



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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**Eric J. Holcomb**  
*Governor*

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*Commissioner*

June 21, 2022

Mr. Chad Coy  
Paramount Global (f/k/a ViacomCBS Inc.)  
20 Stanwix Street, 10th Floor  
Pittsburgh, PA 15222-1353

Mr. Scott Jagger  
Progress Rail Manufacturing Corporation  
1605 Progress Drive P.O. Box 1037  
Albertville, AL 35950

Mr. Arie de Jong  
Arizona Maricopa Associates, L.L.C.  
807 East Mission Road  
San Marcos, CA 92069

Mr. Donell Jackson  
ABB, Inc.  
45 Griffin Rd. South  
Bloomfield, CT 06002

Re: Voluntary Remediation Program, Site Investigation Work Plan  
Progress Rail Facility  
3500 S. Cowan Road  
Muncie, IN 47302  
VRP #6210301

Dear Messrs. Cepko, Jagger, de Jong, and Jackson:

The Indiana Department of Environmental Management (IDEM) has reviewed the Voluntary Remediation Program, Site Investigation Work Plan (PSARA Technologies, Inc. [PSARA], February 18, 2022) for the Progress Rail Facility located at 3500 S. Cowan Road in Muncie, Indiana.

The report was uploaded to the IDEM Virtual File Cabinet (VFC) as document #83284826. Further site history can be found in the VFC located on the IDEM website [vfc.idem.in.gov](http://vfc.idem.in.gov). This technical letter contains a brief background summary including comments generated during IDEM's review of the above mentioned report.

## Background

The site is located in the southwest portion of Muncie, Indiana and occupies approximately 300 acres, with 750,000 square feet of building space under roof. The area surrounding the site consists primarily of light industrial facilities, a golf course, and undeveloped land. The initial facility was constructed in 1961 for the purposes of manufacturing of high-voltage-capacity, large-



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scale power transformers as well as the repair/rebuilding of shell-type transformers. Newly constructed transformers were historically filled with mineral oil. The use of fluids containing polychlorinated biphenyls (PCBs) in transformer manufacturing operations at this plant was limited to non-contact heat transfer fluids, which ended in 1982.

Where the property has not been developed, it is mostly a grass-covered and relatively level with a slight slope to the east. Surface water follows the topography of the site and drains to the east by a series of storm water ditches toward an unnamed tributary of Buck Creek. Two main ditches flowing eastward bound the main Site operations to the north and south. Additionally, along the west side of the plant, surface drainage flows to the west-northwest toward a grassy swale (Cowan Road Ditch) that eventually drains into Buck Creek to the north.

The drainage ditches carrying storm water from the site, as well as Buck Creek itself, have been sampled extensively in the past. One sediment sample collected from the south ditch in 1996 contained a PCB concentration of 13 ppm. Sediment samples collected much further downstream at the time and prior to a 2021 off-road diesel release were below laboratory limits for PCBs. This stormwater ditch will be the subject of a TSCA cleanup under a separate work plan.

Paramount's predecessor, Westinghouse, operated the plant until February 1989, when joint operations began with ABB, Inc. (ABB). The joint operation continued until December 1989, when ABB purchased the plant from Westinghouse and became the sole operator. Manufacturing operations continued through a majority of the 1990s and ceased in the latter part of 1998. Most of the machinery and equipment was dismantled and removed from the property during 1999.

The Site was acquired from ABB by Commercial Development Corporation in 2002, which leased the property to various tenants for warehousing cans for use in the packaging of tomato-based products until 2006. In 2007, the property was acquired by Arizona Maricopa Associates, LLC (AMA), a real estate investment company. In 2010, the property was leased to Progress Rail Manufacturing Corporation (PRMC), who has modified the plant for the purpose of manufacturing locomotives.

Two areas of historical releases identified during ABB's operation of the site were addressed under a previous Voluntary Remediation Project (VRP) remediation project (VRP #6990826). One area is located on the eastern side of the main operations building near a receiving dock and boiler room and north of a former southeast AST farm. In this area, underground piping was used to convey mineral oil product from the ASTs to the aboveground distribution system within the building. A release of mineral oil was identified in the vicinity of the piping and remediated by an extraction system from approximately 2002 to 2010.

The second area addressed under this previous VRP project was a former underground storage tank (UST) containing Therminol® (a mineral oil-based heat transfer fluid) located along the exterior of the northwest wall of the main Site building. This process tank was removed in October 1998, and Leaking Underground Storage Tank (LUST) Incident #199811570 was assigned to a release identified by impacted soil samples collected during its closure. Further investigation of the release involved installation of three groundwater monitoring wells used to demonstrate that there was no significant groundwater contaminant plume associated with the incident. VRP #6990826 was completed and granted a Covenant Not To Sue (CNTS) for the two areas on July 19, 2011.

During the period that transformers were manufactured at the site, a "Vapotherm Process" was used to dry and impregnate the windings with mineral oil. During this time, there were two different Vapotherm process areas. The original Vapotherm process area (FVPA) was located in the west central section of the plant within the high bay area, while the supporting tank farm area (FVTFA) was immediately west of the manufacturing building in the exterior yard of the main building. The original Vapotherm process utilized a PCB heat transfer fluid to heat the unit. The two original process units were replaced in 1982 with second-generation units that did not use PCB heat transfer fluid. Operation of the second generation Vapotherm units continued until 1998, when the system was decommissioned.

Contamination discovered in the FVTFA was from a combination of multiple releases during its operating history. Contaminants of concern (COCs) remediated in the FVTFA area included volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and PCBs. Initial remediation of soils in the FVTFA area was completed in 1984 after the Vapotherm units were upgraded and relocated. In 1990, a site-wide investigation identified residual PCBs in the FVTFA. Additional delineation was completed, and in 2006, a grid-based removal of PCB-impacted soils was performed under VRP #6000408. A combination work plan and completion report on this interim remedial action was provided to IDEM in September 2007. In 2010, this project was combined with the Vapotherm process area remediation (VRP #6000407).

Beginning in 1991, subsurface investigations were conducted within the FVPA. Two distinct plumes of light nonaqueous-phase liquid (LNAPL) beneath the plant floor were identified over the course of the subsurface investigations. One of these LNAPL plumes was also found to have significant levels of PCBs. An associated groundwater plume with PCB contamination was also identified and delineated under the plant floor. Since there were no recorded spills within the FVPA, it is likely that the contamination resulted from leakage of subsurface pipes/sumps.

Beginning in 1994, LNAPL recovery began which utilized monitoring wells installed within the plant footprint. The remedial activities continued periodically through the fall of 2010. In total, more than 691 gallons of LNAPL were recovered from wells within the plant, and several thousand gallons of additional oil or oil-water mixtures were removed from various sumps and manholes associated with the former subsurface process line and floor drain system. Extensive measurements of the LNAPL levels within the monitoring wells inside the plant over many years have shown that the LNAPL plumes are relatively stable and do not appear to be expanding laterally. In 2011, the monitoring wells within the building were properly abandoned to facilitate PRMC's use of the plant for manufacturing. With the exception of residual LNAPL along the immediate exterior of the western building wall, remaining contamination in these areas is covered by a concrete floor, which ranges in thickness from six inches to two feet.

The current closure strategy for the combined VRP project (#6000407/6000408) for the FVPA and FVTFA is to demonstrate stability of the residual LNAPL and dissolved contaminant plumes west of the main building and to mitigate exposure to contaminants through an environmental restrictive covenant (ERC). The ERC will also address the main historical LNAPL plumes associated with the Vapotherm process areas remaining beneath the building foundation by requiring maintenance of the floor.

The former archery field area is currently being addressed as a soil cleanup under the United States Environmental Protection Agency's (U.S. EPA's) Toxic Substance Control Act (TSCA). The subject area is located east of the plant within the area of the new railroad test tracks developed by PRMC. The area consists of tall grasslands, a small wooded area, and a drainage ditch that appears to have historically carried more water than at present. Prior to development

of the test tracks, the ditch flowed north to meet the site ditch network, which then curved east to drain into Buck Creek. Evidence of past releases of PCBs in the area were identified in two previous investigations:

1. During a site perimeter investigation completed by PSARA in 1991, a soil sample collected from a piezometer soil boring (PZ-17) exhibited a PCB concentration of 56 parts per million (ppm).
2. In 2010, a Phase II environmental site assessment was completed by LP Environmental as part of the transition of occupancy to PRMC. Several soil borings were advanced in the subject area based on the 1991 investigation findings as well as other suspect debris near the drainage ditch. The investigation found shallow soil contamination as high 260,000 ppm of PCBs as well as evidence of downstream migration of PCBs within the drainage ditch sediments.

Subsequent delineation sampling was performed in 2013, and a TSCA work plan for soil remediation is being prepared.

PCB remediation was completed in several areas on the exterior of the plant building in response to planned construction activities at the site. In 2015, the City of Muncie required the facility to separate combined sanitary and storm sewers. Two sewer line runs were sampled for PCBs because they traversed the FVTFA and process area investigation zones. Soils in the vicinity of both lines exhibited elevated PCB concentrations and were subsequently delineated for removal prior to the line work. The northern sewer line area soils were remediated to less than 25ppm laterally and vertically, and the sewer line was installed and internally lined to prevent any leaching from the surrounding soils or groundwater in the future. The southern sewer line run only required removal of the upper 1 foot of material along a 10-foot by 20-foot area.

The second area of remediation was located southeast of the plant building in an asphalt/concrete lot planned for restoration by PRMC. Preliminary soil sampling in the area identified several areas of PCB contamination in soils to depths of up to five feet below ground surface (bgs). Once delineated by additional investigations, a total of four excavations were completed in 2015 to remove impacted soils to less than 25 ppm. A final Sewer Line and Asphalt Area Remediation report was submitted to U.S. EPA, Region 5 and IDEM in March 2016.

In 2021, VRP Project #6210301 was established to address remaining Areas of Concern (AOCs), Solid Waste Management Units (SWMUs), and other previously identified contaminated areas that are not currently being addressed by prior or ongoing remediation projects. PSARA asserts that the following areas require no additional investigation based on previous evaluation or are addressed under separate cleanup projects.

1. AOC 2, AOC 3, and SWMU 4) are currently being addressed by the combined active VRP Projects #6000407 and #6000408.
2. SWMU 1 was a former hazardous waste drum storage site that was addressed by the 2015 asphalt area remediation project. The remediation report (IDEM VFC #80251827) has been submitted to U.S. EPA, Region 5's TSCA program for review as well as IDEM.
3. SWMU 5 and SWMU 11 consisted of three satellite waste accumulation areas inside the main building and within the footprint of the former Vapotherm operations. Previous

research as well as IDEM's review of the 2015 RCRA summary concluded that no additional investigation work in these areas is necessary.

Following execution of the Voluntary Remediation Agreement for VRP #6210301, IDEM received a Voluntary Remediation Program, Site Investigation Work Plan on February 18, 2022. Comments generated during IDEM's review of the work plan are provided below.

#### Comments

1. It is possible that a nested well set, instead of a single well, will be required to adequately investigate chlorinated volatile organic compounds (cVOCs) associated with the former parts washer/SWMU 12 area. IDEM will assess groundwater flow direction and initial analytical results to determine if additional wells will be needed in this area.
2. Soil samples will be field screened with a Photoionization Detector (PID) during soil boring advancement. It was not clear from the work plan if soil samples will be split with a portion placed immediately into U.S. Method 5035 sample containers prior to screening. Clarification is needed to ensure that samples analyzed for VOCs are collected appropriately.
3. The work plan indicates that duplicate and matrix spike/matrix spike duplicate (MS/MSD) samples will be collected at a rate of 1 per 20 samples. A rinsate blank will also be collected at a rate of one per day. However, the work plan does not indicate if a trip blank will be collected during soil VOC sampling. One trip blank per cooler must be collected during soil VOC sampling.
4. Field sampling standard operating procedures (SOPs) were provided and found to be acceptable. However, FP-039 for Method 5035A was not provided. This field sampling SOP must be provided for review.
5. In addition, you may need to receive a separate Federal TSCA PCB approval for any workplans addressing PCB contamination at the site from U.S. EPA. U.S. EPA recommends for sites with extensive PCB contamination that "responsible parties" submit one comprehensive TSCA PCB Approval application intended to address all of PCB contamination at the site. U. S. EPA will comment on any workplans related to PCBs only after reviewing a detailed account of the site's current/historical PCB conditions. The Applicants must follow the checklists found in: [https://www.epa.gov/sites/default/files/201706/documents/06072017\\_final\\_pcbfast\\_toolbox\\_508compliant.pdf](https://www.epa.gov/sites/default/files/201706/documents/06072017_final_pcbfast_toolbox_508compliant.pdf).

Within 60 days from the receipt of this letter, please submit a Site Investigation Work Plan Addendum to address these comments. If you have any questions, please contact me at (317) 233-7089, (800) 451-6027, or at MNance@idem.IN.gov.

Sincerely,



Mark A. Nance,  
Senior Environmental Manager  
Voluntary Remediation Program  
Office of Land Quality

cc: Mr. Michael O'Connell, PSARA Technologies, Inc. (ecopy)  
Mr. Michael Hessling, PSARA Technologies, Inc. (ecopy)  
Mr. David Gillay, Barnes & Thornburg LLP (ecopy)  
Mr. Joseph Kelly, U.S. EPA, Region 5 (copy)  
Mr. Peter Ramanauskas, U.S. EPA, Region 5 (copy)  
Mr. John Steketee, U.S. EPA, Region 5 (copy)  
Mr. Michael Beedle, U.S. EPA, Region 5 (copy)  
Ms. Julie Lang, IDEM, Office of Legal Counsel (ecopy)  
Mr. George Ritchotte, IDEM, Office of Land Quality (ecopy)  
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Mr. Michael McCann, IDEM, Voluntary Remediation Program (ecopy)

*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 OLO 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).*