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

SEP 11 2015

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

John Kass
Plant Manager
Buzzi Unicem USA
3301 S. County Road 150 West
Greencastle, IN 46135

Re: Finding of Violation
Buzzi Unicem USA
Greencastle, Indiana

Dear Mr. Kass:

The U.S. Environmental Protection Agency (EPA) is issuing the enclosed Finding of Violation (FOV) to Buzzi Unicem USA (you) under Section 113(a)(3) of the Clean Air Act, 42 U.S.C. § 7413(a)(3). EPA finds that you have violated the requirements contained in Sections 112 of the Clean Air Act, at your Greencastle, Indiana facility.

Section 113 of the 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 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 FOV prior to the conference date.

Please plan for your facility'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 contact in this matter is Kushal Som. You may call him at (312) 353-5792 if you wish to request a conference. You should make the request within 10 calendar days following receipt

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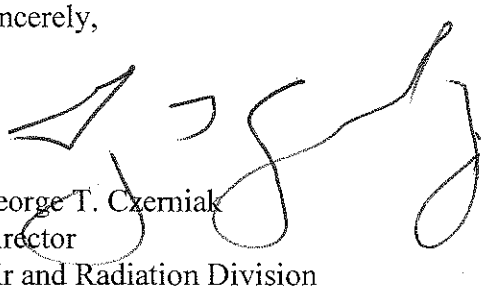
of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,



George T. Czerniak
Director
Air and Radiation Division

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:	)	
	)	
Buzzi Unicem USA.	)	**FINDING OF VIOLATION**
	)	
Proceedings Pursuant to	)	**EPA-5-15-IN-10**
the Clean Air Act,	)	
42 U.S.C. §§ 7401 *et seq.*	)	
	)	
	)	
	)	

FINDING OF VIOLATION

The U.S. Environmental Protection Agency is issuing this Finding of Violation (FOV) to Buzzi Unicem USA for violations of the Clean Air Act (Act), 42 U.S.C. §§ 7401 *et seq.*, at the Greencastle, Indiana facility. Specifically, the violations relate to the National Emission Standards for Hazardous Air Pollutants (NESHAP), and were found as a result of a November 10 through 17, 2013 multi-media inspection.

This FOV is issued pursuant to Sections 113(a)(3) of the Act, 42 U.S.C. § 7413(a)(3). The authority to issue this FOV has been delegated to the Regional Administrator of EPA, Region 5, and re-delegated to the Director, Air and Radiation Division.

STATUTORY AND REGULATORY BACKGROUND

National Emission Standards for Hazardous Air Pollutants (NESHAP)

1. Section 112 of the Act, 42 U.S.C. § 7412(c), requires EPA to promulgate a list of all categories and subcategories of new and existing "major sources" of hazardous air pollutants (HAP), and establish emissions standards for the categories and subcategories. These emission standards are known as the NESHAP. The EPA codified these standards at 40 C.F.R. Parts 61 and 63.

2. "Major source" is defined as "any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants." 42

U.S.C. § 7412(a)(l).

3. "Stationary source" is defined as "any building, structure, facility, or installation, which emits or may emit any air pollutant." 42 U.S.C. § 741 1(a)(3).

4. "Hazardous air pollutant" (HAP) is defined as "any air pollutant listed in or pursuant to" Section 112(b) of the Act. 42 U.S.C. §7412(a)(6).

5. Section 112(i)(3) of the Act, 42 U.S.C. § 7412(i)(3), prohibits any person subject to a NESHAP from operating a source in violation of a NESHAP after its effective date.

NESHAP for Off-Site Waste and Recovery Operations at 40 C.F.R. Part 63. Subpart DD

6. The Off-Site Waste NESHAP, 40 C.F.R. Part 63, Subpart DD, applies to waste management operation at major sources of HAP's.

7. 40 C.F.R. § 63, Subpart DD, Table 2, states that 40 C.F.R. § 63.4(b) applies to 40 C.F.R. § 63, Subpart DD.

8. The NESHAP for Off-site Waste and Recovery Operations, 40 C.F.R. Part 63, Subpart DD (Subpart DD), was promulgated on July 1, 1996, and amended on July 20, 1999, and January 8, 2001. 61 Fed. Reg. 34140, 64 Fed. Reg. 38950, 66 Fed. Reg. 1263.

9. Pursuant to 40 C.F.R. Part 63, Subpart DD, owners or operators of existing affected sources that commenced construction or reconstruction before October 13, 1994, and received off-site material for the first time before February 1, 2000, must achieve compliance on or before February 1, 2000, unless an extension has been granted by the Administrator as provided in 40 C.F.R. § 63.6(i).

10. The provisions of 40 C.F.R. Part 63, Subpart DD apply to the owner and operator of a plant site that is a major source of HAP emissions as defined in 40 C.F.R. § 63.2, is a waste management operation that received off-site material, and is an operation that is regulated as a hazardous waste treatment, storage, and disposal facility (TSDF) under either 40 C.F.R. Part 264 or 265. 40 C.F.R § 63.680(a)(1), (2)(i).

11. 40 C.F.R. Part 63, Subpart DD states that an "off-site material" is a material that meets all of the criteria specified in 40 C.F.R. § 63.680(b)(1) but is not one of the materials specified in 40 C.F.R. § 63.680(b)(2).

12. In order to qualify as "off-site material" under 40 C.F.R. Part 63, Subpart DD, the material must meet all of the following criteria: (i) the material is a waste, used oil, or used solvent as

defined in 40 C.F.R. § 63.681; (ii) the waste, used oil, or used solvent is not produced or generated within the plant site, but the material is delivered, transferred, or otherwise moved to the plant site from a location outside the boundaries of the plant site; and (iii) the waste, used oil, or used solvent contains one or more of the HAP listed in Table 1 of 40 C.F.R. Part 63, Subpart DD. 40 C.F.R § 63.680(b)(1)(i)-(iii).

13. 40 C.F.R. § 63.4(b)(1) states that no owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process to conceal an emission that would otherwise constitute non-compliance with a relevant standard. Such concealment includes the use of diluents to achieve compliance with a relevant standard based upon a concentration of a pollutant in the effluent discharged into the atmosphere.

14. For each waste management operation subject to 40 C.F.R. Part 63, Subpart DD that is located at the plant site, the affected source is the entire group of process equipment associated with the process vents for the processes listed in 40 C.F.R. § 63.680(c)(2)(i) through (c)(2)(vi). 40 C.F.R § 63.680(c)(2).

15. For equipment leaks from each equipment component that is part of an affected source specified in 40 C.F.R. § 63.680(c)(3), 40 C.F.R. Part 63, Subpart DD requires the owner or operator to control equipment leaks by implementing leak detection and control measures in accordance with the standards specified in 40 C.F.R. § 63.691. 40 C.F.R § 63.683(d).

16. 40 C.F.R. Part 63, Subpart DD requires owners or operators of an affected source to control air emissions from tanks in accordance with the applicable requirements of 40 C.F.R. § 63.685.

17. 40 C.F.R. Part 63, Subpart DD requires owners or operators to control air emissions from process vents by routing the vent stream from each affected process vent through a closed-vent system to a control device that meets the standards specified in 40 C.F.R. § 63.693.

18. For each closed-vent system and control device used to comply with 40 C.F.R. Part 63, Subpart DD, the owner or operator must use a closed vent system that meets the requirements of 40 C.F.R. § 63.693(c), and must use a control device that meets the requirements of 40 C.F.R. § 63.693(d) through (h) as applicable to the type and design of the control device selected by the owner or operator to comply with the provisions of 40 C.F.R. § 63.693.

19. An owner or operator of an affected source subject to 40 C.F.R. Part 63, Subpart DD must comply with the recordkeeping requirements of Table 2 of 40 C.F.R. § 63.10. 40 C.F.R. § 63.696(a).

20. An owner or operator of a control device subject to 40 C.F.R. Part 63, Subpart DD must maintain records in accordance with the requirements of 40 C.F.R. § 63.10. 40 C.F.R. §

63.696(b).

21. An owner or operator of an affected source shall calibrate a detection instrument before use on each day utilizing calibration gases at zero air (less than 10 ppmv hydrocarbon in air); and a mixture of methane or n-hexane in air at a concentration of approximately, but less than, 10,000 ppmv. 40 C.F.R. § 63.694 (k).

22. Pursuant to 40 C.F.R. §§ 63.693(d)(3) and 63.693(d)(4), the owner or operator of an affected source must either: (1) monitor the operation of the carbon adsorption system with a continuous monitoring system to measure and record the daily average concentration level of organic compounds in the exhaust gas stream from the control device or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity at predetermined interval; or (2) replace the carbon canister or the carbon in the control device on a regular schedule, and when carbon breakthrough is indicated, immediately replace either the existing carbon canister with a new carbon canister or fresh carbon.

NESHAP for Benzene Waste Operations at 40 C.F.R. Part 61, Subpart FF

23. Benzene is a "hazardous air pollutant." 42 U.S.C. § 7412(b)(1); 40 C.F.R. § 61.01(a).

24. Pursuant to Section 112(d) of the Clean Air Act, 42 U.S.C. § 7412(d), EPA promulgated the Benzene Waste Operations NESHAP. The Benzene Waste Operations NESHAP is set forth at 40 C.F.R. §§ 61.340-61.359.

25. The Benzene Waste Operations NESHAP applies to, among others, owners and operators of chemical manufacturing plants, coke by-product recovery plants, and petroleum refineries. 40 C.F.R. § 61.340(a).

26. 40 C.F.R. § 61.341 defines "facility" as all process units and product tanks that generate waste within a stationary source, and all waste management units that are used for waste treatment, storage, or disposal within a stationary source.

27. 40 C.F.R. § 61.341 defines "waste" as any material resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, thermally, or biologically treated prior to being discarded, recycled, or discharged.

28. 40 C.F.R. § 61.341 defines "waste stream" as waste generated by a particular process unit, product tank, or waste management unit. The characteristics of the waste stream (e.g., flow rate, benzene concentration, water content) are determined at the point of waste generation. Examples of a waste stream include process wastewater, product tank drawdown, sludge and slop oil removed from waste management units, and landfill leachate.

29. 40 C.F.R. § 61.341 defines "point of waste generation" as the location where the waste stream exits the process unit component or storage tank prior to handling or treatment in an operation that is not an integral part of the production process, or in the case of waste management units that generate new wastes after treatment, the location where the waste stream exits the waste management unit component.

30. Pursuant to 40 C.F.R. § 61.342(a)(2), the Total Annual Benzene Quantity (TABQ) from facility waste is the sum of: (i) the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent water, or that is mixed with water, or other wastes, at any time and the mixture has an average water content greater than 10 percent.

31. Pursuant to 40 C.F.R. § 61.343(a)(1), the owner or operator must install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. The system shall be designed to operate at no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background.

32. Pursuant to 40 C.F.R. § 61.355(h) and 40 CFR § 63.694(k), an owner or operator shall test equipment for compliance with no detectable emissions utilizing 40 CFR Part 60, Appendix A, Method 21. The instrument must be calibrated before use on each day of its use. Calibration gases must be: zero air (less than 10 ppm hydrocarbon in air); and a mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

33. An owner or operator of an affected source must submit the: annual waste quantity; range of benzene concentrations; annual average flow-weighted benzene concentration; and annual benzene quantity; for each process wastewater stream identified as being controlled for benzene emissions. 40 CFR § 61.357(d)(4)(iii)

NESHAP for Hazardous Waste Combustors at 40 C.F.R. Part 63, Subpart EEE

34. Pursuant to Section 112 of the Clean Air Act, on September 30, 1999, EPA promulgated the Hazardous Waste Combustor (HWC MACT). EPA amended the HWC MACT on November 19, 1999, July 10, 2000, November 9, 2000, May 14, 2001, July 3, 2001, December 6, 2001, February 13, 2002, February 14, 2002, December 19, 2002, June 23, 2003, April 9, 2004, October 12, 2005, April 20, 2006, October 25, 2006, April 8, 2008, and October 28, 2008.

35. The HWC MACT applies to each hazardous waste burning cement kiln. 40 C.F.R. § 63.1200.

36. Pursuant to 40 C.F.R. § 63.1206(a)(1)(ii)(A), the owner or operator of an existing hazardous waste burning cement kiln was required to comply with the emission standards under 40

C.F.R. § 63.1220 and the other requirements of the HWC MACT no later than the compliance date, October 14, 2008.

37. Pursuant to 40 C.F.R. § 63.1206(c)(3)(vi)(A), for each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, the owner or operator must submit to the Administrator a written report, within five calendar days of the 10th exceedance, which documents the exceedances and results of the investigation and corrective actions taken.

38. An owner or operator must operate their source under the requirements specified in the Notification of Compliance. Failure to comply with the operating requirements is failure to ensure compliance with the emission standards of this subpart. 40 C.F.R. § 63.1206(c)(1).

39. To remain in compliance with the destruction and removal efficiency (DRE) standard, an owner or operator must comply with minimum combustion temperature and maximum flue gas flowrate operating limits at all times that hazardous waste remains in the combustion chamber. 40 CFR § 63.1209(j).

40. Pursuant to 40 C.F.R. § 63.1209(i), (j) through (p), when an operating parameter is applicable to multiple standards, the owner or operator must establish limits on operating parameters based on comprehensive performance testing to ensure compliance with emission standards.

41. Pursuant to 40 C.F.R § 63.1206(c)(1), the operating requirements specified in the Notification of Compliance must be incorporated in the facility's Title V permit.

NESHAP for Portland Cement Kilns at 40 C.F.R. Part 63, Subpart LLL

42. Pursuant to 40 C.F.R. § 63.1343(a), the provisions in this section apply to each kiln and any alkali bypass associated with that kiln, clinker cooler, raw material dryer, and open clinker storage pile.

43. Pursuant to 40 C.F.R. § 63.1345(a)(2), no owner or operator of a new or existing clinker cooler at a facility which is a major source subject to the provisions of this subpart shall cause to be discharged into the atmosphere from the clinker cooler any gases which exhibit opacity greater than ten percent.

44. Pursuant to 40 C.F.R. § 63.1350(d), the owner or operator of a clinker cooler shall monitor opacity at each point where emissions are vented from the clinker cooler. To remain in compliance, the opacity must be maintained such that the 6-minute average opacity for any

6- minute block period does not exceed 10 percent. If the average opacity for any 6-minute block period exceeds 10 percent, this shall constitute a violation of the standard.

45. Pursuant to 40 C.F.R. § 63.1350(f), an owner and operator must conduct required opacity monitoring in accordance with 40 C.F.R Part 60, Appendix A, EPA Method 22. If the owner or operator observes visible emissions during any Method 22 performance test, 30 minutes of additional opacity observations (recorded at 15-second intervals) in accordance with 40 C.F.R. Part 60, Appendix A, Method 9 must be performed within one hour of any observation of visible emissions.

FACTUAL BACKGROUND

46. Buzzi Unicem USA own and/or operates a Portland cement plant at 3301 S. County Road 150 W., Greencastle, IN 46135 (Greencastle). The Greencastle facility is located in Putnam County, Indiana.

47. The facility is classified as a major stationary source as that term is defined at 40 C.F.R. § 63.2, and an existing source as that term is defined at 40 C.F.R. § 63.1341.

48. The facility is a semi-wet Portland cement plant which burns, among other fuels, hazardous waste fuel.

49. On October 29, 1996, Lone Star Industries, Inc. (the facility's prior owner and operator), submitted an initial notification for applicability to NESHAP Subpart DD, as required by 40 C.F.R. § 63.9.

50. On October 12, 2012, the Indiana Department of Environmental Management issued a Part 70 Operating Permit renewal which confirmed that the facility is subject to the requirements of NESHAP Subparts DD, FF, EEE and LLL.

FINDINGS

51. Clinker cooler six-minute block opacity exceedances (at greater than 10.5 percent) were recorded at the clinker cooler continuous opacity monitor for the following dates:

03/13/2011:	1
03/14/2011:	11
01/12/2012:	16
10/08/2013:	17
10/29/2013:	1
TOTAL	46

52. Monthly records of Method 22 visible emission observations were not documented for Emission Unit 503L1 for December 2011 and June 2012.

53. There were a total of 1,687 instances when hourly rolling averages for the minimum combustion chamber exit temperature were outside the established Operating Parameter Limit (OPL) and 41 instances when hourly rolling averages for the flue gas flow rate were outside the established OPL from December 1, 2010, through November 30, 2013. The facility's November 2, 2009 Notification of Compliance set the OPL's at 1,592.35 degrees Fahrenheit for the minimum combustion chamber exit temperature, and 387,098 standard cubic feet per minute for the maximum gas flow rate. During these time periods, Buzzi did not submit the required reports to the Governments documenting these exceedances.

Minimum Combustion Chamber Exit Temperature:

Start Date	End Date	Sets of 10 Exceedances
11/30/2010	1/28/2011	8
3/30/2011	5/28/2011	3
7/28/2011	9/25/2011	4
9/26/2011	11/24/2011	2
3/24/2012	5/22/2012	114
5/23/2012	7/21/2012	12
7/22/2012	9/19/2012	7
9/20/2012	11/18/2012	1
1/18/2013	3/18/2013	1
9/15/2013	11/13/2013	7
11/14/2013	1/12/2014	4
TOTAL		163

Maximum Flue Gas Flow Rate:

Start Date	End Date	Sets of 10 Exceedances
11/30/2010	1/28/2011	4

54. The facility uses isobutylene as a calibration gas, calibrated at 100 ppm, for leak detection and repair (LDAR) monitoring of the closed vent system. The facility is required to use a mixture of methane or n-hexane in air at a concentration of less than 10,000 ppmv for monitoring of the closed-vent system. Buzzi uses a leak definition of 500 ppm for all equipment monitored on the closed vent system and transfer system lines.

55. The 2010, 2011, and 2012 TABQ submittals by Buzzi do not contain all of the required information regarding process wastewater streams identified as being controlled for benzene emissions. The TAB submittals do not include a range of benzene concentrations for each waste stream.

56. During a December 17, 2013 site visit, EPA inspectors observed that the south canister outlet valve was left open by facility personnel. This open valve allows gas to dilute the total hydrocarbon concentration reading at the carbon canister outlets to the atmosphere.

57. The facility did not record a daily instantaneous readings, utilizing the THC monitor; on the following dates: 01/16/11; 01/23/11; 03/06/11; 05/08/11; 06/26/11; 07/04/11; 07/24/11; 09/29/11; 12/10/11; 12/26/11; 04/07/12; 04/15/12; 08/01/13; 08/02/13; and 08/03/13.

VIOLATIONS OF EMISSIONS LIMITS AND OPERATING STANDARDS

58. Since 2011, Buzzi Unicem USA failed to comply with the 10 percent opacity limit over 6-minute average on 46 instances at the facility's clinker cooler, which violates 40 C.F.R. § 63.1350(d).

59. Buzzi Unicem USA did not document monthly Method 22 visible emission observations for Unit 503L1 on December 2011 and June 2012, in violation of 40 C.F.R. § 63.1350(f).

60. From December 1, 2010, through November 30, 2013, Buzzi Unicem USA failed to comply with the OPL's established in the facility's Notification of Compliance for a total of 1,687 instances, when hourly rolling averages for the minimum combustion chamber exit temperature were outside the established OPL, and 41 instances when hourly rolling averages for the flue gas flow rate were outside the established OPL, in violation of 40 C.F.R. § 63.1206(c)(1) and 40 C.F.R § 63.1209(j).

61. Buzzi Unicem USA failed to submit 167 written reports to the Administrator, within five calendar days of each 10th exceedance during a 60-day block period, which documents the exceedances and results of the investigation and corrective actions taken in violation of 40 C.F.R. § 63.1206(c)(3)(vi)(A).

62. Buzzi Unicem USA failed to use a mixture of methane or n-hexane in air at a concentration of less than 10,000 parts per million by volume (ppmv) for monitoring of the closed-vent system, as well as, a calibration gas at a concentration (100 ppmv) below the leak concentration needed for measurement using Method 21 of 40 C.F.R. Part 60, Appendix A. The facility uses isobutylene as a calibration gas (at a concentration of 0 ppm and 100 ppm) for monitoring of the closed vent system in violation of 40 C.F.R. §61.355(h) and 40 CFR §63.694(k),

63. Buzzi Unicem USA failed to submit TABQ reports containing all of the required information regarding process wastewater streams identified as being controlled for benzene emissions. Buzzi Unicem USA's TAB submittals do not include a range of benzene concentrations for each waste stream, in violation of 40 C.F.R. § 61.357(d)(4)(iii).

64. Buzzi Unicem USA diluted the exhaust gas at the carbon canister outlets to the atmosphere by allowing for a valve to be open. This was observed during a December 17, 2013 EPA site visit. This open valve allowed gas to dilute the total hydrocarbon concentration THC monitor reading at the carbon canister outlets to the atmosphere, in violation of 40 C.F.R. § 63.4(b)(1).

65. Buzzi Unicem USA did not record daily instantaneous readings, utilizing the THC monitor; on 15 separate dates in violation of 40 C.F.R. §§ 63.693(d)(3) and 63.693(d)(4).

66. Buzzi Unicem USA failed to incorporate the operating requirements specified in the Notification of Compliance into the facility's Title V permit, in violation of 40 C.F.R § 63.1206(c)(1),

ENVIRONMENTAL IMPACT OF VIOLATIONS

67. VOC emissions increase the amount of pollutants that have the ability to create photochemical smog under certain conditions.

68. HAP emissions increase the amount of pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, and/or adverse environmental effects.

9/11/15
Date

George T. Czerniak
Director
Air and Radiation Division

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Finding of Violation, No. EPA-5-15-IN-10, by Certified Mail, Return Receipt Requested, to:

John Kass
Plant Manager
Buzzi Unicem USA
3301 S. County Road 150 W.
Greencastle, IN 46135

I also certify that I sent copies of the Finding of Violation by first class mail to:

Matthew Chaifetz
Compliance and Enforcement Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46206-6015

Phil Perry
Compliance and Enforcement Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46206-6015

on the 11th day of September, 2015.

Kathy Jones

for Loretta Shaffer, Administrative Assistant
AECAB, IL-IN
(312) 353-5723

CERTIFIED MAIL RECEIPT NUMBER: 7014 2870 0001 9580 4855