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: **Former Browning Ferris Industries Facility**
Facility Address: **2933 Sissonville Drive, Charleston, WV 25302**
Facility EPA ID #: **WVD 063 468 342**

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?

   ☒ 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

The former BFI facility is a 3.75-acre irregularly shaped parcel of land located at 2933 Sissonville Drive in Charleston, West Virginia, 23502. Between 1972 and 1984, BFI operated an industrial cleaning operation at the site. According to the November 1980 Part A Hazardous Waste Permit Application, BFI provided the following services:

- Chemical and high-pressure water cleaning of industrial process equipment;
- Blending and marketing of specialty detergents, solvents, and additives;
- Collection and transportation of bulk and drummed liquid and solid waste; and
- Segregation and storage of such wastes prior to shipment to permitted disposal facilities.

BFI utilized acids, alkalines, and solvents to clean tanks and equipment. The majority of BFI's cleaning operations were conducted at client facilities with only a small percentage (1%) conducted at the subject facility. In the process, BFI reportedly generated 121 different waste streams that were either transported directly to disposal facilities or returned to the subject site for temporary storage.

The facility was originally constructed in 1965 and was used by Seaton Distributing Company, a beer distributor. At this time, the site was owned by William H. Seaton. In 1970, the facility was leased to a second beer distributor (Cardinal Distributing Company) who operated at the site until the mid 1970s. BFI began leasing office space at the site in September 1971 and took over full use of the site when Cardinal Distributing Company vacated the facility. At this point, hazardous waste storage began at the facility. According to a March 17, 1981 Record of Communication, the site was owned by Commercial Development Company. It is unknown at what time ownership transferred from William H. Seaton to the Commercial Development Company. In 1984, BFI sold the property to Protek, which conducted similar operations. In 1988 Edward Snodgrass purchased the site in 1988 for storage and maintenance of equipment. Canteen Pittman Snax Sales currently owns and operates the site for vending machine stocking and maintenance.

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).

Current Human Exposures Under Control

Environmental Indicator (EI) RCRIS code (CA725)

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 subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	Yes	No	?	Rationale / Key Contaminants
Groundwater		X		Although groundwater quality beneath the former BFI facility is unknown, the only SWMU utilized by BFI in the management of hazardous wastes included secondary containment in the form of a concrete floor and walls. At the time this unit was closed in 1986, the concrete containment was found to be in good condition. There was no evidence of releases to soil found in USEPA or WVDEP files. In addition, current operations would not likely result in groundwater contamination.
Air (indoors)[2]		X		BFI is no longer operational at the site; no air emission sources at current facility.
Surface Soil (e.g., <2 ft)		X		No known or suspected releases.
Surface Water		X		The nearest surface water body to the facility is Two Mile Creek, at a distance of approximately 200 feet. The source for the local public drinking water supply in the vicinity of the former BFI facility is reported to be surface water. The intake is located approximately 3.6 miles south-southeast of the subject site on the southern side of the Elk River. It should be noted that the Elk River does not directly receive surface drainage from the site. Currently there is no hazardous waste generated by the facility. Four releases were documented in files reviewed (between 1977 and 1979), which reached Two Mile Creek. No information was found in files reviewed indicating there are current impacts due to these releases.

Sediment		X		The nearest surface water body to the facility is Two Mile Creek, at a distance of approximately 200 feet. The source for the local public drinking water supply in the vicinity of the former BFI facility is reported to be surface water. The intake is located approximately 3.6 miles south-southeast of the subject site on the southern side of the Elk River. It should be noted that the Elk River does not directly receive surface drainage from the site. Currently there is no hazardous waste generated by the facility. Four releases were documented in files reviewed (between 1977 and 1979), which reached Two Mile Creek. No information was found in files reviewed indicating there are current impacts due to these releases.
Subsurf. Soil (e.g., >2 ft)		X		No known or suspected releases.
Air (outdoors)		X		BFI is no longer operational at the site. No air emission sources at current facility.

☒ 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):

There are no significant exposure pathways for releases or potential releases. The former BFI facility ceased operations at this site in 1984. Closure of the only SWMU was completed in August 1986. In recent years, no hazardous wastes have been generated, stored, or treated at this site. Current operations at the site include filling and servicing of snack vending machines.

Although groundwater quality beneath the former BFI facility is unknown, the only SWMU utilized by BFI in the management of hazardous wastes included secondary containment in the form of a concrete floor and walls. At the time this unit was closed in 1986, the concrete containment was found to be in good condition. There was no evidence of releases to soil found in USEPA or WVDEP files. In addition, current operations would not likely result in groundwater contamination.

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)

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.)

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)

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):

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

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)

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):

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)

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 (attach appropriate supporting documentation as well as a map of the facility).

☒ 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 Former Browning Ferris Industries facility, EPA ID # WVD 063 468 342, located at 2933 Sissonville Drive, Charleston, WV 25302. Specifically, this determination indicates that the migration of "contaminated" groundwater is 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) -s- Date 7/29/10
(print) Denis Zielinski
(title) Senior RPM

Supervisor (signature) -s- Date 8/2/10
(print) Luis Pizarro
(title) Associate Director
EPA Region III

Locations where References may be found:

US EPA Region III
Land & Chemicals Division
1650 Arch Street
Philadelphia, PA 19103

Contact telephone and e-mail numbers
(name) Denis M. Zielinski
(phone #) 215-814-3431
(e-mail) zielinski.denis@epa.gov