



c/o Angelica Todd
1 River Road
Building 33-2
Schenectady, NY 12345

T +1 740 403 1387
chase.forman@ge.com

BY ELECTRONIC MAIL

June 27, 2024

Ms. Claire Fredin
Project Manager
IDEM Office of Land Quality
Voluntary Remediation Program
100 North Senate Avenue
Indianapolis, IN 46204

**Subject: Responses to IDEM Comments, 2023 Annual Progress Report (APR), Sherman Park Facility (Former Thomson Consumer Electronics Facility) Indianapolis, Marion County, Indiana
VRP #6020801/File: IDEM VFC # 83651777/PN #1940103494**

Dear Ms. Fredin:

The General Electric Company (GE) has received and reviewed the June 12, 2024 letter to GE that provided comments to the Annual Progress Report (APR) submitted to the Indiana Department of Environmental Management (IDEM) on February 7, 2024. Per the letter submitted to you on June 13, 2024, Chase Forman will be assuming the role of project manager for GE on this site, replacing Dawn Varacchi-Ives. In addition, GE's environmental consultant (Ramboll) has transitioned project management duties to Patrick Rohan who works from the Ramboll Indianapolis office.

GE appreciates the opportunity to provide you with this response to comments letter and looks forward to working with you collaboratively on this project in the future.

Sincerely,

Chase C. Forman, CPG
Project Manager – Remediation
Corporate Holdings
GE Aerospace

cc: Dawn Varacchi-Ives, GE Aerospace
Tracy Edwards, Ramboll

Attachments: Response to Comments – June 12, 2024 Letter from IDEM to GE
Response to Comments – October 16, 2017 Letter from IDEM to GE

Response to Comments

IDEM's comments on the 2023 APR are provided below in **bold** with GE's responses provided in *italics*:

Comments

- 1. IDEM agrees with Ramboll's conclusions that the decreasing concentrations of TCE, 1,1,1-trichloroethane (TCA), and cis-1,2-dichloroethene (cDCE) and the increasing concentrations of vinyl chloride (VC), ethane, and ethene show that dichlorination is ongoing, and that the injections have decreased concentrations of TCE, TCA, and 1,1-dichloroethane (DCA). Additional sampling is needed to determine if reductions will continue after the effects of the injections have dissipated.**

Acknowledged.

- 2. While IDEM agrees with Ramboll's conclusions, the COC concentrations versus time charts for individual wells provided in Appendices D-1 and D-2 should only be used to evaluate remedial performance. They should not be used to evaluate long-term plume behavior.**

GE intends to continue quarterly post injection groundwater monitoring to evaluate the effectiveness of the bioremediation injection applications to groundwater. Additional time and data points (post-injection) are needed to assess the efficacy of the amendments on the volatile organic compounds (VOC) concentrations in groundwater. While we recognize that post-injection groundwater monitoring data best demonstrates the efficacy of the recent injections, the substantial 15-year groundwater monitoring data set collected prior to the latest remedial efforts, provides critical information regarding long-term plume behavior, which includes concentration trends following four prior amendment applications in 2011, 2013, 2015 and 2017.

- 3. Provided no additional injections take place, long-term plume behavior monitoring can restart with the sampling data collected in May 2024.**

The bioremediation injection that took place between 2022 and 2023 is anticipated to be the final injection event effort at the site. Understanding that site observations typically require one year of post-injection groundwater monitoring, the data collected prior to the 2022-2023 injections provide beneficial information to evaluate the overall plume conditions, changes in VOC concentrations over time, and impacts of the prior injection events on site concentrations. As noted in the response to Comment No. 2 above, current plume trends and behaviors should also be considered in context to the historical groundwater data set where concentration trends from prior injection event applications can be evaluated.

- 4. In response to past dissolved methane levels, IDEM requested methane to be assessed along the downgradient property line. Quarterly methane measurements collected from soil gas probes SGP-1, SGP-2, and SGP-3 in 2023 did not detect methane. IDEM agrees with Ramboll's conclusion based on the 2023 monitoring results that there is currently no off-site migration of methane. Ramboll should continue to sample SGP-1, SPG-2, and SGP-3 to confirm methane detected in groundwater is not causing a vapor issue.**

GE agrees that there is currently no off-site migration of methane from the site. Soil gas will continue to be sampled on a quarterly basis along the southern boundary of the site for methane, carbon dioxide, oxygen, and photoionization detector (PID) readings in SGP-1, SGP-2, and SGP-3.

5. Exceedances of cDCE and VC levels were observed in MW-253 during 2023 (15,400 ppb and 2,530 ppb respectively). Ramboll must provide an explanation for the concentrations of COCs detected in MW-253.

Elevated concentrations of cDCE and VC in the lower water-bearing unit (MW-253) have been observed dating back to January 2009. This well is located along the southern boundary of the site where it has been demonstrated, based on groundwater flow, that the VOCs detected in this well (and others along the southern property boundary) are due to off-site contamination. The off-site contamination is originating from the THAN/Harcros facility located south beyond East Michigan Street. As noted in the IDEM "Response to Comments Letter" dated October 16, 2017, IDEM VFC No. 80542698, "Based on the groundwater flow data, ... correctly concludes that contamination in the lower water bearing unit is migrating on-site from the THAN/Harcros site ... IDEM is not requiring further action from the applicant to address this issue... the THAN/Harcros site, which is being addressed under a separate VRP as site #6011005.

A copy of the October 2017 IDEM Comment Letter is provided as an attachment to this response letter for your reference.

ATTACHMENTS

**June 12, 2024 IDEM Response to Comments Letter and
October 16, 2017 IDEM Response to Comments Letter**



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

June 12, 2024

SENT VIA ELECTRONIC MAIL

Dawn Varacchi-Ives
Legacy Site Manager
General Electric Company
dawn.varacchi@ge.com

Re: 2023 Annual Progress Report
Sherman Park Facility (Former Thomson Consumer Electronics Facility)
600 North Sherman Drive
Indianapolis, IN 46201
VRP #6020801

Dear Ms. Varacchi-Ives:

The Indiana Department of Environmental Management (IDEM) has reviewed the 2023 Annual Progress Report (Ramboll, February 7, 2024) for the Sherman Park Facility site located at 600 North Sherman Drive in Indianapolis, Indiana.

The report was uploaded to the IDEM Virtual File Cabinet (VFC) as document #83594469. Further site history can be found in the VFC located on the IDEM website vfc.idem.in.gov. This technical letter contains a brief background summary including comments generated during our review of the above-mentioned report.

Background

The site is a primarily vacant 50-acre lot, with a recycling facility in the northernmost parcel. Over ninety percent of the site is covered by impervious surfaces such as asphalt pavements, concrete building foundations, and gravel. A CSX railroad track that runs in a northeast-southwest orientation divides the site into eastern and western sides, which remain connected through an underpass. The property formerly contained seven buildings: five on the east side of the CSX railroad tracks and two on the west side. Since the 1920s, the site has historically been used for industrial/commercial manufacturing and warehousing operations by various electronics and commercial businesses. General Electric purchased the site from the Radio Corporation of America in 1986 and sold the industrial manufacturing operations to Thomson Consumer Electronics (Thomson) in 1987. Thomson operated the site until 1995. The City of Indianapolis purchased the site in 2017 for redevelopment.

The Constituents of Concern (COCs) are trichloroethylene (TCE) and its breakdown products. Site investigations identified four (4) on-site source areas under the former main building: the former Chemical Storage Building, the former Solvent Tank Area, the former Metal Plating Area, and the 1,1,1-Trichloroethane Still Area. Concentrations above Industrial Default Closure Levels were observed in the soil and in the upper-bearing unit of the groundwater. The contamination in the middle and lower-bearing groundwater units has been attributed to an off-site source (Than Harcros Indianapolis Site VRP #6011005) located southwest of the site. Soil vapor intrusion investigations performed in 2006 at the main building prior to its demolition confirmed the



Visit on.IN.gov/survey or scan the QR code to provide feedback.

We appreciate your input!



presence of COCs above commercial levels, suggesting the risk of vapor intrusion for buildings constructed above the source areas.

The remedial action objectives are based on the 2001 Risk Integrated system of Closure (RISC) Default Closure Levels. The following comments were noted during our review of the above-mentioned report:

Comments

1. IDEM agrees with Ramboll's conclusions that the decreasing concentrations of TCE, 1,1,1-trichloroethane (TCA), and cis-1,2-dichloroethene (cDCE) and the increasing concentrations of vinyl chloride (VC), ethane, and ethene show that dichlorination is ongoing, and that the injections have decreased concentrations of TCE, TCA, and 1,1-dichloroethane (DCA). Additional sampling is needed to determine if reductions will continue after the effects of the injections have dissipated.
2. While IDEM agrees with Ramboll's conclusions, the COC concentrations versus time charts for individual wells provided in Appendices D-1 and D-2 should only be used to evaluate remedial performance. They should not be used to evaluate long-term plume behavior.
3. Provided no additional injections take place, long-term plume behavior monitoring can restart with the sampling data collected in May 2024.
4. In response to past dissolved methane levels, IDEM requested methane to be assessed along the downgradient property line. Quarterly methane measurements collected from soil gas probes SGP-1, SGP-2, and SGP-3 in 2023 did not detect methane. IDEM agrees with Ramboll's conclusion based on the 2023 monitoring results that there is currently no off-site migration of methane. Ramboll should continue to sample SGP-1, SPG-2, and SGP-3 to confirm methane detected in groundwater is not causing a vapor issue.
5. Exceedances of cDCE and VC levels were observed in MW-253 during 2023 (15,400 ppb and 2,530 ppb respectively). Ramboll must provide an explanation for the concentrations of COCs detected in MW-253.

Please respond with a report or letter addressing comment #5 within 45 days of receipt of this letter. If you have any questions, please contact me at (317) 234-9731 or email CFredin@idem.in.gov.

Sincerely,



Claire Fredin,
Project Manager
Voluntary Remediation Program
Office of Land Quality

cc: Chase Forman, Senior Project Manager, Ramboll (chase.forman@ramboll.com)
Kirby Piers, Administrator – Real Estate & Brownfield Redevelopment, Department of Metropolitan Development, City of Indianapolis (piers.kirby@indy.gov)

It is the goal of IDEM to enable remediation sites to move forward in a timely manner. If an impasse has been reached over technical issues, a Technical Review Panel of non OLQ scientists

is available to review and offer a non-binding opinion to help resolve technical disagreements with the VRP and State Cleanup Program project managers. The goal is to facilitate progress at your site. This review process is available immediately. If you would like to request a review by the Panel, please contact Kevin Davis, Remediation Services Branch Chief for the Office of Land Quality, at 317-232-4535 or kdavis2@idem.in.gov.

Any decision produced by the Technical Review Panel is not an agency action as defined in IC § 4-21.5-1-4 or an order as defined in IC §4-21.5-1-9. This decision is not subject to administrative review because it is not a determination of any legal rights, duties, privileges, immunities, or other legal interests, and because it is issued pursuant to an informal procedure for dispute resolution as allowed by IC 4-21.5-3-34 (a).



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

October 16, 2017

Tom Antonoff
Senior Project Manager – Environmental Remediation
Global Operations, Environment, Health & Safety
General Electric Company
1 River Road – Bldg 5-7W
Schenectady, NY 12345

Dear Mr. Antonoff:

Re: Response to Comments
Sherman Park Facility
600 North Sherman Drive
Indianapolis, IN 46201
VRP # 6020801

The Indiana Department of Environmental Management (IDEM) has reviewed the Response to Comments (TetraTech, August 30, 2017) for the Sherman Park Facility site located at 600 North Sherman Drive in Indianapolis, Indiana. The response was prepared in response to the IDEM letter of August 18, 2017 (VFC# 80507498).

The response was uploaded to the IDEM Virtual File Cabinet (VFC) as document # 80514067. Further site history can be found in the VFC located on the IDEM website www.idem.in.gov. This technical letter contains a brief background summary including comments generated during our review of the above mentioned report.

Background

This site was used for manufacturing radio and television parts until 1995, and the site has been used for a variety of manufacturing processes since then (GeoTrans, 2010). The 50 acre site is located in a mixed industrial, commercial, and residential area. A railroad track divides the site into eastern and western sides, and there are five buildings on the eastern side and two on the western side. According to the annual report, 90 percent of the site is covered in asphalt or by buildings.

Investigations of soil and groundwater contamination at the site have taken place since about 1990 (GeoTrans, 2010); and four on-site source areas have been identified: the former Chemical Storage Building (CSB), the former Solvent Tank Area (STA), the former Metal Plating Area (MPA), and the 1,1,1-Trichloroethane Still Area (TSA). Chlorinated volatile organic compounds (VOCs) are the primary Constituents of Concern (COCs) at this site. The site entered the Voluntary Remediation Program (VRP) in 2003. A Remediation Work Plan (RWP) was submitted (Geo Trans, 2010) and approved by IDEM (August 12, 2010). According to the RWP, the upper water bearing unit is a saturated sand and gravel layer at approximately 15 to

40 feet below ground surface (bgs). The middle water bearing unit is hydraulically connected to the lower water bearing unit, and the upper surface of this unit was encountered from 45 to 65 feet bgs. The upper surface of the lower water bearing unit was encountered from 66 to 85 feet bgs (GeoTrans, 2010). Groundwater in the upper and middle water bearing units flows to the southwest. According to the RWP, groundwater is not used as a potable water supply at the site or surrounding area. As discussed in Section 1.3 of the annual report, remediation activities at the site include cap installation, bioenhancement injections, bioaugmentation injections, and groundwater monitoring.

Comment

Response to Comment #5: Tetra Tech concludes that historical groundwater conditions show a northerly flow for both the middle/intermediate and lower water bearing units. The May 16, 2007 Revised RWP (VFC #45462473) was reviewed to provide historic groundwater flow conditions:

- The November 2004 groundwater contour map for the middle/intermediate water-bearing unit (Figure 7.9) shows a west-northwest flow direction that would not influence on-site contaminant concentrations.
- The April 2002 groundwater contour map for the middle/intermediate water-bearing unit (Figure 7.10) shows a west-northwest flow direction that would not influence on-site contaminant concentrations.
- The November 2004 groundwater contour map for the lower water-bearing unit (Figure 7.11) shows a northerly flow direction that would influence on-site contaminant concentrations.
- The April 2002 groundwater contour map for the lower water-bearing unit (Figure 7.11) shows a northerly flow direction that would influence on-site contaminant concentrations.

Based on the groundwater flow data, Tetra Tech correctly concludes that contamination in the lower water bearing unit is migrating on-site from the THAN/Harcros site. However, based on the groundwater flow data from the middle/intermediate water-bearing zone IDEM does not agree with the conclusion that all of the contamination in the middle/intermediate water bearing unit is migrating on-site from the THAN/Harcros site, although at this time, IDEM is not requiring further action from the applicant to address this issue.

The rest of the responses have addressed all of the IDEM comments acceptably; despite IDEM not agreeing with the conclusion that the sole source of contamination in the middle/intermediate water-bearing unit is migrating on-site from the THAN/Harcros site, which is being addressed under a separate VRP as site #6011005. As noted in IDEM's previous response to comment #5, no additional monitoring wells are required at this time. The data from the Phase I /II Investigations should be included in reports to support the conclusion that off-site (out-side the designated CNTS area) sources (besides the THAN/Harcros site) are contributing to the contamination present in the middle/intermediate water bearing zone.

The applicant does not need to respond to this letter, and may continue the groundwater monitoring according to the approved RWP.

If you have any questions, please contact me at (317) 233-5298, (800) 451-6027, or at mmccann@idem.in.gov.

Sincerely,



Michael R. McCann,
Project Manager
Voluntary Remediation Program
Office of Land Quality

cc: Michael Noel, TetraTech, 175 North Corporate Drive, Suite 100, Brookfield, WI 53045

It is the goal of IDEM to enable remediation sites to move forward in a timely manner. If an impasse has been reached over technical issues, a Technical Review Panel of non OLQ scientists is available to review and offer a non-binding opinion to help resolve technical disagreements with the VRP and State Cleanup Program project managers. The goal is to facilitate progress at your site. This review process is available immediately. If you would like to request a review by the Panel, please contact Bruce Oertel, Branch Chief, Remediation Services Branch, OLQ at (317) 232-4535 or boertel@idem.in.gov.

Any decision produced by the Technical Review Panel is not an agency action as defined in IC § 4-21.5-1-4 or an order as defined in IC §4-21.5-1-9. This decision is not subject to administrative review because it is not a determination of any legal rights, duties, privileges, immunities, or other legal interests, and because it is issued pursuant to an informal procedure for dispute resolution as allowed by IC 4-21.5-3-34 (a).