



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5

Final Decision
and
Response to Comments
for
City of Toledo
(formerly Textileather Corporation)

Toledo, Ohio 43608
EPA ID NO. OHD 980 279 376

August 2016

City of Toledo
Toledo, Ohio
OHD 980 279 376

FINAL DECISION

Introduction

The United States Environmental Protection Agency (“EPA”) has made a final decision regarding how the City of Toledo, Ohio (“Toledo”) will remediate property it owns at 3729 Twining Street, Toledo, Lucas County, Ohio (“Site”), EPA ID No OHD 980 279 376. The Site is the former Textileather Corporation facility. This Final Decision and Response to Comments document (Final Decision) consists of the EPA Responses to public comments on the August 2015 Statement of Basis document (Attachment One), the Index to the Administrative Record (Attachment Two), and the Statement of Basis document itself (Attachment Three).

This Final Decision document identifies EPA’s selected final remedy for the former Textileather Corporation manufacturing facility, now owned by Toledo. The Site is under the authority of Section 3008(h) of the Solid Waste Disposal Act (commonly referred to as the Resource Conservation and Recovery Act of 1976 (“RCRA”)), as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. § 6928(h).

EPA has based its Final Decision on the Administrative Record and comments from the public on the Statement of Basis document (“SB”) issued on August 27, 2015. The SB, which described EPA’s proposed remedy, was available for public review from August 27, 2015 to September 26, 2015. The SB document invited comment on the proposed remedy and requests for a public meeting. No one from the public requested a public meeting. The final remedy differs slightly but not substantially from the proposed remedy, based on comments from Toledo. Toledo completed some of the remediation identified in the SB document in the fall of 2015 to accommodate an aggressive redevelopment schedule.

Assessment of the Facility

The remedies documented in this Final Decision are necessary to protect human health and the environment. EPA’s proposed remedy will protect future industrial workers and people currently using the Site from harmful health effects caused by exposure to contaminated media.

Final Remedy

The remedy for the Toledo property mitigates health and environmental risks to people. Potential risks stem from people contacting contaminated media including soil, light non-aqueous-phase liquid chemicals (“LNAPLs”) (LNAPLs are oily chemical liquids that do not mix

with water), and contaminated infrastructure including building foundations. Potential future risks include breathing indoor air contaminated with chemical vapors, were buildings to be constructed on the Site in the future. A potential future contaminated groundwater pathway could affect human health and the environment, if groundwater were used for drinking water or reached surface waters.

Therefore, to reduce potential risk, EPA is requiring that Toledo complete the remedies presented below. The Statement of Basis document and the Corrective Measures Study (“CMS”) (Haley and Aldrich, 2014) describe these in detail:

- excavation and disposal of soil from specific areas,
- excavation and disposal of building foundations, and walls,
- removal of buried LNAPL,
- removal/replacement of the storm and sanitary sewer system,
- removal of below ground storage tanks,
- establishment and maintenance of institutional controls,
- provision of financial assurance, and
- monitoring of groundwater conditions.

Remedy Design Requirements

The former Textileather Site lies within an industrial redevelopment corridor for the City of Toledo. In 2015, Toledo proceeded with much of the remedy implementation described in the SB document based upon an aggressive redevelopment schedule for the corridor in advance of EPA’s Final Decision. Toledo must complete the remediation of the Site based on approved corrective measures design documents. Toledo submitted an Interim Measures Work Plan (June 2015) that contained some of the detail needed in the final design documents. For areas where Toledo completed remediation in advance of the Final Decision, Toledo must submit supplemental design information. In addition, for Area of Interest-15, where Toledo’s remedy varied from the remedy proposed in the Statement of Basis document, Toledo must complete the remediation per the original remedy proposed in the Corrective Measures Study and do some additional investigation. For more information, refer to Attachment One, Response to Public Comments.

Corrective measures design documents consist of the design plans and specifications, proposed remediation objectives, construction cost estimate/report, quality assurance objectives, waste disposal requirements, project schedule, quality assurance project plan, sampling and analysis plan, health and safety plan, and institutional control documentation. The design plan must include management and disposal specifications for Toxic Substances Control Act-level contaminants and contaminated media consistent with all applicable Federal, State, and local regulations and requirements. Toledo must sample excavated areas to confirm that all of the

impacted soil was removed (“confirmatory sampling”). Impacted soils are those with concentrations above the Remedial Action Objectives (“RAOs”). RAOs are the chemical concentrations that EPA determined would be protective of people (primarily construction and future industrial workers) who could contact contaminated media and/or source materials at the Site. Toledo must also propose a financial assurance mechanism with a line-item cost estimate detailing remaining remedial work, monitoring, and maintenance.

Toledo must implement the approved final design. Following implementation, Toledo must submit a Construction Completion Report that describes the completed work, presents the material disposal records, and reports the confirmatory sampling results.

Remedy Construction Requirements

Toledo must construct the remedy within two years of this Final Decision. Upon remedy completion, Toledo must submit a Construction Completion Report, Operations and Maintenance Plan (“O&M Plan”), and institutional control documentation to EPA for review and approval. A registered professional engineer and the Toledo Project Manager shall certify in the report that the remedy was completed consistent with the EPA-approved final design and specifications, to the best of his or her knowledge. The engineer shall also certify that the work attained the remediation objectives. The report shall include, as necessary, as-built drawings signed and stamped by a registered professional engineer. Toledo must follow an approved O&M Plan before or upon remedy completion, as appropriate.

Remedy Summary

- 1) *Excavation of Contaminated Soil, LNAPL, foundations, building structures in Area of Interest-01 – Calender Basement (“AOI-01”)*

Contamination from releases of Therminol, a heat-transfer oil containing polychlorinated biphenyl compounds (“PCBs”), impacted the Calender Basement area including outside soil, foundations, and infrastructure components. The oil migrated downgradient through the plant’s internal sewer system then into a ditch that flowed to the Ottawa River in the 1980’s and 1990’s. In the 1990’s, GenCorp, a former owner, remediated the off-site contamination under Ohio Environmental Protection Agency (“Ohio EPA”) oversight and the river was dredged under the EPA Great Lakes Legacy Act. GenCorp also remediated on-Site soil under Ohio EPA oversight. Toledo’s risk analysis determined that residual on-site PCB and phthalate contamination posed unacceptable potential risks and hazards to future industrial and utility workers, construction workers, and redevelopment workers. Toledo must excavate and dispose of contaminated materials. The design plan for the work must include confirmatory sampling to demonstrate that the areas beyond the limits of excavation are uncontaminated, as defined by the remedial action objectives.

2) *Excavation of contaminated soil and removal of LNAPL in Area of Interest-15, South Above Ground Storage Tank Farm ("AOI-15")*

The South Above Ground Storage Tank ("AST") Farm had six 20,000-gallon ASTs containing various liquid plasticizer oils (phthalate compounds with PCBs) that leaked or spilled in this area. Prior to 1991, the oils were stored in underground storage tanks. The released phthalates are in a LNAPL phase including free-phase and residual in soils. Risk analysis determined that worker exposure to LNAPL in this area posed an unacceptable risk.

EPA's selected remedy is the removal of free-flowing LNAPL and LNAPL-impacted soil (residual LNAPL) in this area. In addition, confirmatory sampling of soils must include the LNAPL constituents. Further excavation must be based on LNAPL as well as soil concentrations of chemicals of concern that exceed the RAOs. EPA noted that the LNAPL analysis reported PCB components, but the soil boring analysis did not include these chemicals. The omission represents a data gap in the site characterization and potentially the risk assessment.

Toledo submitted comments to EPA on its Statement of Basis document and proposed a different approach to the remedy for this area than had been proposed in its CMS document and the Statement of Basis document (see Attachment One). Toledo proposed to base remediation on a single test pit around PZ-31 for LNAPL removal. EPA did not select the revised approach but will consider an approach of multiple test pits in appropriate locations. See Attachment One, Response to Public Comments, for EPA's evaluation or Toledo's proposed remedy revision.

Toledo based its revised proposal on the assumption that PZ-31 would be the only location where mobile LNAPL would collect. In 2015, Toledo excavated a 10 X 10 foot test pit around the PZ-31 location and left it open for several weeks. Small amounts of LNAPL were collected from the pit until no more accumulated. In its comments on the SB document, Toledo considered that the remedy is completed. In addition, Toledo contended that risk in this area stemmed from contact with free-flowing LNAPL only and did not consider that soils with residual LNAPL needed to be excavated. EPA disagrees with this position; the approved risk assessment did not conclude that only contact with free-phase NAPL posed a risk. Soils with residual LNAPL should be considered as posing a risk.

The source of the LNAPL is unknown, but is suspected to be from any of the below- and above-ground storage tanks and/or documented releases/spills in the area. The assumption that PZ-31 is the only location where LNAPL might be present is unsupported. While this location accumulated small amounts of LNAPL over a period

of years, none of the soil borings in this area indicated a presence of LNAPL. It follows that LNAPL presence is not tied to evidence from soil borings. Therefore, as the extent of LNAPL presence is uncertain, a single test pit is not a reliable indication of its extent. PZ-31 appears to be side-gradient of AOI-15; there are no piezometers or test pits in the middle of or downgradient of the area. Furthermore, not all LNAPL can be mobilized and recovered from soil. EPA's selected remedy targets a larger area of soils around AOI-15 for excavation, consistent with the Corrective Measures Study and the Statement of Basis document.

Toledo must either excavate the entire area originally proposed in the CMS, or use several test pits within the area and downgradient of the area to 1) identify areas of free-flowing LNAPL for collection and removal, and 2) to identify areas of residual LNAPL and constituent contamination using confirmatory sampling of the sidewalls and floor of the pits. Toledo must send excavated material off-site for disposal to an appropriate landfill, per regulatory requirements.

Toledo must use confirmatory sampling following excavation. Sampling must include observation of LNAPL, including evidence such as sheen, odor and staining. If LNAPL is found, Toledo must characterize the soil in the area for PCBs and submit a work plan for further investigation and remediation that includes confirmatory sampling, and risk-based action levels for soil PCBs. In addition, Toledo must include this area in the groundwater monitoring remedy for Contaminants of Concern (COCs, including VOCs, Phthalates, and PCBs.

3) *Excavation of contaminated soil associated with soil gas in Area of Interest-28 ("AOI-28") – Former Sample Print Machines*

The remedial investigation in this area reported soil gas measurements above risk-based screening levels associated with volatile organic compounds ("VOCs") from historic solvent releases. EPA's selected remedy is the excavation of an estimated 73 cubic yards of impacted soils in this area. Confirmatory samples on the sidewalls and bottom are required to determine whether the excavation removed soils to below the risk-based COC concentration. Toledo must send excavated materials to an off-site landfill, per regulatory requirements.

4) *Removal of Underground Storage Tanks ("USTs") in Area of Interest-14 ("AOI-14") and confirmatory sampling of surrounding soil*

EPA's selected remedy is the removal of USTs to be completed under the jurisdiction of the Bureau of Underground Storage Tank Regulations ("BUSTR"), administered by the Ohio State Fire Marshal. Toledo removed the USTs in this area under BUSTR in late 2015. During tank removal, Toledo sampled groundwater and soil. Concentrations were below levels of concern

identified in the risk assessment and BUSTR Closure Action Levels. Toledo submitted its closure report to BUSTR in December 2015.

5) *Removal, Redesign, and Replacement of Stormwater Management/Collection System*

EPA's selected remedy is the removal of the existing stormwater and sanitary sewer system at the Site. Water in the storm sewers eventually discharges to the Ottawa River. Based upon their age, location below the water table, and evidence of groundwater infiltration, the sewers have been conduits for contaminant releases during historical facility operations and would potentially continue to be pathways with future redevelopment. In areas where evidence of contamination is present during excavation and removal, Toledo shall sample the soil or other media and compare results to risk screening levels and RAOs to determine whether additional soil excavation is needed.

6) *Institutional Controls prohibiting residential occupation of the Site and the prohibition of potable and non-potable use of the overburden groundwater*

Toledo must document institutional controls to restrict how people use the land and natural resources to prevent unacceptable exposures. Toledo will place a restrictive covenant on the property limiting its use to industrial or commercial purposes. Ohio Administrative Code regulations prohibit the installation of private water systems near potential or known sources of contamination and at shallow depths. These regulations preclude the development of private water systems near the Site. Toledo shall establish institutional controls in a manner to be legally enforceable against existing and future property owners, and that includes the following use restrictions:

- a) land use restrictions on the facility property which are consistent with the soil cleanup standards and anticipated future industrial land uses, and
- b) prohibitions on potable use of ground water at the facility.

The restrictions will be in the form of restrictive covenants that run with the land in conformance with the Ohio Universal Environmental Covenants Act, Ohio Revised Code Sections 5301.80 to 5301.92.

Toledo must restrict the use of the facility from any activities that may interfere with implementation of the final remedy, operation and maintenance, monitoring, or other measures necessary to assure the effectiveness and integrity of the remedy implemented pursuant to this Final Decision.

Toledo must submit a draft restrictive covenant to EPA for review and approval within 90 days of the Final Decision. Toledo must record the EPA-approved restrictive covenant on the facility deed within six months of the Final Decision and provide EPA with documentation of the recorded action.

7) *Financial Assurance:*

Upon remedy selection, Toledo must demonstrate a financial ability to complete the remaining remedy and monitoring of Site conditions by securing an appropriate financial instrument to cover the cost of remedy implementation. Toledo must submit a line-item cost-estimate of the remaining remedial work at the Site and obtain financial assurance for completion of the final remedy, including operation and maintenance, within 90 days of this Final Decision.

8) *Groundwater Monitoring*

EPA requires monitoring and evaluation of remedies to ensure that they are effective and complete. Evidence suggests that a plume or plumes might have formed at the Site had it not been for the inward hydrologic gradient created by the unsealed storm water conveyance system generally located below the water table. Consequently, the stormwater system functioned as a groundwater collection system.

Alterations at the Site, including building demolition, slab removal, regrading, and particularly the removal of the unsealed sewer system, will affect the direction and magnitude of hydraulic gradients. While source areas should have been eliminated by the remedial excavations, analytical monitoring and other types of data collection are now necessary to understand the hydrologic changes and to ensure that a plume will not form under the new Site conditions.

EPA's overall goal for groundwater is aquifer restoration. EPA will evaluate the monitoring data and determine whether further remedial measures and changes to the monitoring program are warranted.

Toledo must submit a groundwater monitoring program plan for EPA's review and approval within 90 days of the Final Decision. Monitoring should continue for a period of at least five years. Based on monitoring data, EPA may require modifications to the approved program. The plan must include the collection and analysis of data over a sufficient period of time and frequency to determine the status and/or trend in groundwater conditions. Based on the monitoring results, Toledo may revise or conclude the program, per EPA approval.

Schedule

Toledo must complete remedy construction within two years of the signature date of this Final Decision document and submit a Construction Completion Report (CCR) within 60 days of remedy completion to EPA, for review and approval. In the report, a registered professional engineer and the Toledo Project Manager shall certify that the remedies were completed in accordance with the EPA-approved final design and specifications, to the best of their knowledge, and that remediation objectives were attained. A registered professional engineer must sign and stamp the CCR. Toledo must implement any approved final O&M Plan, incorporating EPA comments. Toledo must demonstrate that management and disposal of PCB-contaminated material has been conducted in accordance with the EPA-approved final design and specifications and that materials were disposed of per regulations.

Public Participation Activities and Comments

EPA held a public comment period on the proposed remedy from August 26, 2015 to September 27, 2015 by issuing a Statement of Basis document. One party provide comments, Mr. David G. Veinot of Haley and Aldrich, on behalf of the City of Toledo. EPA received no request for a public meeting. The City of Toledo's comments and EPA's responses are presented in Attachment One.

Administrative Record

The Administrative Record contains all information considered when making this proposal. A list of the Administrative Record documents is in Attachment Two. You may review the documents at these locations (please call for hours):

Toledo Public Library 3422 Lagrange St Toledo, OH (419) 259-5280	EPA Region 5 Office EPA Records Center 77 W. Jackson Blvd., 7th Floor Chicago, IL (312) 886-4253
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To obtain further information, contact:

Carolyn Bury (LU-9J)
77 W. Jackson Blvd
Chicago, IL 60604
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Future Actions

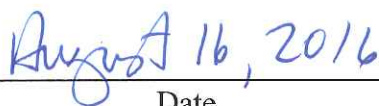
The Administrative Order on Consent, signed by EPA and the City of Toledo, requires Toledo to implement the final remedy according to the schedule in this Final Decision. EPA will update the Administrative Record with new information (e.g., correspondence, plans, and reports) during implementation of the final remedy.

Declarations

Based on the Administrative Record compiled for this corrective action, EPA has determined that the final remedy selected for the City of Toledo facility is appropriate and protective of human health and the environment.



Margaret M. Guerriero, Director
Land and Chemicals Division
U.S. EPA Region 5



Date

Attachments (3)

IN THE MATTER OF:

City of Toledo, Ohio
Toledo, Ohio
EPA ID OHD 980 279 376

Attachment One Response to Public Comments

EPA received comments from the City of Toledo, dated September 25, 2015.

City of Toledo Comment 1: Excavation of contaminated soil and removal of LNAPL in Area of Interest-15 – South Above Ground Storage Tank (“AST”) Farm (“AOI-15”):

Statement of Basis: The South AST Farm had six 20,000-gallon ASTs that contained various liquid plasticizer oils (phthalate compounds) which leaked or spilled in this area; sampled oils also contained PCBs. The phthalates are in a chemical form called light non-aqueous phase liquids (oily liquids that don't mix with water). EPA proposes removing about 1,176 cubic yards of LNAPL-impacted soil in an area 2,646 square feet and 12 feet deep. Soil would be disposed of off-site in an appropriate landfill per regulatory requirements. The approximate size and location of the excavation is shown on Figure Four. Confirmatory sampling would be completed following excavation. However, the presence or absence of LNAPL would guide the excavation. Risk in this area was calculated based upon the possibility of industrial workers being exposed to LNAPL.

While the *Corrective Measures Study (Haley & Aldrich 2012 and 2013)* did indeed anticipate a potential excavation area of up to 2,600 ft² in area, it was the dermal contact of construction workers with the free product LNAPL itself that was determined to be the ‘risk driver’ in this area of interest. Therefore, the size of the actual excavation is entirely dependent upon the presence of this free-product plasticizer-based LNAPL. As we discussed several months ago, unfortunately, it was determined that UVOST technology will not work on the phthalates and PCBs in this project. As such, we proposed the option described in Section 4.3.2 of the *Corrective Measures Study (Haley & Aldrich 2012 and 2013)* of using test pits to delineate the extent of the LNAPL in the PZ-31 area. The 100 ft² sump described in the June 2015 *Interim Measures Work Plan (Haley & Aldrich 2015)* is the first such test pit. Based on the numerous boreholes and wells in the area and decreased recovery of LNAPL in PZ-31, we believe that by centering this excavation on PZ-31, and shipping the resulting free-product LNAPL and LNAPL- impacted soil off-site for disposal, we will be successful in reducing the thickness of LNAPL to an acceptable threshold, and removing LNAPL-impacted soil in the PZ-31 area, as per your requirement. If not, then we have planned for the installation of additional excavations (test pits or sumps) in the area of ‘potential LNAPL impact’ identified on the drawings.

During the last CA 750 sampling exercise in March 2015, no measureable amount of LNAPL was observed in the PZ-31 piezometer, making the need to excavate 2,063 tons of soil from the area unnecessary. The LNAPL recovery data, combined with the lack of appreciable LNAPL returning to the well over a recharge period of many

months, suggest that the LNAPL-impacted area is limited in extent to the area immediately surrounding PZ-31; within the boundary of our proposed excavation.

As for the recommendation for confirmatory sampling, the *CMS Addenda (Haley & Aldrich 2013 and 2014)*, which were conditionally approved by the US EPA, clarified that the PRG for the excavation of LNAPL in AOI-15 is the excavation of all ‘visible signs of LNAPL.’ We propose that ‘visible signs of LNAPL’ be clarified to mean measurements of interface 1/100th of a foot (approximately 1/8th of an inch) or greater, will constitute a volume of LNAPL requiring remedial efforts to be continued or expanded.

We ask that the strategy described in the June 2015 *Interim Measures Work Plan (Haley & Aldrich 2015)* be accepted as the recommended course of action in remediating AOI-15.”

EPA Response: *EPA selected its proposed remedy from the remedies proposed by Toledo in the conditionally approved CMS. The selected remedy was a conservative approach intended to ensure the LNAPL and LNAPL-impacted soils in AOI-15 were excavated and sent off-site for appropriate disposal. The conditional approval was based on the assumption that Toledo would excavate the approximate 2,646 square foot area of impacted soils identified in the CMS and then complete confirmatory sampling of the sidewalls and floor, as proposed. The proposed confirmatory sampling of the soil (which could be accomplished with an instrumental or analytical approach) is not only a standard process of identifying any remaining impacted soils but is a means of overcoming the inherent uncertainty of characterization and remedial design sampling. Based on confirmatory sampling results, an excavated area is expanded or the remediation is considered to have been completed,*

Toledo’s revised remedy proposal is centered upon the excavation of a 10 X 10 foot area around PZ-31, as a test pit to observe LNAPL accumulation. Toledo proposed to use the accumulation of LNAPL in the test pit as the basis for determining remedy completion.

This approach includes various premises that EPA does not accept:

- 1) Toledo’s comment assumes that contact with free-phase LNAPL is the only risk of concern and that contact with residual LNAPL in soil is not a concern. However, Toledo’s RFI Human Health Risk Assessment did not specify free-phase LNAPL as the risk driver, rather it identified contact with LNAPL as a risk of concern. The analysis of the LNAPL reported several phthalates, and PCBs. The LNAPL chemical concentrations were associated with significantly elevated risk specifically for the construction worker, or anyone coming into contact with the LNAPL.*

EPA considers that contact with any LNAPL, including residual LNAPL in the pore space or coating soil particles, poses a risk from direct contact. Therefore, LNAPL-impacted soil, any soil with chemical concentrations above risk levels, and free-phase NAPL must be removed from AOI-15.

- 2) Toledo's revised proposal is based on the assumption that PZ-31 would be the only location where mobile LNAPL would collect. The source of the LNAPL is unknown, but is suspected to be from any of the below- and above-ground storage tanks and/or documented releases/spills in the area. While PZ-31 collected small amounts of LNAPL over a period of years, none of the soil borings in this area indicated a presence of LNAPL. Therefore, a single test pit is not a reliable indication of LNAPL extent. Not all LNAPL can be mobilized and recovered from soil. On that basis, a larger area of impacted soils was targeted for excavation in the Corrective Measures Study and the Statement of Basis document.*

Based upon potentiometric surface maps presented in groundwater monitoring reports (EI 750) and the RFI, EPA is concerned with the lack of piezometers and monitoring wells in the vicinity of AOI-15 and Toledo's request to excavate a markedly smaller area than was proposed in the CMS.

Further, the soils in this area are tight and not all LNAPL will freely mobilize. Therefore, the area of LNAPL-impacted soils could be much greater than the 10 X 10 foot area excavated area. Toledo must employ confirmatory sampling that includes an approach to identifying residual LNAPL as well as its constituents.

Similarly:

- 1) PZ-31 appears to be upgradient of the primary potential source area (the tank farm) (although it may be located in a spill zone).*
- 2) The closest well, to the east (MW-13H), was not sampled during the RFI. Consequently, the groundwater conditions associated with this area were not evaluated.*
- 3) As indicated by potentiometric surface maps, the area south of AOI-15 appears to be downgradient of the tank farm. Although no wells or piezometers were installed in this area, phthalates were found in the soil.*
- 4) As indicated in Table 5A (Summary of Soil Analytical Results) the soil borings in AOI-15 were not analyzed for PCBs during the remedial investigation. PCBs in the LNAPL analysis contributed to the risk identified in this area. The omission represents a data gap in the site characterization and potentially the risk assessment.*

While considering Toledo's comment, EPA re-visited the risk assessment and took a closer look at the soil sampling results. We noticed that the soil samples from this area were not analyzed for PCBs even though the results of the

LNAPL analysis reported a PCB component contributing to risk. The absence of PCB data is a data gap in the characterization of this area and correspondingly, potentially in the risk assessment. The originally proposed larger excavation with confirmatory sampling for PCBs (and other components of the NAPL) would mitigate the uncertainty associated with the PCB characterization data gap and potentially corresponding gap in the risk assessment.

Alternatively, Toledo could propose additional test pits around PZ-31, and within and downgradient of AOI-15, to collect any free-phase NAPL. This approach would also require that side-walls and the floors be sampled for residual NAPL(s) and the NAPL constituents.

In summary, it is possible that LNAPL released from the tanks followed a downgradient pathway and would not have been captured by the piezometer or a single test pit excavated in the area around PZ-31. In addition, PCBs in the soil may also be contributing to risk. Consequently, Toledo must continue to excavate the originally identified area in the CMS and perform confirmatory sampling for NAPL, phthalates, and PCBs. Alternatively, Toledo may install additional test pits in and around AOI-15, including downgradient of AOI-15. Toledo must submit a work plan for further investigation and remediation in this area that includes confirmatory sampling, and risk-based action levels for soil PCBs. Groundwater must be evaluated in this area during the groundwater monitoring remedy.

Comment 2. Groundwater Monitoring:

Statement of Basis: EPA proposes that Toledo monitor the groundwater at the Site perimeter twice yearly for two years and compare results to specifications established by an approved monitoring program. Currently, groundwater at the Site is controlled by the inward gradient effect of the Site sewers. While the Site does not currently have groundwater issues, future conditions are uncertain due to the proposed removal of the existing sewer system and other construction and redevelopment changes to Site conditions. Based on the monitoring results, the program may be revised or concluded, per EPA approval.

City of Toledo Comment: We do not believe that continued groundwater sampling at the former Textileather Site is warranted when it is agreed that there are no significant groundwater issues at the Site, beyond those that may be associated with the two source areas, AOI-01 and AOI-15, which will undergo source removal in the next few months. We are also very concerned that a continued groundwater monitoring requirement, past the completion of the remedies in late 2015, will be an impediment to Site redevelopment from both an administrative and practical perspective.

We note the following facts that can be relied upon in lieu of continued groundwater monitoring (following completion of the source removal remedies):

- As documented in the *U.S. EPA CA750* determination, the *RFI Report (Haley & Aldrich 2012)*, and subsequent *CA750* monitoring reports, the former Textileather property has undergone an extensive investigation that included sampling of 30 monitoring wells and 5 piezometers, netting over 130 groundwater samples from February 2010 to date. Only limited groundwater impacts have been identified on-site. These are mainly associated with AOI-01 and AOI-15, where proposed excavation remedies will address these groundwater impacts.
- The shallow overburden is typically comprised of lacustrine silts and clays with a hydraulic conductivity in the range of the range of 10^{-4} to 10^{-7} . Groundwater flow in this area is minimal compared to typical stormwater runoff.
- Given the low permeability of the shallow overburden, the natural groundwater flow velocities are very low, less than a few feet per year, such that any groundwater movement will take decades to reach the former Textileather property boundary. As such, the groundwater detections on the interior of the facility likely represent the highest concentrations that could be expected. These groundwater concentrations have been evaluated in the *RFI Report (Haley & Aldrich 2012)* and it has been determined that they do not pose an unacceptable risk to human health or the environment if they were to migrate outside the planned development zone.
- The former Textileather Site is situated between the following Sites, many of which are owned by the City of Toledo:
 - The Stickney Road Landfill to the north, which has documented groundwater contamination moving towards the former Textileather Site.
 - XXKem to the northeast, which also has groundwater contamination.
 - An industrial area to the east, including the Chrysler Assembly Complex.
 - Almost all of the residences and small businesses in the neighborhood on Twining Street & Stickney Avenue have been purchased by the City of Toledo and are undergoing demolition. Plans are underway to remove all of the buried utilities from these residential streets, including the storm and sanitary sewers.
 - An elevated I-75 highway and commercial area to the south, and the City of Toledo's Fleet & Facilities maintenance yard to the west.
- Given the fact that the Textileather is the lowest area on three sides, it will likely continue to receive potentially impacted groundwater from the Stickney Avenue Landfill, XXKem, along with the industrial area to the east, and the elevated highway from the south. The only groundwater flow direction away from Textileather, once the sewers are removed, will be towards the west, towards the City of Toledo's

currently undeveloped floodplain property on the Ottawa River. Therefore, there are no sensitive receptors of groundwater in the area.

- Stickney Avenue Landfill and XXXkem maintain a groundwater monitoring program of their own already, and already have perimeter monitoring wells installed along their border with Textileather.
- The facility's building structures and concrete slab have been removed from the areas outside of the planned remediation areas. There have been no observations of soil or groundwater impact that would lead us to believe that there are undocumented source areas on-site. This observation is consistent with the findings of over 600 soil samples and over 130 groundwater samples that have been used to characterize the site in the RFI and CA750 monitoring.
- The facility's demolition and slab removal activities have required that many of the existing interior, and some perimeter wells, be abandoned, prior to the U.S. EPA's request to continue groundwater monitoring. As such, many of the existing perimeter wells are no longer present.

Therefore, we believe that the existing characterization of groundwater on the Site, coupled with the post-remedy site conditions, demonstrates the protectiveness of human health and the environment and meets the closure performance standards of the project. Further, as noted above, there is concern that a post-remedy groundwater monitoring program will interfere with or significantly complicate site redevelopment and associated job creation.

EPA Response: EPA requires monitoring and evaluation of remedies to ensure that they are effective and complete. Evidence suggests that a plume or plumes might have formed at the Site had it not been for the inward hydrologic gradient created by the unsealed storm water conveyance system generally located below the water table. Consequently, the stormwater system functioned as a groundwater collection system.

The local hydrologic flow regime, that is, the direction and magnitude of hydraulic gradients, will change with building demolition, slab removal, regrading, and especially with the removal of the sewer system. While source areas should have been eliminated by the remedial excavations, analytical monitoring and other types of data collection are necessary to understand the hydrologic changes and to ensure that a plume will not form under the new Site conditions.

Toledo's concerns regarding contaminated groundwater potentially migrating onto the site from adjacent properties should have been resolved in the remedial facility investigation. Regardless, these concerns can be overcome using background wells and perimeter wells to assess hydraulic gradients and groundwater chemistry.

In addition, some of the groundwater monitoring reports produced for the EI 750 conditional approval indicate levels of Site constituents elevated above MCLs (PCBs

and bis(2)-ethylhexyl phthalate), including wells at the northern perimeter in areas where water level measurements indicate a northerly gradient (towards an off-site area).

EPA's overall goal for groundwater is aquifer restoration. Therefore, whether a plume immediately impacts a receptor is not necessarily relevant or the only reason to evaluate groundwater conditions. Where feasible, groundwater plumes are to be contained on-site. If the groundwater conditions at Toledo change such that a plume develops, EPA will evaluate the circumstances and determine whether further remedial measures and changes to the monitoring program are warranted.

Based on Toledo's comments about substrate transmissivity and time-frames, EPA has reconsidered its originally stated monitoring span of two years. Per EPA guidance ("Guidance for Monitoring at Hazardous Waste Sites: Framework for Monitoring Plan Development and Implementation") (EPA OSWER Directive No. 9355.4-28):

"[M]onitoring is [defined as] the collection and analysis of data over a sufficient period of time and frequency to determine the status and/or trend in one or more environmental parameters or characteristics. Monitoring should not produce a 'snapshot in time' measurement, but rather should involve repeated sampling over time in order to define site-wide remedy performance and the trends in the parameters of interest relative to clearly defined management objectives."

Based on the conservative approach to source removal, EPA does not anticipate a prolonged monitoring period. Nonetheless, based on EPA guidance and Toledo's comment, a monitoring period longer than two years would provide better data for decision-making. Monitoring should continue for a period of at least five years and then be evaluated for termination. Based on monitoring data, EPA may required modifications to the approved program. For the post-remedial monitoring, additional wells should be screened at the fill/overburden transition zone in locations where fill is deeper such as the Calendar Basement area. The monitoring program should also be designed to address Toledo's concerns regarding the potential for off-site plumes to migrate onto the Site.

Attachment Two

Administrative Record Index

Attachment Two

ADMINISTRATIVE RECORD INDEX

CITY OF TOLEDO, OHIO
(FORMER TEXTILEATHER CORPORATION FACILITY)
3729 TWINING STREET

TOLEDO, OH
OHD 980 279 376

September 30, 2009	Administrative Order on Consent (EPA Docket No. RCRA-05-2010-0001) under RCRA 3008(h) between Textileather Corporation and EPA
December 11, 2009	Current Conditions Report Textileather Facility (Haley and Aldrich)
December 2009	Remedial Facility Investigation Work Plan (Haley and Aldrich). Revised June 2010, February 2011, and May 2011
July 2011 – June 2015	RCRA 750 Semi-Annual Monitoring Reports
September 28, 2011	Remedial Facility Investigation (Haley and Aldrich). Revised December 2012
December 31, 2012	Revised Remedial Facility Investigation (Haley and Aldrich).
December 31, 2012	Corrective Measures Study (Haley and Aldrich)
December 20, 2013	Addendum to Corrective Measures Study (Haley and Aldrich)
January 2014	Guidance for Monitoring at Hazardous Waste Sites: Framework for Monitoring Plan Development and Implementation (EPA OSWER Directive No. 9355.4-28)
May 16, 2014	Letter from W.J. Burkett, Commissioner of Economic Development, Department of Economic & Business Development, City of Toledo, Ohio, to C. Bury, Project Manager, EPA Region 5, Chicago, Illinois, RE: Toledo Textileather
June 25, 2014	Revised Addendum to Corrective Measures Study (Haley and Aldrich)
January 22, 2015	Acknowledgement of Termination and Agreement to Record Preservation and Reservation of Rights (EPA Docket No. RCRA-05-2010-0001) under RCRA 3008(h) between Textileather Corporation and EPA

January 23, 2015 Administrative Order on Consent (EPA Docket No. RCRA-05-2015-0004)
under RCRA 3008(h) between City of Toledo, Ohio and EPA

May 15, 2015 Site Management Plan (Haley and Aldrich)

August 24, 2015 Statement of Basis (EPA Region 5)

September 25, 2015 Comments on Statement of Basis for Former Textileleather Property
3729 Twining Street, Toledo, Ohio (Haley and Aldrich)

Attachment Three

Statement of Basis Document

