



**Environmental  
Protection Agency**

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

April 25, 2011

RE: FIRST ENERGY ASHTABULA POWER PLANT  
(PLANTS A AND B)  
NPDES PERMIT NO. 31B00012\*KD  
ASHTABULA TWP, ASHTABULA COUNTY  
COMPLIANCE INSPECTION EVALUATION

Mr. Scott F. Brown, P.E., Environmental Engineer  
First Energy Generation Corporation  
76 South Main Street  
Akron, Ohio 44308

Dear Mr. Brown:

On April 21, 2011, a site inspection was conducted at the above referenced facility at 2133 Lake Road East (State Route 531), Ashtabula Township, Ashtabula County. The inspection was conducted by John Schmidt and Tomas Parry of this office. Scott Brown, and Kimberly Sade from First Energy's Environmental Office, and Dianna Henslee, Plant Environmental Officer, represented First Energy Generation Group. The purpose of the inspection was to evaluate the facility's compliance status with respect to the terms and conditions of the facility's National Pollutant Discharge Elimination System (NPDES) permit.

No changes to the industrial process and discharges have been noted since the last inspection. The system consists of the following industrial processes and discharges (see attached figure):

Cooling Water

Cooling water from the plant's boilers is discharged to Lake Erie through Outfall 001. An average of 222 mgd is permitted through this outfall, although the plant is maintaining the minimum flow of 70 MGD as the plant is in standby mode. As a precaution, Lake Erie at the outfall contains a surface boom.

Ash Ponds

Bottom ash and fly ash from the boilers is collected and pumped as liquid slurry to hydrobins for solid separation, with wash water collected in ash ponds located adjacent to Lake Erie. Ash is manually removed by backhoe from the ponds for disposal at a landfill. Clarified water is discharged to Lake Erie via Outfall 002. An average of 231,000 gpd is permitted through this outfall, although actual discharge is significantly less due to the standby mode of the facility.

Coal Pile Runoff

Runoff from coal piles and other waste piles south of SR 531 is collected in two ponds, and then flows by gravity to the CPR Building (station 604), where it is intercepted by a lift station. Ash pile runoff is also diverted to this pump station, as is metal cleaning wastes via Outfall 615. The pump station generally pumps at 120 gpm, but actual flow rates can vary

from about 80 gpm to 120 gpm (Outfall 604). pH adjustment includes mixing through a three-stage rapid mix neutralization consisting of three tanks in series: the first raises the pH to 6.5, the second tank raises the pH to 7.5, and the third tank raises the pH to 8.5. Polymer is added and mixed in a fourth tank (flocculation tank), sent to a clarifier for final discharge to Lake Erie through Outfall 002. Sludge is sent to a thickener and disposed of off-site at a landfill. As a precaution, the channel to Lake Erie at the outfall contains a surface boom.

#### Boiler Blow-down

Blow-down water and condenser cooling water from the plant's boilers is discharged to the condenser cooling water through Outfall 605, where it joins Outfall 001 for discharge to Lake Erie. As a precaution, Lake Erie at the outfall contains a surface boom.

#### Metal Cleaning Waste System

Metal cleaning wastes, air heater wash water, and chemical cleaning wastes are diverted to the metals cleaning waste system. Outfall 615 is monitored before manually pumping the effluent to the CPR building for neutralization through lime addition, chemical precipitation in a retention pond. Clarified water flows through a flow meter prior to discharge to Lake Erie through Outfall 002. Sludge is manually removed for transport to a landfill for disposal.

#### Low Volume (Oily Waste) System

Regeneration wastes, and all building floor drains are collected in the low flow waste basin. Wastewaters are filtered and monitored prior to discharge to Lake Erie via Outfall 006.

#### Parking Lot Runoff

The parking lot to the east of the generating station is collected in a number of catch basins and flows to an oil-water separator and surface booms. The treated effluent is discharged through Outfall 005.

#### Transformer Area

The transformer area drains to a perimeter ditch to a collection basin, with a discharge to the box tunnel containing the Elkem metals discharge. This area is not included in Permit 3IB00012\*KD.

#### Observations

Following are observations made during the inspection.

1. The overall condition of the treatment plant during this inspection was satisfactory.
2. Dumpsters for metal recycling are located along the north side of the generating station. Waters collected in this area drains to a sump and is pumped to the ash pond for further treatment.
3. A dumpster for asbestos material accumulation is located in the parking lot west of the generating station. This dumpster is sealed.

4. A log book of repairs and observations is maintained at the facility. FirstEnergy personnel perform routine observations, monitor the facility, and perform the sampling (flow readings, pH readings, water temperature). Diana Henslee prepares the electronic discharge monitoring report (eDMR) and submits of the eDMR through Ohio EPA's Web-based application.
5. The influent sampler is maintained at the proper temperature and collects a flow proportional sample.
6. Outfall 001 was observed to be discharging approximately 70 MGD and was producing a clear effluent. The design flow of the cooling water discharge system is 222 MGD. The plant must maintain a minimum flow of 70 MGD to ensure good mixing with the outfalls from Millennium Inorganic Chemicals (9 MGD) and Elkem Metals (2-4 MGD).
7. Outfall 002 was not discharging at the time of the inspection. The metals cleaning holding basin was observed as containing rain water.
8. Outfall 005 was not discharging at the time of the inspection.
9. Outfall 006 was not discharging at the time of the inspection.
10. The two effluent samplers are maintained at the proper temperature and collects flow proportional samples.
11. The effluent from the low flow/oily wasted holding pond was observed as flowing clear. A new skimmer was installed in 2010.
12. The overall condition of the treatment plant during this inspection was satisfactory.
13. The hydro bins were observed as not operating at the time of the inspection.
14. Coal, flyash, bottom ash, CPR treatment system sludge and some construction and demolition debris were being stored in the coal pile storage area. All waters in this area are intercepted by a perimeter ditch and collected in ponds, with treatment through the CPR building.
15. The storm water pollution prevention plan (SWPPP) was updated on April 24, 2008. The annual site certification was completed on September 24, 2010, and the inspection completed on September 24, 2010. Employee training on the plan occurs online in the first quarter of the year, and FirstEnergy provided Ohio EPA with lists of training on April 21, 2010.

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**NPDES Permit Compliance Review**

FirstEnergy Generation Corp. operates the Ashtabula Power Plant wastewater treatment facility under NPDES Permit 31B00012\*KD. A review of the electronic discharge self-monitoring reports (eDMRs) received by Ohio EPA for the period March 1, 2010 through March 1, 2011 indicates apparent noncompliance of the terms and conditions of your NPDES permit. Specific instances of noncompliance are as follows:

**Limit Violations**

The following limit violations were noted for the period reviewed:

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
002	50092	Mercury, Total (Low Level)	30D Conc	1.3	10.8	11/1/2010
002	50092	Mercury, Total (Low Level)	30D Qty	0.0000	.00001	11/1/2010
002	50092	Mercury, Total (Low Level)	30D Conc	1.3	1.66	3/1/2011
002	50092	Mercury, Total (Low Level)	30D Qty	0.0000	.	3/1/2011

FirstEnergy provided a response to the November 2010 violations in correspondence dated December 16, 2010. Ohio EPA acknowledges that as of November 1, 2010, the effluent limit for mercury at Outfall 002 was established at 1.3 ng/l (ppt). FirstEnergy has a pending NPDES permit modification request that includes a mercury variance to increase its final effluent limits in its permit from 1.3 ng/l (ppt) to 12.0 ng/l (ppt). The request is still pending with the agency. No additional information is needed to respond to the violations at this time.

**Reporting Violations**

No monitoring frequency violations were noted for the period reviewed. The following code/reporting violations were noted for the period reviewed:

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
001	00011	Water Temperature			AD	6/8/2010
800	00011	Water Temperature			AD	6/8/2010
001	00011	Water Temperature			AD	6/18/2010
800	00011	Water Temperature			AD	6/18/2010
001	00011	Water Temperature			AD	6/19/2010
800	00011	Water Temperature			AD	6/19/2010
001	00011	Water Temperature			AD	6/20/2010
800	00011	Water Temperature			AD	6/20/2010
001	00011	Water Temperature			AD	6/21/2010
800	00011	Water Temperature			AD	6/21/2010
001	00011	Water Temperature			AD	6/22/2010
800	00011	Water Temperature			AD	6/22/2010
001	00011	Water Temperature			AD	6/23/2010

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
800	00011	Water Temperature			AD	6/23/2010
001	00011	Water Temperature			AD	6/24/2010
800	00011	Water Temperature			AD	6/24/2010
001	00011	Water Temperature			AD	6/25/2010
800	00011	Water Temperature			AD	6/25/2010
001	00011	Water Temperature			AD	6/26/2010
800	00011	Water Temperature			AD	6/26/2010
001	00011	Water Temperature			AD	6/27/2010
800	00011	Water Temperature			AD	6/27/2010
001	00011	Water Temperature			AD	6/28/2010
800	00011	Water Temperature			AD	6/28/2010
001	00011	Water Temperature			AD	6/29/2010
800	00011	Water Temperature			AD	6/29/2010
001	00011	Water Temperature			AD	6/30/2010
800	00011	Water Temperature			AD	6/30/2010
001	00011	Water Temperature			AD	7/1/2010
800	00011	Water Temperature			AD	7/1/2010
001	50050	Flow Rate			AB	7/7/2010
001	00011	Water Temperature			AB	7/7/2010
002	50050	Flow Rate			AB	7/7/2010
006	50050	Flow Rate			AB	7/7/2010
800	00011	Water Temperature			AB	7/7/2010
001	50050	Flow Rate			AB	7/8/2010
001	00011	Water Temperature			AB	7/8/2010
002	50050	Flow Rate			AB	7/8/2010
006	50050	Flow Rate			AB	7/8/2010
800	00011	Water Temperature			AB	7/8/2010
001	50050	Flow Rate			AB	7/9/2010
001	00011	Water Temperature			AB	7/9/2010
002	50050	Flow Rate			AB	7/9/2010
006	50050	Flow Rate			AB	7/9/2010
800	00011	Water Temperature			AB	7/9/2010
001	50050	Flow Rate			AB	7/10/2010
001	00011	Water Temperature			AB	7/10/2010
002	50050	Flow Rate			AB	7/10/2010
006	50050	Flow Rate			AB	7/10/2010
800	00011	Water Temperature			AB	7/10/2010
001	50050	Flow Rate			AB	7/11/2010
001	00011	Water Temperature			AB	7/11/2010
002	50050	Flow Rate			AB	7/11/2010
006	50050	Flow Rate			AB	7/11/2010
800	00011	Water Temperature			AB	7/11/2010
604	50050	Flow Rate			AD	7/24/2010

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
604	50050	Flow Rate			AD	7/25/2010
604	50050	Flow Rate			AD	7/26/2010
604	50050	Flow Rate			AD	7/27/2010
604	50050	Flow Rate			AD	7/28/2010
604	50050	Flow Rate			AD	7/29/2010
604	50050	Flow Rate			AD	7/30/2010
604	50050	Flow Rate			AD	7/31/2010
001	00011	Water Temperature			AD	11/1/2010
001	00011	Water Temperature			AD	11/2/2010
001	00011	Water Temperature			AD	11/3/2010
001	00011	Water Temperature			AD	11/4/2010
001	00011	Water Temperature			AD	11/5/2010
001	00011	Water Temperature			AD	11/6/2010
001	00011	Water Temperature			AD	11/7/2010
001	00011	Water Temperature			AD	11/8/2010
001	00011	Water Temperature			AD	11/9/2010
001	00011	Water Temperature			AD	11/10/2010
001	00011	Water Temperature			AD	11/11/2010
001	00011	Water Temperature			AD	11/12/2010
001	00011	Water Temperature			AD	11/13/2010
001	00011	Water Temperature			AD	11/14/2010
001	00011	Water Temperature			AD	11/15/2010
001	00011	Water Temperature			AD	11/16/2010
001	00011	Water Temperature			AD	11/17/2010
001	00011	Water Temperature			AD	11/18/2010
001	00011	Water Temperature			AD	11/19/2010
001	00011	Water Temperature			AD	11/20/2010
001	00011	Water Temperature			AD	11/21/2010
001	00011	Water Temperature			AD	11/22/2010
001	00011	Water Temperature			AD	11/23/2010
001	00011	Water Temperature			AD	11/24/2010
001	00011	Water Temperature			AD	11/25/2010
001	00011	Water Temperature			AD	11/26/2010
001	00011	Water Temperature			AD	11/27/2010
001	00011	Water Temperature			AD	11/28/2010
001	00011	Water Temperature			AD	11/29/2010
001	00011	Water Temperature			AD	11/30/2010
001	00011	Water Temperature			AD	12/1/2010
001	00011	Water Temperature			AD	12/2/2010
001	00011	Water Temperature			AD	12/3/2010
001	00011	Water Temperature			AD	12/4/2010
001	00011	Water Temperature			AD	12/5/2010
001	00011	Water Temperature			AD	12/6/2010

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Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
001	00011	Water Temperature			AD	12/7/2010

FirstEnergy provided a response to the June and July, 2010 code violations and December 2010 in correspondence dated August 16, 2010 and January 2011 respectively. No additional information is needed to respond to these violations.

If First Energy feels some of Ohio EPA's reporting records are in error, you may wish to reenter this information through the eDMR system or mail your data to Ohio EPA DSW central office and request that the data be entered on your behalf. Ohio EPA's eDMR support staff may also be available to assist you in this matter. Emailing questions to [James.Roberts@epa.state.oh.us](mailto:James.Roberts@epa.state.oh.us) is the quickest way to get a response if you have a specific question with the eDMR program or how to make corrections to what is reported in the eDMR program.

#### Compliance Schedule Violations

No compliance schedule violations were noted for the period reviewed.

If you have any questions or comments regarding this inspection, please feel free to contact me at (330) 963-1175.

Respectively,



John M. Schmidt P.E., R.S.  
Environmental Engineer  
Division of Surface Water

JMS/mt

att: Process flow Diagram, Permit 31B00012

pc: Dianna Henslee, FirstEnergy Ashtabula Plant

