
OHIO ENVIRONMENTAL PROTECTION AGENCY
VOLUNTARY ACTION PROGRAM
SECTION B
EXECUTIVE SUMMARY AND FILING DOCUMENT OF
NO FURTHER ACTION LETTER

Property:

Akron Airdock
1210 Massillon Road
Akron, OH 44315

Volunteers:

Summit County Port Authority
One Cascade Plaza, 18th Floor
Akron, OH 44308

And

Lockheed Martin Corporation
1210 Massillon Road
Akron, OH 44315

Property Owner:

Summit County Port Authority
One Cascade Plaza, 18th Floor
Akron, OH 44308

Date Issued:

February 2009

Certified Professional Issuing the NFA Letter:

Jennifer J. Krueger
CP Number 274
URS Corporation
36 East Seventh Street, Suite 2300
Cincinnati, OH 45202
Phone: (513) 651-3440
Fax: (513) 651-3452

Certified Professional Affidavit Pursuant to OAC 3745-300-13(P) and 3745-300-05(F)(4)

Co-Volunteer:

Summit County Port Authority
One Cascade Plaza,
Akron, Ohio 44308

Owner of Property:

Summit County Port Authority
One Cascade Plaza,
Akron, Ohio 44308

Co-Volunteer:

Lockheed Martin Corporation
1210 Massillon Road
Akron, Ohio 44315

Certified Professional who issued the NFA Letter:

Jennifer J. Krueger
URS Corporation
36 East Seventh Street, Suite 2300
Cincinnati, Ohio 45202
(513) 651-3440

Property Subject to NFA Letter:

Akron Airdock
1210 Massillon Road
Akron, Ohio 44315

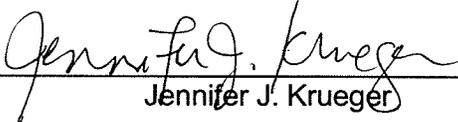
State of Ohio)
) **ss:**
County of Hamilton)

I, Jennifer J. Krueger, being first duly sworn according to law, state that, to the best of my knowledge, information and belief:

1. I am an adult over the age of eighteen (18) years old and competent to testify herein.
2. I am a Certified Professional, No. 274, in good standing under Ohio Revised Code (ORC) Chapter 3746 and Ohio Administrative Code (OAC) Chapter 3745-300.
3. I have prepared a No Further Action (NFA) Letter for Summit County Port Authority and Lockheed Martin Corporation, issued on February 27, 2009 for property located at 1210 Massillon Road, Summit County, Akron, Ohio (the "Property").
4. I have read the standards of conduct contained in OAC 3745-300-05(F), and maintained full compliance with these standards regarding the NFA Letter while rendering professional services to the Volunteers regarding the Property.
5. The Property is eligible for the Voluntary Action Program pursuant to ORC 3746.02 and OAC 3745-300-02.
6. The voluntary action has been conducted and the NFA Letter has been issued in accordance with the ORC Chapter 3746 and OAC Chapter 3745-300.
7. The Property meets the applicable standards contained in ORC Chapter 3746 and OAC Chapter 3745-300.

8. The voluntary action at the Property was conducted in compliance with all applicable federal, state and local laws and regulations.
9. The NFA Letter, the completed NFA Form for the Property and any other information, data, documents and reports submitted with the NFA Letter and the NFA Form are true, accurate and complete.
10. The NFA Letter, the completed NFA Form and all supporting information, data, documents and reports, are a true, accurate and complete characterization of conditions at the Property, including the presence or absence of hazardous substances and petroleum.

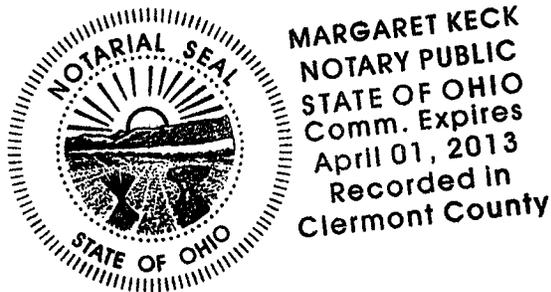
Further affiant sayeth naught.


Jennifer J. Krueger

JENNIFER J. KRUEGER
CERTIFIED PROFESSIONAL (CP274)
ORC Section 3746.04(B)(5)
OAC Rule 3745-300-05
My certification expires February 17 2010

Sworn to before me this 27th day of February, 2009.


Notary Public



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Table ES-1 VAP Applicable Standards for Soil

LIST OF ATTACHMENT

Legal Description of Property
Property Map

1.0 INTRODUCTION

A No Further Action (NFA) Letter was submitted to the Ohio Environmental Protection Agency (Ohio EPA), Division of Emergency and Remedial Response (DERR) Voluntary Action Program (VAP) on behalf of property owner, Summit County Port Authority (SCPA), and property operator, Lockheed Martin Corporation (Lockheed Martin), co-volunteers. The NFA Letter describes the voluntary action for the 19.1837-acre Akron Airdock property located at 1210 Massillon Road, Summit County, Akron, Ohio, 44315. A legal description of the property is attached to this summary.

Lockheed Martin is leasing and operating the property for industrial use related to airship manufacturing under an agreement with SCPA. Continued use of the Airdock is subject to the terms and conditions of a third amended consent agreement and final order (CAFO) between Lockheed Martin and United States Environmental Protection Agency (U.S. EPA Region 5). The property will be limited to the industrial land use category and certain activities by an environmental covenant. Operation and maintenance activities will be implemented under the terms and conditions of an operation and maintenance plan and an operation and maintenance agreement between Lockheed Martin, SCPA, and Ohio EPA.

Voluntary actions consisting of Phase I and Phase II property assessments completed in accordance with Ohio Administrative Code (OAC) 3745-300 are summarized herein. The property was also subject to voluntary remediation of polychlorinated biphenyls (PCBs) under the Toxic Substances Control Act (TSCA) and Title 40 of the Code of Federal Regulations at Part 761 (§761.61), activities that are included in this summary.

This executive summary of the NFA Letter has been prepared in a format pursuant to OAC 3745-300-13 (I). Complete copies of the NFA Letter are on file at the Ohio EPA Central Office in Columbus, Ohio and the Northeast District Office in Twinsburg, Ohio. The public may request access to the file by contacting Ohio EPA in accordance with Ohio's public records law.

The NFA Letter, dated February 2009, was issued by Jennifer J. Krueger, Certified Professional (CP) No. 274 of URS Corporation (URS), Cincinnati, Ohio, and submitted to Ohio EPA under affidavit.

2.0 SUMMARY OF NO FURTHER ACTION LETTER

The basis for the NFA Letter includes completion of VAP Phase I and Phase II property assessments, property-specific risk assessment, remedial actions including the implementation of engineering controls, an operation and maintenance plan, risk mitigation plan, potable groundwater use limitation, industrial use limitation, and an urban setting designation. Together, these voluntary actions meet the circumstances of OAC 3745-300-13(A)(4), when a certified professional issues an NFA Letter because

applicable standards have been achieved through remedial activities or will be achieved in accordance with an operation and maintenance plan (O&M plan).

Remediation of the property was coordinated within two regulatory programs, TSCA, through U.S. EPA Region 5, and VAP, through Ohio EPA, with certain aspects of the remedy conducted separately and other aspects conducted with overlapping regulatory jurisdiction. The interior Airdock decontamination of equipment, floors, walls, superstructure steel surfaces, catwalks, and interior roof deck surfaces was conducted pursuant to §761.61(c), specifically various risk-based cleanup approvals granted by U.S.EPA. TSCA decontamination standards were also applied to exterior pavement, building structures, and storm sewer systems. The TSCA §761.61(c) standards were used as de facto applicable standards under VAP in accordance with OAC 3745-300-09(B)(4). VAP applicable standards and TSCA risk-based approvals were applied to PCBs in soil at the property.

The majority of VAP activities were conducted from 2005 to 2008. Remedy elements that are planned to be implemented through an O&M Plan are summarized herein in Section 2.6. Complete supporting documents for the voluntary actions are contained in the NFA Letter Volumes 1 through 5.

Contents of the NFA Letter are listed below.

Volume 1:

- NFA Letter Form and Attachments
- Analytical Laboratory Reports

Volume 2:

- Phase I Property Assessment Update Report
- Phase I Property Assessment Report

Volume 3:

- Phase II Property Assessment

Volume 4

- Property-Specific Risk Assessment Final Report

Volume 5

- Remediation Reports and Supporting Documentation

2.1 PHASE I PROPERTY ASSESSMENT

Tetra Tech, Inc. (Tetra Tech) completed a VAP Phase I property assessment of the property on June 21, 2005. The Phase I property assessment, conducted in accordance with OAC 3745-300-06, was completed to identify if releases of hazardous substances and/or petroleum had occurred on, underlying, or were emanating from the property. The 2005 VAP Phase I was conducted by Jennifer J. Krueger, CP No. 274.

The 2005 VAP Phase I included a review of historic and current uses of the property and surrounding properties, an environmental history review, a review of the history of hazardous substance and/or petroleum releases, a property inspection by a CP, an eligibility determination, and delineation of identified areas.

URS conducted a VAP Phase I update in December 2008, which is reported in Volume 2 of the NFA Letter, including a copy of the 2005 VAP Phase I.

2.1.1 Property History, Ownership, and Current Use

Goodyear Zeppelin Corporation constructed the Akron Airdock in 1929 to manufacture and house rigid airships for the U.S. Navy. During its 80-year history the hangar has been used for a variety of industrial uses including: press shop operations, degreasing, plating, engineered fabrics, parts and equipment storage, repair of aircraft braking systems, metal salvage operations, photographic and X-ray operations, and testing of inflatable structures. Subsequent corporate occupants included, Goodyear Aerospace, nee Aircraft, Loral, and Lockheed Martin. SCPA purchased the property in 2005 and entered into a development agreement with Lockheed Martin. Lockheed Martin continues to operate at the Airdock under a lease and other development agreements with SCPA, and is responsible for operation and maintenance activities at the Airdock facility.

The Airdock was constructed using material coated with a fire-retardant substance now known to have contained PCBs, specifically Aroclor 1268. In 2003 the non-liquid PCB was discovered in the Airdock's original roof and siding, a building material known as Robertson Protected Metal (RPM). Upon the initial PCB discovery and continuing through 2008, Lockheed Martin implemented a multi-phased voluntary remediation program to manage the PCB-containing roofing and siding material.

These remedial activities were conducted between 2003 and 2008 under two regulatory programs: the federal PCB program under §761.61 and the VAP. In conjunction with the appropriate regulatory notification and approval process, the overall remedial approach centered on: (1) source control to prevent releases of Aroclor 1268 from the roof and siding material and to prevent further movement of PCBs on the grounds, and (2) cleanup of Aroclor 1268 from the stormwater conveyance and discharge systems, primarily through the removal of sediment and debris in the storm sewer system.

On December 18, 2008, Lockheed Martin and SCPA entered in to a CAFO with U.S. EPA Region 5 to occupy the Airdock for specific uses and under certain conditions. The CAFO requirements address access, occupancy, air and surface monitoring, inspection, maintenance, and reporting. The conditions of the CAFO limit maintenance, repair, remodeling, and construction or demolition activity involving the Airdock floor, siding, or catwalks with advance notification to U.S. EPA.

The Goodyear Tire & Rubber Company (Goodyear) conducts voluntary groundwater remediation at the property pursuant to a 1987 agreement for purchase and sale of assets among Loral (now Lockheed Martin), Goodyear Aerospace Corporation, and Goodyear. Goodyear supported Lockheed Martin with certain VAP activities conducted with respect to groundwater from 2005 through 2008. The NFA Letter relied upon data and reports of those remediation and monitoring activities, which Goodyear provided under affidavit. Based on conditions detailed in the Phase II and the property-specific risk assessment reports, the VAP remedy does not require continued operation of Goodyear’s extraction and treatment system or monitoring well system, to meet applicable standards. Therefore, future groundwater operation, maintenance, and monitoring are not included in the O&M Plan for the Airdock property. Goodyear’s remediation system, O&M activities, and its on- and off-property monitoring well system, are independent of the VAP remedy.

2.1.2 Identified Areas

Evidence of releases of hazardous substances and/or petroleum was identified at 13 identified areas during the 2005 VAP Phase I. The Identified Areas subject to the VAP Phase II property assessments are listed below.

VAP Identified Areas (IAs) at Akron Airdock	
1- Former USTs - Northeast Corner of Plant A	8- Airdock ABSC Operations: Coolant Sump in Northwest Corner
2- Former UST – Motor Run-In Building	9- Airdock ABSC Operations: Former Plate Shop and Degreaser
3- Former RCRA Drummed Waste Storage Area	10- Airdock ABSC Operations: Press Shop
4-Former RCRA Waste Oil Storage / Former Bondolite Process Area	11- Airdock ABSC Operations: Open Area at North End of Airdock
5- Former RCRA Drummed Cyanide Waste Storage Area	12- Plant A Photocopy Lab/X-ray Area
6- Former RCRA Acid / Alkali waste storage tanks (Building #113)	13- Airdock Roofing and Siding, and PCB-Impacted Areas
7- Former RCRA Flammable Liquid Storage (Building #116)	

ABSC = Aircraft Braking Systems Corporation
PCB = Polychlorinated biphenyl
RCRA = Resource Conservation and Recovery Act
USTs = Underground storage tanks

In addition, a groundwater plume characterized by chlorinated volatile organic compounds (VOCs), specifically trichloroethene and associated degradation products, cis-1,2-dichloroethene and vinyl chloride, was identified at and emanating from the property. Benzene and other petroleum-related chemicals were also detected in groundwater at Identified Area 1.

2.1.3 Conclusions

The Phase I property assessment concluded that a Phase II property assessment was required to support a NFA Letter and a request for a covenant not to sue (CNS) from Ohio EPA. Certain presumptive remedies were ongoing or planned as part of various risk-based PCB cleanup approvals under TSCA. As a result, a property-specific risk assessment was recommended to coordinate the risk goals between VAP and §761.61(c). Additional Phase II assessments were recommended at several identified areas to evaluate if environmental media were in compliance with applicable standards.

The property was determined to meet the eligibility criteria in accordance with OAC 3745-300-02. There was an existing no further action determination for Identified Area 1, a former UST site, under the State Fire Marshal Bureau of Underground Storage Tank Regulations (BUSTR). Identified Area 2, which also involved a former UST system, was assessed during Phase II property assessments in 2004 and 2006. These assessments did not indicate a BUSTR release had occurred above action levels and therefore, Identified Area 2 was also eligible under the VAP.

2.2 PHASE II PROPERTY ASSESSMENTS

Several Phase II property assessments were conducted between 2005 and 2008, with inclusion of prior non-VAP assessment data, where appropriate, that were collected in 2003 and 2004. The overall objective of the Phase II was to determine if applicable standards were met for all complete or reasonably anticipated complete exposure pathways, or if remediation was required to meet applicable standards for all complete or reasonably anticipated complete exposure pathways.

PCB assessments to delineate impacts to soil on- and off-property were conducted in an iterative manner from 2003 through 2008. Soil sampling was conducted in unpaved areas as well as beneath pavement across the property and extending to three off-property areas.

Groundwater quality was assessed through quarterly monitoring at Goodyear's monitoring network with supplementary shallow and deep wells installed and sampled on multiple occasions at on- and off-property locations to further delineate the plume. These activities also addressed programmatic groundwater requirements, such as classification and protection of groundwater meeting unrestricted potable use standards.

Soil sampling and analysis was conducted at each VAP identified area to characterize the individual chemicals of concern (COCs) based on the history and type of release associated with features of the unit. The Phase II data generated from the soil sampling program included analysis of multiple chemical adjustments by calculating the cumulative risk ratios in accordance with OAC 3745-300-08 (D).

Modeling was conducted as a part of the property-specific risk assessment to evaluate the potential migration of soil containing post-remediated PCBs to off-property receptors through the storm sewer system. Characterization of stormwater is being implemented through a sampling and analysis program, which is part of an O&M Plan (Volume 5).

Modeling was also conducted in the property-specific risk assessment to evaluate the potential vapor intrusion pathway from VOCs in groundwater to indoor air at on-property and off-property buildings.

2.2.1 Soil Investigations and Findings

Identified Area 1: Former USTs at Northeast Corner of Plant A

Two 10,000-gallon capacity gasoline USTs were previously located adjacent to the motor gear building outside the northeast corner of the Airdock. The two metal USTs were in use from the late 1950s until they were closed by removal in 1986. Identified Area 1 was the subject of a release (Release No. 77001231-N00002N), free product recovery, and a Tier 1 Evaluation under BUSTR in 2004. The former UST system received a BUSTR NFA determination in March 2005.

Phase II activities involved six borings, an excavation, and 22 soil samples from Identified Area 1 between 2004 and 2006. Soil samples ranged in depth from 0.5 to 12 feet bgs. Soil samples were analyzed for VOCs, polyaromatic hydrocarbons (PAHs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), and lead.

Identified Area 2: Former USTs at Motor Run-In

A 3,000-gallon-capacity octane UST was formerly located near Motor Run-In (Building 108). The octane UST was closed by removal in 1985, prior to BUSTR.

Phase II activities involved drilling three borings and collecting six soil samples from Identified Area 2 between 2004 and 2006. Soil sampling depths ranged from 1 to 10 feet bgs. Samples were analyzed for VOCs, PAHs, TPH, and lead. The COCs in the Phase II samples were below BUSTR action levels, thus Identified Area 2 was eligible under the VAP.

Identified Area 3: Former RCRA Drummed Waste Storage

Between 1980 and 1993 a RCRA container storage area operated on the western side of the Airdock for management of drummed hazardous waste generated in the facility's manufacturing operations under a RCRA permit. The RCRA container storage area was certified closed in 1993.

Phase II activities involved drilling three borings and collecting six soil samples from Identified Area 3 between 2004 and 2006. Soil samples ranged in depth from 1 to 10 feet bgs. Soils were analyzed for VOCs, SVOCs, metals, and free cyanide.

Identified Area 4: Former Waste Oil Storage/Former Bondolite Process Area

Between 1980 and 1993, waste oil was stored in an area directly south of IA 3 under a RCRA permit. The unit consisted of two 3,900-gallon capacity tanks located below grade in a 24,000-gallon capacity concrete pit. Non-hazardous oil and water-soluble oil waste was managed in this unit until it was closed in accordance with a RCRA-approved closure plan. The concrete pit was used as a vapor degreaser in the late 1960s to early 1970s for a Bondolite plating process.

Phase II activities involved drilling three borings and collecting six soil samples from Identified Area 4 between 2004 and 2006. Because of the close proximity with Identified Area 3, two the borings were shared between the two identified areas. Soil samples ranged in depth from 1 to 8 feet bgs. Soils were analyzed for VOCs, SVOCs, metals, and TPH.

Identified Area 5: Former RCRA Drummed Cyanide Waste Storage Area

From 1980 to 1993, drummed wastes containing cyanide were managed in a container storage area located immediately adjacent to Identified Area 4. The area was closed in accordance with a RCRA-approved closure plan in 1993.

Phase II activities involved drilling three borings and collecting six soil samples from Identified Area 5 between 2004 and 2006. Soil samples ranged in depth from 1 to 10 feet bgs. Soils were analyzed for VOCs, metals, total and free cyanide.

Identified Area 6: Acid/Alkali Storage in Building #113

Identified Area 6 was a RCRA storage area located in a 2,800 square foot building (No. 113), adjacent to the west side of the Airdock. The unit consisted of five sub-grade open-top tanks. Inorganic acid/alkali wastes were managed in this unit until it was closed in accordance with a RCRA-approved closure plan.

Phase II activities involved drilling three borings and collecting six soil samples from Identified Area 6 between 2004 and 2006. Soil samples ranged in depth from 1 to 5 feet bgs. Soils were analyzed for VOCs, metals, and TPH.

Identified Area 7: Flammable Liquid Storage in Building #116

Identified Area 7 was a RCRA storage area for drums containing flammable liquids located in a 2,800 square foot building (No. 116), adjacent to the west side of the Airdock. Drums of liquid flammable

wastes were managed in this unit until 1993 when it was closed in accordance with a RCRA-approved closure plan.

Phase II activities involved drilling three borings and collecting six soil samples from Identified Area 7 between 2004 and 2006. Soil samples ranged in depth from 1 to 8 feet bgs. Soils were analyzed for VOCs.

Identified Area 8: Coolant Sump in Northwest Corner of Airdock

A former Airdock tenant, ABSC, operated a sub-grade sump to collect residual coolant (Trim-Sol) and hydraulic oil that dripped from salvaged metal shavings and parts stored in two roll-off boxes situated in the northwest corner of the Airdock. The sump was closed in 2006 when ABSC vacated the property.

Phase II activities involved drilling three borings and collecting six soil samples from Identified Area 8 between 2004 and 2006. Soil samples ranged in depth from 1 to 10 feet bgs. Soils were analyzed for VOCs and SVOCs.

Identified Area 9: Former Plate Shop and Degreaser

A former cadmium cyanide plate shop operated on the east side of the Airdock from the 1940s until 2002. A vapor degreaser initially used trichloroethene and later, 1,1,1-trichloroethane, in a concrete pit approximately 12 feet wide by 30 feet long and 6 feet deep. A leak was discovered in the degreaser in 1987, which led to a series of assessments to evaluate and mitigate impacts to soil and groundwater.

Phase II activities involved drilling five borings and collecting nine soil samples from Identified Area 9 between 2004 and 2006. Soil samples ranged in depth from 1 to 10 feet bgs. Soils were analyzed for VOCs, metals, and free cyanide.

Identified Area 10: Press Shop

Identified Area 10 includes Building 105, Outer Press Shop and an inner press shop on the east side of the Airdock. Historically, machining and press operations were conducted in the press shop including stamping of metal brake parts on about 20 various-sized machines. Several machines were placed over pits in which coolant solutions, lubricants, and cutting oils accumulated. One former press located at the northern end of the Outer Press Shop was reported to have used oil possibly containing PCBs. The press shops were in use from the 1940s until 2006.

Phase II activities involved drilling six borings, an excavation, and collecting 15 soil samples from Identified Area 10 between 2004 and 2008. Soil samples ranged in depth from 1 to 6 feet bgs. Soils were analyzed for VOCs, SVOCs, PCBs, TPH (some samples), metals, and free cyanide.

Identified Area 11: Open Area at North End of Airdock

A former salvage operation in the northern end of the Airdock involved storing several bins of metal scrap and shavings from which oil and coolant residue dripped. A large area of pooled coolant was observed on the floor during a 2003 Phase I Environmental Site Assessment.

Phase II activities involved drilling three borings and collecting six soil samples from Identified Area 11 in 2004. Soil samples ranged in depth from 1 to 2 feet bgs. Soils were analyzed for metals.

Identified Area 12: X-Ray Lab

A small X-ray lab is located in the southeastern corner of the Airdock. The lab consists of an office/front room, an X-ray room, a control panel room, a dark room, and a chemical storage room. Staining was observed on the vinyl floor tile and baseboard during the Phase I property assessment.

Phase II activities involved drilling one boring and collecting one shallow (1-foot bgs) soil sample from Identified Area 12 in 2004. The soil sample was analyzed for VOCs, SVOCs, and metals. The limited scope of investigation at Identified Area 12 was based upon field refusal during sampling, limited evidence of impact, and small area in the lab.

Identified Area 13: Airdock Roofing and Siding and PCB-Impacted Areas

As part of the property-specific risk assessment, Identified Area 13 was subdivided into five discrete areas for separate sampling and data evaluation: Southeast Area (on-property), On-Property (Non-Identified Area [IA]-Specific) Area, Off-Property (North) Area, Off-Property (West) Area and Off-Property (South) Area. Between 2003 and 2008 over 200 soil samples were collected and analyzed for PCBs to characterize the extent of impacts. Of these five sub-areas, remediation was conducted in June 2008 at the Southeast Area and at an isolated area known as SC8. Remediation consisted of the removal and off-site disposal of soil containing total PCBs at concentrations greater than 16 milligram per kilogram (mg/kg) under VAP and greater than 25 mg/kg under TSCA.

Southeast Area

Soil core samples were collected from 22 locations and analyzed for PCBs. Of the 22 soil sample locations, seven locations (nine total samples) exhibited total PCB levels greater than 25 mg/kg. Prior to remediation, the highest PCB concentration in a single sample was 460 mg/kg. Following remediation, and based on the Phase II sampling data, the representative concentration of PCBs in soil at the Southeast Area is 5.75 mg/kg.

On-Property (Non-IA-Specific) Area

The Phase II referenced areas on the property that were not associated with specific identified areas as the On-Property (non-IA-specific) Area. Phase II sampling was conducted in 2004, 2005 (multiple events), 2006, and 2008 (certified lab confirmation sampling). Sampling was targeted to unpaved areas (55 samples) and soil beneath pavement (40 samples). Prior to remediation, the highest PCB concentration in a single sample was 30 mg/kg. Following remediation, and based on the Phase II sampling data, the representative concentration of PCBs in soil at the On-Property (Non-IA-Specific) Area is 2.1 mg/kg.

Off-Property (West) Area

In 2007, soil borings were drilled at four off-property locations through pavement between the Airdock and Plant E to sample the underlying soil for potential PCB impacts. PCBs were not detected in the four sub pavement soil samples collected in 2007.

Off-Property (North) Area

In 2005, soil samples were collected along transects oriented perpendicular to the Airdock that extended approximately 750 feet north of the property boundary. Eight sample locations were on ABSC property and 17 sample locations were on airport property. Additional sampling was conducted in 2008 to obtain certified lab data necessary to support use of the earlier non-certified lab data. A total of 34 discrete samples was analyzed. Based on the Phase II sampling data, the representative concentration of PCBs in soil at the Off-Property (North) Area is 0.38 mg/kg.

Off-Property (South) Area

In 2005 soil samples were collected from seven locations in the off-property area known as the South Area. Four samples were collected from the grassy island and three samples were collected from a grass-covered park area in the courtyard between Plants B, C, and G. Additional sampling was conducted in 2008 to obtain certified lab data necessary to support use of the earlier non-certified lab data. Based on the Phase II sampling data, the representative concentration of PCBs in soil at the Off-Property (South) Area is 0.91 mg/kg.

2.2.2 Groundwater Investigations and Findings

The Phase II relied primarily on historic and current results of Goodyear's long-term groundwater investigations, supplemented with four monitoring wells and associated data from a 2004 BUSTR Tier 1 Evaluation (Identified Area 1), and grab groundwater samples collected from direct push technology borings during a 2004 Phase II.

A shallow groundwater table is present beneath the property at an average depth of about 8 feet bgs. Groundwater occurs in alluvial deposits overlying the Sharon Formation, which is characterized as a thick, fractured sandstone and conglomerate bedrock unit at a depth of about 25 feet bgs.

Three on-property sources of groundwater impact were identified in the Phase II: Identified Area 1, Identified Area 4, and Identified Area 9. COCs associated with Identified Area 1 include benzene and other petroleum products associated with releases from the former UST system. COCs associated with Identified Areas 4 and 9 include chlorinated VOCs and metals from the former vapor degreasers and plating operations.

The Plant B property east of the Airdock was included in the groundwater assessments conducted at the larger Goodyear complex in the early to mid-1980s. These assessments identified a chlorinated VOC groundwater plume beneath both the Airdock and Plant B. Documented chlorinated VOC groundwater impacts from historical sources associated with Plant B appear to commingle with chlorinated VOC sources at the Airdock property.

The Goodyear groundwater assessments continued through the 1990s as part of a voluntary, facility-wide corrective action program to address impacts associated with several waste management units. Remedial efforts to address a chlorinated solvent plume beneath and emanating from the Airdock property groundwater began in 1993 with the installation of a groundwater pump-and-treat remediation system. The facility-wide remediation system continued to operate until May 2006. In situ bioremediation and zero valent iron injections were used to treat the source zone at Identified Area 9 in 2005. Prior to treatment, the concentration of trichloroethene (TCE) in groundwater at Identified Area 9 was 1,600 micrograms per liter ($\mu\text{g/L}$) (March 2005). TCE concentrations were reduced to non-detect levels within six months of treatment.

In addition to active remediation, regular groundwater monitoring has been conducted for VOCs, providing an ample dataset from which plume trends and migration patterns can be identified. On-property monitoring points include two Upper Sharon bedrock wells, seven alluvial wells, and two former alluvial extraction wells. Off-property monitoring points include nine alluvial wells, five Upper Sharon bedrock wells, one Lower Sharon bedrock well, one former alluvial extraction well and one former Upper Sharon bedrock extraction well. The current groundwater plume emanating from the Airdock is characterized by TCE and associated breakdown products cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride. Based on groundwater sampling and analysis conducted in June 2008, concentrations of TCE in the plume range from 1.1 microgram per liter ($\mu\text{g/L}$) (P-3, alluvial well) to 160 $\mu\text{g/L}$ (A-102, Upper Sharon bedrock well). Cis-1,2-DCE concentrations range from 28 $\mu\text{g/L}$ (A-112, Upper Sharon bedrock well) to 740 $\mu\text{g/L}$ (A-3, alluvial well). Vinyl chloride concentrations range from 1.7 $\mu\text{g/L}$ (A-5, alluvial well) to 50 $\mu\text{g/L}$ (A-8, alluvial well).

Concentrations of VOCs exceed unrestricted potable use standards in both the alluvial zone and bedrock zone, therefore, in accordance with OAC 3745-300-10, groundwater classification was performed for two saturated zones: 1) alluvium, from the water table at about 8 feet below ground surface (bgs) to a depth about 25 feet bgs and 2) Upper Sharon bedrock aquifer, from about 25 feet bgs to 80 feet bgs. Both saturated zones are Class A groundwater.

Sampling and analysis for VOCs conducted in 2008 of a deeper saturated zone, the Lower Sharon bedrock aquifer, meets unrestricted potable use standards. The provisions to maintain protection of groundwater meeting unrestricted potable use standards are addressed through the empirical results of sampling the Lower Sharon bedrock aquifer in 2008, combined with the 60 feet separation distance between the Upper and Lower Sharon zones.

2.2.3 Surface Water and Sediments Investigations and Findings

There are no surface water bodies or sediments at or near the property and therefore, no sampling was conducted of these media. Modeling was conducted in the property-specific risk assessment to evaluate the potential migration of soil containing post-remediated PCBs to off-property receptors through the storm sewer system. Stormwater characterization sampling for PCBs is being implemented through a sampling and analysis program, which is part of the O&M Plan (Volume 5).

2.2.4 Exposure Pathway Assessment

The Phase II property assessment included a pathway completeness evaluation in accordance with OAC 3745-300-07(D)(2). Both human and non-human (ecological) pathways were evaluated.

Human Exposure Pathways

The Akron Airdock is currently being used for airship manufacturing and related activities that are consistent with industrial use. Future use of the property is reasonably anticipated to remain industrial. Therefore, the residential and commercial land use categories were considered incomplete exposure pathways.

A municipal water system serves the property and surrounding area through the City of Akron. There are no known potable or industrial groundwater users at the property or within a 0.5 mile of the property. There are no known public water systems within a mile of the property. The northern three-fourths of the property is within an urban setting designation (Akron East USD Extension). Therefore, potable groundwater use was considered an incomplete exposure pathway.

Non-potable use groundwater pathways that were considered to be potentially complete were: groundwater to indoor air (vapor intrusion), groundwater to excavation trench (construction activity), and groundwater to storm sewer infiltration.

Human exposures in and near the Airdock are expected to occur almost exclusively as a result of work-related activities. Receptors are expected to include industrial workers employed at industrial operations located in the Airdock and construction/excavation workers hired as needed to perform invasive activities in the subsurface such as utility installation and repair.

The property-specific risk assessment addressed Identified Areas with soil sampling data exceeding generic numerical standards or with pathways for which generic numerical standards are not available.

The following human exposure pathways were identified as potentially complete at the property and evaluated in the property-specific risk assessment:

1. Incidental ingestion, direct contact, and inhalation of fugitive dusts from surface soil (industrial workers are expected to be exposed to surface soil only outside the Airdock).
2. Incidental ingestion and direct contact with subsurface soil (construction/excavation workers only).
3. Direct contact and inhalation of VOCs from groundwater in a construction trench (construction/excavation workers only).
4. Inhalation of indoor air (industrial workers on-property and potential commercial receptors off-property).

Residential receptors are not reasonably anticipated at or adjoining the Property because of the following factors:

- The property will be subject to industrial use limitations under the proposed environmental covenant;
- The property and surrounding properties are within an established industrial zoned area; and
- City of Akron Airport maintains restricted access on the adjoining airfield and does not anticipate redeveloping the airport for other use.

Ecological Exposure Pathways

Because of the established industrial nature of the property, airport, and surrounding properties, no important ecological receptors are known or reasonably anticipated to be present or adversely affected by releases from COCs at the property. The emanation and migration of PCBs associated with RPM from the Airdock to off-property locations (for example, Haley's Ditch) is inferred to be the result of historic weathering of the RPM that occurred prior to remediation. As described in Section 2.5, substantial

remedial actions were conducted to eliminate the off-property migration of PCBs in soil associated with the weathered RPM material. The property-specific risk assessment included a transport model to evaluate the potential off-property migration of PCBs in stormwater. In addition, a stormwater sampling and analysis plan is being implemented to further evaluate potential off-property migration via run-off of residual PCBs in soil from areas adjacent to the Airdock (Volume 5, O&M Plan).

2.3 DETERMINATION OF APPLICABLE STANDARDS

Applicable standards for COCs at the property were determined as a combination of generic numerical standards determined in accordance with OAC 3745-300-08 and property-specific standards developed in accordance with OAC 3745-300-09. As noted in OAC 3745-300-09(B)(4), because PCBs were identified at the property, cleanup under VAP was conducted in tandem with TSCA. In some areas of the property, this required coordination in meeting risk goals for the property (for example, in remediating soil in the Southeast Area), and in other areas of the property (for example, interior Airdock surfaces), the §761.61(c) standards served as de facto VAP applicable standards.

The property-specific risk assessment developed applicable standards for industrial land use in accordance with OAC 3745-300-09(C)(1)(b). This required meeting cumulative carcinogenic target risk levels of 1E-04 and 1E-05 for industrial and construction/excavation workers, respectively. For COCs that have noncarcinogenic effects, the cumulative health hazard target is a hazard index (HI) equal or less than 1.

In addition, the Phase II and property-specific risk assessment evaluated adjoining properties for COCs from past releases associated from the property such as the chlorinated VOC plume and PCBs in surface soil. The risk assessment evaluated reasonably anticipated exposure pathways and receptor populations of meeting a target risk goal of 1E-05 upon completion of the voluntary actions.

Applicable standards for potable groundwater use were the generic numerical standards in OAC 3745-300-08(C). These standards for COCs detected at the property are listed in Table ES-1.

Soil data with COCs from each identified area was initially compared to generic numerical standards in OAC 3745-300-08(B) for the commercial/industrial land use category and construction or excavation activities. These standards for COCs detected at the property are listed in Table ES-2. Representative concentrations of COCs (based upon maximum detections within each identified area, except where noted) and multiple chemical adjustments (MCA), where appropriate, were calculated in accordance with 3745-300-08 for cancer risk and non-cancer risk ratios, respectively. Off-property soil data were compared to the VAP generic direct contract numerical standard for PCBs of 1.1 mg/kg. The property-

specific risk assessment evaluated the same COC list as the initial screening, including PCBs in on-property soil.

2.4 DETERMINATION OF COMPLIANCE WITH APPLICABLE STANDARDS

2.4.1 Data Analysis

Based upon the sampling data evaluated in the Phase II, groundwater at the property boundary exceeds unrestricted potable use standards in the alluvial and Upper Sharon bedrock aquifers. June 2008 groundwater sampling results with VOCs above applicable standards at wells on or near the property boundary are:

Well ID	Well Depth (feet bgs)	TCE (µg/L)	Cis-1,2-DCE (µg/L)	VC (µg/L)
Unrestricted Potable Use Standard (µg/L)		5	70	2
A-1	31	<1	120	14
A-3	20	66	740	14
A-4	25	2.4	180	3
P-1	24	100	54	<1
P-3	24	1.1	270	4.6
P-4	23	<1	430	24
A-102	44	160	130	<10

The groundwater table is deeper than 8 feet bgs and no supply wells are used on the Property, therefore, industrial workers are not anticipated to be exposed to groundwater. The property-specific risk assessment evaluated the indoor air exposure pathway for industrial workers under existing and future scenarios to account for possible changes in the building configuration. This evaluation indicates that the risks and hazards of potential vapor intrusion from the underlying VOC groundwater plume meet applicable standards.

Industrial or commercial workers at adjacent properties are also potential receptors from exposure to PCB-impacted surface soil or potential vapor intrusion from VOCs in the groundwater plume. The property-specific risk assessment and Phase II data indicate that concentrations of PCBs in off-property soil meet applicable standards. Modeling performed in the property-specific risk assessment indicates the potential vapor intrusion pathway to off-property industrial and commercial receptors also meets applicable standards.

The Property and surrounding properties are supplied with municipal water through the City of Akron. There are no known or reasonably anticipated potable or industrial use groundwater receptors on- or off-property. The Director of Ohio EPA approved the Akron East Extension USD on February 24, 2009, the

extent of which covers the majority of the property, including the entire area of the known groundwater plume.

The lateral point of compliance for non-potable use groundwater is the airport property to the north and the adjacent industrial property. The property-specific risk assessment evaluated the potential indoor air pathway and excavation worker scenarios (potential to contact groundwater in a trench) using current groundwater data. The results of the analysis demonstrate that applicable standards are met for these off-property non-potable use groundwater pathways.

The vertical point of compliance for groundwater is the contact between the Lower Sharon and Cuyahoga Formation, located at approximately 140 feet beneath the property. 2008 Monitoring results at well A-113 in 2008 indicate that groundwater meets UPUS at the Lower Sharon aquifer and therefore, the deeper Cuyahoga Formation is also interpreted to meet UPUS.

2.4.2 Compliance with Generic Numerical Standards

Identified Area 1: Former USTs at Northeast Corner of Plant A

The COCs detected in soil samples from Identified Area 1 to a depth of 12 feet bgs were below generic direct contact soil standards for commercial/industrial use and construction or excavation activities.

Identified Area 2: Former USTs at Motor Run-In

The COCs detected in soil samples from Identified Area 2 to a depth of 10 feet bgs were below generic direct contact soil standards for commercial/industrial use and construction or excavation activities. The COCs in the Phase II samples were also below BUSTR action levels.

Identified Area 3: Former RCRA Drummed Waste Storage

The COCs detected in soil samples from Identified Area 3 to a depth of 10 feet bgs were below generic direct contact soil standards for commercial/industrial use and construction or excavation activities.

Identified Area 4: Former Waste Oil Storage/Former Bondolite Process Area

The COCs detected in soil samples from Identified Area 4 to a depth of 8 feet bgs were below generic direct contact soil standards for commercial/industrial use and construction or excavation activities.

Identified Area 5: Former RCRA Drummed Cyanide Waste Storage Area

The COCs detected in soil samples from Identified Area 5 to a depth of 10 feet bgs were below generic direct contact soil standards for commercial/industrial use and construction or excavation activities.

Identified Area 6: Acid/Alkali Storage in Building #113

The COCs detected in soil samples from Identified Area 6 to a depth of 5 feet bgs were below generic direct contact soil standards for commercial/industrial use and construction or excavation activities.

Identified Area 7: Flammable Liquid Storage in Building #116

The COCs detected in soil samples from Identified Area 7 to a depth of 8 feet bgs were below generic direct contact soil standards for commercial/industrial use and construction or excavation activities.

Identified Area 8: Coolant Sump in Northwest Corner of Airdock

The COCs detected in soil samples from Identified Area 8 to a depth of 10 feet bgs were below generic direct contact soil standards for commercial/industrial use and construction or excavation activities.

Identified Area 9: Former Plate Shop and Degreaser

One COC, cadmium, was reported in soil at concentrations up to 5,380 mg/kg (NB-20, 0-2 feet bgs), which exceeds the generic direct contact soil standard for commercial/industrial use of 770 mg/kg and the construction or excavation activities generic direct contact soil standard for cadmium of 420 mg/kg. The remaining COCs detected in soil samples from Identified Area 9 to a depth of 10 feet bgs were below generic direct contact soil standards for commercial/industrial use and construction or excavation activities.

Identified Area 10: Press Shop

COCs detected in soil samples from Identified Area 10 to a depth of 6 feet bgs were below generic direct contact soil standards for commercial/industrial use and construction or excavation activities or property-specific risk-derived standards.

Identified Area 11: Open Area at North End of Airdock

COCs detected in soil samples from Identified Area 11 to a depth of 2 feet bgs were below generic direct contact soil standards for commercial/industrial use and construction or excavation activities.

Identified Area 12: X-Ray Lab

COCs detected in a soil sample from Identified Area 12 to a depth of 1 foot bgs was below generic direct contact soil standards for commercial/industrial use and construction or excavation activities.

Identified Area 13: Airdock Roofing and Siding and PCB-Impacted Areas

Remediation consisted of the removal and off-site disposal of soil containing total PCBs at concentrations greater than 16 mg/kg under VAP and greater than 25 mg/kg under TSCA. The following post-remediation PCB data for each sub-area meets applicable risk and hazard standards determined in the property-specific risk assessment.

Southeast Area

Following remediation, and based on the Phase II sampling data, the representative concentration of PCBs in soil to a depth of 2 feet bgs at the Southeast Area is 5.75 mg/kg.

On-Property (Non-IA-Specific) Area

Following remediation, and based on the Phase II sampling data, the representative concentration of PCBs in soil to a depth of 2 feet bgs at the On-Property (Non-IA-Specific) Area is 2.1 mg/kg.

Off-Property (West) Area

PCBs were not detected above the analytical reporting limit in four sub pavement soil samples collected at a depth of 0.5 foot bgs.

Off-Property (North) Area

Based on the Phase II sampling data, the representative concentration of PCBs in soil to a depth of 0.5 foot bgs at the Off-Property (North) Area is 0.38 mg/kg.

Off-Property (South) Area

Based on the Phase II sampling data, the representative concentration of PCBs in soil to a depth of 2 feet bgs at the Off-Property (South) Area is 0.91 mg/kg.

2.4.3 Property-Specific Risk Assessment Findings

The property-specific risk assessment was completed in a manner consistent with the procedures specified in OAC 3745-300-09. In the future the Airdock will be used for aerospace manufacturing. Consistent with a future industrial land use, the risk assessment evaluated potential exposures to two groups of receptor: industrial workers and construction/excavation workers. The risk assessment included evaluation of potential location-specific exposures, risks, and hazards at the following areas:

- Identified Area 1
- Combined Identified Area 4

- Identified Area 9
- Identified Area 11
- Southeast Area
- On-Property (non-IA-specific)
- Off-Property (North)
- Off-Property (South)
- Off-Property (East)
- Off-Property (West).

The property-specific risk assessment evaluated the potential indoor air pathway in portions of the Airdock that overlie the chlorinated VOC plume, a pathway for which there are no generic standards (OAC 3745-300-09(B)(2)(a)). The mandatory requirement to conduct a property-specific risk assessment when important ecological resources or sediments are impacted by hazardous substances (OAC 3745-300-09(B)(2)(d)) was addressed by an evaluation of the maximum estimated concentration of PCBs in stormwater resulting from off-property migration via run-off of PCB-remediated soil from unpaved areas adjacent to the Airdock.

All chemicals that were positively detected in at least one sample from a medium (soil and groundwater) including chemicals with no qualifiers and chemicals with data qualifiers indicating known identities but uncertain concentrations (for example, J-qualified data) were retained as COCs for that medium. The risk assessment evaluated 53 total COCs in soil and 29 total COCs in groundwater.

Risks and hazards were evaluated separately for industrial and construction/excavation workers and off-property residents (semi quantitatively). These results are summarized below.

Industrial Workers

Based on the intended future industrial use of the Airdock (to support manufacturing and testing for the aerospace and defense sectors), risks and hazards calculated for industrial workers were compared to a target cumulative risk of 1E-04 and a target cumulative hazard of 1, respectively (OAC 3745-300-09 (C) (b) (i)). The additional requirement to evaluate the post-remediation cumulative cancer risk to potential off-property property receptors, attributable to COCs was demonstrated by (1) a qualitative evaluation of potential future residential exposure and (2) a Haley's Ditch sediment and water quality evaluation.

Risks

First, total area-specific risks were calculated. The following results were identified:

- Total identified area-specific risks for Combined Identified Area 4 (3E-07), Identified Area 11 (4E-09), and Off-Property (West) are less than 1E-06 and are considered insignificant.
- Total identified area-specific risks for Identified Area 9 (3E-05), Identified Area 9 under the alternative building dimensions (ALT) scenario (8E-05), the Southeast Area (8E-06), On-Property (non-IA-specific) area (3E-06), Off-Property (North) (6E-06), and Off-Property (South) (1E-06) equal or exceed 1E-06 but are less than 1E-04

However, industrial workers may be exposed both inside the Airdock (at their specific work station [e.g., Combined Identified Area 4, Identified Area 9, or Identified Area 11]) and outside the Airdock (on-property [non-IA-specific] and off-property). Therefore, the identified area-specific risks for Identified Areas 4, 9, and 11 were each summed with the total risks for the Southeast Area. The following overall total risks were identified:

- The overall total risks at Combined Identified Area 4 (8E-06), Identified Area 9 (3E-05), Identified Area 9 under the ALT scenario (8E-05), and Identified Area 11 (8E-06) exceed 1E-06 but are less than the cumulative target risk of 1E-04.

Hazards

Second, total area-specific hazards were calculated. The following results were identified:

- Total identified area-specific HIs for Combined Identified Area 4 (5E-03), Identified Area 9 (9E-02), Identified Area 9 under the ALT scenario (3E-01), Identified Area 11 (1E-05), Southeast Area (5E-01), On-Property (non-IA-specific) (2E-01), Off-Property (North) (3E-01), Off-Property (South) (8E-02), and Off-Property (West) locations are less than 1 and are considered insignificant.

However, industrial workers may be exposed both inside the Airdock (at their specific work station [e.g., Combined Identified Area 4, Identified Area 9, or Identified Area 11]) and outside the Airdock (on-property [non-IA-specific] and off-property locations). Therefore, the identified area-specific HIs for identified areas 4, 9, and 11 were each summed with the total HIs for the Southeast Area. The following overall total HIs were identified:

- The overall total HIs at Combined Identified Area 4 (5E-01), Identified Area 9 (6E-01), Identified Area 9 under the ALT scenario (8E-01), and Identified Area 11 (5E-01) are less than the cumulative target hazard of 1.

Construction/Excavation Workers

Based on the intended future industrial use of the Airdock (to support manufacturing and testing for the aerospace and defense sectors), risks and hazards calculated for construction/excavation workers were compared to a target cumulative risk of 1E-05 and a target cumulative hazard of 1 (OAC 3745-300-09).

Risks

First, total area-specific risks were calculated. The following results were identified:

- Total risk for Combined Identified Area 4 (1E-06), Identified Area 11 (7E-07), Off-Property (South) (1E-07), and Off-Property (West) are less than or equal to 1E-06 and are considered insignificant.
- Total risks for Identified Area 9 (4E-06), Southeast Area (2E-06), On-Property (non-IA-specific) (1E-05), Off-Property (North) (1E-05), and Off-Property (East) (1E-05) exceed 1E-06, but are less than or equal to the target cumulative risk of 1E-05.
- Total risk for Identified Area 1 (2E-05) exceeds the target cumulative risk of 1E-05.

Hazards

Second, total area-specific hazards were calculated. The following results were identified:

- Total HIs for the Combined Identified Area 4 (2E-01), Identified Area 11 (7E-02), Southeast Area (9E-01), On-Property (non-IA-specific) area (1E+00), Off-Property (North) (2E-01), Off-Property (South) (7E-02), Off-Property (East) (6E-01), and Off-Property (West) are less than or equal to 1 and are considered insignificant.
- Total HIs for Identified Area 1 (14) and Identified Area 9 (4), exceed the cumulative target hazard of 1.

Hypothetical Off-Property Residents

Potential risks and hazards for hypothetical off-property residents were compared to a target cumulative risk of 1E-05 and a target cumulative hazard of 1 (OAC 3745-300-09).

- The average concentrations of PCBs in off-property surface soil are less than the residential generic numerical standard value of 1.1 mg/kg. Therefore, risks and hazards associated with potential exposure to PCBs in surface soil are considered insignificant.
- Consistent with the Akron East USD Extension and a proposed on-property use restriction, groundwater is not used for potable purposes. Also, potential residential development of land downgradient of the Airdock, but within the Airport property is prohibited both currently and in the foreseeable future because of the presence of airport runways. Therefore, the risk assessment did not evaluate potential residential groundwater exposure.

Cumulative risks and hazards across the property were evaluated separately for industrial and construction/excavation workers. The results of the risk assessment are summarized below.

- Risks and hazards associated with the Combined Identified Area 4, Identified Area 11, Southeast Area, on-property (non-IA-specific), Off-Property (North), Off-Property (South), Off-Property (East), and Off-Property (West) locations are less than receptor-specific target cumulative risks and hazards. Therefore, remediation at these identified areas is not required.

- Risks and hazards at Identified Area 1 exceed the target cumulative risk and hazard for construction/excavation workers. These risks and hazards are driven by potential exposure to benzene in construction trench air (Note: the benzene groundwater concentration, 210 µg/L, used in the calculations is associated with monitoring well NW-4; the concentrations of benzene in other monitoring wells at Identified Area 1 are significantly lower).
- Hazards at Identified Area 9 exceed the target cumulative hazard for construction/excavation workers. The hazard for construction/excavation workers is driven by incidental ingestion of and dermal contact with cadmium in subsurface soil.

2.4.4 Determination of Whether Remedial Activities are Required

The property-specific risk assessment and Phase II property assessment, based upon post-remedial soil and groundwater data, indicate that concentrations of COCs in environmental media meet applicable standards across the property with the following exceptions:

- Risks and hazards at Identified Area 1 exceed the target cumulative risk and hazard for construction/excavation workers. These risks and hazards are driven by potential exposure to benzene in construction trench air.
- Hazards at Identified Area 9 exceed the target cumulative hazard for construction/excavation workers. The hazard for construction/excavation workers is driven by incidental ingestion of and dermal contact with cadmium in subsurface soil.
- Concentrations of cadmium at Identified Area 9 also exceed the generic direct contact soil standard for commercial/industrial land use of 770 mg/kg.

Portions of the property with PCBs in soil exceeded the target cleanup levels of 16 and 25 mg/kg, and therefore these areas were remediated in 2008 as described in the following section.

Groundwater exceeds unrestricted potable use standards at and emanating from the property; therefore, limitations will be put in place through an environmental covenant. A USD is in place to prevent exposure to off-property groundwater emanating from the property that exceeds unrestricted potable use standards.

2.5 REMEDIAL ACTIVITIES

The following remedial activities were implemented to comply with applicable standards.

2.5.1 Airdock

Cleanup of the Airdock property was conducted pursuant to the VAP, a CAFO, several risk-based approvals granted by U.S. EPA under §761.61(c), and voluntary actions. Beginning in 2003, interim measures to prevent further release and migration of the non-liquid PCB Aroclor 1268 to the environment were effected by removing debris from the gutters and catch basins, vacuuming the paved surfaces surrounding the Airdock, and installing filter fabric in the storm drainage system. These interim

measures were taken while the necessary approvals were obtained under TSCA to clean up the interior and exterior under §761.61(c).

The permanent remedial approach at the Airdock centered on: (1) source control to prevent releases of Aroclor 1268 from the roof and siding material and to prevent further movement of PCBs on the grounds, and (2) cleanup of Aroclor 1268 from the stormwater conveyance and discharge systems, primarily through the removal of sediment and debris in the storm sewer system.

Detailed descriptions of the permanent remedial activities were reported to U.S. EPA Region 5 and Ohio EPA in various approval requests, work plans, and progress reports. A list of the primary remediation work plans and reports is included in the Phase II Property Assessment report (Volume 3 of the NFA Letter).

As of December 2008, Lockheed Martin has completed source control and remedial actions at the Airdock, and provided U.S. EPA and Ohio EPA with reports and updates of these source management efforts. These activities have included:

- Installing a rubber membrane over the roof (RPM) of the Airdock structure;
- Replacing rain gutters to control storm flow from the roof of the Airdock;
- Installing and maintaining filter fabric over all storm drain surface openings around the Airdock to capture solid particles until all Airdock remediation was completed;
- Replacing the vertical (RPM) siding with aluminum siding;
- Remediating the interior of the Airdock;
- Cleaning the contents and floor of the Airdock;
- Removing PCB-containing soil located adjacent to the Airdock;
- Removing debris from the pavement around the Airdock to remove residual RPM; and,
- Removing debris from that portion of the storm sewer system located on the property to the property boundary; and,
- Removing debris from the storm sewer at the Airdock property boundary to Triplett Boulevard (this segment was not under the VAP).

Debris removal from those portions of the sewer system located both on and off the property was conducted under §761.61. Together these remedial activities are expected to mitigate the future release of Aroclor 1268 from the Airdock facility to the environment. Copies of remediation completion reports for the Airdock interior, exterior soil, exterior pavement, and exterior storm sewers are contained in Volume 5 of the NFA Letter.

2.5.2 Soil Remediation

Based on the results of various Phase II soil sampling rounds, the Southeast Area was remediated by removing soil containing greater than 25 mg/kg total PCBs. The dimensions of the Southeast Area soil excavation measured approximately 225 feet long, up to 25 feet wide, and 0.5 feet deep, except for the vicinity of one sample location, which was excavated to a depth of 4.5 feet.

A small excavation area, SC8, was remediated on the northwestern section of the Airdock parcel. PCBs in soil greater than 25 mg/kg were removed from this location in the upper 2 feet of soil beneath pavement.

Soil and debris from these two areas was transported and disposed as TSCA-regulated waste at Wayne Disposal, Inc. Site 2 Landfill in Belleville, Michigan. The amount of waste disposed at a TSCA facility was 301 tons.

Soil excavation, backfilling, and site restoration activities were conducted in June 2008. Confirmatory soil samples were collected during excavation to verify that the impacted soil was removed.

2.5.3 Pavement Remediation

Solid particle debris on pavement surfaces was remediated during spring 2008. A systematic debris removal system was applied over grids covering the property. Technologies included a compressed air and vacuum system to remove debris from cracks and construction joints, scraping up poorly-adhered asphalt with a skid steer, and using a hand-lance vacuum to remove loose surface debris. The amount of waste disposed at a TSCA facility was 286 tons.

2.5.4 Storm Sewer Debris Removal

Accumulated sediment and debris was removed from the storm sewer system on and off-property in the fourth quarter of 2008. Four main areas of the storm system were remediated. These areas included:

1. A section of Plant A West (PAW-48") extending north from an unidentified manhole located 59 feet south of MH PAW-2 on the south end to the PAW-48" connection with the Airport East West storm drain line.
2. A section of PAW-24"-30" extending north from MH PAW-1 to where PAW-24"-30" connects to the Airport East West storm drain line.
3. A section of Plant A East (PAE-24"-30") extending north from MH PAE-1 on the south end to where PAE-24"-30" connects to the Airport East West storm drain line.
4. The Airport East West Storm Drain extending west from MH PAE-7 to a manhole at Triplett Boulevard (this segment is off the VAP property).

In addition to these pipe sections, sediment and debris was removed from associated manholes and catch basins. Remediation was performed by utilizing a hydraulic pressure washing method in conjunction with a vacuum system. Solids were disposed of as TSCA waste. A post-remediation camera survey documented the condition of each line following sediment removal.

2.5.5 Groundwater

Active remedies to mitigate the chlorinated VOC plume emanating from the property included a pump and treat system that operated from 1993 to 2006 and in situ bioremediation and zero valent iron injections at Identified Area 9. Long-term monitoring conducted at and surrounding the property demonstrates that the extent of the chlorinated VOC plume is stable, and the plume core is shrinking.

Remediation since 2005 reduced the levels of chlorinated VOCs below risk and hazard goals for non-potable use exposure pathways, for both on- and off-property receptors (indoor air for industrial use [on-property] or commercial use [off-property]), and construction and excavation activities.

Despite improved water quality, levels of three VOCs exceed unrestricted potable use standards. Therefore, a remedy is required to prevent potable use on-property. These same VOCs are emanating onto the airport from the property and therefore, control of the off-property potable use pathway is also required. The Akron East USD Extension is in place to render the off-property potable use pathway incomplete.

2.6 PLANNED REMEDIES

The Volunteers plan to implement the following remedies in order to ensure compliance with applicable standards for the property in the future.

An O&M Plan addressing ongoing (with respect to engineering controls) and planned remedies (with respect to risk mitigation measures), will be implemented through an Operation and Maintenance Agreement (O&M Agreement). Lockheed Martin is responsible for implementing O&M activities at the property.

An environmental covenant will be executed with respect to activity and use limitations. Upon execution, the environmental covenant will be recorded with the Summit County Office of Recorder.

2.6.1 Limitation for Industrial Land Use

The Property will be limited to industrial land use only, as defined in OAC 3745-300-08(B)(2)(c)(iii). This use limitation has been drafted in an environmental covenant, which the Volunteers plan to execute upon approval of the NFA Letter by Ohio EPA. Based upon the information reviewed during the Phase II Property Assessment, the property meets applicable standards for industrial use because of existing

engineering and institutional controls, including the secure nature of the property, and access limitations imposed by the CAFO.

2.6.2 Groundwater Use Limitation

A limitation will be imposed against extracting groundwater located in, on, or underlying the Property to prevent potable use. This activity limitation has been drafted in an environmental covenant, which the Volunteers plan to execute upon approval of the NFA Letter by Ohio EPA. Based upon the information reviewed during the Phase II Property Assessment, groundwater is not currently being used for potable or industrial supply purposes. The remedy does not require future groundwater remediation or monitoring activities.

2.6.3 Urban Setting Designation

A USD is in place to ensure that potential off-property receptors will not be exposed to groundwater emanating from the property that exceeds unrestricted potable use standards. Based upon the information reviewed during the Phase II Property Assessment, groundwater is not currently being used for potable supplies at adjoining properties. Ohio EPA approved the Akron East Extension USD, which extends 500 feet beyond the known boundaries of the plume, on February 24, 2009. The USD is protective of the potable use pathway because conditions are unchanged since the USD was verified through the approval process.

2.6.4 Engineering Control at Identified Area 9

Maintenance of an engineering control at Identified Area 9 will be established through an O&M Plan, which will be implemented through an O&M Agreement. A proposed O&M Plan was developed as part of the NFA Letter (Volume 5). The volunteers expect to finalize and implement the O&M Plan by the end of second quarter 2009. The O&M Plan is required at Identified Area 9 to protect industrial workers from exposure to cadmium in soil beneath the existing floor slab.

Based upon the information reviewed during the Phase II Property Assessment, the property meets applicable standards for industrial use because of existing engineering and institutional controls, including the secure nature of the property, and access limitations imposed by the CAFO.

2.6.5 Engineering Control for Stormwater

Stormwater monitoring for PCBs associated with the Airdock roofing and siding material is being implemented in accordance with a Stormwater Sampling & Analysis Plan as an engineering control as required under OAC 3745-300-15(A)(3)(a)). Stormwater monitoring will continue through an O&M Plan, which will be implemented through an O&M Agreement. A proposed O&M Plan was developed as

part of the NFA Letter (Volume 5). The volunteers expect to finalize and implement the O&M Plan by the end of second quarter 2009.

Stormwater monitoring is required to confirm the modeling results of the soil runoff to surface water pathway analysis performed in the property-specific risk assessment (Volume 4). The modeling exercise and stormwater monitoring programs are parts of an overall weight-of-evidence approach to evaluate the pathway to off-property receptors at the point of exposure, assumed at Haley's Ditch. The point of compliance for stormwater leaving the property is the northern property boundary.

Based upon the information reviewed during the Phase II Property Assessment, the property meets applicable standards for stormwater because of the extensive degree of source remediation that has occurred, existing engineering controls and best management practices that were employed, modeling results, and interim monitoring results.

2.6.6 Risk Mitigation Plan at Identified Area 1

Risk mitigation measures will be established at Identified Area 1 through a risk mitigation plan (RMP), which will be implemented through an O&M Agreement. An RMP is attached to the proposed O&M Plan, which was developed as part of the NFA Letter (Volume 5). The Volunteers expect to finalize and implement the risk mitigation plan and O&M Plan by the end of second quarter 2009. The risk mitigation plan is required at Identified Area 1 to inform construction and excavation workers involved with certain subsurface activities of the presence of COCs in soil and groundwater. Consequently, the risk mitigation plan informs construction and excavation workers 1) to develop a site-specific health and safety plan to address the presence of the COCs, and 2) manage soil and groundwater from the area appropriately.

Based upon the information reviewed during the Phase II Property Assessment, the property meets applicable standards at Identified Area 1 for construction and excavation activities because of existing institutional controls imposed by Lockheed Martin's Facilities and Environment, Safety & Health departments.

2.6.7 Risk Mitigation Plan at Identified Area 9

Risk mitigation measures will be established at Identified Area 9 through an RMP, which will be implemented through an O&M Agreement. An RMP is attached to the proposed O&M Plan, which was developed as part of the NFA Letter (Volume 5). The Volunteers expect to finalize and implement the RMP and O&M Plan by the end of second quarter 2009. The RMP is required at Identified Area 9 to inform construction and excavation workers involved with certain subsurface activities of the presence of COCs in soil. Consequently, the RMP informs construction and excavation workers 1) to develop a site-

specific health and safety plan to address the presence of the COCs, and 2) manage soil from the area appropriately.

Based upon the information reviewed during the Phase II Property Assessment, the property meets applicable standards at Identified Area 9 for construction and excavation activities because of existing institutional controls imposed by Lockheed Martin's Facilities and Environment, Safety & Health departments.

3.0 CONCLUSIONS

The NFA Letter prepared for the Akron Airdock, 1210 Massillon Road, Summit County, Akron, Ohio, defined by the attached legal description, demonstrates that the voluntary actions implemented at the 19.1837-acre property, together with the voluntary actions that are planned for implementation through an O&M Plan, will meet applicable standards. In combination, the voluntary action remedy is protective of public health and safety and the environment.

The applicable points of compliance for environmental media across the property based on existing ground surfaces are:

- Soil, under industrial use: from ground surface to a minimum depth of 2 feet across the Property, with the exception of IA 12 (point of compliance 1 foot bgs).
- Soil, under construction and excavation activities: from ground surface to depths ranging from 2 feet to 12 feet.
- Groundwater at, beneath, and emanating from the property in the following saturated zones: alluvial aquifer, Upper Sharon bedrock aquifer, Lower Sharon bedrock aquifer, and Cuyahoga Formation. The vertical point of compliance for groundwater is from 8 feet bgs to the contact between the Upper and Lower Sharon bedrock aquifer, located at approximately 80 feet beneath the property. 2008 monitoring results at well A-113 indicate that groundwater meets unrestricted potable use standards at the Lower Sharon aquifer at a depth of 140 feet bgs, and therefore, the underlying Cuyahoga Formation is also interpreted to meet unrestricted potable use standards.

TABLES

ES-2: VAP APPLICABLE STANDARDS FOR POTABLE USE GROUNDWATER

ES-1: VAP APPLICABLE STANDARDS FOR SOIL

**TABLE ES-1
VAP APPLICABLE STANDARDS FOR POTABLE USE GROUNDWATER
AKRON AIRDOCK**

Chemicals of Concern Detected at the Property	VAP - Generic Unrestricted Potable Use Standards (µg/L) (1)
Volatile Organic Compounds	
1,1,1-Trichloroethane	200 ^(a)
1,1-Dichloroethane	1,400
1,1-Dichloroethene	7 ^(a)
2-Butanone (Methyl Ethyl Ketone)	6,800
Acetone	1,600
Benzene	5 ^(a)
Carbon disulfide	1400
Chlorobenzene	100 ^(a)
Chloromethane	-
cis-1,2-Dichloroethene	70 ^(a)
Ethylbenzene	700 ^(a)
Methylene chloride	5 ^(a)
n-Hexane	560
Toluene	1,000 ^(a)
trans-1,2-Dichloroethene	100 ^(a)
Trichloroethene	5 ^(a)
Vinyl chloride	2 ^(a)
Xylenes (total)	10,000 ^(a)
Semivolatile Organic Compounds	
1,2-Dichlorobenzene	600
1,4-Dichlorobenzene	75
Naphthalene	140
Metals	
Arsenic	50 ^(a)
Beryllium and Compounds	4 ^(a)
Chromium (total)	100 ^(a)
Cobalt	317
Copper	-
Lead	15 (based on action level)
Mercury	2 ^(a)
Nickel (soluble salts)	100 ^(a)
Selenium and Compounds	50 ^(a)
Zinc and Compounds	4,700

Notes:

VAP = Voluntary Action Program.

"-" = Indicates no generic standard available.

(1) = VAP Rule 3745-300-08.

(a) = Based on MCLs.

**TABLE ES-2
VAP APPLICABLE STANDARDS FOR SOIL
AKRON AIRDOCK**

Chemicals of Concern Detected at the Property	VAP - Direct Contact Soil Standards (mg/kg) (1)	
	Commercial / Industrial	Construction
Volatile Organic Compounds		
1,1,1-Trichloroethane	1,400	1,400
1,2,4-Trichlorobenzene	-	-
1,2-Dichlorobenzene	370	370
1,3-Dichlorobenzene	240	240
1,4-Dichlorobenzene	470	5,300
2-Butanone (Methyl Ethyl Ketone)	71,600	80,000
Acetone	100,000	100,000
Benzene	100	310
Carbon disulfide	720	720
cis-1,2-Dichloroethene	1,200	1,200
Ethylbenzene	230	230
Methylene chloride	1,300	2,300
n-Hexane	180	180
Tetrachloroethene	370	370
Toluene	520	520
trans-1,2-Dichloroethene	2,500	2,500
Trichloroethene	380	800
Vinyl Chloride	25	16
Xylenes (total)	160	160
Semivolatile Organic Compounds		
1-Methylnaphthalene	120	120
2-Methylnaphthalene	-	-
Acenaphthene	180,000	530,000
Acenaphthylene	-	-
Anthracene	880,000	1,000,000
Benzo(a)anthracene	63	810
Benzo(a)pyrene	6.3	81
Benzo(b)fluoranthene	63	810
Benzo(ghi) perylene	-	-
Benzo(k)fluoranthene	630	8,100
bis(2-Ethylhexyl) phthalate	230	230
Carbazole	10,000	31,000
Chrysene	6,700	41,000
Dibenzo (a,h) anthracene	6.7	41
Fluoranthene	33,000	170,000
Fluorene	120,000	340,000
Indeno(1,2,3-cd)pyrene	67	410
Isopropylbenzene	860	860
Naphthalene	530	1,900
Phenanthrene	-	-
PCBs	16	25
Pyrene	25,000	130,000

TABLE ES-2 (Continued)

Chemicals of Concern Detected at the Property	VAP - Direct Contact Soil Standards (mg/kg) (1)	
	Commercial / Industrial	Construction
Metals		
Antimony	1,200	340
Arsenic	80	210
Beryllium and Compounds	5,700	600
Cadmium	770	420
Chromium (III)	1,000,000	850,000
Chromium (VI)	8,900	2,000
Cobalt	40,000	660
Copper	-	-
Lead	1,800	1,600
Mercury	300	84
Nickel (soluble salts)	57,000	5,000
Selenium and Compounds	15,000	4,300
Silver	15,000	4,300
Thallium	240	680
Vanadium	27,000	7,700
Zinc and Compounds	900,000	260,000
Total Petroleum Hydrocarbon Range		
C6-C12	1,000	1,000
C10-C20	2,000	2,000
C10-C32	5,000	5,000
C20-C34	5,000	5,000
Other		
Cyanide (free)	60,000	17,000

Notes:

VAP = Voluntary Action Program.

"-" = Indicates no generic standard available.

(1) = VAP Rule 3745-300-08.

ATTACHMENTS

LEGAL DESCRIPTION OF PROPERTY

PROPERTY MAP

PLANT "A"

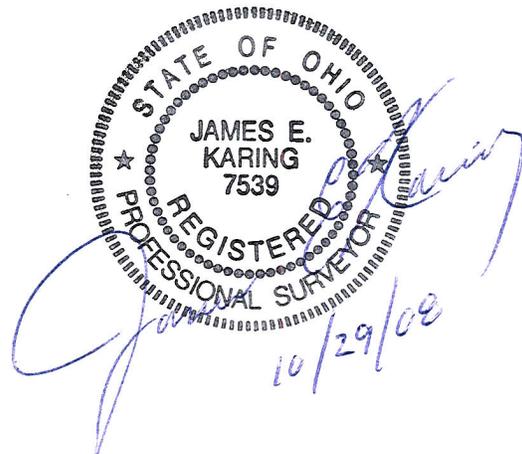
Situated in the City of Akron, County of Summit, State of Ohio, and known as being a part of Original Lot E, Tract 3, formerly Springfield Township, and more fully described as follows:

Commencing at an iron pin set at the intersection of the westerly line of Derby Downs Road (60 feet wide) with the northerly line of Original East Waterloo Road (S.R. 224, 100 feet wide), thence along said westerly right of way line, N 0° 02' 05" E for a distance of 283.92 feet to an iron pin found, thence continuing along said westerly right of way line, N 0° 02' 05" E for a distance of 423.13 feet to a capped iron pin set, said iron in being on the northerly line of Barberton-Springfield Road, vacated by Com. Jury 38-524, Volume 38, Page 524, thence along said northerly line, N 89° 49' 25" W for a distance of 899.48 feet to a capped iron pin set, thence N 0° 05' 54" E for a distance of 1288.00 feet to an iron pin found, thence N 59° 54' 58" W for a distance of 557.73 feet to a capped iron pin set, said pin set being the **TRUE PLACE OF BEGINNING** of the parcel of land hereinafter described, thence clockwise along the following 12 courses and distances:

- 1) Thence S 30° 15' 36" W for a distance of 1463.20 feet to a capped iron pin set;
- 2) Thence N 59° 44' 24" W for a distance of 16.43 feet to a capped iron pin set;
- 3) Thence S 30° 15' 36" W for a distance of 41.29 feet to a capped iron pin set;
- 4) Thence N 59° 44' 24" W for a distance of 495.94 feet to a capped iron pin set;
- 5) Thence N 30° 15' 36" E for a distance of 204.55 feet to a capped iron pin set;
- 6) Thence N 45° 15' 36" E for a distance of 77.27 feet to a capped iron pin set;
- 7) Thence N 30° 15' 36" E for a distance of 249.54 feet to a capped iron pin set;
- 8) Thence N 15° 15' 36" E for a distance of 77.27 feet to a capped iron pin set;
- 9) Thence N 30° 15' 36" E for a distance of 356.47 feet to a capped iron pin set;
- 10) Thence N 59° 44' 24" W for a distance of 133.00 feet to a capped iron pin set;
- 11) Thence N 30° 12' 01" E for a distance of 542.67 feet to a capped iron pin set;
- 12) Thence S 59° 54' 58" E for a distance of 645.94 feet to the true place of beginning and containing 19.1837 acres of land, more or less, and subject to all easements, restrictions and covenants of record as surveyed under the supervision of James E. Karing, Registered Surveyor No. 7539, for GPD Associates in October of 2008.

Basis of Bearing is to and assumed meridian and is used to delineate angles only.

G:\Civil\2007155\00\survey OCT 2008\PLANT A.doc



PROPERTY MAP

PART OF ORIGINAL LOT 3, TRACT 2 AND
 PART OF ORIGINAL LOT E, TRACT 3
 FORMERLY SPRINGFIELD TOWNSHIP T 1 N, R 10 W
 CITY OF AKRON
 COUNTY OF SUMMIT
 STATE OF OHIO



GLAUS PYLE SCHOMER BURNS
 & DEHAVEN, INC.

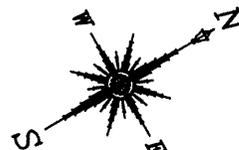
GPD ASSOCIATES

520 South Main Street, Suite 2531 Akron, Ohio 44311
 330-572-2100, Fax 330-572-2101

Job No. 2008000.97 / 2007155.00

BASIS OF BEARING:

BASIS OF BEARING IS TO AN ASSUMED MERIDIAN
 AND IS USED ONLY TO DELINEATE ANGLES.



①	N 41° 02' 00.46"	W 81° 28' 05.91"
②	N 41° 01' 48.06"	W 81° 28' 15.73"
③	N 41° 01' 48.14"	W 81° 28' 15.91"
④	N 41° 01' 47.79"	W 81° 28' 16.19"
⑤	N 41° 01' 50.31"	W 81° 28' 21.74"
⑥	N 41° 01' 52.04"	W 81° 28' 20.37"
⑦	N 41° 01' 52.57"	W 81° 28' 19.64"
⑧	N 41° 01' 54.69"	W 81° 28' 17.97"
⑨	N 41° 01' 55.42"	W 81° 28' 17.69"
⑩	N 41° 01' 58.44"	W 81° 28' 15.30"
⑪	N 41° 01' 59.12"	W 81° 28' 16.79"
⑫	N 41° 02' 03.72"	W 81° 28' 13.16"

L1	N 59° 44' 24" W	16.43'
L2	S 30° 15' 36" W	41.29'
L3	N 30° 15' 36" E	204.55'
L4	N 45° 15' 36" E	77.27'
L5	N 30° 15' 36" E	249.54'
L6	N 15° 15' 36" E	77.27'
L7	N 59° 44' 24" W	133.00'

