



State of Ohio Environmental Protection Agency

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September 30, 2008

VOLUNTARY ACTION PROGRAM  
TECHNICAL ASSISTANCE # 06GR054  
AKRON AIRDOCK  
AKRON, OHIO, SUMMIT CO.

Ms. Jennifer J. Krueger  
URS  
36 East Seventh Street, Suite 2300  
Cincinnati, Ohio 45202

Dear Ms. Krueger:

The Ohio Environmental Protection Agency (Ohio EPA), Voluntary Action Program (VAP), has completed its review of the Draft "Ohio Voluntary Action Program Property-Specific Risk Assessment" for the Akron Airdock property, located in Akron, Ohio, in accordance with Ohio Administrative Code (OAC) 3745-300-07, 08, and 09. As you are aware, Ohio EPA's VAP is also coordinating with Ohio EPA's Division of Surface Water (DSW) to address the storm water emanating from the Airdock property. Please find below the risk assessment comments from Ohio EPA's VAP.

1. Selection of COPCs, Executive Summary (ES-4), Sections 1.2.1, 2.2, and Tables 1-3: It is stated that "Chemicals detected at a maximum concentration exceeding a value of one-tenth its medium-specific Ohio EPA VAP Generic Numerical Standard value for industrial and commercial land use categories were identified as COPCs." Table 1 summarizes results of the 1/10th of the generic direct contact standards "screening level" evaluation. Table 2 summarizes the results of the 1/10th of the generic unrestricted potable use standards "screening level" evaluation. It is not appropriate to use 1/10th of the VAP generic numerical standards as "screening levels" to "screen out" COPCs from further risk evaluation. The selection of COPCs needs to be done in accordance with OAC 3745-300-09(D)(3)(a). The remaining COPCs needed to be retained for the cumulative risk evaluation in accordance with OAC 3745-300-09(D)(2)(d). Tables 1-3 need to be revised accordingly.
2. Combining Identified Areas (IAs) 3, 4, and 5, ES-4, and Section 1.2.1: It is stated that "IAs 3, 4, and 5 were considered together (they are located adjacent to each other) and are collectively referred to as "Combined IA4." In addition to being adjacent to each other, IAs should only be combined if they contain the same COPCs at similar concentrations. It is not appropriate to combine IAs that have different sources and contain different COPCs. Please provide additional justification for combining these IAs or evaluate them separately. The justification provided for combining IA 10 with IA 9 is sufficient based on the COPCs and their concentrations.

3. Concrete Floor Slab, Sections 3.1 and 3.2.2: It is stated that "The floor slab in the Airdock was prepared, and double-coated with a sealer using contrasting colors. This slab prevents the potential exposure to surface and subsurface soil underneath the Airdock by industrial workers." In addition, it is stated in the note on page 29 that "industrial workers are expected to be exposed to surface soil only outside the Airdock." If concentrations of COPCs exceed applicable standards in the soil beneath the concrete floor slab, or the soil has not been evaluated to determine compliance with standards, then the floor slab will need to be maintained as an engineering control in the Operation and Maintenance (O&M) Plan in accordance with OAC 3745-300-15(A)(3).
4. Soil Removal Confirmatory Sampling, Section 2.1.2: Given the removal activities within the soil excavation areas, please remember to provide adequate confirmatory sampling to demonstrate that VAP applicable standards have been met. The maximum or 95% UCL for each VAP identified area must meet the applicable standards in accordance with OAC 3745-300-07, 08, and 09.
5. Surface Water/Storm Water Drainage Pathway, Sections: As stated on page 2, "Runoff from the Airdock property is collected in two 30-inch-diameter storm water sewers that run parallel to the western and eastern lengths of the Airdock, before converging on airport property to the north. The storm sewer eventually discharges to LMC-owned property north of Triplett Boulevard approximately 0.75 mile north of the Airdock (See Figure 1), before discharging to Haley's Ditch." Due to years of weathering and hangar use, the Robertson Protected Metal (RPM), which was coated with a fire retardant substance containing nonliquid PCBs, caused PCB contamination of soil, storm water catch basins, sediment, and the Airdock's interior.

The PCBs released have traveled through the storm sewers and off-property into Haley's Ditch. Based on the concentrations of PCBs detected in the Haley's Ditch sediments, PCBs from the Airdock property have discharged to Haley's Ditch over the years. Given the persistent nature of PCBs and the extent of past releases at the property, PCBs may continue to travel in soil and surface water runoff thru the storm sewer to Haley's Ditch.

While Ohio EPA's VAP recognizes that extensive remedial activities have been completed under the PCB remediation program, Ohio EPA has growing concern about how no surface water or storm water data have been collected to date or reported. Representative data from surface water/storm water remain needed to evaluate the actual PCB concentrations to evaluate the property's compliance with the applicable standards. In accordance with OAC 3745-300-07(D)(1)(e), sampling for PCBs in the surface water/storm water emanating from the property

needs to be conducted to support the issuance of a No Further Action (NFA) Letter for the property. The data is key to determine whether the property meets, or with additional time and remediation will meet, the applicable water quality standards. Based on the sampling results, we can then determine the appropriate measures to be taken to support the NFA Letter's evaluation for compliance with standards.

Based on OAC 3745-300-15(A)(3), an O&M Plan is required for a remedial activity not completed prior to issuance of the NFA Letter, and in which conditions at the property are protective of public health and safety and the environment. The water data will provide critical information to guide the level of additional monitoring or remedial activities needed, and the time frame likely needed to complete the activities in accordance with OAC 3745-300-15(A)(3)(b).

The applicable water quality standards for PCBs in the Lake Erie drainage basin outside mixing zone average is 0.026 ng/L for protection of human health, and 0.120 ng/L for protection of wildlife, pursuant to OAC 3745-1-33, Table 33-2. The water quality evaluation needs to be conducted in accordance with OAC 3745-300-08(E)(2)(a) and (b). OAC 3745-300-08(E)(2)(a) provides that for releases to surface water, applicable standards must be determined in accordance with the water quality standards under federal law and Ohio Revised Code (ORC) Chapter 6111 and rules adopted thereunder. Also, for discharges that are regulated, OAC 3745-300-08(E)(2)(b) provides the regulated point source discharges of pollutants to surface waters of the state that occur from or on the property must comply with all permit and other requirements of federal law, ORC Chapter 6111, and the regulations adopted under the laws. For this property, the discharge has been subject to a general NPDES permit for the storm water, and due to the PCB contamination, may lead to an individual permit. Phil Rhodes, Northeast District Office (NEDO), DSW, addresses this issue in the September 4, 2008 correspondence. The regulatory status of the discharge poses a coordination issue for the VAP, yet does not affect the substantive requirement for standards data. Even if the PCB exposure pathway from the property's water and soil runoff is viewed without regard to the discharge's regulatory status, the property must achieve for the media the applicable water quality standards to support the NFA Letter.

6. Appendix E, "Water Quality and Sediment Loading Evaluation Under Post-Remediation Conditions": Appendix E needs to be modified to only include the sediment loading evaluation. The water quality evaluation needs to be conducted in accordance with OAC 3745-300-08(E)(2)(a) and (b).
7. Vapor Intrusion Assessment in IA 4, IA-9, IA 10, and On and Off Property Ground Water: As stated on page 4, "The current ground water plume emanating from

the Airdock is characterized by trichloroethene and the associated breakdown products cis-1,2-dichloroethene and vinyl chloride." An Urban Setting Designation (USD) request was submitted titled, "Urban Setting Designation Akron East USD Extension, Akron, Ohio." This USD request is for a portion of the airport property and northern two-thirds of the Airdock property and should be approved by Ohio EPA within the next month. As a result of the pending USD request, the use of ground water for potable use purposes will become an incomplete exposure pathway.

However, the vapor intrusion exposure pathway to indoor air both on and off the property remains complete. The Airdock property will be restricted to industrial use through an Environmental Covenant. Although any use restrictions applied to off-site locations cannot be tied to the Airdock NFA Letter, a weight of evidence evaluation can be conducted to demonstrate that the reasonably anticipated future land use off property to the north and northeast within the approximate ground water VOC plume (Figure 4) is commercial and industrial. The weight of evidence demonstration should include the historical and reasonably anticipated land use in this area, including the City of Akron Department of Public Service's October 6, 2006 VAP Support Letter. As a result, the vapor intrusion to indoor air applicable standards for ground water that needs to be met off property can be based on commercial and industrial exposure scenarios, using a conservative building default size as defined in the U.S. EPA Johnson & Ettinger 2004 spreadsheets. Similarly, commercial and industrial workers need to be assessed for the adjacent Plant B property that is also within the VOC plume area. If ground water vapor intrusion to indoor air applicable standards are not met at the time the NFA Letter is submitted, further monitoring and remediation of the COCs volatilizing from ground water will need to be performed under the O&M Plan to document that applicable standards will be met in the future.

8. Specific Comments on Vapor Intrusion Assessment: Figure 7 and Sections 3.2.2 and 3.2.3 need to include the vapor intrusion to indoor air exposure pathway for both on and off property receptors. As all of the Phase II data was not provided in the draft risk assessment, it is uncertain whether the appropriate exposure point concentrations and sampling locations for soil and ground water were used in the vapor intrusion modeling. For example, in IA-9, Table 2 indicates that the maximum detected concentration of vinyl chloride was 883 ug/L (A-8, Goodyear 2006). However, 131 ug/L (Table C-11) was used in the vapor intrusion modeling. The ground water is contaminated with chlorinated VOCs, however, only limited bulk soil data appears to have been collected to delineate the source area. This presents another uncertainty with the vapor intrusion modeling. Based on a previous site visit, the degreaser area may be within a smaller area than that defined by the enclosed floor space width and length dimensions. The sizes of the areas should be confirmed. The Johnson & Ettinger model is a screening

model that needs to be applied conservatively. Additional assessment is generally warranted when the model indicates that risk goals may be exceeded.

The VAP understands that recent additional remediation activities have reduced chlorinated VOC concentrations in the ground water. This data needs to be incorporated into the revised risk assessment for all identified areas where VOCs have been a concern, both on and off the property. Soil gas sampling and/or indoor air monitoring is recommended to more fully define vapor intrusion risks unless adequate data has been obtained to assess the VOC source areas. Soil gas data is preferred to the use of bulk soil data in vapor intrusion modeling in accordance with U.S. EPA vapor intrusion guidance. When there is a building, subslab sampling is preferred. This additional assessment can be performed under the O&M Plan to document that applicable standards will be met in the future.

9. Sections 3.4, 5.4, and Appendix E, "Water Quality and Sediment Loading Evaluation Under Post-Remediation Conditions," Sediment Loading: In accordance with OAC 3745-300-07(D)(1)(g)(iv) and (D)(2), populations on or off the property that are reasonably anticipated to be exposed to chemicals of concern emanating from the property through surface water migration were identified and assessed. Although no sediments are located on the property, the storm water historically provided a transport mechanism for PCBs to migrate to the off property sediments of Haley's Ditch. The carcinogenic risk goal used for industrial receptors on the Airdock property is  $1 \times 10^{-4}$ . In accordance with OAC 3745-300-09(C)(1)(b), a demonstration then needs to be provided that the cumulative cancer risk to off property receptors attributable to the chemicals of concern (i.e., PCBs) is less than  $1 \times 10^{-5}$ .

Appendix E provides a demonstration that any post remediation emanation of PCBs from the property will meet applicable standards (i.e., the  $1 \times 10^{-5}$  cumulative carcinogenic risk goal for off property receptors). Text in Section 3.4 should clarify that the sediment loading evaluation presented in Appendix E is part of a weight of evidence demonstration that any residual PCBs emanating from the property will not result in an exceedance of the cumulative carcinogenic risk goal of  $1 \times 10^{-5}$  to off property receptors. Section 3.4 should provide a complete weight of evidence demonstration that includes the description of the remedial activities that have been completed to significantly mitigate contributions to off property sediments, including: complete removal or encapsulation of the PCB containing Robertson Protected Metal (RPM); replacement of all gutters and downspouts; cleaning all accessible storm drain catch basins; installing and maintaining filter fabric on all storm drain catch basins; removal of soils exceeding the direct contact standards for PCBs on property; and the final cleaning of the storm drainage system. These remedial activities will mitigate exterior sources of

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exfoliated siding and future releases. It should be noted here that if it is determined that the filter fabric on all storm drain catch basins needs to be maintained, this will need to be incorporated as a component of the O&M Plan.

If you have any questions or need additional clarification, please contact me at (330) 963 -1219.

Sincerely,

 for

Vanessa Steigerwald Dick, Ph.D.  
Site Coordinator  
Division of Emergency and Remedial Response

VSD/kss

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