



October 13, 2020

Peter Ramanauskas
U.S. EPA Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604-3590

Dear Mr. Ramanauskas:

Re: RCRA Corrective Action Administrative Order on Consent (AOC)
Progress Report 78, Third Quarter 2020
GM GPS – Bedford Facility, ID 006036099, Docket No. RCRA 05 2017 0011
Bedford, Indiana

This Progress Report is submitted by General Motors LLC (GM) in accordance with the GM Bedford Casting Operations (BCO) Facility Resource Conservation and Recovery Act (RCRA) Administrative Order on Consent (AOC – United States Environmental Protection Agency [U.S. EPA] Docket No. RCRA 05-2014-0011), executed on August 4, 2014. This report covers the period of the third calendar quarter of 2020 for the RCRA Corrective Action (CA) Project at the GM BCO – Bedford Facility (Facility) and select surrounding properties (Site), Bedford, Indiana.

The next RCRA progress report covering the fourth quarter of 2020 will be submitted on or before January 15, 2021.

1. List of Completed Activities

The following activities took place and the following documents were prepared and distributed during this quarter:

1. The Groundwater Treatment Plant (GWTP) collected and treated water from the Pilot Trench, Vault sumps, and wet wells during the third quarter of 2020. An estimated 0.05 pounds of PCBs were removed during the quarter through collection and treatment of the groundwater. A summary of the volumes and sample results used for this calculation is provided in Table 1. Operational and compliance samples were collected monthly. Monthly discharge monitoring reports have been submitted to the State of Indiana in conformance with the National Pollutant Discharge Elimination System (NPDES) Permit Number IN0064424. A total of 4,396,531 gallons of treated groundwater were discharged.
2. Progress Report 77 covering the second quarter of 2020 was submitted to U.S. EPA on June 26, 2020.
3. Absorbent socks were removed and replaced from CH-5A and MW-X209Y053 in July, August and September 2020. Table 2 summarizes oil removal (based on disposal weights) from the AOI-8 area.



GENERAL MOTORS

4. Oil collection from CH-2A (solar sipper) resumed on September 23, 2020 following system repairs.
5. RFI Addendum No. 1 was submitted to U.S.EPA on July 10, 2020.
6. The 2019 Annual Vault Report was submitted on July 13, 2020.
7. EI CA750 groundwater static measurements and sampling event was conducted in July 2020.
8. The draft NPDES permit renewal application was submitted to IDEM on August 3, 2020.
9. The 2020 Annual Meeting – Part 1 was held on August 11, 2020.
10. U.S.EPA provided comments on the 2019 Annual Vault Report on August 11, 2020.
11. GM's request for EPA to determine the Spring 018 interim measure has been completed was submitted by email dated August 11, 2020.
12. Updated Figures for the Pilot Trench Performance Monitoring Plan (PMP) were provided by email dated August 13, 2020.
13. A copy of the P400/430/431 construction schedule was provided to U.S.EPA on August 13, 2020.
14. GHD began mobilization for the P400/P430/P431 excavation work on August 17, 2020.
15. Access agreements to conduct the dye trace study as part of the PMP were obtained on August 24 and 25, 2020.
16. Responses to U.S.EPA comments on the 2019 Annual Vault Report were submitted by email dated September 2, 2020.
17. The estimated fiscal year annual mass of PCB removed as a result of the cleanup activities from October 2019 through September 2020 was provided to U.S.EPA on September 2, 2020. Additional information including GWTP treatment volume, P400/430/431 soil excavation, oil recovery were provided on September 8, 2020.
18. U.S.EPA provided comments on the RFI Addendum by email dated September 11, 2020.
19. The 2020 Annual Meeting – Part 2 was held on September 22, 2020.
20. On September 23, 2020, field staff met with a technician from Geotech to troubleshoot and resolve the AOI-8 solar sipper performance problems.
21. The sump pump in the Leachate Detection System (LDS) was replaced on September 24, 2020. Approximately 589 gallons of water was removed from the LDS at that time.
22. GHD field verified seeps and spring identified in the PMP thermal study on September 24, 2020.
23. U.S.EPA submitted comments on the Spring 018 Interim Measure Completion Memo on September 29, 2020.
24. A smoke test to evaluate the condition of the repaired storm sewer line from damage occurring as a result of the clarifier area well installations was conducted on September 30, 2020.
25. Monthly conference calls/meetings were held with U.S. EPA and IDEM July, August and September 2020.
26. On-site tailgate meetings for the reporting period were held daily, during field activities, to discuss safety and project scope.

Although not included in the RCRA CA activities, GM continues to work with U.S. EPA and IDEM for the prescriptive removal of PCB-impacted soil at Parcels 400, 430 and 431. The following



G E N E R A L M O T O R S

activities took place and the following documents were prepared and distributed during this quarter related to this work:

1. A copy of the P400/430/431 construction schedule was provided to U.S.EPA on August 13, 2020.
2. GHD began mobilization for the P400/P430/P431 excavation work on August 17, 2020. Work was substantially completed on September 18, 2020.
3. A total of 2,751.43 tons of PCB-impacted soil were shipped to Heritage's Roachdale, Indiana landfill. Using the average PCB concentration for the

As part of the GM Facility's on-going infrastructure improvements, GM removed the million-gallon tank, located on the east side of GM Drive, just north of Parcel 201. Following tank removal, the containment area was regraded. A cover system, consistent with the East Plant Area cover system, was installed in the basin. Liner installation work was conducted September 14-25, 2020.

2. Summaries of Problems and Planned Resolutions

During March 2020, the United States became increasingly impacted by the uncertainties surrounding the global COVID-19 pandemic. Due to the business disruption caused by the pandemic, GM and U.S.EPA agreed to suspend or defer select project tasks until the business disruption has diminished. During June 2020, state governments and companies began to lift work restrictions. GM began resuming RCRA Corrective Action related work in July 2020 following implementation of safety procedures.

A technician from the solar sipper manufacturer, Geotech, was on-site on September 23, 2020 to help troubleshoot issues related to the performance of the solar sipper. The primary issue with the solar sipper performance was that the vacuum lines had been filled with oil. The vacuum lines, manifold and fittings were purged of oil and replaced as needed. The desiccant pack was replaced. The system timing was reset to optimize system performance.

The sump in the leak detection system was inoperable. The sump was replaced on September 24, 2020. The GWTP operator removed 589 gallons of water.

GM attempted to remove the sump pumps within the gravel underdrain system (GUS). The attempt was unsuccessful. GM identified a 3-inch galvanized pipe in the sump that could be used as a groundwater extraction point. Prior to the COVID-19 business disruption, GHD has identified two thin pumps that could possibly fit within the galvanized pipe to extract groundwater. These pumps are scheduled to be tested the first week of November 2020.

3. Projected Work for the Next Reporting Period

Work anticipated for the next reporting period, based on GM's proposed suspended or deferred project tasks includes:

1. Continue OMM for the GWTP.
2. Continue GWTP discharge reporting under the NPDES permit.
3. Collect monthly transducer data from the pilot trench monitoring locations.



GENERAL MOTORS

4. Submit the RFI Addendum responses to comments.
5. Conduct EI CA750 groundwater sampling.
6. Prepare the clarifier area oil recovery work plan.
7. Prepare short-term OMM plan for completed on-site remedial action items.
8. Prepare the construction completion reports for Parcel 400 and Parcels 430/431.
9. Complete angle well installation for monitoring under the PMP.
10. Collect background analytical data in advance of the PMP dye trace study.
11. Conduct the semi-annual cap inspection.
12. Conduct the cleanout inspections.
13. Test pumps for groundwater extraction at the GUS.
14. Provide U.S. EPA and IDEM project updates via emails and/or telephone calls.

Please feel free to call me at 313-506-9465 if you have any questions concerning this information or otherwise regarding the Bedford GM LLC Project.

Sincerely,



Ed Peterson
Project Manager, Eco-Restorers
GM Sustainable Workplaces

KK/lg/3

Encl.

cc: Daniel Haag; U.S. EPA
Chris Myer; IDEM
Ed Peterson; General Motors
Nathan Milliman; General Motors
John Maher; General Motors

Katie Kamm; GHD
Julie Luzwick; GHD
Bill Steinmann; GHD
Francis Ramacciotti; GHD



GENERAL MOTORS

Table 1

**GWTP PCB Mass Removal Estimate
GM Bedford GPS Facility
Bedford, Indiana**

	Groundwater Treatment Plant (GWTP) Treated Volume (gallon)	PCB Influent Concentration (µg/L)	Mass PCB Treated (pound)
January 2019	5,467,881	0.71	0.032
February 2019	5,393,116	ND	0.000
March 2019	4,916,870	0.92	0.038
April 2019	5,547,708	1.5	0.069
May 2019	3,670,000	1.3	0.040
June 2019	5,542,417	1.2	0.056
July 2019	1,743,512	1.6	0.023
August 2019	930,385	1.1	0.009
September 2019	753,569	1.6	0.010
October 2019	977,015	1.5	0.012
November 2019	2,104,042	2.2	0.039
December 2019	3,099,964	1.4	0.036
January 2020	4,690,161	0.68	0.027
February 2020	3,642,899	1.1	0.033
March 2020	4,853,095	0.96	0.039
April 2020	2,681,548	1.4	0.031
May 2020	3,767,813	1.2	0.038
June 2020	2,295,164	0.96	0.018
July 2020	1,465,351	1.6	0.020
August 2020	2,109,119	0.89	0.016
September 2020	822,061	1.5	0.010
Total Estimated Volume of Water Treated, Third Quarter 2020 (gallons)			4,396,531
Total Estimated Mass of PCB Treated, Third Quarter 2020 (pounds)			0.05
Total Estimated Mass of PCB Treated, Since January 2019 (pounds)			0.60

Notes:

¹ PCB concentration based on an average of parent and duplicate sample

Table 2

**AOI-8 Oil Removal
GM Bedford GPS Facility
Bedford, Indiana**

Date	Well	Weight (lbs)	PCB Weight (lbs) ¹
1/9/2019	CH-5A ¹	2.22	1.73
1/23/2019	CH-5A	2.16	1.68
2/11/2019	CH-5A	2.3	1.79
2/26/2019	CH-5A	2.33	1.82
3/7/2019	CH-5A	2.18	1.70
3/18/2019	CH-5A	2.29	1.79
4/1/2019	CH-5A	2.39	1.86
7/15/2019	CH-5A	2.85	2.22
7/31/2019	CH-5A	1.88	1.47
8/22/2019	CH-5A	1.1	0.86
11/20/2019	CH-5A	1.2	0.94
12/17/2019	CH-5A	2.5	1.95
1/20/2020	CH-5A	3	2.34
2/13/2020	CH-5A	2	1.56
4/24/2020	CH-5A	1.5	1.17
7/16/2020	CH-5A	1.25	0.98
8/12/2020	CH-5A	2.75	2.15
9/24/2020	CH-5A	2	1.56
Total PCB Removed			29.56
3/25/2019	MW-X209Y053 ²	25.02	0.33
7/15/2019	MW-X209Y053	2.45	0.03
7/31/2019	MW-X209Y053	1.98	0.03
8/22/2019	MW-X209Y053	1.1	0.01
1/20/2020	MW-X209Y053	2.1	0.03
2/13/2020	MW-X209Y053	1	0.01
4/24/2020	MW-X209Y053	1	0.01
7/16/2020	MW-X209Y053	1.0	0.01
9/24/2020	MW-X209Y053	1.6	0.02
Total PCB Removed			0.40
3/28/2019	Solar Sipper ³	76.57	1.00

Notes:

¹ PCB weight based on analytical data from April 9, 2014
(CH-5: 780,000 mg/kg; CH-2A: 13,000 mg/kg)

² MW-X209Y053 PCB weight based on DNAPL density of 1.2 g/cc

³ PCB weight from solar sipper is based on an approximate volume of oil removal