ethylhexyl)phthalate in the downgradient monitoring well slightly exceeded the used aquifer (total dissolved solids [TDS] <2,500 milligrams per liter [mg/L]) residential and nonresidential MSCs. Groundwater at the Site is not used for any purpose.

A Final Report dated August 31, 2006 was prepared by ENVIRON International Corporation (ENVIRON), on behalf of TCC to present the results of the site investigation, remedial action, and groundwater monitoring activities performed at the Site.

Test pits were excavated in a wooded ravine in an area of suspect former waste disposal on the western portion of the Site in July 2005. Remnant 55-gallon drums, paint cans, and residual mineral spirits were identified to a maximum depth of approximately 6 feet bgs during the test pit activities. During June and July 2005, four soil borings were installed to evaluate soil quality. Three soil borings (MW-1R, MW-2, and MW-3) were completed as monitoring wells.

Groundwater samples were collected from the monitoring wells for five consecutive quarters. The analytical results indicate that concentrations of the analyzed compounds did not exceed applicable MSCs at the point of compliance (i.e., the downgradient property boundary). As such, ENVIRON believed that the requirements of Act 2 were satisfied and that no further action was needed or required with respect to soil quality at the Site. On behalf of TCC, ENVIRON requested a release of liability for the Site for the compounds evaluated during the described investigation and remediation activities. ENVIRON also requested approval to properly abandon the groundwater monitoring wells installed at the Site.

On November 9, 2006, PADEP approved the Final Report for the substances identified in the area (Site) remediated to the non-residential Statewide Health Standard (for lead [soil] and other organics [groundwater]). On January 8, 2009, TCC provided an environmental covenant to PADEP limiting the Site activity and use to nonresidential. The Site is registered with the Pennsylvania Activity and Use Limitations Registry.

Since the Act 2 program approved remedial efforts only on the 1.53-acre Borough property and only to non-residential Statewide Health Standards for groundwater, in June 2014, Michael Baker Jr., Inc. (Baker), under contract to the Pennsylvania Department of Environmental Protection (PADEP) through grant funding from the U.S. Environmental Protection Agency (USEPA) performed intrusive investigation sampling activities at the Facility to assess the quality of the soil and groundwater focused on collecting samples from the still existing groundwater monitoring wells and the SWMU and AST locations. All soil and groundwater sample results were below EPA's Industrial and Regional Screening Levels. Therefore, USEPA has determined that groundwater, soil, surface water, sediments, and air media are not known or reasonably suspected to be contaminated above appropriately protective risk-based levels from releases subject to RCRA Corrective Action anywhere at, or from, the Facility.

3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

	Potential **Human Receptors** (Under Current Conditions)						
Contaminated Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food[3]
Groundwater							
Air (indoors)							
Soil (surface, e.g., <2 ft.							
Surface Water							
Sediment							
Soil (subsurface e.g., >2 ft.							
Air (outdoors)							

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated" as identified in #2 above.

2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media-- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

_____ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

_____ If yes (pathways are complete for any "Contaminated" Media- Human Receptor combination) - continue after providing supporting explanation.

_____ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

[3] Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**[4] (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

_____ If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway)- skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

_____ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway)- continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

_____ If unknown (for any complete pathway)- skip to #6 and enter "IN" status code

Rationale and Reference(s):

5. Can the "significant" **exposures** (identified in #4) be shown to be within **acceptable** limits?

_____ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

_____ If no (there are current exposures that can be reasonably expected to be "unacceptable") - continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

_____ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s):

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[4] If there is any question on whether the identified exposures are "significant" (ie., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

X YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the Information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the **Brenntag Northeast, Inc.** facility, EPA ID # **PAD004318960**, located at **1085 Allegheny Avenue Oakmont, Pennsylvania 15139** under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

____ NO - "Current Human Exposures" are NOT "Under Control."

____ IN - More information is needed to make a determination.

Completed by: (signature) Date 8/25/14

(print) Kevin Bilash

(title) RPM

Supervisor: (signature) Date 8/26/14

(print) Paul Gotthold

(title) Associate Director, Office of Pennsylvania Remediation

(EPA Region or State) EPA Region III

Locations where References may be found:

USEPA Region III
Land & Chemicals Division
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FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.