



State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468
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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

Re: Defiance County
GM Powertrain
NPDES Permit

January 9, 2008

Mr. Gary Monsere, Regional Manager
GM Powertrain Group
Defiance Plant
26427 State Route 281 East
P.O. Box 70
Defiance, Ohio 43512

Dear Mr. Monsere:

On December 14, 2007, an NPDES permit compliance inspection of GM's Defiance Powertrain facility was conducted by Dana Martin-Hayden. The inspection included a tour of the wastewater treatment plant and completion of an inspection checklist. Mr. Jahi White and Mr. Ed Pierce were present and provided information on operations and maintenance at the plant.

During our visit, all major treatment units were in operation except the carbon units. The final effluent discharging from outfall 001 to the Maumee River was clear. No effluent violations from the wastewater treatment plant discharge, station 001, have occurred since our last inspection. A data error on the June Monthly Operating Report continues to exist in the data base, which will be addressed with the support of Ohio EPA central office. However, station 004, a storm water discharge, which drains surface water runoff from the west side of the GM property and a portion of the Defiance Water Pollution Control facility, is in violation of Water Quality standards. On November 12, 2007, and on December 11, 2007, the storm water discharging from station 004 had a pH of 9.4. You are in violation of water quality standards, for exceeding the 9.0 pH limit.

A plan to correct this chronic discharge issue should be submitted to our office with 60 days. The plan should include a schedule of compliance for completing the work, which will be included in your NPDES permit renewal.

The influent wastewater tank and the pH adjustment tank are rusty and peeling and need to be refurbished in the near future. Some housekeeping issues need to be addressed, as witnessed by the presence of litter in the backwash weirs for Unit #1 and Unit #2.

Mr. Gary Monsere, Regional Manager
January 9, 2008
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The plant appeared to be operating satisfactorily. A copy of our completed inspection report is enclosed for your records. If you have any questions please call Dana Martin-Hayden at (419) 373-3067.

Yours truly,



Elizabeth A. Wick, P.E.
District Engineer
Division of Surface Water

/lr

Enclosure

cc: DSW-NWDO File w/enclosure. >



State of Ohio Environmental Protection Agency
Northwest District Office

NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
2IN00004	OH0002666	12/14/2007	S	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
GM Powertrain Division 26427 State Route 281 E PO Box 70 Defiance, OH 43512	11:00 am	2/1/2004
	Exit Time	Permit Expiration Date
	2:30 pm	9/30/2008
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Jahi White, Environmental Engineer Ed Pierce, Utilities Supervisor	419- 784-7403	
Name, Address and Title of Responsible Official	Phone Number	
Mr. Gary Monsere, Regional Manager GM Powertrain Group		

Section C: Areas Evaluated During Inspection					
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)					
S	Permit	S	Flow Measurement	N	Pretreatment
S	Records/Reports	S	Laboratory	S	Compliance Schedule
S	Operations & Maintenance	S	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal	N	Other
S	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)			
<p>Station 004, a storm water discharge, which drains surface water runoff from the west side of the GM property and a portion of the Defiance Water Pollution Control facility is in violation of Water Quality standards. On November 12, 2007 and on December 11, 2007, the storm water discharging from station 004 had a pH of 9.4. You are in violation of water quality standards, for exceeding the 9.0 pH limit.</p> <p>The influent wastewater tank and the pH adjustment tank are rusty and peeling and need to be refurbished in the near future.</p> <p>Some housekeeping issues need to be addressed, as witnessed by the presence of litter in the backwash weir for Unit #1 and Unit #2.</p>			
Inspector		Reviewer	
	1/8/08		1/9/08
Division of Surface Water Northwest District Office	Date	Elizabeth A. Wick, P.E. Water Quality Engineer Division of Surface Water Northwest District Office	Date

Sections E thru K: Complete on all inspections as appropriate
Y – Yes, N – No, N/A – Not Applicable, N/E – Not Evaluated

Section E: Permit Verification

Inspection observations verify the permit

- (a) Correct name and mailing address of permittee Y
- (b) Correct name and location of receiving waters..... Y
- (c) Product(s) and production rates conform with permit application (Industries)..... Y
- (d) Flows and loadings conform with NPDES permit..... Y
- (e) Treatment processes are as described in permit application... Y
- (f) New treatment process(es) added since last inspection..... N
- (g) Notification given to State of new, different or increased discharges..... Y
- (h) All discharges are permitted..... Y
- (i) Number and location of discharge points are as described in permit..... Y

Comments/Status:

g) release from station 002 during the flood that occurred in August >100 year rainfall event.

Section F: Compliance Schedules/Violations

- (a) Any significant violations since the last inspection..... N
- (b) Permittee is taking actions to resolve violations..... N/A
- (c) Permittee has a compliance schedule..... Y
- (d) Compliance schedule contained in
- (e) Permittee is meeting compliance schedule..... Y

Comments/Status:

Section G: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

- (a) Standby power available.....generator or dual feed Y
- (b) Adequate alarm system available for power or equipment failures.. Y
- (c) All treatment units in service other than backup units..... N
- (d) Operator holds unexpired license of class required by permit..... N/A
Class: I
- (f) Routine and preventative maintenance schedule/performed on time..... Y
- (g) Any major equipment breakdown since last inspection..... N
- (h) Operation and maintenance manual provided and maintained..... Y
- (i) Any plant bypasses since last inspection..... Y
- (j) Regulatory agency notified of bypasses..... Y
On MORs and/or Spill Hotline (1-800-282-9378)
- (k) Any hydraulic and/or organic overloads since last inspection..... Y

Collection System:

- (a) Percent combined system: %
- (b) Any collection system overflows since last inspection..... N/A
(CSO and/or SSO)
- (c) Regulatory agency notified of overflows (SSOs)..... N/A
- (d) CSO O&M plan provided and implemented..... N/A
- (e) CSOs monitored and reported in accordance with permit..... N/A
- (f) Portable pumps used to relieve system..... N/A
- (g) Lift station alarms provided and maintained..... Y
- (h) Are lift stations equipped with permanent standby power or equivalent..... Y
- (i) Is there an inflow/infiltration problem (separate sewer system), or were there any major repairs to collection system since last inspection..... N
- (j) Any complaints received since last inspection of basement flooding N/A
- (k) Are any portions of the sewer system at or near capacity..... N/A

Comments/Status:

Treatment Works:
 (a) There is an emergency generator, which is checked monthly, located next to the treatment plant to run sump pumps in the WWTP and prevent flooding in the buliding. Operating parameters is to leave enough room in the secondary bain to meet the 25 year storm water level.

c) carbon units not running but operational (not experiencing spikes of phenol or chlorine)

d) The staff will work on the weekends if the level in the catch basin is high. Currently, due to low rain fall only discharging 2 weeks / month.

Collection System:

g) telemetered high level water and low level alarm for the secondary basin

h) generator provided at the lift station, which is tested monthly

Section H: Sludge Management

- (a) Sludge management plan (SMP)
Submitted date: Approval #: Not submitted N/A
- (b) Sludge management plan current..... Y
- (c) Sludge adequately disposed..... Y
(Method:)
- (d) If sludge is incinerated, where is ash disposed of
- (e) Is sludge disposal contracted..... Y
(Name:)
- (f) Has amount of sludge generated changed significantly since
last inspection..... Y
- (g) Adequate sludge storage provided at plant..... Y
- (h) Land application sites monitored and inspected per SMP..... Y
- (i) Records kept in accordance with State and Federal law..... Y
- (j) Any complaints received in last year regarding sludge..... Y
- (k) Is sludge adequately processed (digestion, pathogen control)..... Y

Comments/Status:

Non hazardous filter cake from the regeneration of the ion exchangers goes to GM's residual waste landfill.

Section I: Self-Monitoring Program

- Flow Measurement:**
- (a) Primary flow measuring device operated and maintained..... Y
Type of device: Ultrasonic & Parshall flume Ultrasonic & Weir Weir
Calculated from influent Other (Specify:)
- (b) Calibration frequency adequate Y
(Date of last calibration: 11/27/2007)
- (c) Secondary instruments operated and maintained..... Y
- (d) Flow measurement equipment adequate to handle full range
of flows..... Y
- (e) Actual flow discharged is measured..... Y
- (f) Flow measuring equipment inspection frequency

Daily Weekly monthly other

Comments/Status:

- a) now on the computer control
- b) verify weir manually with computer data - daily and calibrate ultra sonic device semi-annually.
- c) They recently replaced all the flow meters in the plant and they are not able to operate the units from the computer console in the control room. Planing on repairing the valves next.

Section I: Self-Monitoring Program (con't)

Sampling:

- (a) Sampling location(s) are as specified by permit..... Y
- (b) Parameters and sampling frequency agree with permit..... Y
- (c) Permittee uses required sampling method..... Y
- (d) Sample collection procedures are adequate..... Y
 - (i) Samples refrigerated during compositing..... Y
 - (ii) Proper preservation techniques used..... Y
 - (iii) Containers and sample holding times prior to analysis conform with 40 CFR 136.3..... Y
- (e) Monitoring records (i.e., flow, pH, DO) maintained for a minimum of three years including all original strip chart recordings (i.e, continuous monitoring instrumentation, calibration and maintenance records)..... Y
- (f) Adequate records maintained of sampling date, time, location, etc.. Y

Laboratory:

General

- (a) EPA approved analytical testing procedures used (40 CFR 136.3).. Y
 - (b) If alternate analytical procedures are used, proper approval has been obtained..... N/A
 - (c) Analyses being performed more frequently than required by permit. Y
 - (d) If (c) is yes, are results in permittee's self-monitoring report..... Y
 - (e) Commercial laboratory used..... Y
- Parameters analyzed by commercial lab: All permit limits are collected weekly and sent to Test Americal, a commerical lab. Toxicity is outsourced to Global Environemental Consulting monthly.

Lab name: Test Americal, Global Environmental Consulting, LLC (toixcty testing)

Quality Control/Quality Assurance

- (f) Quality assurance manual provided and maintained..... Y
- (g) Satisfactory calibration and maintenance of instruments/equipment. Y
- (h) Adequate records maintained..... Y

(i) Results of latest USEPA quality assurance performance sampling program: Satisfactory Marginal Unsatisfactory
 Date:

Comments/Status:

Sampling:
 f) They conduct annual external laboratory audits for TS 16949 requirements and ISO 14001, including internal yearly audits.

Laboratory:
 c) sampling of the process is done more often than required for process control.
 d) All samples sent to laboratory are reported.
 e) Daily testing is done at the plant, but all reported limits are done by Severn Trent except toxicity testing which is done by Global Environmental.
 f) QA manual is contained in job description. done through ISO 14001 and TS 16949 audits. GM corporate currently coordinates laboratory inspections and evaluations.

Section J: Effluent/Receiving Water Observations

Outfall Number	Oil sheen	Grease	Turbidity	Visible Foam	Visible Floating Solids	Color	Other
001	None	None	Very Slight	None	None	Slightly Cloudy	

Comments/Status:

Section K: Multimedia Observations

- (a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... Y
- (b) Do you notice staining or discoloration of soils, pavement or floors.. N
- (c) Do you notice distressed (unhealthy, discolored, dead) vegetation.. N
- (d) Do you see unidentified dark smoke or dust clouds coming from sources other than smokestacks..... N
- (e) Do you notice any unusual odors or strong chemical smells..... N
- (f) Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities..... N

F. GUIDE - VISUAL OBSERVATION - UNIT PROCESS

RATING CODES: S = Satisfactory; U = Unsatisfactory; M = Marginal; IN = In Operation; OUT = Out of Operation

CONDITION OR APPEARANCE		RATING	COMMENTS
General	Grounds	S	
	Buildings	S	
	Potable Water Supply Protection	S	
	Safety Features	S	
	Bypasses	OUT	
	Stormwater Overflows	—	
	Alternate Power Source	S	
Preliminary	Maintenance of Collection Systems	S	
	Pump Station	IN	12 Pumps feed water catch basin to reservoir, 4 are always on
	Ventilation	—	
	Bar Screen	IN	
	Disposal of Screenings	—	
	Comminutor	—	
	Grit Chamber	—	
	Disposal of Grit	—	
	Influent Tank	IN	Rusty and peeling – needs reconditioning like the sand filters
Primary	Settling Ponds	IN	2 primary and 1 secondary (see secondary basin) that feeds into the reservoir
	Ditch East/West	IN	1, feeds into the catch basin, phosphoric acid & (polymer added to west ditch)
	Secondary Basin	IN	Settling for rain water a process cooling water is collected here and allowed to settle before being pumped up to the reservoir that feeds into the water treatment building
			Made up 10% Cupulla cooling water – the other 90% cupulla water is softened & recycled
Sludge Disposal	Digesters		
	Temperature and pH		
	Gas Production		
	Heating Equipment		
	Sludge Pumps		
	Drying Beds		
	Vacuum Filter		
	Disposal of Sludge	S	
	Filter Press	IN	Presses the phosphorous salt generated from ion exchanger medium regeneration, landfilled at their facility
Other	Flow Meter and Recorder	IN	Calibrate yearly and use manual check daily
	Records	S	
	Lab Controls	S	
	Ion Exchanger	IN	3 / 4, use total triple phosphate fertilizer to regenerate medium
	Water Softner	S	2 / 4, water treated in the softener only for recycled H2) in the plant – 90% cupulla WW
	Carbon Tank	OUT	Assists in the removal of Chlorine – Spent Carbon handled by 3 trains and 2 tanks per
Secondary-Tertiary List items as			Train – 6 units (oly on line if high phenol test done weekly or on line if the C12 tests >0.35, C12 test done daily)
	Caustic Storage Tank	IN	17,000 gallons – containment provided
	Brine Storage Tank	IN	15,000 gallons – containment provided
	Phosphoric Acid Tank	IN	6,000 gallons – containment provided
	HCL Tank	IN	6,000 gallons – containment provided
	Cl generator	IN	1 Unit for algae growth in the internal recycled water system
Disinfection	Effluent	S	Slightly cloudy, very slight turbidity
	Disinfection System		
	Effective Dosage		
	Contact Time		
	Contact Tank		
	Dechlorination	IN	6,000 gallon tank of sodium hypochlorite in containment – recycled water system
pH adjustment tank	IN	As buffer no acid added – needs coating (rust showing on the walk)	