



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUN 23 2011

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Thomas Guthrie, Plant Manager
Duke Energy Indiana, Inc.
Gibson Generating Station
1000 East Main Street
Plainfield, Indiana 46168

Dear Mr. Guthrie:

This is to advise you that the United States Environmental Protection Agency has determined that Duke Energy Indiana Inc. (Duke Energy), owner and operator of the Gibson Station in East Mount Carmel, Indiana, is in violation of the Clean Air Act (CAA).

EPA is sending this Notice of Violation and Finding of Violation (Notice) to notify you that Duke Energy has violated the following CAA provisions: the Indiana State Implementation Plan (SIP); New Source Performance Standards (NSPS), Subpart D; and Title V.

Section 113 of the CAA gives EPA several enforcement options to resolve these violations, including: issuing an administrative compliance order, issuing an administrative penalty order, bringing a judicial civil action, and bringing a judicial criminal action.

We are offering you the opportunity to request a conference with us about the violations alleged in the Notice. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for your facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

If you wish to request a conference, please contact Ethan Chatfield of my staff at 312-886-5112. EPA hopes that this Notice will encourage Duke Energy to achieve and maintain compliance with the requirements of the CAA.

Sincerely,

A handwritten signature in black ink, appearing to read "Cheryl L. Newton".

Cheryl L. Newton,
Director
Air and Radiation Division

opacity may exceed the applicable opacity limit established in 326 IAC 5-1-2; however, opacity levels shall not exceed sixty percent for any six minute averaging period and opacity in excess of the applicable limit shall not continue for more than one six minute averaging period in any sixty (60) minute period. The averaging periods shall not be permitted for more than three six minute averaging periods in a twelve hour period.”

5. 326 IAC 1-2-39 of the Indiana SIP defines “malfunction” as “any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.”

New Source Performance Standards (NSPS): Subpart D

6. 40 C.F.R. Part 60.11(d) of the general provisions of the NSPS states that, “[a]t all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.”

7. 40 C.F.R. Part 60.42(a)(2) of Subpart D and PSD permit PSD (26) 1215, issued March 17, 1978 states that “no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that exhibit greater than 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity.”

8. 40 C.F.R. Part 60.11(c) of the general provisions of the NSPS states that, “the opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.”

9. 40 C.F.R. Part 60.2 defines *Malfunction* as “any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.”

Title V Requirements

10. EPA promulgated full approval of Indiana’s Title V program on December 4th, 2001. Indiana’s Title V program became effective on November 30, 2001. *See 66 Fed. Reg.* 62969.

11. The Indiana regulations governing the Title V permitting program are codified at 326 IAC 2-7.

12. On July 7, 2004, IDEM issued a Part 70 Operating Permit (T 051-7175-00013) to PSI Energy, Inc. (now Duke Energy Indiana, Inc.), the owner and operator of the Gibson

Generating Station in accordance with 326 IAC 2-7 of the Indiana SIP and 40 C.F.R. Part 70. This permit expired July 7, 2009.

13. On June 8, 2009, IDEM issued a Part 70 Operating Permit (No. T 051-27086-00013) to Duke Energy Indiana, Inc., in accordance with 326 IAC 2-7 of the Indiana SIP and 40 C.F.R. Part 70. Both the 2004 and 2009 Part 70 permits contained the following relevant provisions for purposes of this Notice:

- a. Section C.2 – Opacity: Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), “opacity shall meet the following, unless otherwise stated in this permit: (a) Opacity shall not exceed an average of forty percent in any one six minute averaging period as determined in 326 IAC 5-1-4. (b) Opacity shall not exceed sixty percent for more than a cumulative total of fifteen minutes in a six hour period.”

- b. Section D.1.2, D.2.2 – Temporary Alternative Opacity Limitations: “Pursuant to 326 IAC 5-1-3(e), the following applies: (a) When building a new fire in a boiler, opacity may exceed the forty percent opacity limitation established in 326 IAC 5-1-2 for a period not to exceed a total of four hours or until the flue gas temperature reaches two hundred fifty degrees Fahrenheit, whichever occurs first. Operation of the electrostatic precipitator is not required during these times. (b) When shutting down a boiler, opacity may exceed the forty percent opacity limitation established in 326 IAC 5-1-2 for a period not to exceed a total of four hours. (c) or (d) When removing ashes from the fuel bed or furnace in a boiler or blowing tubes, opacity may exceed the applicable limit established in 326 IAC 5-1-2. However, opacity levels shall not exceed sixty percent for any six minute averaging period and opacity in excess of the applicable limit shall not continue for more than one six minute averaging period in any sixty minute period. The averaging periods shall not be permitted for more than three six minute averaging periods in a twelve hour period.

- c. Section D.3.2, D.4.2 – Temporary Alternative Opacity Limitations: “Pursuant to 326 IAC 5-1-3(e), the following applies: (a) When building a new fire in a boiler, opacity may exceed the forty percent opacity limitation established in 326 IAC 5-1-2 for a period not to exceed a total of five hours or until the flue gas temperature reaches two hundred fifty degrees Fahrenheit, whichever occurs first. Operation of the electrostatic precipitator is not required during these times. (b) When shutting down a boiler, opacity may exceed the forty percent opacity limitation established in 326 IAC 5-1-2 for a period not to exceed a total of four hours. (c) or (d) When removing ashes from the fuel bed or furnace in a boiler or blowing tubes, opacity may exceed the applicable limit established in 326 IAC 5-1-2. However, opacity levels shall not exceed sixty percent for any six minute averaging period and opacity in excess of the applicable limit shall not continue for more than one six minute averaging period in any sixty minute period. The averaging periods shall not be permitted for more than three six minute averaging periods in a twelve hour period.

- d. Section D.5.1 – New Source Performance Standards (NSPS): “Pursuant to 326 IAC 12, 40 C.F.R. 60, Subpart D, and PSD permit PSD (26) 1215, issued March 17, 1978, emissions from Boiler No. 5 shall not exceed the following: (b) Twenty percent opacity except for one six minute period per hour of not more than twenty-seven percent opacity. Pursuant to 40 C.F.R. 60.11(c), this opacity standard is not applicable during periods of startup, shutdown, or malfunction.”
 - e. Section D.5.3 – “Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), the following applies: (a) When building a new fire in a boiler, opacity may exceed the 20% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed a total of five hours (5) hours (fifty (50) six (6) minute averaging periods, consecutive or non-consecutive) or until the flue gas temperature reaches two hundred fifty (250) degrees Fahrenheit, whichever occurs first. Operation of the electrostatic precipitator is not required during these times. (b) When shutting down a boiler, opacity may exceed the 20% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed a total of four (4) hours (forty (40) six (6) minute averaging periods, consecutive or non-consecutive).
14. The 2009 Part 70 permit included the additional relevant provisions:
- a. Section C.18 – “(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). . . .”
 - b. Sections D.1.2, 2.2, 3.2 and 4.2 (Temporary Alternative Opacity Limitations), included the following: Permittee is also allowed one start up and one shut down per calendar year as follows: (i) During boiler startups an exemption from the 40% opacity limit is allowed for up to seven (7) hours (seventy (70) six (6) minute averaging periods, consecutive or non-consecutive) or until the flue gas temperature entering the electrostatic precipitator reaches two hundred fifty (250) degrees Fahrenheit, whichever occurs first. During boiler shutdowns, an exemption from the 40% opacity limitation established in 326 IAC 5-1-2 is allowed for a period not to exceed five (5) hours (fifty (50) six (6)-minute averaging periods, consecutive or non-consecutive).

FACTUAL BACKGROUND

- 15. Duke Energy Indiana is incorporated in Indiana.
- 16. Duke Energy is a “person,” as that term is defined in Section 302(e) of the Act, 42 U.S.C. § 7602(e).

17. Gibson Station is located in Gibson County in or near East Mount Carmel, Indiana.
18. From April 5, 2005 to the present, the Gibson Station has been located in an area classified as nonattainment for fine particulates (PM_{2.5}). *See 70 Fed. Reg. 944 (January 5, 2005).*
19. Duke Energy operates five coal-fired boilers at the Gibson Station.
20. Boiler 5 is subject to New Source Performance Standards at 40 C.F.R. Part 60.
21. Until approximately first quarter 2007, Boilers 1 and 2 exhausted through Stack A. Starting in second quarter 2007, Boiler 1 began exhausting through Stack 1 and Boiler 2 through Stack 2.
22. Until approximately fourth quarter 2006, Boiler 3 exhausted through stack B. Starting in fourth quarter 2006, Boiler 3 began exhausting through Stack 3.
23. Until approximately fourth quarter 2006, Boiler 4 exhausted through stack D. Starting in first quarter 2007, Boiler 4 began exhausting through Stack 4.
24. At all times relevant to this Notice, Boiler 5 exhausted through Stack 5/C.
25. Table 1 below contains a summary of the opacity exceedances for the past 5-years as reported to IDEM in the facility's Quarterly Deviation and Compliance Monitoring Report.

Table 1: Opacity Exceedances (in minutes)

	Stack A (1/2)	Stack B	Stack 3	Stack D	Stack 4	Stack 5/C
2006: 1 st Quarter	372	18		948		1,278
2 nd Quarter	168	1,044		234		1,026
3 rd Quarter	474	888		6		990
4 th Quarter	102	540	492	60		1,584
2007: 1 st Quarter	474		240		204	792

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5/C
2 nd Quarter	816	684	144	0	1,368
3 rd Quarter	162	528	1,398	618	1,176
4 th Quarter	456	558	222	1,008	2,142
2008: 1 st Quarter	210	150	1,968	270	1,740
2 nd Quarter	576	594	744	552	1,164
3 rd Quarter	162	528	1,398	618	996
4 th Quarter	6	612	720	-	42
2009: 1 st Quarter	822	672	2,292	1,110	2,190
2 nd Quarter	972	1,080	528	780	1,830
3 rd Quarter	858	714	1,056	492	30
4 th Quarter	324	384	462	414	1,098
2010: 1 st Quarter	282	258	1,314	240	1,794
2 nd Quarter	444	798	840	288	834
3 rd Quarter	708	954	2,784	318	2,502
4 th Quarter	300	810	3,210	402	264

VIOLATIONS

26. Duke Energy violated NSPS Subpart D, and the facility's Part 70 Operating Permits No. T 051-27086-00013 and T 051-7175-0013 by exceeding the twenty percent opacity limitation, as a six-minute average, at Boiler 5.

27. Duke Energy violated 326 IAC 5-1 of the Indiana SIP and the facility's Part 70 Operating Permits No. T 051-27086-00013 and T 051-7175-0013 by exceeding the forty/sixty percent opacity limitation, as a six-minute average at Boiler 1 through 4.

28. Duke Energy violated and continues to violate NSPS Subpart D, specifically 40 C.F.R. Part 60.11(d) of the General Provisions, by failing to maintain and operate its air

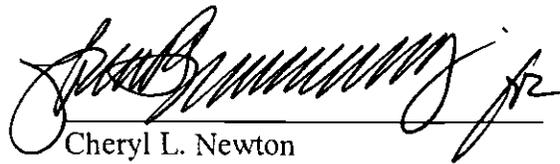
pollution control equipment on Boiler 5 in a manner consistent with good air pollution control practice for minimizing emissions.

29. Duke Energy violated and continues to violate its Part 70 operating permit, specifically Section C.18, by failing to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

ENFORCEMENT AUTHORITY

30. Sections 113(a)(1) and (3) of the Act, 42 U.S.C. §§ 7413(a)(1) and (3), provide that the Administrator may issue an administrative penalty order pursuant to Section 113(d), 42 U.S.C. § 7413(d), or bring a civil action pursuant to Section 113(b), 42 U.S.C. § 7413(b), for injunctive relief and/or civil penalties whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated or is in violation of any requirement or prohibition of, *inter alia*, an applicable implementation plan, a standard of performance and Title V of the Act, 42 U.S.C. §§ 7661-7661f, or any rule or permit issued there under. *See also* 40 C.F.R. § 52.23.

Dated 6/23/11



Cheryl L. Newton
Director
Air and Radiation Division

CERTIFICATE OF MAILING

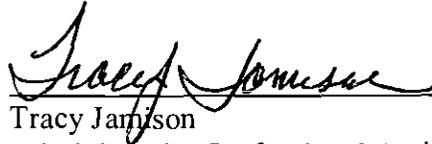
I, Tracy Jamison, certify that I sent a Notice of Violation and Finding of Violation, No. **EPA-5-11-IN-09**, by Certified Mail, Return Receipt Requested, to:

Thomas Guthrie, Plant Manager
Duke Energy Indiana, Inc.
Gibson Generating Station
1000 East Main Street
Plainfield, Indiana 46168

I also certify that I sent a copy of the Request to Provide Information Pursuant to the Clean Air Act by First-Class Mail to:

Phil Perry, Branch Chief
Office of Air Quality / Compliance Branch
Indiana Department of Environmental Management
100 North Senate Avenue / Room IGCN 1003
Indianapolis, Indiana 46204-2251

On the 27 day of JUNE 2011



Tracy Jamison
Administrative Professional Assistant
Planning and Administration Section

CERTIFIED MAIL RECEIPT NUMBER: 7009 1680 0000 7670 4519