



**Environmental  
Protection Agency**

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

June 22, 2011

Pat Coyle, Senior Environmental Specialist  
EM740. 139 East Fourth Street  
Cincinnati, Ohio 45202

RE: Duke Energy, William H. Zimmer Station, Compliance Evaluation Inspection,  
NPDES Permit No. OH0048836/ OEPA Permit No. 11B00011\*KD and **Notice  
of Violation**

Mr. Coyle:

On June 7, 2011 I conducted an NPDES Compliance Evaluation Inspection at the Duke Energy William H. Zimmer Station. Pat Sheldon, Tom Patt, Jay Koesters and yourself were present for the facility. The purpose of the inspection was to evaluate compliance with the terms and condition of the facility's NPDES permit.

A copy of the Compliance Evaluation Inspection report is enclosed. Most areas evaluated received "Satisfactory" ratings. Operations & Maintenance received a "Marginal" rating due to Operator of Record issues stated at the end of this report. The "Laboratory" section received a "Marginal" rating as well. **Please pay attention to the "Items Requiring Correction" (shown in bold type) within the report.**

If you have any questions, please contact me by phone at (937) 285-6028 or by e-mail at [michelle.waller@epa.state.oh.us](mailto:michelle.waller@epa.state.oh.us).

Respectfully,

Michelle Waller  
Environmental Specialist II  
Division of Surface Water

Enclosures

Ec: Pat Sheldon, Duke Energy  
Tom Patt, Duke Energy



State of Ohio Environmental Protection Agency  
Southwest District Office

NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1IB00011*KD	OH0048836	6/7/2011	C	S	2

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Duke Energy Corporation, William H. Zimmer Station 1781 US Route 52 Moscow, Ohio 45153	9:15 AM	7/1/2010
	Exit Time	Permit Expiration Date
	12:40 PM	1/31/2015
Name(s) and Title(s) of On-Site Representatives		Phone Number(s)
Pat Coyle, Corporate NPDES Pat Sheldon – Production Manager Tom Patt – Environmental Coordinator Jay Koesters – Lab Supervisor		(513) 509-0040 (513) 467-5266 (513) 467-5212 (513) 467-5179
Name, Address and Title of Responsible Official		Phone Number
Pat Coyle, Senior Environmental Specialist EM740. 139 East Fourth Street Cincinnati, Ohio 45202		(513) 509-0040

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	M	Laboratory	S	Compliance Schedule
M	Operations & Maintenance	S	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal	S	Other
N	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)	
Inspector	Reviewer
<i>Michelle Waller</i> Michelle Waller Division of Surface Water Southwest District Office	<i>Martyn Burt</i> Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office
6/23/11 Date	6/23/11 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) Do Categorical Standards apply?...If yes, list applicable standards.. N
- (d) Product(s) and production rates conform with permit application (Industries)..... Y
- (e) Flows and loadings conform with NPDES permit..... Y
- (f) Treatment processes are as described in permit application... Y
- (g) All discharges are permitted..... Y
- (h) Number and location of discharge points are as described in permit..... Y
- (i) Storm water discharges properly permitted..... Y

Comments/Status:

**Section F: Compliance**

- (a) Any significant violations since the last inspection..... Y
- (b) Appropriate Non-compliance notification of violations..... Y
- (c) Permittee is taking actions to resolve violations..... Y
- (d) Permittee has a compliance schedule..... Y
- (e) Compliance schedule contained in...NPDES Permit
- (f) Permittee is in compliance with schedule..... Y
- (g) Has biomonitoring shown toxicity in discharge since last inspection N/A

Comments/Status:

Final Effluent Violations review 5/2009 – 5/2011

Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
005	Total Suspended Solids	30D Qty	1078.7	1486.54	10/1/2009
614	Oxidants, Total Residual	1D Conc	0.1	0.6	5/7/2010
602	Biochemical Oxygen Dem	30D Conc	10	60.44	8/1/2010
602	Biochemical Oxygen Dem	1D Conc	15	63.5	8/2/2010
602	Biochemical Oxygen Dem	1D Conc	15	228.	8/26/2010
601	Biochemical Oxygen Dem	30D Qty	0.83	1.04966	12/1/2010

Notification letters were sent by Duke Energy for the violations.

**Section G: Operation & Maintenance**

**Treatment Works:**

Treatment facility properly operated and maintained

- (a) Standby power available.....generator  or dual feed ..... N
  - i. How often is the generator tested under load.....
- (b) Which components have an alarm system available for power or equipment failures.....
- (c) All treatment units in service other than backup units..... Y
- (d) What method is used for scheduling routine & preventative maintenance (calendar, software, etc.).....
- (e) Any major equipment breakdown since last inspection..... N
- (f) Operation and maintenance manual provided and maintained..... Y
- (g) Any plant bypasses since last inspection..... N
- (h) Any plant upsets since last inspection..... N

**Comments/Status:**

**Section H: Sludge Management**

- (a) Method of Sludge Disposal...
  - Land Application
  - Haul to Another NPDES Permittee
  - Haul to a Mixed Solid Waste Landfill
- (a) Has amount of sludge generated changed significantly since the last inspection..... N
- (b) How much sludge storage is provided at the plant.....
- (c) Records kept in accordance with State and Federal law (5 years

- according to OAC 3745-40-06)..... Y
- (d) Any complaints received in last year regarding sludge..... N
- (e) 5/8" screen at headworks for facilities that land apply sludge..... N/A
- (f) Are sludge application sites inspected to verify compliance with NPDES permit..... N/A
- (g) Is a contractor used for sludge disposal..... Y

If so, what is the name of the contractor.....

Winelco disposes of the package plant sludge. The industrial is hauled to the Zimmer landfill by Utter Construction.

**Comments/Status:**

**Section I: Self-Monitoring Program**

**Flow Measurement:**

- (a) Primary/Secondary flow measuring devices operated and maintained..... Y  
 Type of device (e.g. weir with ultrasonic level sensor):  

Pump run times are used to calculate flows.
- (b) Calibration frequency adequate ..... N/A  
 (Date of last calibration: )
- (c) 24-hour recording instruments operated and maintained.....N/A
- (d) Flow measurement equipment adequate to handle full range of flows..... Y
- (e) Actual flow discharged is measured..... N
- (f) Flow measuring equipment inspection frequency.  
Daily Weekly monthly other

**Comments/Status:**

**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  
 (see GLC page)
- (d) 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

**Comments/Status:**

Records are kept for the life of the station.

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

**Laboratory:**

*General*

- (a) Does the Quality Assurance Manual contain written Standard Operating Procedures (SOP's) for all analysis performed onsite..... Y
- (b) Do SOP's include the following if applicable..... Y
  - Title
  - Scope and Application
  - Summary
  - Sample Handling and Preservation
  - Interferences
  - Apparatus and Materials
  - Reagents
  - Procedure
  - Calculations
  - Quality Control
  - Maintenance
  - Corrective Action
  - Reference (Parent Method)

*Note: Standard Methods 1020A establishes that "Quality assurance (QA) is the definitive program for laboratory operation that specifies the measure required to produce defensible data of known precision and accuracy. Standard operating procedures are to be used in the laboratory in sufficient detail that a competent analyst unfamiliar with the method can conduct a reliable review and/or obtain acceptable results." SOPs should be developed for each analytical procedure.*

- (c) EPA approved analytical testing procedures used (40 CFR 136.3).. Y
- (d) If alternate analytical procedures are used, proper approval has been obtained..... N/A
- (e) Analyses being performed more frequently than required by permit. N
- (f) If (e) is yes, are results in permittee's self-monitoring report..... N/A
- (g) Satisfactory calibration and maintenance of instruments/equipment. N (see score from GLC page)
- (h) Commercial laboratory used..... Y  
Parameters analyzed by commercial lab: See below.

Lab name: Test America

*Discharge Monitoring Report Quality Assurance (DMRQA)*

- (a) Participation in latest USEPA quality assurance performance sampling..... Y  
Date: A year ago. Zimmer is currently undergoing their DMRQA for this year.
- (b) Were any parameters "Unsatisfactory"..... Y
- (c) Reasons for "Unsatisfactory" parameters.....  

Hardness – the error was a QA/QC issue, Duke went back and reworked the results. Fecals – error was a reporting issue.
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**Comments/Status:**

Winelco does the biological samples. Duke Lab at McGuire Environmental Center in North Carolina manages all lab work. Test America does metals and O&G.

**Section J: Effluent/Receiving Water Observations**

Outfall # 005 – Clear Water Pond – slightly brown in color.  
 Outfall # 601 – Sanitary Package Plant – discharge clear, no oil, grease turbidity foam or floating solids observed.  
 Outfall # 602 – Sanitary Package Plant – discharge clear, no oil, grease turbidity foam or floating solids observed.  
 Numerous storm water outfalls not observed.

**Section K: Multimedia Observations**

- (a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... N
- (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

## General Notes from the Inspection

- Outfall 601 – Sanitary Package Plant.
  - East drying bed was full of grass and weeds, needs cleaned out.
  - Splitter box for sand filters didn't appear to be working, both beds appeared to be being dosed.
  - A PTI will be coming in to OEPA to switch from using chlorine for disinfection to UV.
  
- Outfall 602 – Sanitary Package Plant.
  - This plant services the training building and one contractor building.
  - A PTI will be coming in to OEPA to switch from using chlorine for disinfection to UV.
  
- Outfall 005 – Clear Water Pond.
  - Flow is recorded by a totalizer, which is read every day.
  - Manual calculations have been done for 3 or 4 months for the flow
  - A new meter is expected any day to replace the old one (same kind of meter).
  - Sampling of this station is done in the channel.
  
- Zimmer Landfill
  - Currently in the process of putting in a perimeter drain around the landfill.
  - The wet well for the perimeter drain is pumped to the sediment pond.
  - The sediment pond also takes contact water, storm water runoff and water from the leachate collection system.
  - An expansion to the landfill is being designed with a PTI submittal to the OEPA expected in June 2011.

## Notice of Violation and Items Requiring Correction

1. *NPDES Permit Part II, Other Requirements, Section P, Operator Certification Requirements, 2. Operator of Record:* This section of the NPDES permit requires Duke Energy to have a Certified Operator for the facility on record with the Ohio EPA. Ohio EPA currently has no Operator of Record for the facility. **Within 7 days of the receipt of this letter, submit an updated Operator of Record notification to the Ohio EPA.** This form may be found on the Ohio EPA website at:  
[http://epa.ohio.gov/portals/28/documents/opcert/Operator\\_of\\_Record\\_Notification\\_Form.pdf](http://epa.ohio.gov/portals/28/documents/opcert/Operator_of_Record_Notification_Form.pdf)
2. This was the first inspection done at Zimmer using the General Lab Criteria (GLC) form. Only several of the criteria were evaluated. Please note the corrections necessary on the attached GLC form. Be advised that on the next inspection of Zimmer a full GLC evaluation may be done. Please use the enclosed form for guidance as to what will be expected at that inspection.