UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III

STATEMENT OF BASIS

FORMER DANA CORPORATION

READING, PENNSYLVANIA

EPA ID NO. PAD002343630

Prepared by
Office of Pennsylvania Remediation
Land and Chemicals Division
August 2017

Table of Contents

List of Acronyms

AOC	Areas of Concern
AR	Administrative Record
AST	Above Ground Storage Tank
COI	Contaminants of Interest
EPA	Environmental Protection Agency
FDRTC	Final Decision Response to Comments
GPRA	Government Performance and Results Act
MCL	Maximum Contaminant Level
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SB	Statement of Basis
UST	Underground Storage Tank
VOC	Volatile Organic Compound

Section 1: Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) to solicit public comment on its proposed remedy for the property formerly owned and operated by Dana Corporation (Dana) facility located at Robeson and Weiser Streets, Reading, Berks County, Pennsylvania 19612 (Facility) excluding lots #6 and #7. In December 2004, the Pennsylvania Department of Environmental Protection (PADEP) approved a Final Report for this property through its Land Recycling Program.

EPA's proposed remedy for the Facility consists of compliance with and maintenance of land and ground water uses restrictions. This SB highlights key information relied upon by EPA in proposing its remedy for the Facility.

The Facility is subject to EPA's Corrective Action program under the Solid Waste Disposal Act, as amended, commonly referred to as the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 et seq. The Corrective Action program requires that facilities subject to certain provisions of RCRA investigate and address releases of hazardous waste and hazardous constituents, usually in the form of soil or groundwater contamination, that have occurred at or from their property. Pennsylvania is not authorized for the Corrective Action Program under Section 3006 of RCRA. Therefore, EPA retains primary authority in the State of Pennsylvania for the Corrective Action Program.

EPA is providing a thirty (30) day public comment period on this SB. EPA may modify its proposed remedy based on comments received during this period. EPA will announce its selection of a final remedy for the Facility in a Final Decision and Response to Comments (Final Decision) after the public comment period has ended.

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

Section 2: Facility Background

The Facility property consists of approximately fifty (50) acres and is bordered to the north by a steel mill (Carpenter Technology Corporation), to the west by Conrail railroad tracks, to the south by Spring Street and residences, and to the east by Front Street and residences. Three schools are located within ½-mile south of the site. Major features included two process buildings (Weiser and Lewis buildings), two maintenance buildings (Arsenal building and Tool & Die building), a storage area located at Spring and Lincoln Streets (Goshert Yard), and several parking lots. The remaining areas of the Facility are paved and included parking lots, rail spurs,

and other storage areas. The Schuylkill River is located approximately 400 feet west of the Weiser building. A Facility location map and a Facility layout are attached to this SB as Figures 1 and 2, respectively. Reading Industrial Complex Lots map is attached to this SB as Figure 3.

In 1980, Dana submitted its Notification of Hazardous Waste Activity and Part A Hazardous Waste Permit Application to EPA for its generation and storage of hazardous wastes F001 (spent halogenated solvents), F003 and F005 (spent non-halogenated solvents), D001 (ignitable), D007 (chromium) and D008 (lead). The Facility was assigned EPA identification number PAD002343630. On July 19, 1982, USEPA granted the Facility interim status for treatment, storage, or disposal of hazardous waste.

The site was formerly utilized for the manufacture and assembly of automobile and truck frames. On-site activities included steel cutting, steel pressing, steel shaping, and coating and painting. All production at the facility was suspended in September 2000.

The property was transferred to Reading Properties L.P. in 2004, and as a part of the transfer, the deed was modified to limit the site to commercial or industrial activities, excluding schools, nursing homes and other residential-style facilities and recreational areas (non-residential uses). There is a city ordinance that prohibits the use of groundwater.

Currently, a majority of the property is owned by Carpenter Technology Corporation, and the remaining property is owned by HAR Associates, LP and Reading Properties, L.P. In March, 2013, PADEP released and discharged all activity and use limitation and restrictions for Lots 6 and 7 as no environmental releases documented in these areas.

Section 3: Summary of Environmental Investigations and Remediation

For all environmental investigations conducted at the Facility, groundwater concentrations were screened against 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 141, or if there was no MCL, EPA Region III Screening Levels (RSL) for tap water for chemicals. Soil concentrations were screened against EPA RSLs for residential soil and industrial soil. EPA also has RSLs to protect groundwater and soil concentrations were also screened against these RSLs.

3.1 Underground Storage Tanks (USTs)

A. Removal of 6,000-gallon Toluene UST – The UST was installed prior to 1964 and contained spent toluene solvent and was removed in 1989. During the tank removal, Dana excavated approximately 130 tons of toluene contaminate soil. During a Hydrogeological Investigation in 1990, toluene was detected in soil (up to 18 mg/kg) and downgradient groundwater at concentrations up to 84,000 ug/l. An additional 62

tons of toluene contaminated soil were removed. In January 1993, Dana began an air stripper system to treat toluene contaminated groundwater. The air stripper system continued until the system was turned off permanently in 2002. Four consecutive quarters of attainment sampling were initiated in the third quarter of 2003.

B. Removal of 2,000-gallon gasoline UST, 1,000-gallon xylene UST, and 1,000-gallon diesel fuel UST The tanks were installed in 1972 and removed in 1992. Total petroleum hydrocarbon (TPH) and benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in soil samples. Contaminated soil was excavated from the sidewalls of the excavation until the excavation reached a dimension of 20 feet by 30 feet.

3.2 Site Investigations and Remediation

Site investigations and remediation were performed at the facility. On December 20, 2004, PADEP approved the Facility's Final Act 2 Report for attainment of non-residential site specific for groundwater and non-residential statewide health standards (SHSs) for soil. The Final Report includes a Post Remediation Care Plan that required the facility to perform additional groundwater sampling for toluene. In a letter dated October 25, 2007, PADEP acknowledged the facility's completion of the Post Remediation Care Plan. The remediation performed at the Facility attained compliance with the non-residential cleanup standards. The Final Report called for deed restrictions to limit the land use of the facility to non-residential purposes. In 2004, the deed restrictions were in place.

3.2.1 Soils

Soil investigations and remediation at the Facility were conducted from October 1999 to April 2002. Soil samples were collected from the former UST area, former cushion oil UST area, former toluene pump and treat area, former paint UST area, former acid sump area, Goshert yard area, former Pontiac assembly line area, former press pit area, and transformer area. Soil investigations showed that ethylbenzene was detected at concentrations as high as 77.378 mg/kg; carbon tetrachloride was detected at concentrations as high as 3.5 mg/kg; TCE was detected at concentrations as high as 2.20 mg/kg; PCE was detected at concentrations as high as 39 mg/kg; PCBs were detected at concentrations as high as 910 mg/kg; chromium was detected at concentrations as high as 25 mg/kg; arsenic was detected at concentrations as high as 52 mg/kg; lead was detected at a depth 0 – 7 feet at concentrations as high as 1,500 mg/kg, and at a depth 7 – 8 feet at concentrations as high 100,000 mg/kg; and thallium was detected at concentrations as high as 15.8 mg/kg. Ethylbenzene, carbon tetrachloride, TCE, PCE, chromium, arsenic and thallium were detected at concentrations below the respective PADEPs Act 2 Statewide Health Standard non-residential direct contact MSCs and within the respective EPA's allowable ranges for non-residential use. Lead sample analytical results demonstrate EPA's non-residential standard has been met. Soils contaminated with PCBs were remediated to

the Act 2 Statewide Health Standard MSC of 30 mg/kg, within the EPA's allowable range of 1 mg/kg -100 mg/kg for non-residential use.

3.2.2 Groundwater

Groundwater monitoring wells, MW-1 – MW-22, were installed at the facility. Groundwater investigations showed that TCE was detected at concentrations as high as 22 micrograms per liter (ug/l), above the MCL of 5 ug/l. PCE was detected at concentrations as high as 64 ug/l, above the MCL of 5 ug/l. Benzene was detected at concentrations as high as 6 ug/l, above the MCL of 5 ug/l. 1,2,4-trimethylbenzene was detected at concentrations as high as 200 ug/l, above the MCL of 15 ug/l. Toluene was detected at concentrations as high as 23,000 ug/l, above the MCL of 1,000 ug/l. Cadmium was detected at concentrations as high as 20 ug/l, above the MCL of 5 ug/l. Lead was detected at concentrations as high as 24 ug/l, above the MCL of 15 ug/l.

Groundwater flows toward the Schuylkill River. There are no known groundwater wells in the area of the site. Groundwater at the site is not used as a source of drinking water. The Facility and surrounding area are already being provided with potable water from the public water supply system. In addition, there is a city ordinance that prohibits the use of groundwater

3.2.3 Surface Water

Groundwater flows toward the Schuylkill River. A fate and transport modeling performed by the facility demonstrates no current or future impact to surface water from contaminated groundwater.

Due to the presence of VOCs including TCE, PCE, benzene, toluene, and 1,2,4-trimethylbenzene in the groundwater, vapor intrusion pathway was evaluated in accordance with the EPA's Subsurface Vapor Intrusion Guidance (November 2002 OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils). The concentrations of VOCs contaminants in the groundwater are below the non-residential indoor air Regional Screening Levels (RSLs). Therefore, EPA has determined that there are currently no unacceptable risks to human health and the environment via vapor intrusion pathway.

3.3 Environmental Indicators

Under the Government Performance and Results Act ("GPRA"), EPA has set national goals to address RCRA corrective action facilities. Under GPRA, EPA evaluates two key environmental clean-up indicators for each facility: (1) Current Human Exposures Under Control, and (2) Migration of Contaminated Groundwater Under Control. The Facility met both of these indicators on September 30, 2016.

Section 4: Corrective Action Objectives

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

1. Soils

EPA's Corrective Action Objective for Facility soils is to meet EPA's non-residential direct contact soil screening levels for ethylbenzene, carbon tetrachloride, TCE, PCE, PCBs, chromium, arsenic, and thallium. With respect to lead, EPA's Corrective Action Objective is to prevent exposure to soils that exceed EPA's non-residential direct contact soil screening level. Lead was detected at concentrations exceeding non-residential direct contact screening level at a depth 7 – 8 feet. The only pathway for exposure would be to construction/excavation workers. The property is restricted to non-residential use and the construction worker exposure would be protected through personal protection equipment.

2. Groundwater

EPA expects final remedies to return groundwater to its maximum beneficial use within a timeframe that is reasonable given the particular circumstances of the project. For projects where aquifers are either currently used for water supply or have the potential to be used for water supply, EPA will use the National Primary Drinking Water Standard 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 C.F.R. Part 141.

EPA's corrective action objectives for groundwater is to meet the MCLs for TCE, PCE, benzene, 1,2,4-trimethylbenzene, toluene, cadmium and lead. Until such time as the MCLs are met throughout the Facility, exposures will be controlled by requiring groundwater use restrictions at the Facility.

Section 5: Proposed Remedy

1. Introduction

Under this proposed remedy, some contaminants remain in the soil and groundwater at the Facility above levels appropriate for residential uses. Because some contaminants remain in the soil and groundwater at the Facility at levels which exceed residential use, EPA's proposed remedy requires the compliance with and maintenance of soil and groundwater use restrictions. EPA proposes to implement the land and groundwater restrictions necessary to prevent human exposure to contaminants at the Facility through an enforceable mechanism such as a permit, order, or environmental covenant.

2. Soils

For Facility's soils, the proposed remedy consists of compliance with and maintenance of land use restrictions to limit use of the property for non-residential purpose only.

3. Groundwater

EPA's proposed remedy for groundwater at the Facility is monitored natural attenuation with the implementation and maintenance of groundwater use restrictions for as long as contaminants of concern concentrations in the groundwater measured above MCLs. EPA is proposing that the following activities and groundwater use restrictions be implemented at the Facility:

a. Groundwater at the Facility shall not be used for any purpose other than the operation, maintenance, and monitoring activities currently being conducted by the Facility and required by EPA, 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 final remedy and the Facility obtains prior written approval from EPA for such use;

b. No new wells shall be installed on Facility property unless it is demonstrated to EPA that such wells are necessary to implement the final remedy and the Facility obtains prior written approval from EPA to install such wells.

4. Additional Requirements

EPA is proposing that the following activities be implemented at the Facility:

A. Whenever requested by EPA and/or PADEP, the then current owner shall submit to EPA and/or PADEP a written certification stating whether or not the groundwater and land use restrictions are in place and being complied with;

B. EPA, PADEP and/or their authorized agents and representatives, shall have access to the Facility property to inspect and evaluate the continued effectiveness of the final remedy and if necessary, to conduct additional remediation to ensure the protection of the public health and safety and the environment upon the final remedy selection in the FDRTC.

In addition, the Facility owner shall provide EPA with a coordinate survey as well as a metes and bounds survey, of the Facility boundary. Mapping the extent of the land use restrictions will allow for presentation in a publicly accessible mapping program such as Google Earth or Google Maps.

Section 6: Evaluation of Proposed Remedy

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

Threshold Criteria	Evaluation
1) Protect human health and the environment	With respect to soil, the Facility surface soils meet EPA's non-residential soil SLs. EPA's proposed remedy is to restrict land use of the property to commercial or industrial purposes. With respect to groundwater, currently, GW is not used at the facility for any purposes. With respect to future uses, the proposed remedy requires groundwater use restrictions to minimize the potential for human exposure to contamination and protect the integrity of the remedy. In addition, there is a city ordinance that prohibits the use of groundwater
2) Achieve media cleanup objectives	EPA's proposed remedy meet the media cleanup objectives based on assumptions regarding current and reasonably anticipated land and water resource use(s). The remedy proposed in this SB is based on the current and future anticipated land use at the Facility as commercial or industrial. Surface soils at the site meet EPA's non-residential direct contact soil SLs. Deed restrictions are already in place to restrict the land use of the property to commercial or industrial purposes. Groundwater at the site is not used as a source of drinking water. EPA's proposed remedy requires the implementation and maintenance of use restrictions to ensure that groundwater beneath Facility property is not used for any purpose except to conduct the operation, maintenance, and monitoring activities required by EPA. An EC will be in place to restrict the land and groundwater uses at the facility.

3) Remediating the Source of Releases	In all proposed remedies, EPA seeks to eliminate or reduce further releases of hazardous wastes and hazardous constituents that may pose a threat to human health and the environment and the Facility met this objective. The source of contaminants has been removed from the soil at the Facility and, thereby eliminating, to the extent practicable, further releases of hazardous constituents from on-site soils as well as the source of the groundwater contamination. Groundwater at the site is not used as a source of drinking water. The Facility and surrounding area are already being provided with potable water from the public water supply system. Therefore, EPA has determined that this criterion has been met.

Section 6: Evaluation of Proposed Remedy (continued)

Balancing Criteria	Evaluation
1) Long-term effectiveness	Groundwater is not used on the Facility for drinking water. The long term effectiveness of the proposed remedy will be maintained through the implementation of the institutional controls. Contaminated soils were removed and the surface soils at the facility meet the non-residential use standard. An EC will be in place to restrict the use of the property to commercial or industrial purposes.
2) Reduction of toxicity, mobility, or volume of the Hazardous Constituents	The reduction of toxicity, mobility and volume of hazardous constituents will continue by attenuation at the Facility. The reduction of toxicity, mobility, and volume of hazardous constituents has already achieved as the source of contaminants have been removed from the soil at the facility.
3) Short-term effectiveness	The remedy does not involve any construction activities. Therefore, no short-term risks to workers exists.
4) Implement ability	EPA's proposed remedy is readily implementable.

5) Cost	EPA's proposed remedy is cost effective. The cost associated with implementation of ICs is minimal.
6) Community Acceptance	EPA will evaluate community acceptance of the proposed remedy during the public comment period, and it will be described in the Final Decision and Response to Comments (FDRTC).
7) State/Support Agency Acceptance	EPA will evaluate the Commonwealth's acceptance based on comments received from PADEP during the public comment period and will be described in the FDRTC.

Section 7: Financial Assurance

EPA has evaluated whether financial assurance for corrective action is necessary to implement EPA's proposed remedy at the Facility. Given that EPA's proposed remedy does not require any engineering actions to remediate soil and groundwater and given that the costs of implementing institutional controls (estimated cost of less than $1000.00 per year) at the Facility will be minimal, EPA is proposing that no financial assurance be required.

Section 8: Public Participation

Interested persons are invited to comment on EPA's proposed remedy. The public comment period will last thirty (30) calendar days from the date that notice is published in a local newspaper. Comments may be submitted by mail, fax, or electronic mail to Ms. Tran Tran at the contact information listed below.

A public meeting will be held upon request. Requests for a public meeting should be submitted to Ms. Tran Tran in writing at the contact information listed below. A meeting will not be scheduled unless one is requested.

The Administrative Record contains all the information considered by EPA for the proposed remedy at this Facility. The Administrative Record is available at the following location:

U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103
Contact: Ms. Tran Tran (3LC20)
Phone: (215) 814-2079
Fax: (215) 814 - 3113
Email: tran.tran@epa.gov

Attachments:

Statement of Basis

1. Attachment #1 – Figure 1 - Site Location Map
2. Attachment #2 – Figure 2 - Site Layout Map
3. Attachment #3 – Figure 3 – Reading Industrial Complex Lots Map

Date: 8/15/2017

Catherine A. Libertz, Acting Director
Land and Chemicals Division
US EPA, Region III

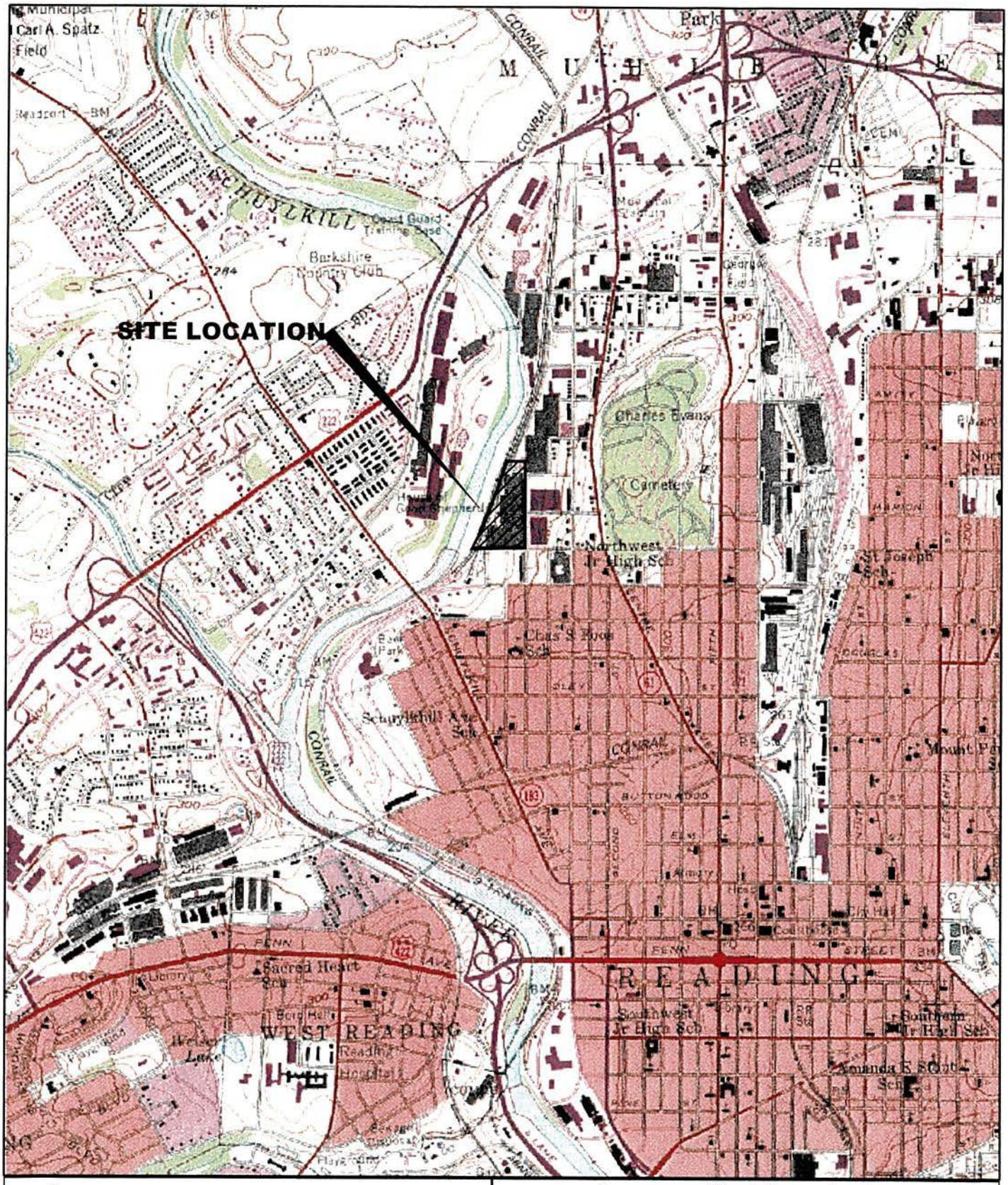
Section 9: Index to Administrative Record

1. Act 2 Final Report, Dana Structural Solutions, International Division, August 2004
2. Final Environmental Indicator Inspection Report, March 2004
3. PADEP's Approval of Final Act 2 Report, December 20, 2004
4. Release of Lot Use Limitations, Recorded Deed, 3/21/2013

Attachments

Attachment 1

Site Location Map



Quadrangle Location Map

0 2000 4000 Feet

N

Source: U.S.G.S. Topographic Maps (7.5 Minute)
Reading, PA

Commonwealth of Pennsylvania
Department of Environmental Protection

DANA CORPORATION
PARISH DIVISION
READING, PA

FIGURE 1
SITE LOCATION MAP

TETRA TECH FW, INC.
Formerly Foster Wheeler Environmental Corporation

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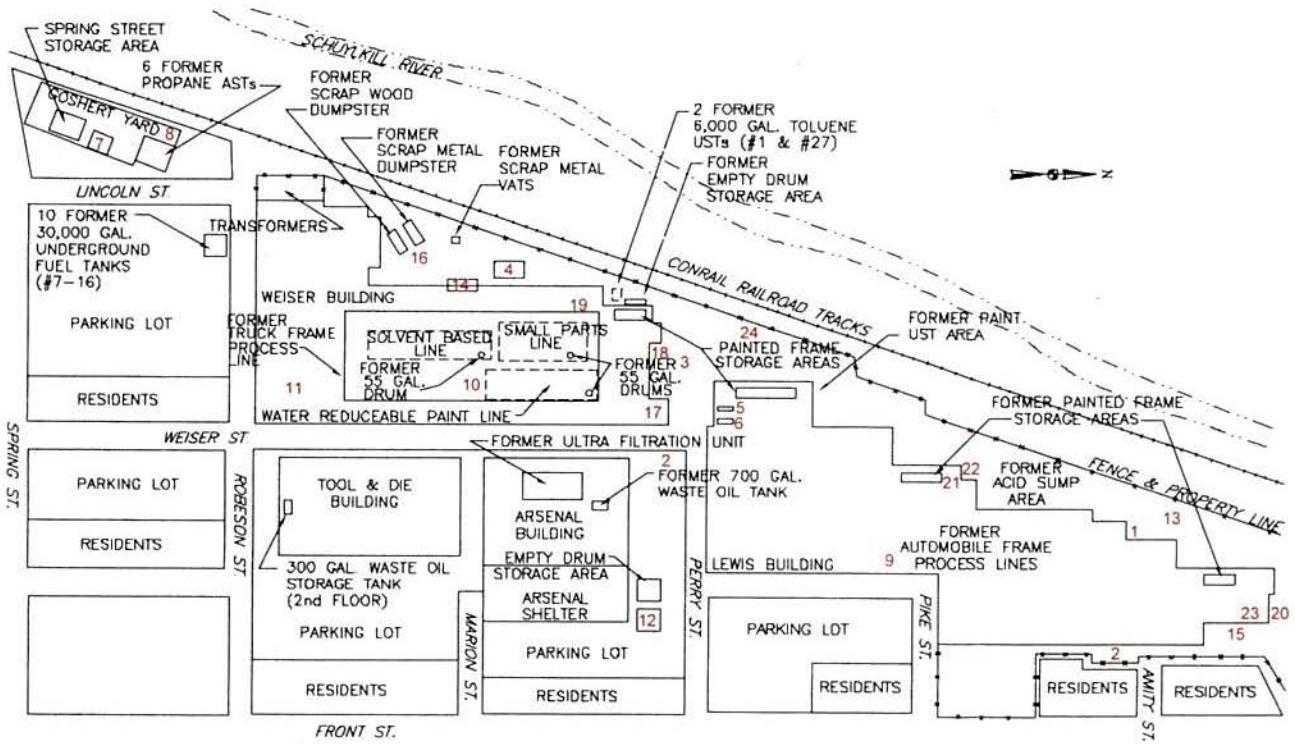
P:\Els\Drawing\Dana\dana_loc.dwg

Attachment 2

Site Layout Map



Descriptions

1. Open-top AST for residual water from compressors
2. Transformers
3. Former transformers
4. Wastewater treatment plant (out of use)
5. Former 6,000-gal unnumbered waste oil AST (removed)
6. Former 6,000-gal AST #9A (held waste oil, soap) (closed in place)
7. Storage area for drums containing metal shavings
8. (2) closed-in-place USTs
   PADEP ID #23 - 2,500-gal gasoline
   PADEP ID #24 - 2,500-gal diesel fuel
   and
   10 former ASTs (unnumbered, contents unknown)
9. Former Press Pit 1079 area
10. Former Pontiac assembly line
11. Former 7,000-gal cushion oil AST/UST #17A (removed)
12. (2) out-of-service ASTs
    #15A – 250-gal gasoline
    #16A – 500-gal diesel
13. Out-of-service 1,000-gal diesel fuel AST #8A
14. (4) closed-in-place 6,000-gal waste oil ASTs (from left to right: #10A, #6A, #7A, #11A)
15. (4) former 30,000-gal fuel oil USTs (#17, #18, #19, and #20) (removed)
16. (3) removed USTs
    #2 – 1,000-gal xylene
    #21 – 2,000-gal gasoline
    unnumbered – 1,000-gal diesel
17. (3) former 1,800-gal paint USTs (#4, #5, and #6) (removed)
18. Former 10,000-gal paint UST (#3) (removed)
19. Former 5,000-gal paint overflow UST (PADEP ID #25) (removed)
20. Former 7,000-gal paint thinner UST (#22) (closed-in-place)
21. (2) closed-in-place 1,800-gal paint USTs (#23 and #24)
22. (2) closed-in-place USTs
    #25 – 10,000-gal paint
    #26 – 10,000-gal paint thinner
23. (2) unnumbered out-of-use 1,800-gal USTs, held pre-mix and recirculating solution
24. (2) unnumbered USTs – contents unknown, assumed removed

SOURCE: "PRELIMINARY ASSESSMENT OF DANA CORPORATION–PARISH DIVISION", FIGURE 2.2, NUS CORPORATION, 5/3/90.

Commonwealth of Pennsylvania
Department of Environmental Protection

DANA CORPORATION
PARISH DIVISION
READING, PA

FIGURE 2
SITE LAYOUT MAP

TETRA TECH FW, INC.
Formerly Foster Wheeler Environmental Corporation

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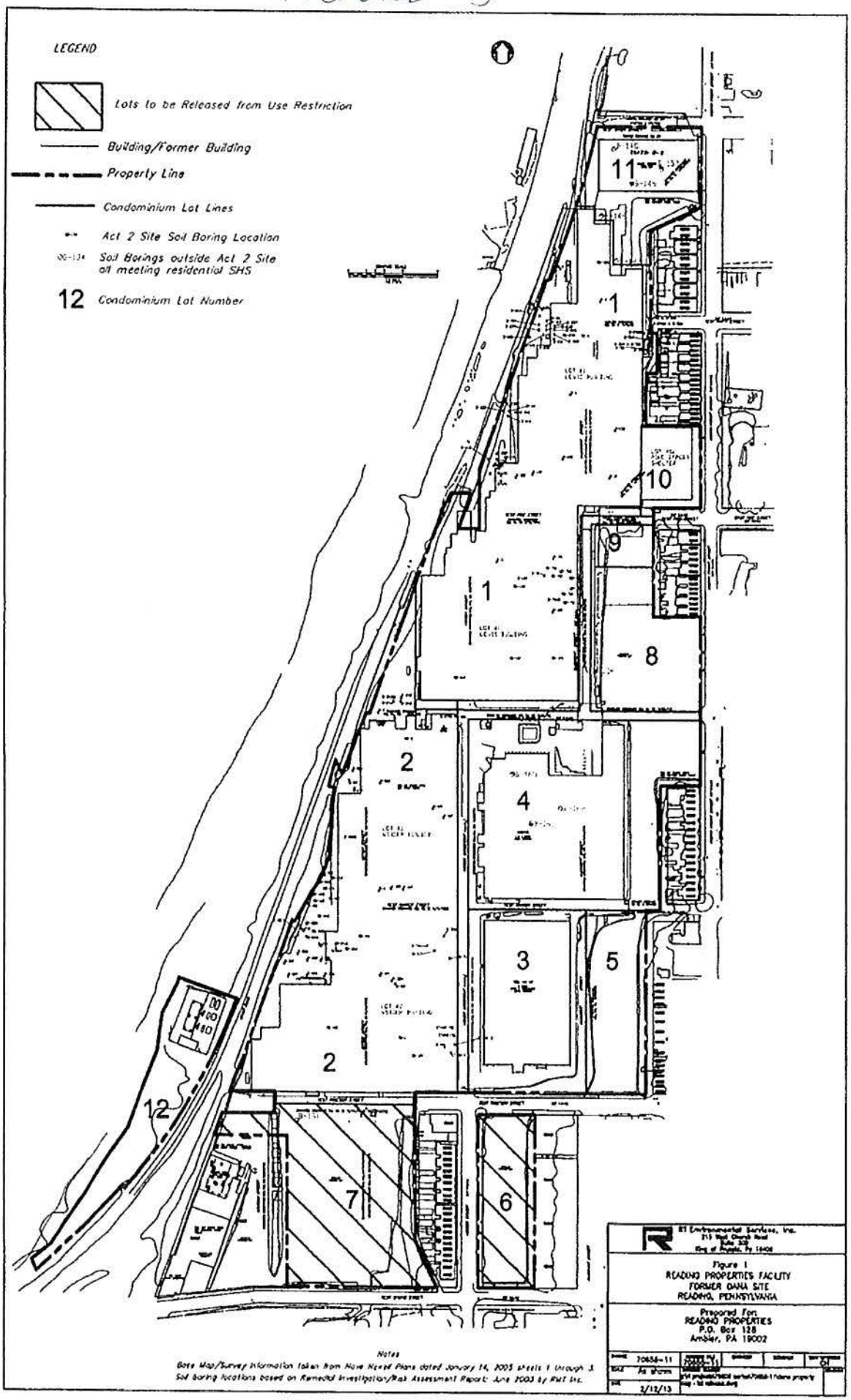
Attachment 3

Reading Industrial Complex Lots Map

FIGURE 3


LEGEND
Lots to be Released from Use Restriction
Building/Former Building
Property Line
Condominium Lot Lines
Act 2 Site Soil Boring Location
Soil Borings outside Act 2 Site all meeting residential SHS
12 Condominium Lot Number
1
2
3
4
5
6
7
8
9
10
11
12
Notes
Base Map/Survey Information taken from Nave Newell Plans dated January 14, 2005 sheets 1 through 3.
Soil boring locations based on Remedial Investigation/Risk Assessment Report: June 2003 by RMT Inc.
RT Environmental Services, Inc.
Figure 1
READING PROPERTIES FACILITY
FORMER DANA SITE
READING, PENNSYLVANIA
Prepared For:
READING PROPERTIES
P.O. Box 128
Amber, PA 19002
20656-11
As shown
2/12/13