

**RCRA FACILITY INVESTIGATION
AND CERCLA REMOVAL ACTION**

**QUARTERLY PROGRESS REPORT #47
FOURTH QUARTER 2012**

**GM CETC - BEDFORD FACILITY
105 GM DRIVE
BEDFORD, INDIANA**

**EPA ID# IND006036099
AOC DOCKET NO. V-W-'03-C-747**

**Prepared For:
General Motors LLC**

**JANUARY 14, 2013
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**Real Estate & Facilities
Remediation Team**

January 14, 2013

Reference No. 013968

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Dear Messers Stimple and Ramanauskas :

Re: GM CETC – Bedford Facility, IND 006036099
Performance-Based RCRA Corrective Action
Quarterly Progress Report #47, Fourth Quarter 2012
GM CETC - Bedford Facility
Bedford, Indiana

Please find enclosed the Quarterly Progress Report #47 (Fourth Quarter 2012) for the Performance-Based RCRA Corrective Action project and the CERCLA Removal Action (RA) at the GM Castings, Engines, Transmissions, and Components (CETC; formerly Powertrain) -Bedford Facility (Facility) 105 GM Drive Bedford, Indiana, and select surrounding properties (Site). This report is being submitted in accordance with the Performance-Based RCRA Corrective Action Agreement, signed March 20, 2001 and amended October 1, 2002, March 29, 2007, and May 9, 2008 and in accordance with the Administrative Order on Consent (AOC) for Removal Action Proceeding Under Sections 104, 106(a), 107, and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, 42 U.S.C. SS 9604, 9606(a), 9607, and 9622 (United States Environmental Protection Agency (U.S. EPA) Docket No.: V-W-'03-C-747) effective July 31, 2003, as amended for quarterly reporting by U.S. EPA approval, September 14, 2012.

The next RCRA/CERCLA quarterly progress report covering the first Quarter of 2013 will be submitted on or before April 15, 2013.

Should you have any questions regarding this document, please do not hesitate to contact me at (313) 510-4328.

Yours truly,

General Motors LLC

Cheryl R. Hiatt
Project Manager

YD/cs/2
Encl.

c.c.: See Attached Distribution List

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**QUARTERLY PROGRESS REPORT
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1.0 INTRODUCTION

This Quarterly Progress Report is submitted by General Motors LLC (GM) in accordance with the Bedford Performance-Based Corrective Action Agreement (Agreement), executed on March 20, 2001, and modified on October 1, 2002, March 29, 2007, and May 9, 2008; and in accordance with the Administrative Order on Consent (AOC) for Removal Action Proceeding Under Sections 104, 106(a), 107, and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, 42 U.S.C. SS 9604, 9606(a), 9607, and 9622 (United States Environmental Protection Agency (U.S. EPA) Docket No.: V-W-'03-C-747) effective July 31, 2003, as amended for quarterly reporting by U.S. EPA approval, September 14, 2012. This report covers the period of the fourth calendar quarter of 2012 for the Resource Conservation and Recovery Act (RCRA) Corrective Action (CA) Project and the CERCLA Removal Action (RA) at the GM Castings, Engines, Transmissions, and Components (CETC; formerly Powertrain) - Bedford Facility (Facility) and select surrounding properties (Site), Bedford, Indiana.

The next RCRA/CERCLA quarterly progress report covering the first Quarter of 2013 will be submitted on or before April 15, 2013.

2.0 LIST OF COMPLETED ACTIVITIES

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

- Maintenance of storm water and erosion controls continued on an as-needed basis.
- Development of the remedial strategy for the Spring 018 area has continued into this quarter.
 - Spring 018 water continues to be collected and treated by SES's on-Site water treatment system. Bimonthly sampling of the treatment system was completed in October and December during this period and results emailed to U.S. EPA. The next samples will be collected in February 2013. Sample results from SES's water treatment system during the reporting period are provided in Table 2.1.
 - Results for samples collected from Spring 018 during the quarter are presented in Table 2.2. Sample results for the monthly sampling were previously emailed to U.S. EPA and IDEM.
 - Dye trace studies were conducted in September and October to check connectivity of the creek to Spring 018 effluent and to assist with the remedial design for this area. A photograph log of the September dye-trace activities was emailed to U.S. EPA and IDEM on October 9, 2012.
 - A memo summarizing the results from Spring 018 area dye trace testing was submitted U.S. EPA and IDEM on November 27, 2012.
 - A conference call with U.S. EPA and IDEM discussing the Spring 018 bedrock sealing design was held on November 14, 2012. A follow-up email formally responding to U.S. EPA and IDEM questions on the design discussed during the call was sent on November 20, 2012.
 - Concrete sealing work of the creek channel in proximity to Spring 018 as well as improvements to the Spring 018 containment berm commenced in December.
- Down-hole geophysics were completed in coreholes along the new proposed trench alignment in December 2012.
- Cover maintenance activities during the fourth quarter included re-seeding various bare areas in October 2012.
- The second Environmental Indicator (EI) CA750 static groundwater levels and the first semi-annual groundwater samples were collected in July and August of 2012.

A memo was sent on December 19, 2012 in response to the U.S. EPA August 1, 2012 comments regarding this sampling event.

- The second round of EI CA750 semi-annual groundwater samples were collected in December of 2012.
- The fourth quarterly sampling events for the Leachate Collection and Leak Detection Sumps were completed on October 29 and December 11 of 2012.
- Conference calls were held with U.S. EPA and IDEM October 2, 15, and 30, November 9 and 27, and December 13, 2012, to discuss items related to the RA and the design and construction of the East Plant Area Interim Measures (IM).
- On-Site construction meetings for the reporting period have been held informally daily and formally as needed. During this maintenance period, formal SES construction meetings were held on October 9, November 13, and December 11, 2012. Tailgate safety meetings are held daily for both the consultant and the contractor.
- The RCRA/CERCLA Quarterly Progress Report #46, covering the third Quarter of 2012, was submitted to the U.S. EPA and IDEM on October 12, 2012.

3.0 **SUMMARIES OF ALL ANTICIPATED PROBLEMS AND PLANNED RESOLUTIONS**

- GM is reviewing additional evaluation steps and design alternatives for Spring 018 with U.S. EPA and IDEM. GM conducted additional temperature monitoring and new dye-trace studies to more fully understand the Spring 018 hydrogeologic system in support of the design. Additional activities are being completed in the area with the installation of a concrete sealing layer within the former swallet areas upstream of Spring 018. GM continues to collect and treat water emanating at Spring 018 and will be monitoring changes to the conditions in the creek and spring related to the concrete sealing.

4.0 SUMMARIES OF ALL CHANGES MADE IN THE CORRECTIVE ACTION (CA) DURING THE REPORTING PERIOD

The following changes were made to the CA during the reporting period:

- Submission of Spring 018 area dye trace testing results memo dated November 26, 2012
- Submission of the EI CA750 sampling results for the first half of 2012 on December 19, 2012
- Initializing concrete pouring activities at Tributary 2 creek bed and Bailey's Branch as part of the Spring 018 remedial activities in December 2012

5.0 COMMUNITY RELATIONS

The telephone number for public contact is 812-277-8954 (Katie Kamm, CRA). Individual meetings can be arranged to discuss project progress with residents as requested.

The next neighborhood and public meeting, and CLP meeting are scheduled for January 16, 2013. Presentations for past meetings are posted on the GM website at www.bedfordpowertraincorrectiveaction.com.

The document repository has been restored at the Bedford Public Library, with relevant project related documents available on compact disc (CD) in PDF format. Information will be updated periodically, as new documents become available. All data located in the Library repository can also be found on the aforementioned website.

6.0 CHANGES IN PERSONNEL DURING THE REPORTING PERIOD

Primary oversight personnel for CRA and Severson Environmental Services (SES) remain unchanged. Workers were mobilized during the fourth quarter in support of the Spring 018 concrete sealing construction activities. Some personnel also remained on-site for routine site monitoring and maintenance and other site related projects as they occur.

7.0 PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Work anticipated for the next reporting period includes:

- Continue maintenance of erosion controls as needed
- Sample SES's on-Site water treatment plant in February in accordance with the monitoring schedule
- Submit the restoration design for the two remaining properties west of Peerless Road that GM LLC is responsible for restoring
- Submit the report outlining the results of the 2012 inspection of the Parcel 22 restoration south of Broomsage Road
- Continue maintenance of the East Plant Area Cover System
- Submit results summary of the downhole geophysical testing of coreholes along the proposed alignment for the East Plant Area Groundwater Collection Trench
- Submit the EI CA750 results from the first semi-annual 2013 monitoring event
- The next round of EI CA750 static groundwater level measurements are scheduled to be completed in the first quarter of 2013
- Submit the results for the recovery pump tests completed at CH-5 and CH-2A as part of the AOI 8 investigation
- Submit a response to USEPA comments on the proposed cleanup plan for Parcels 400/430/431, received on September 28, 2012
- Submit the East Plant Area Vault Construction Certification Report
- Submit the West Plant Area Construction Certification Report

**8.0 COPIES OF DAILY REPORTS, INSPECTION REPORTS,
LABORATORY/MONITORING DATA**

Tables 2.1 and 2.2 present results from the SES on-Site water treatment plant and Spring 018, respectively. Additional packages of analytical data weresubmitted to U.S. EPA once the validated data became available. Validated data will continue to be submitted as it becomes available.

TABLE 2.1

SES TREATMENT SYSTEM #1 SAMPLING RESULTS - OCTOBER/DECEMBER 2012
GM CETC BEDFORD FACILITY
BEDFORD, INDIANA

<i>Sample Date</i>	<i>Analysis</i>	<i>Influent</i>	<i>After Sand Filter 1</i>	<i>After Sand Filter 2</i>	<i>Between Carbons 1 & 3</i>	<i>Between Carbons 2 & 4</i>	<i>Effluent</i>
10/3/2012	PCB (ug/L)	0.095 J	ND (0.20)	0.073J	ND (0.20)	ND (0.19)	ND (0.20) / ND (0.20)
	Turbidity (NTU)	15.40	4.06	3.82	0.55	0.61	0.43 / 0.39
12/5/2012	PCB (ug/L)	0.12 J / 0.15 J	ND (0.19)	0.082 J	ND (0.19)	ND (0.21)	ND (0.19)
	Turbidity (NTU)	9.87 / 9.89	5.33	3.49	4.54	0.00	0.00

Note:

J - Estimated Value

ND - Non detect

TABLE 2.2

SPRING 018 SAMPLING RESULTS - OCTOBER/NOVEMBER/DECEMBER 2012
GM CETC BEDFORD FACILITY
BEDFORD, INDIANA

Sample Location		<i>Spring 018C</i>	<i>Spring 018C</i>	<i>Spring 018C</i>
Sample Identification		SW-015-101012-GS-39907	SW-015-111412-GS-39912	SW-015-121212-GS-39924
Sample Date		10/10/2012	11/14/2012	12/12/2012
Sample Type				
	<i>Units</i>			
PCBs				
Aroclor-1016 (PCB-1016)	ug/L	0.19 U	0.19 U	0.20 U
Aroclor-1232 (PCB-1232)	ug/L	0.19 U	0.19 U	0.20 U
Aroclor-1242 (PCB-1242)	ug/L	0.19 U	0.46	0.15 J
Aroclor-1248 (PCB-1248)	ug/L	0.31	0.19 U	0.20 U
Aroclor-1254 (PCB-1254)	ug/L	0.19 U	0.19 U	0.20 U
Aroclor-1260 (PCB-1260)	ug/L	0.19 U	0.19 U	0.20 U
Total PCBs	ug/L	0.31	0.46	0.15 J
General Chemistry				
Total suspended solids (TSS)	ug/L	4000	43000	4000 U

Notes:

U - Not present at or above the associated value.

J - Result is less than the RL (reporting limit) but greater than or equal to the MDL (method detection limit) and the concentration is an estimated value.