



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

**MAR 09 2016**

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

REPLY TO THE ATTENTION OF:

Brenda Scott Henry, Director  
Green Urbanism and Environmental Affairs  
839 Broadway, Suite N206  
Gary, Indiana 46402

Re: Notice and Finding of Violation  
City of Gary  
Gary Sanitary Landfill

Dear Ms. Scott Henry:

The U.S. Environmental Protection Agency is issuing the enclosed Notice and Finding of Violation ("NOV/FOV") to the City of Gary ("City") under Section 113(a) of the Clean Air Act, 42 U.S.C. § 7413(a). We find that you have violated and continue to violate at the Gary Sanitary Landfill the Clean Air Act and its implementing regulations.

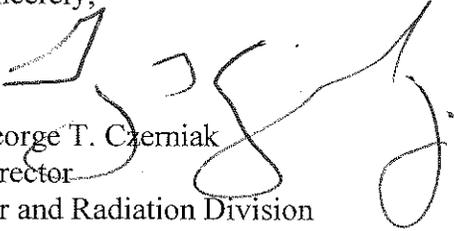
Section 113 of the Clean Air Act gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us about the violations alleged in the NOV/FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations. In addition, in order to make the conference more productive, we encourage you to submit to us information responsive to the NOV/FOV prior to the conference date.

Please plan for your plant's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The EPA contacts in this matter are Kenneth Ruffatto and Ethan Chatfield. You may contact them at (312) 886-7886 and (312) 886-5112, respectively, to request a conference. You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,

  
George T. Czerniak  
Director  
Air and Radiation Division

Enclosure

cc: 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

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

<b>IN THE MATTER OF:</b>	)	
	)	
<b>Gary Sanitary Landfill</b>	)	<b>NOTICE OF VIOLATION and</b>
<b>Gary, Indiana</b>	)	<b>FINDING OF VIOLATION</b>
	)	
	)	<b>EPA-5-16-IN-04</b>
Proceedings Pursuant to	)	
the Clean Air Act	)	
42 U.S.C. §§ 7401 <i>et seq.</i>	)	

**NOTICE OF VIOLATION AND FINDING OF VIOLATION**

The U.S. Environmental Protection Agency (EPA) is issuing this Notice and Finding of Violation (NOV/FOV) in accordance with Section 113(a) of the Clean Air Act (CAA), 42 U.S.C. § 7413(a). The authority to issue this NOV/FOV has been delegated to the Regional Administrator of the U.S. Environmental Protection Agency, Region 5, and redelegated to the Director, Air and Radiation Division.

**Statutory and Regulatory Background**

**CAA Section 111(d) Federal and State Plan Requirements**

1. Pursuant to Section 111(d) of the CAA, 42 U.S.C. § 7411(d), EPA determined municipal solid waste (MSW) landfills cause, or contribute significantly to, air pollution that may reasonably be anticipated to endanger public health or welfare.
2. Based on this determination, pursuant to Section 111(d) of the CAA, 42 U.S.C. § 7411(d), EPA promulgated requirements affecting MSW landfills, including: (1) New Source Performance Standards (NSPS) for MSW landfills at 40 C.F.R. Part 60, Subpart WWW; (2) Emission Guidelines (EG) for existing MSW landfills at 40 C.F.R. Part 60, Subpart Cc; and (3) Federal Plan requirements for existing MSW landfills at 40 C.F.R. Part 62, Subpart GGG.
3. Pursuant to Section 111(d) of the CAA, 42 U.S.C. § 7411(d), States are required to develop and submit to EPA for approval State Plan requirements implementing the EG for existing MSW landfills. If a State does not have approved State Plan requirements for implementing the EG for existing MSW landfills, the Federal Plan requirements apply to existing MSW landfills located in that State.
4. Pursuant to Section 111(d) of the CAA, 42 U.S.C. § 7411(d), the Federal Plan requirements apply to existing MSW landfills until EPA approval of State Plan

requirements. Upon approval by EPA, the State Plan requirements are federally enforceable and apply in lieu of the Federal Plan requirements.

5. On November 8, 1999, EPA promulgated the Federal Plan requirements implementing the EG for existing MSW landfills at 40 C.F.R. Part 62, Subpart GGG (effective January 7, 2000). 64 Fed. Reg. 60,689.
6. On March 28, 2000, EPA approved Indiana's State Plan requirements implementing the EG for existing MSW landfills at 65 Fed. Reg. 16,323 (effective May 30, 2000). 40 C.F.R. §§ 62.3630 – 62.3632.
7. The federally enforceable State Plan requirements implementing the EG for existing MSW landfills are codified at 326 Indiana Administrative Code (IAC) 8-8. 40 C.F.R. §§ 62.3630 – 62.3632.
8. Both the Federal and State Plan requirements apply to existing MSW landfills, meaning MSW landfills that accepted waste since November 8, 1987 and for which construction, reconstruction or modification commenced before May 30, 1991. 40 C.F.R. § 62.14352(a), 40 C.F.R. § 62.3631, and 326 IAC 8-8.
9. Under both the Federal and State Plan requirements, owners and operators of existing MSW landfills with design capacities and emissions greater than the applicable thresholds are required to install and operate controls to capture and destroy landfill gas (LFG). 40 C.F.R. § 62.14353(b), 40 C.F.R. § 60.752(b)(2), and 326 IAC 8-8-3(a)(2).
10. The federally enforceable State Plan requirements incorporate by reference the federal standards for capturing and destroying LFG that are applicable to new MSW landfills (codified at 40 C.F.R. Part 60, Subpart WWW). 326 IAC 8-8-3.

#### CAA Section 110 State Implementation Plan Requirements

11. Section 110 of the CAA, 42 U.S.C. § 7410, requires each state to adopt and submit to EPA for approval State Implementation Plan (SIP) requirements that provide for the implementation, maintenance, and enforcement of the National Ambient Air Quality Standards. Upon approval by EPA, the SIP requirements becomes part of the applicable SIP for the state.
12. On January 17, 1997 (effective March 18, 1997), EPA approved 326 IAC 8-8 as part of the federally enforceable SIP for Indiana. 40 C.F.R. § 52.770(c).
13. 326 IAC 8-8-3 incorporates by reference the federal standards for capturing and destroying LFG that are applicable to new MSW landfills (codified at 40 C.F.R. Part 60, Subpart WWW). 326 IAC 8-8-3.

#### CAA Section 112(d) National Emission Standards for Hazardous Air Pollutants

14. Section 112(d) of the CAA, 42 U.S.C. § 7412(d), requires EPA to promulgate emissions standards for sources of hazardous air pollutants (HAPs), including MSW landfills. The standards must require the maximum degree of emission reduction that the EPA determines to be achievable for each particular source category.
15. The HAPs emitted by MSW landfills include, but are not limited to, vinyl chloride, ethyl benzene, toluene, and benzene. Each of the HAPs emitted from MSW landfills can cause adverse health effects.
16. Pursuant to Section 112(d) of the CAA, 42 U.S.C. § 7412(d), EPA promulgated, on January 16, 2003, the national emission standards for hazardous air pollutants (NESHAP) for MSW landfills at 40 C.F.R. Part 63, Subpart AAAA. 68 Fed. Reg. 2,227.
17. The NESHAP requires existing MSW landfills to continue to comply with Federal or State Plan requirements, promulgated or approved under Section 111(d) of the CAA, 42 U.S.C. § 7411(d), and imposes additional requirements. 40 C.F.R. § 63.1955.

#### CAA Title V Operating Permit Requirements

18. Title V of the CAA, 42 U.S.C. §§ 7661-7661f, establishes an operating permit program for sources of air pollution. Section 502(d) of the CAA, 42 U.S.C. § 7661a(d), provides that each state must submit to EPA an operating permit program meeting the requirements of Title V.
19. In accordance with Section 502(b) of the CAA, 42 U.S.C. § 7661a(b), EPA promulgated regulations implementing Title V of the CAA. 57 Fed. Reg. 32,295 (July 21, 1992). Those regulations are codified at 40 C.F.R. Part 70.
20. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), and 40 C.F.R. §§ 70.7(b) provide that, after the effective date of any permit program approved or promulgated under Title V of the CAA, no source subject to Title V may operate except in compliance with a Title V operating permit.
21. EPA fully approved Indiana's Title V operating permit program on December 4, 2001. 66 Fed. Reg. 62,969.
22. Indiana Department of Environmental Management (IDEM) issued operating permits to the City of Gary for the Gary Sanitary Landfill on October 5, 2009 (Operating Permit: T089-11966-00143), July 11, 2012 (T089-11966-00143), and September 25, 2014 (T089-34007-00143).
23. The Title V operating permits require the City of Gary to comply with the requirements of 326 IAC 8-8 (incorporating by reference the NSPS requirements for MSW landfills at 40 C.F.R. Part 60, Subpart WWW), as approved by EPA as part of the federally enforceable State Plan to meet the EG for existing MSW landfills, and as approved as part of the federally enforceable Indiana SIP.

24. The Title V operating permits also require the City of Gary to meet the additional requirements imposed under the NESHAP for MSW landfills at 40 C.F.R. Part 63, Subpart AAAA.

### **Findings and Violations**

25. The City of Gary owns and operates the Gary Sanitary Landfill (GSL, or the Landfill), a MSW landfill located at 1900 Burr St, City of Gary, Lake County, Indiana.
26. The Landfill began receiving waste in the mid 1950s and stopped accepting waste in 1997.
27. The Landfill has a design capacity of approximately 4.4 million megagrams and 6.1 million cubic meters.
28. At all relevant times, the Landfill had uncontrolled nonmethane organic compound (NMOC) emissions equal to or greater than 50 megagrams per year, as calculated using the procedures specified at 40 C.F.R. § 60.754.
29. The City of Gary installed and operates a gas collection and control system (GCCS) to capture and destroy landfill gas (LFG) generated by the Landfill. The GCCS consists of twenty-three (23) passive gas wells, each routed to an individual solar flare, and ten (10) active gas wells, all routed to one open gas vent flare.

### **Failure to Install and Operate the Required GCCS**

30. Pursuant to 40 C.F.R. § 60.752(b)(2), owners and operators of landfills with design capacities greater than 2.5 million megagrams and uncontrolled NMOC emissions greater than 50 megagrams per year were and are required to install and operate a GCCS meeting certain design and performance standards to capture and destroy LFG.
31. Pursuant to 40 C.F.R. § 60.752(b)(2), the GCCS shall either conform to the standards for active collections systems in 40 C.F.R. § 60.759 or include a demonstration of the sufficiency of an alternative.
32. Pursuant to 40 C.F.R. §§ 60.752(b)(2), 63.1955(c) and 63.1985(c), any alternatives to the operational standards, procedures, compliance measures and monitoring provisions shall be submitted to and approved by EPA and IDEM. Neither EPA nor IDEM has approved any alternative to the operational standards, procedures, compliance measures and monitoring provisions regarding the Gary Sanitary Landfill.
33. In 1990, the Gary Sanitary Landfill constructed an open vent gas flare along with eight (8) active gas wells on the west perimeter of the landfill. In 1997, the Gary Sanitary Landfill along with Resource Technology Corporation (RTC) constructed twenty-five (25) vertical extraction wells. Solar flares were installed on each vertical extraction well

to create twenty-five (25) passive gas wells. Two (2) of the passive gas wells later had their solar flares removed and were connected to the active collection system.

34. In September 2003, The City of Gary submitted to IDEM a GCCS design plan, which was certified by a professional engineer as meeting the requirements of 40 C.F.R. Part 60, Subpart WWW. This plan states that all twenty-five (25) passive gas wells would be converted to active gas wells and routed to an open vent gas flare. The City of Gary never installed or operated a GCCS in accordance with the submitted plan.
35. In December 2011, The City of Gary submitted to IDEM a revised GCCS design plan which was certified by a professional engineer as meeting the requirements of 40 C.F.R. Part 60, Subpart WWW. This plan states that the remaining twenty-three (23) passive gas wells would be modified to include a solar powered blower. The City of Gary never installed or operated a GCCS in accordance with the submitted plan.
36. Rather than install and operate a GCCS meeting the required design and performance specifications to meet 40 C.F.R. Part 60, Subpart WWW, the City of Gary continues to operate the existing, deficient GCCS.
37. By failing to install and operate a GCCS in accordance with 40 C.F.R. 60, Subpart WWW, the City of Gary violated and continues to violate 40 C.F.R. § 60.752(b)(2), 326 IAC 8-8-3(a)(2), 40 C.F.R. § 63.1955, and its Title V operating permits.

Failure to Properly Operate the Installed GCCS

38. Pursuant to 40 C.F.R. § 60.752(b)(2)(iv), the owner or operator shall operate the installed GCCS in accordance with the provisions of 40 C.F.R. §§ 60.753, 60.755, and 60.756.
39. The below contains a summary of the number of days the open gas vent flare and associated active collection system were not operational, for each year from January 2011 to December 2015, as reported to IDEM in the Monthly Land Quality Reports:

	<b>Flare Downtime (Days)</b>	<b>Blower Downtime (Days)</b>
2011	0	0
2012	153	153
2013	113	127
2014	257	244
2015	50	50
<b>TOTAL</b>	<b>573</b>	<b>575</b>

40. Based on EPA's review of the City's Monthly Land Quality Reports, over the past 5 years, the City has not operated the open gas vent flare and associated active collection system for 31 percent of total operating days.
41. On November 30, 2015, EPA conducted a Clean Air Act Inspection and found that the active gas collection system was not operating as the main blower was not operational.

42. On November 30, 2015, EPA's on-site inspection also found that multiple solar flares on the passive gas wells were not operating.
43. Based on EPA's on-site inspection on November 30, 2015 and review of the City's "2011-2015 Time Logs for Passive Flares (23)," the City has not been routinely monitoring the passive flares, and the City has consistently noted numerous passive flares off during their limited number of inspections.
44. On February 4, 2016, EPA conducted an on-site inspection and found that the main header line to the flare was disconnected allowing landfill gas (LFG) to vent uncontrolled, thereby by-passing the flare.
45. By failing to operate the control system at all times when the collected gas is routed to the system, the City violated 40 C.F.R. § 60.753(f), 326 IAC 8-8-3(a)(3), 40 C.F.R. § 63.1955, and its Title V operating permits.
46. By failing to shut down within 1 hour the gas mover system and all valves in the GCCS system when the GCCS is inoperable, the City violated 40 C.F.R. § 60.753(e), 326 IAC 8-8-3(a)(3), 40 C.F.R. § 63.1955, and its Title V operating permits.

Failure to Demonstrate Compliance with Surface Methane Standard

47. Pursuant to 40 C.F.R. § 60.753(d), owners and operators are required to operate the GCCS so that surface methane concentrations are less than 500 parts per million.
48. To determine and demonstrate compliance with the surface methane concentration standard, 40 C.F.R. § 60.755(c) requires owners and operators to monitor surface methane concentrations on quarterly basis.
49. Upon detection of an exceedance of the surface methane concentration standard, 40 C.F.R. § 60.755(c) requires owners and operators to re-monitor within 10 calendar days the location of the detected exceedance.
50. Based on the City's response to EPA's Information Request, the City has not routinely performed surface methane emission monitoring for the last five years, except for recent monitoring conducted on December 15 and 16, 2015 for the 4th Quarter of 2015.
51. The monitoring conducted on December 15 and 16, 2015 detected exceedances of the surface methane standard at four locations; and the City did not re-monitor the location of the detected exceedance.
52. By failing to monitor surface methane concentrations routinely for the past five years, the City violated and continues to violate 40 C.F.R. § 60.755(c)(1), 326 IAC 8-8-3(a)(5), 40 C.F.R. § 63.1955, and its Title V operating permits.

53. By failing to re-monitor within 10 calendar days the locations of the exceedance detected on December 15 and 16, 2015, the City violated 40 C.F.R. § 60.755(c)(4), 326 IAC 8-8-3(a)(5), 40 C.F.R. § 63.1955, and its Title V operating permits.

#### Failure to Monitor Proper Operation of Flares

54. To ensure proper operation of open flares, 40 C.F.R. § 60.756(c) requires owners and operators using open flares to install, calibrate, and maintain on each open flare a heat sensing device to indicate the continuous presence of a flame and a device that records flow to or bypass of the flare.
55. The City stated, as part of its response to EPA's Information Request, that it does not have any heat sensing devices or devices that record flow on any of the flares of the GCCS; therefore, no continuous logs exist for flare performance.
56. By failing to install, calibrate, and maintain on each open flare a heat sensing device to indicate the continuous presence of a flame and a device that records flow to or bypass of the flare, the City violated and continues to violate 40 C.F.R. § 60.756(c), 326 IAC 8-8-3(a)(6), 40 C.F.R. § 63.1955, and its Title V operating permits.

#### Failure to Demonstrate Compliance with Gauge Pressure Standard

57. An insufficient LFG extraction rate may cause offsite migration of subsurface LFG and excessive air emissions of LFG. To prevent an insufficient extraction rate, 40 C.F.R. § 60.753(b) requires operating each wellhead of an active gas collection system so that negative pressure is maintained.
58. To determine and demonstrate compliance with the negative gauge pressure standard, 40 C.F.R. § 60.755(a)(3) requires owners and operators to monitor the gauge pressure on each well on a monthly basis.
59. Based on EPA's on-site inspection on November 30, 2015 and a review of the City's response to EPA's Information Request, the City has not been performing monitoring routinely on the active or passive landfill gas wells.
60. By failing to monitor the gauge pressure in the wells routinely for the past five years, the City violated and continues to violate 40 C.F.R. § 60.755(a)(3), 326 IAC 8-8-3(a)(5), 40 C.F.R. § 63.1955, and its Title V operating permits.

#### Failure to Demonstrate Compliance with Nitrogen (or Oxygen) and Temperature Standards

61. An excessive LFG extraction rate may cause air infiltration into the landfill. To prevent excess air infiltration, 40 C.F.R. § 60.753(b) requires operating each interior wellhead of an active gas collection system such that the nitrogen (or oxygen) and temperature levels are maintained within the specified boundaries for those parameters.

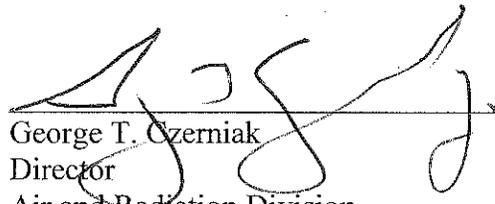
62. To determine and demonstrate compliance with nitrogen (or oxygen) and temperature standards, 40 C.F.R. § 60.755(a)(5) requires owners and operators to monitor each well monthly for the nitrogen (or oxygen) and temperature levels of the collected LFG.
63. Based on EPA's on-site inspection on November 30, 2015 and a review of the City's response to EPA's Information Request, the City has not been monitoring routinely the active or passive gas wells for the nitrogen (or oxygen) and temperature levels of the collected LFG.
64. By failing to monitor the wells for the nitrogen (or oxygen) and temperature levels routinely for the past five years, the City violated and continues to violate 40 C.F.R. § 60.755(a)(5), 326 IAC 8-8-3(a)(5), 40 C.F.R. § 63.1955, and its Title V operating permits.

Environmental Impact of Violations

1. Volatile Organic Compounds (VOC) contribute to ozone formation which can result in adverse effects to human health and vegetation. Ozone can penetrate into different regions of the respiratory tract and be absorbed through the respiratory system.
2. Hazardous Air Pollutant (HAP) emissions can lead to adverse health effects like cancer, respiratory irritation, and damage to the nervous system.
3. Methane emissions contribute to global climate change and can result in fires or explosions when they accumulate in structures on or off the landfill site.

Date

3/9/16

  
George T. Czerniak  
Director  
Air and Radiation Division

**CERTIFICATE OF MAILING**

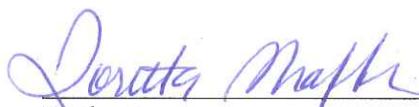
I, Kathy Jones, certify that I sent a Notice and Finding of Violation, No. EPA-5-16-IN-04, by Certified Mail, Return Receipt Requested, to:

Brenda Scott Henry  
City of Gary Department of Green Urbanism and  
Environmental Affairs  
839 Broadway, Suite N206  
Gary, Indiana 46402

I also certify that I sent copies of the Notice and Finding of Violation 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 10 day of March 2016.



Kathy Jones  
Program Technician  
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 7009 1680 0000 7673 7838

Standard bcc's: Official File w/Attachment(s)  
Originating Organization Reading File w/Attachment(s)

Other bcc's: Ethan Chatfield, AE-17J (e-copy only)  
Kenneth Ruffatto, AE-17J  
Eaton Weiler, C-14J (e-copy only)  
Verneta Simon, SE-5J (e-copy only)  
Carol Staniec, LM-8J (e-copy only)