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: Jarrett Welding Company, Inc.
Facility Address: 954 Goodyear Boulevard, Danville, VA 24541
Facility EPA ID #: VAR 000 016 055

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

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).

Facility Background

The Jarrett Welding Company is located at 954 Goodyear Boulevard, in Danville, Virginia. The site comprises approximately eight acres with roughly equal acreage located on either side of Goodyear Boulevard. (See Figures 1 and 2.) Various metal products (e.g., machine safety guards, catwalks and ladders, fencing, customized metal parts, etc.) are manufactured at the metal products fabrication and machine shop. Processes at the facility include metal cutting, drilling, machining, metal forming, grinding, welding, and painting, etc. Some fabricated metal products are shipped off-site for galvanized coatings and are returned to the site prior to shipment of the fabricated product to customers. The majority of Jarrett's work areas were covered with concrete and asphalt.

The facility began operations in 1978 in the building identified as Shop No. 1 (west side of Goodyear Boulevard). Shop No. 1 houses the facility's offices, the machine shop, and the primary metal fabrication equipment. Prior to occupancy by Jarrett, the building on the west side of Goodyear Boulevard was used as an upholstery shop.

In the mid 1980s, Jarrett Welding Company expanded operations across to the east side of Goodyear Boulevard to include Shop No. 2. Inside and outside Shop No. 2, the paint primer coating operations of steel beams and metal products is conducted. According to the facility representative, no painting operations occurred in the Shop No. 1 Building.

In August 2008, the facility employed 18 full-time employees working Monday through Friday, one shift per workday.

The potable water supply for the facility and the nearby surrounding vicinity is provided by the City of Danville's Public Water Supply (PWS) system. The facility's sanitary wastewater is discharged to the City of Danville's Publicly Owned Treatment Works (POTW) sanitary sewer system. There are no industrial wastewaters generated at the site. In addition, there are no Virginia Pollution Discharge Elimination System (VPDES) Stormwater Permits issued for the facility by the Virginia Department of Environmental Quality (DEQ).

There are no drinking water wells on the facility property. There are six groundwater monitoring wells on the facility property which were installed and related with previous regulatory closures of solid waste management units (SWMUs) identified at the facility site. Five monitoring wells were installed as part of the regulatory closure of a former hazardous waste management unit (HWMU) (SWMU No. 2, Former Shop No. 2 Waste Paint Land Disposal Unit.) under the RCRA Regulations by the Office of Hazardous Waste, VDEQ. An additional groundwater monitoring well was installed and related with an investigation and evaluation of a release from a former petroleum underground storage tank (UST) under the DEQ's Petroleum Tank Program. (See SWMU No. 10, Former USTs.) The USTs at the facility site are subject to the UST Regulations under the State Water Control Law (SWCL) (Articles 9, 10, and 11).

The depth to groundwater is estimated to be 15 to 20 feet below the ground surface.

Along the eastern side of the facility's Shop No. 2, and the contiguous outside painting area (SWMU No. 2), are two Norfolk Southern railroad tracks. To the east of the railroad tracks is an open flood plain that included storage areas for the City of Danville's Municipal Services, a transformer service and storage area, and an old power generation plant. To the west of the facility's main operations and office area, are industrial sites. To the north of the facility's main operations building is a now-closed Leggett Truck Equipment and Repair Shop. To the south of the main facility is an empty Leggett Tobacco Warehouse.

In 2008, Fork lifts are maintained on site by contractor who is responsible for the disposal of used oil from the fork lifts. Jarrett's trucks are maintained off site at a contracted garage.

The facility also maintains two 250-gallon diesel fuel Aboveground Storage Tanks (ASTs) for trucks and equipment used on-site, which appear to be well operated and maintained. The USTs are covered with a roof and have secondary containment spill prevention containment control (SPCC) measures installed.

A June 2002 Compliance Schedule Evaluation (CSE) Report, and current RCRA INFO information (an EPA Database), confirms that the facility is classified as a conditionally exempt small quantity generator (CESQG) of hazardous waste under the RCRA Regulations. Solvent wastes from the painting operations are temporarily stored on site and sent off site to a RCRA Regulated treatment, storage, and disposal (TSD) facility for beneficial use by burning for energy recovery. Accumulated empty cans from waste paints, primers, and solvents are stored in 55-gallon drums situated within the facility's fabrication building.

For further information, see EPA's Corrective Action Program *Final RCRA Site Visit Report*, dated February 18, 2009. (Additional facility references and facility background discussions and rationale are provided under Item No. 2.)

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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			VOCs – Releases of VOCs and metals to soils from the RCRA Regulated unit, SWMU No. 2, Waste Paint Land Disposal Unit, were remediated and groundwater monitoring concentrations in downgradient compliance wells of the RCRA Regulated Unit were sufficient to meet RCRA closure performance standards. However, the data from the upgradient monitoring well MW-2 exceeded groundwater performance standards for VOCs. The contamination of the upgradient well MW-2 was attributed to a release from gasoline USTs at the facility site. The closure of the USTs and the evaluation of the need for remediation of the groundwater and soils from the release from the USTs were subsequently addressed under the regulatory oversight of the DEQ's Petroleum Tank Program. The DEQ's Petroleum Tank Program is a risk-based program that evaluates current risk to human receptors and also evaluates risk to surface water due to migration of contaminated groundwater. The administrative record indicates the Investigation of the release followed under the DEQ's Petroleum Tank Program and the release case, under LUST PC No. 03-7069, was closed by VDEQ correspondence, dated 9/29/2003. However, the most recent review of the administrative record indicates that levels of constituents of concern (COCs) may still remain in subsoils and groundwater at the facility site (due to releases from USTs) which may need remediation to meet RCRA Corrective Action (CA) risk-based criteria and standards. Further evaluation of the remaining COCs in subsoils and groundwater in the vicinity of the USTs and the further evaluation of migration of COCs in groundwater is expected at the facility site under RCRA CA.
Air (indoors)[2]		X		Painting operations are performed in controlled area regulated under OSHA Regulations; No Permits are issued for the indoor painting unit.
Surface Soil (e.g., <2 ft)		X		Releases to soils from the RCRA Regulated unit, SWMU No. 2, were remediated and concentrations in compliance soil samples met closure standards. No evidence of other releases to surface soils were found in the CA Site Visit Report or Administrative Record.
Surface Water		X		Flood plain in vicinity; no impacts are expected based on the CA Site Visit Report and the current Administrative Record for the site.

Sediment		X		Flood plain in vicinity; no impacts are expected based on the CA Site Visit Report and the current Administrative Record for the site.
Subsurf. Soil (e.g., >2 ft)			?	VOCs - See related comments under Groundwater above.
Air (outdoors)		X		Outdoor painting operations performed in covered area with plastic sheeting ground cover. Painting operations are performed in controlled area regulated under OSHA Regulations. No Permits are issued for the outdoor painting unit. No impacts are expected based on the current conditions and methods of operations as described in the CA Site Visit Report and the current Administrative Record for the site.

☐ 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):

See <u>Summary Discussion and Rationale</u> and <u>Detailed Discussion and Rationale</u> Below.

References:

EPA's Corrective Action Program *Final RCRA Site Visit Report*, dated February 18, 2009, by Tetra Tech EC, Inc.

Ground Water Monitoring Plan – Well Placement and Third Quarterly Sampling Report (for HWMU or SWMU No. 2), dated March 24, 2003, Jarrett Welding Co., Danville, VA, EPA ID No. VAR000016055, by W.E.L., Inc.

VDEQ Petroleum Tank Program Correspondence, dated May 20, 2003 – Suspected Petroleum Release from Petroleum Storage Tank(s), Jarrett Welding Site, Danville, VA, LUST PC No. 03-7069

Release Investigation Report – Jarrett Welding Company, Danville, VA, LUST PC No. 03-7069, dated September 5, 2003, by W.E.L., Inc.

VDEQ Petroleum Tank Program Correspondence, dated September 29, 2003 – Closure of Jarrett Welding Site, LUST PC No. 03-7069

EPA Risk-Based Concentration Table Screening Levels, dated May 19, 2009.

Summary Discussion and Rationale

Solid Waste Management Units (SWMUs) at the Jarrett Welding Company, with known or suspected contamination, have been addressed as provided in the CA Site Visit Report, dated February 18, 2009, and in other significant documents identified in the current administrative record (AR) for the facility site. (See references above.)

The surface soil at the Jarrett facility site is not currently known or reasonably suspected to be contaminated above appropriately protective risk-based levels at the Jarrett Welding Company site.

However, as identified under the rationale/key contaminants under Item No. 2 above, constituents of concern (COCs) (volatile organic compounds (VOCs)) have been found in the groundwater in the vicinity of at least one former UST in monitoring well MW-2 which are 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).

Groundwater Monitoring data had been established for the facility site for five of six monitoring wells for the period of August, 2002 through November 2003. The groundwater data was established to evaluate potential contamination from the RCRA Regulated unit, SWMU No. 2, Waste Paint Land Disposal Unit. The Monitoring wells established for the site were: Up-gradient Wells MW-1 and MW-2, and down-gradient wells MW-3, MW-4, and MW-5. The data from the closure of the SWMU No. 2 and the above groundwater monitoring data indicated that soils in SWMU No. 2 were remediated and groundwater monitoring concentrations in down-gradient compliance wells of the RCRA Regulated Unit were sufficient to meet RCRA closure performance standards and the Regulated Unit was issued a "clean-closure" approval by the DEQ's Office of Hazardous Waste, by correspondence, dated February 24, 2005.

However, the data from the up-gradient monitoring well MW-2 exceeded groundwater performance standards for VOCs. The contamination of the up-gradient well MW-2 was attributed to a release from a gasoline underground storage tank (UST) at the facility site and not the RCRA Regulated Unit.

The closure of the USTs and the evaluation of the need for remediation of the groundwater and soils from the USTs release was subsequently referred to and addressed under the regulatory oversight of the DEQ's Petroleum Tank Program.

The DEQ's Petroleum Tank Program is a risk-based program that evaluates current risk to human receptors and also evaluates risk to surface water due to migration of contaminated groundwater. As understood, the DEQ's Tank Program removes soils saturated with released product, remediates sites so to remove free product in the groundwater, and to mitigate identified current identified risks to human health and the environment. The administrative record indicates the Investigation of the release followed under the DEQ's Petroleum Tank Program and the release case, under LUST PC No. 03-7069, was closed by DEQ by correspondence, dated 9/29/2003.

The review of the administrative record in the CA Site Visit Report, dated February 18, 2009, and the subsequent review of the administrative record most recently provided by the DEQ's Petroleum Tank Program, indicates that levels VOCs may still remain in both subsoils and groundwater at the facility site (due to past releases from petroleum USTs), which may need remediation to meet RCRA Corrective Action risk-based criteria and standards.

Data gathered from the groundwater monitoring event, dated November 2003, below indicates the following levels of VOCs in groundwater detected at well MW-2 relative to the EPA's MCLs and/or the RBC criteria. (See CA Site Visit Report for other COCs levels detected in wells, which are below the MCLs. The CA Site Visit Report also provides groundwater monitoring data from a total of 6 monitoring events for monitoring wells MW-1 through MW-5.)

Compound	MW-2 ug/l	US EPA MCL ug/l	US EPA RBC ug/l
Benzene	454	5	0.41
Ethyl Benzene	560	700	1.5
Total Xylenes	565	10,000	200
MTBE	3,280	No MCL	12

Therefore, further evaluation of the remaining VOCs) in subsoils and groundwater in the vicinity of the USTs and the further evaluation of the potential migration of VOCs in groundwater is believed needed to more fully establish the nature and extent of COCs remaining in subsoils and groundwater media at the facility site. Information from further

investigation will help establish if further remediation of subsoils and groundwater are believed necessary under RCRA CA.

It should be noted that based upon available information to date, there is no indication that releases from the USTs have reached surface water or sediment of surface waters in the vicinity of the site. Available data and submitted modeling information to the Petroleum Tank Program appears to indicate the COCs of benzene attenuates prior to reaching surface waters approximately 700 ft downgradient. Additional information and evaluation of both benzene and MTBE, etc. are believed needed to confirm preliminary modeling data.

As Jarrett Welding operations have no permitted air emission sources, there is no indication of past or current air emissions that would negatively impact indoor and/or outdoor air quality. The workers and construction workers in the work environments are protected under the OSHA standards; therefore, it can reasonably be assumed that the indoor and/or outdoor air does not pose a risk above acceptable OSHA standards.

Detailed Discussion - Rationale

SWMU No. 1, the Shop No. 2 Paint Booth has been in use since Jarrett's operations began in Shop No. 2. The paint booth is enclosed on two sides and is equipped with an exhaust fan (with an air filter). No evidence of a spill or release was found during the August 2008 site visit related with the current operations associated with the outside painting area.

The facility also maintained a Waste Paint land Disposal Unit in Shop No. 2 (SWMU No. 2). Historically, paint primer coating operations of steel manufactured products were conducted outdoors adjacent to and on the southern side of Shop No. 2 at the Jarrett site.

In January 2000, the facility was inspected by the Virginia Department of Environmental Quality (DEQ) in response to complaints alleging the facility was improperly disposing of paint and solvent wastes along the fence line. On February 2, 2000, VDEQ staff conducted a follow-up site inspection of the Jarrett facility. During the February inspection, VDEQ personnel documented that excess solvents, containing xylene and other solvent constituents, were used to flush primer paint and coatings from a hose and spray gun that was used for painting purposes. Facility staff indicated that the excess solvent was collected in a 5-gallon bucket and then "dumped over the fence". It was also noted during the inspection that spray painting had occurred on the ground surface, and disposal of solvent on the ground had occurred along the fence line and in the area where outside painting operations were conducted for approximately ten years prior to the inspection. Based on interviews conducted by the VDEQ on February 2, 2000, it was determined that the facility was operating an un-permitted land disposal unit in violation of the Virginia Hazardous Waste Management Regulations (VHWMR) and the RCRA Regulations.

A Consent Order was signed by Jarrett and the VDEQ on June 20, 2001, which required the facility to submit and implement a Closure Plan for this SWMU under VHWMR and the RCRA Regulations. (The Closure Plan was for SWMU No. 2, Waste Paint Land Disposal Unit, identified in the CA Site Visit Report.) The Closure Plan included soil sampling (and background sampling) and a risk assessment; the results of which were to demonstrate clean closure. W.E.L., Inc. (WEL) was hired to perform an environmental assessment and investigations at the site. Three samples, S-1 (collected at the base of the effluent pipe) as well as S-2 and S-3 (collected from the approximate middle area of the subject area) were collected. Analysis for sample S-1 indicated elevated concentrations of total chromium, total lead, total molybdenum, total zinc, and Volatile Organic Compounds (VOCs).

A Groundwater Monitoring Plan was submitted to the VDEQ in December 2001, to evaluate the release from the Waste Paint Land Disposal Unit, which was considered a land-based disposal unit under the RCRA Regulations. Based on The data collected from compliance soil samples and six quarters of groundwater monitoring from the monitoring wells, the facility demonstrated achievement of the closure performance standards, the DEQ concurred with the facility that the Jarrett Welding Company had demonstrated achievement of "clean closure" in this area. A closure verification site inspection was performed by DEQ staff for the land-based Waste Paint Disposal Unit (SWMU No. 2). Therefore, the DEQ, Office of Hazardous Waste, concurred that "clean closure" for soil and groundwater had been achieved for the regulated unit and approved the Closure Report and Closure Certifications by VDEQ correspondence, dated February 24, 2005.

Although the soils data and the downgradient groundwater data for the regulated unit (SWMU No. 2) were sufficient to meet RCRA closure performance standards, the data from the upgradient monitoring well MW-2 indicated the VOCs

exceeded groundwater criteria and standards. The contamination of the upgradient well MW-2 was attributed to a release from a UST at the facility site.

The closure of the UST and the evaluation of the need for remediation of the groundwater and soils from the UST releases were subsequently addressed under the regulatory oversight of the DEQ's Petroleum Tank Program.

At the time of the discovery of the release of petroleum products from a UST, it was believed that the facility maintained two former USTs at the site (SWMU No. 10). However, the CA Site Visit Report, dated February 18, 2009, indicates that three USTs were maintained at the facilty site.

A letter from the VDEQ to Abercrombie Oil, owner of tanks on Jarrett property, indicated that two USTs were not in compliance with the 1998 Upgrade Requirements (i.e., no corrosion protection or spill/overfill protection). In addition, no leak detection procedures were in place and registration information was found to be incorrect. The Form noted that two tanks were permanently out of use. One 1,000-gallon gasoline UST was installed in 1976 while a 550-gallon diesel UST was installed in 1982. They were both constructed of bare steel and were closed in place (i.e., filled with concrete) on October 28, 1998. Soil samples collected contained less than 10 mg/kg of Total Petroleum Hydrocarbon (TPH), Gasoline Range Organic (GRO). It does not appear that any TPH, Diesel Range Organic (DRO) samples were collected. However, a VDEQ inspection form noted that both USTs contained gasoline.

The DEQ's Petroleum Tank Program is a risk-based program that evaluates current risk to human receptors and also evaluates risk due to migration of contaminated groundwater. (See further discussion above under Summary – Background Discussion.)

On September 5, 2003, W.E.L. ,Inc., submitted a Release Investigation Report, for the Closure of the Jarrett Welding site Leaking Underground Storage Tank, LUST PC No. 03-7069 .(It appears that the Release Investigation Report did not recognize the existence of a second UST at the facility site. As noted above, the CA Site Visit Report, dated February 18, 2009, indicates that there existed 3 USTs at the facility site.)

On September 29, 2003, the DEQ Tank Program submitted correspondence to Jarret Welding documenting the Tank Program decision to close the site based upon the following:

1. The source of the release, a gasoline UST was removed from the site several years ago.

2. Free product has not been detected in the monitoring well at the site.

3. There does not appear to be a risk from soil exposure. Saturated soils have not been detected at the site. Analytical results of soil samples collected at the site indicate the sample was below detection levels for total petroleum hydrocarbon- gasoline range organics (TPH-GRO). Vapor phase does not appear to be a risk. The onsite buildings do not have basements.

4. There does not appear to be a risk from dissolved phase petroleum detected at the site. The nearest receptor is the Dan River located 700 feet east of the site. Groundwater modeling conducted at the site indicates dissolved phase gasoline constituents will not impact the river.

The Tank Program further indicated should future environmental problems occur, which the VDEQ determines are related to this release, additional investigation and corrective action may be required in accordance with State Law. In addition, the letter stated that in order to reduce future risks to groundwater, all monitoring wells at the site must be properly abandoned. If there is a reasonable need to keep the monitoring wells open, a request detailing that need should be submitted to this office.

The most recent review of the administrative record in 2009 indicates that levels of VOCs may still remain in subsoils and groundwater at the facility site (due to releases from USTs) which may need remediation to meet RCRA Corrective Action risk-based criteria and standards. Further evaluation of the remaining VOCs in subsoils and groundwater in the vicinity of the USTs and the further evaluation of migration of VOCs in groundwater are expected to further establish the nature and extent of COCs remaining in subsoils and groundwater media at the facility site and to establish if remediation is necessary.

The DEQ CA Program in the Office of Remediation Programs will work in conjunction with the DEQ's Petroleum Tank Program to further evaluate the site, to establish the need for remediation, and/or whether implementation of institutional controls under RCRA CA are recommended for the site.

Regarding SWMU No. 2 - At the time of the August 2008 CA site visit, the outside painting area had a steel superstructure, a corrugated metal roof, and corrugated metal wall on the eastern side of the coating area to contain overspray. In addition, a concrete floor currently covered approximately two-thirds the outside painting area, while the remaining part of the painting area had an asphalt surface. In addition, a roll-up tarp had been installed on the western side of the exterior painting area. The tarp is lowered during painting operations to contain overspray to the painting area. As a current standard operating procedure, polyethylene plastic sheeting is also placed on the concrete and asphalt surface to capture overspray during spray painting operations in this outside painting area (plastic sheeting ground cover was observed during the site visit). Site representatives were unaware of any spills or releases from this unit since the "clean closure" under the DEQ's Office of Hazardous Waste Program.

The facility also operated an area to store Empty Paint Solvent Pails (SWMU No.3); a Dried Primer and Debris Area, which is used to accumulate dried residue and debris on plastic sheeting (SWMU No. 4); a 55-gallon Drum Storage Area (SWMU No. 5), which is used to accumulate waste from the Parts Washer (SWMU No. 6); a Pesticide and Fertilizer Storage Area (SWMU No. 7); as well as a Scrap Iron Dumpster used to store iron and metal parts (SWMU No. 9). All of these SWMUs were determined to have no evidence of a spill or release based on the site visit or in the files reviewed at the VDEQ or USEPA Region III offices.

The facility also utilizes a Coolant Tank for the Grinder Machine (SWMU No. 8). This tank consists of a 100 gallon in-ground steel tank that is located just outside of Shop No. 1. The steel tank is made of ¼ inch steel plate, is submerged on five sides, and it has a steel cover on the top side. The top of the tank is approximately eight inches above grade. This tank has been in operation for approximately 15 years. The tank is used to store water soluble coolant for a large grinding machine. This unit was also found to have no evidence of a spill or release based on the site visit or in the files reviewed at the VDEQ or USEPA Region III offices. Site representatives were unaware of any spills or releases from this unit and had no information regarding any spills or releases in their files.

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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	No	No	No	No	No	No	No
Air (indoors)	No	No	No	No	No	No	No
Soil (surface, e.g., <2 ft)	No	No	No	No	No	No	No
Surface Water	No	No	No	No	No	No	No
Sediment	No	No	No	No	No	No	No
Soil (subsurface e.g., >2 ft)	No	No	No	**Yes**	No	No	No
Air (outdoors)	No	No	No	No	No	No	No

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):

A complete exposure pathway to potentially contaminated subsurface soils potentially exists at the facility site for any construction activity that would encroach upon the areas of potential subsoil contamination in the three UST Areas.

The potable water supply for the facility and the nearby surrounding vicinity is provided by the City of Danville's Public Water Supply (PWS) system. There are no drinking water wells on the facility property. Therefore, no Groundwater use receptors have been identified at the facility site or nearby vicinity down-gradient of the site. The surface soil at the Jarrett facility site is not currently known or reasonably suspected to be contaminated above appropriately protective risk-based

levels. As Jarrett Welding operations have no permitted air emission sources, there is no indication of past or current air emissions that would negatively impact indoor and/or outdoor air quality. The workers and construction workers in the work environments are protected under the OSHA standards; therefore, it can reasonably be assumed that the indoor and/or outdoor air does not pose a risk above acceptable OSHA standards. The information submitted to the DEQ's Petroleum Tank Program indicates that the nearest surface water receptor is the Dan River, which is located 700 ft. east of the facility site. Groundwater modeling performed to date and submitted to the VDEQ' Tank Program indicates the modeled transfer of benzene is not anticipated to impact the Dan River. Additional evaluation of BTEX and MTBE fate and transport in groundwater will be requested. However, adverse impact to the Dan River from the identified on-site groundwater contamination is not anticipated based upon available information. See Discussion under Item No. 1 and 2 for additional rationale.

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

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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):

The human health exposures from a complete pathway of exposure to potentially contaminated subsurface soils in the three UST Areas are not expected to be significant under the current facility ownership. The facility owners are aware of the existence of the three locations of the closed USTs at the site and potential human health and environmental issues associated with excavation of soils in the former UST areas. In addition, no construction activity in two of the three tank areas is anticipated as these are in open areas significantly removed from facility buildings. Any subsurface excavation related with construction activities in these three UST areas (near the building or remote from the buildings) should be conducted under a Health and Safety Plan. The frequency and/or duration of construction activity in these areas are believed to be minimal and; therefore, exposures are not reasonably expected to be significant.

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.

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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 Jarrett Welding Company EPA ID # VAR 000 016 055, located at 954 Goodyear Boulevard Danville, Virginia, 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)	Richard J. Criqui, Jr.	Date 9/24/09
	(print)	Richard J. Criqui, Jr., C.P.S.S.	
	(title)	Environmental Engineer Consultant	
Supervisor	(signature)	Durwood R. Willis	Date 9/24/09
	(print)	Durwood Willis	
	(title)	Director, Office of Remediation Progarms DEQ	

Locations where References may be found:

Virginia Department of Environmental Quality
629 East Main Street
Richmond, VA 23219
P.O. Box 1105
Richmond, VA 23218

Contact telephone and e-mail numbers

(name)	Richard J. Criqui, Jr.
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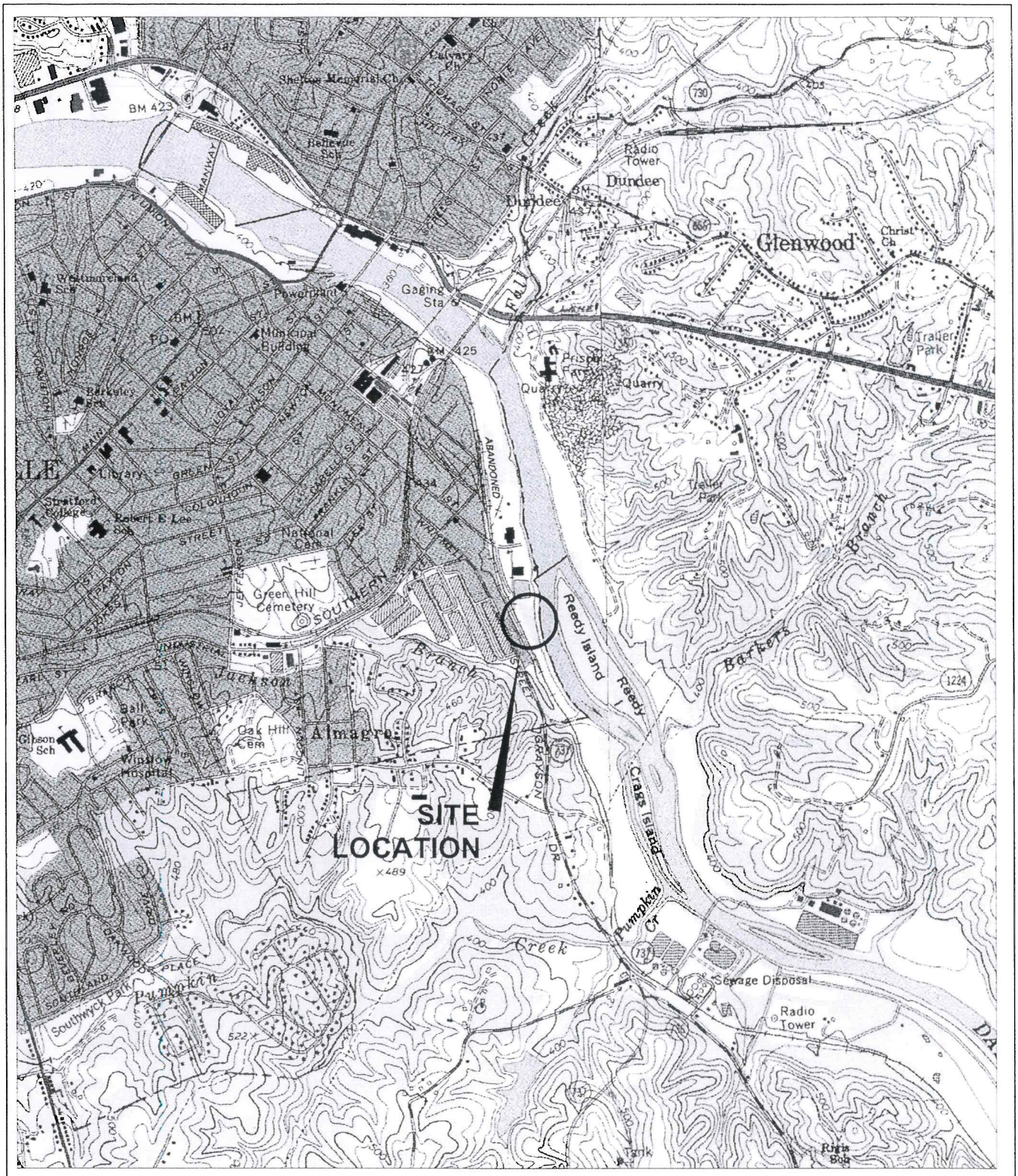
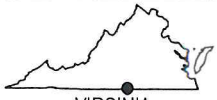




Quadrangle Location Map

0 2000 4000 Feet

SOURCE: U.S.G.S. TOPOGRAPHIC MAP (7.5 Minute)
DANVILLE AND RINGGOLD, VIRGINIA

N

United States Environmental Protection Agency

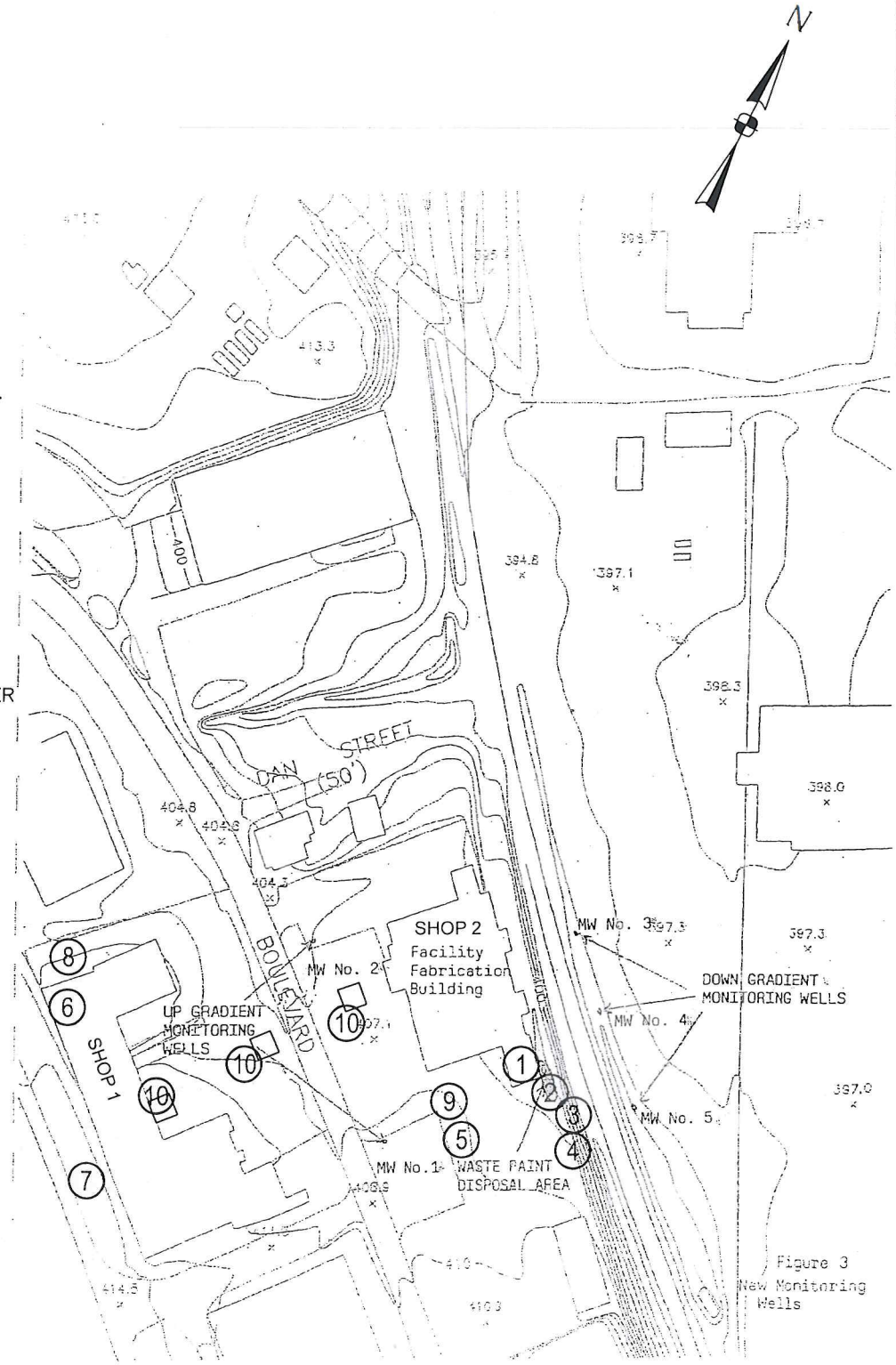
JARRETT WELDING COMPANY
Danville, Virginia

FIGURE 1
SITE LOCATION MAP

TETRA TECH EC, INC.

SWMUs

1. SHOP NO. 2 PAINT BOOTH
2. FORMER SHOP NO. 2 WASTE PAINT LAND DISPOSAL UNIT
3. SHOP NO. 2, EMPTY PAINT SOLVENT PAILS
4. SHOP NO. 2, DRIED PRIMER AND DEBRIS
5. SHOP NO. 2, 55-GAL. DRUM OF WASTE SOLVENT
6. SHOP NO. 1, PARTS WASHER
7. SHOP NO. 1, PESTICIDE STORAGE AREA
8. COOLANT TANK FOR GRINDER MACHINE
9. SCRAP IRON DUMPSTER
10. FORMER USTs



LEGEND:

1. SOLID WASTE MANAGEMENT UNIT LOCATION (SWMU)

NOT TO SCALE

United States Environmental Protection Agency
JARRETT WELDING COMPANY Danville, Virginia
FIGURE 2 SITE LAYOUT MAP
TETRA TECH EC, INC.