



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

DEC 20 2013

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Jody Jones, Manager Regulatory Affairs
Chesapeake Energy Corporation
414 Summers Street
Charleston, West Virginia 25301

Re: Finding of Violation
Chesapeake Energy Corporation – Kenneth Buell 8H Well Site
Jewett, Ohio

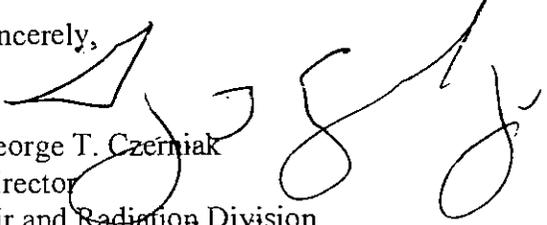
Dear Mr. Jones:

The U.S. Environmental Protection Agency has determined that the Chesapeake Energy Corporation's Kenneth Buell 8H Well facility at 40782 Hanover Ridge Road, Jewett, Ohio ("facility," "Chesapeake," or "you") is in violation of the Clean Air Act (CAA) and associated state or local pollution control requirements. We are today issuing to you a Finding of Violation (FOV) for violations of Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1) at your facility located in Jewett, Ohio.

Section 113 of the CAA, 42 U.S.C. § 7413, gives EPA several enforcement options. The options include 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 FOV. 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. The EPA contact in this matter is Natalie Topinka. You may contact her at 312-886-3853 or topinka.natalie@epa.gov 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

cc: Robert Hodanbosi
DAPC Central Office
Ohio Environmental Protection Agency

Dean Ponchak, Manager
Air Pollution Group
Ohio Environmental Protection Agency
Southeast District Office

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:)	
)	
Chesapeake Energy Corporation)	
Kenneth Buell Well Site)	FINDING OF VIOLATION
Jewett, Ohio)	
)	EPA-5-14-OH-03
Proceedings Pursuant to)	
the Clean Air Act,)	
42 U.S.C. §§ 7401 et seq.)	

FINDING OF VIOLATION

The U.S. Environmental Protection Agency finds that Chesapeake Energy Corporation (Chesapeake) is violating Section 112 of the Clean Air Act (CAA), 42 U.S.C. § 7412 at its natural gas production well site facility located at 40782 Hanover Ridge Road, Jewett, Ohio, as follows:

Regulatory Authority

1. On November 15, 1990, the President signed into law the CAA Amendments of 1990 passed by Congress. The Amendments added Section 112(r) to the CAA, 42 U.S.C. § 7412(r), which requires the Administrator of EPA to, among other things, promulgate regulations in order to prevent accidental releases of certain substances listed pursuant to Section 112(r)(3) of the CAA, 42 U.S.C. § 7412(r).

2. Pursuant to Section 112(r)(1) of the CAA, 42 U.S.C. 7412(r)(1) (referred to herein as the "General Duty Clause"), the owners and operators of stationary sources producing, processing, handling, or storing substances listed pursuant to Section 112(r)(3) of the CAA, 42 U.S.C. § 7412(r)(3), or any other extremely hazardous substance, "have a general duty, in the same manner and to the same extent as section 654, title 29 of the United States Code, to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur."

3. An extremely hazardous substance is any chemical which may, as a result of short-term exposures because of releases to the air, cause death, injury or property damage due to its toxicity, reactivity, flammability, volatility or corrosivity. Senate Comm. of Environment and Public Works, Clean Air Act Amendments of 1989, Senate Rep. No. 228, 101st Cong., 1st Sess. 211 (1989). Extremely hazardous substances include, but are not limited to, regulated substances listed pursuant to Section 112(r)(3) of the CAA, 42 U.S.C. § 7412(r)(3), at 40 C.F.R. § 68.130, and chemicals on the list of extremely hazardous substances published under EPCRA at 40 C.F.R. Part 355, Appendices A and B. *Id.*

4. Section 112(r)(2)(C) of the CAA, 42 U.S.C. § 7412(r)(2)(C) defines a “stationary source” as any buildings, structures, equipment, installations or substance emitting stationary activities (i) which belong to the same industrial group, (ii) which are located on one or more contiguous properties, (iii) which are under the control of the same person (or persons under common control), and (iv) from which an accidental release may occur.

5. Section 302(e) of the CAA, 42 U.S.C. § 7601(e) defines “person” as including an individual, corporation, partnership, association, State, municipality, political subdivision of a State and any agency, department, or instrumentality of the United States and any officer, agent, or employee thereof.

Chesapeake Kenneth Buell Gas Well Producing Facility

6. Chesapeake Energy Corporation is a “person,” as that term is defined in Section 302(e) of the CAA, 42 U.S.C. § 7602(e).

7. Chesapeake Energy Corporation currently owns and operates the oil and natural gas well producing facility located at 40782 Hanover Ridge Road, Jewett, Ohio (“the facility”).

8. The Ohio Environmental Protection Agency (Ohio EPA) program for general permits to install and operate at oil and gas well site production operations (GP12) became effective on January 31, 2012.

9. On May 7, 2012, the Ohio EPA received an application for the general permit to install and operate from Chesapeake Energy for the facility.

10. The facility produces, processes, handles, and/or stores oil, natural gas and condensate. Methane is the primary constituent of the facility’s natural gas and condensate.

11. The facility is a “stationary source” as defined in Section 112(r)(2)(C) of the CAA, 42 U.S.C. § 7412(r)(2)(C).

12. Methane is a highly flammable and explosive substance and thus is an extremely hazardous substance under Section 112(r) of the CAA, 42 U.S.C. 7412(r).

13. The constituents of the natural gas condensate at the facility are extremely hazardous substances for purposes of Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1) and constitute a flammable liquid, as that term is defined by the National Fire Protection Association (“NFPA”) 30, *Flammable and Combustible Liquids Code* (2012).

14. Extremely hazardous substances are handled and/or stored at the facility within the meaning of Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1).

15. On August 28, 2012, EPA conducted a CAA investigation of the facility hereafter referred to as “August 2012 inspection.”

16. During the August 2012 inspection, Chesapeake representatives stated that the production phase of operation at the Kenneth Buell well site began on or about April 2011.

17. During the August 2012 inspection, EPA observed condensate tanks at the facility.

18. Chesapeake utilizes non-reclosing type thief hatches on each condensate tank at the facility.

19. During the August 2012 inspection, a Chesapeake representative used a gas detector, calibrated for methane. The alarm of the gas detector was triggered while the Chesapeake representative was on the walkway around each tank of condensate. As a result, Chesapeake representatives stated it was unsafe to allow EPA to bring equipment that is not intrinsically safe and which may cause a spark on the walkway.

20. During the August 2012 inspection, EPA representatives utilized the FLIR® Gas Finder Infrared Camera on the stairs leading up to the tank walkway and observed air emission releases coming from the seals around the thief hatches of the condensate tanks. Based on their observations and process knowledge, the EPA inspectors determined that the emissions released from the seals around the thief hatches of the condensate tanks contained methane.

21. Based on the information in paragraphs 7-20, EPA determined that the air emissions releases from the condensate tanks during the August 2012 inspection contained potentially explosive levels of methane.

22. API Standard 2000/ISO 28300 4.4.1.1 states that “normal venting for pressure and vacuum shall be accomplished by a PV valve with or without a flame-arresting device or by an open vent with or without a flame-arresting device.” In addition, the facility “should protect atmospheric storage tanks against flame transmission from outside the tank if the tank can otherwise contain a flammable vapor space.” Also, “relief devices equipped with a lever and weight and non-reclosing relief device are not recommended for normal venting.”

23. NFPA 30, *Flammable and Combustible Liquids Code* (2012) 21.4.3.8. and 21.4.3.9. state that tanks and pressure vessels that store flammable liquids, as defined in 3.3.33.2 and 4.2.3, shall be equipped with venting devices that are closed, except when venting under pressure or vacuum conditions.

24. Perry’s Chemical Engineers’ Handbook states that “Vapor cloud explosions can result if clouds of flammable vapor in air are formed. ... The proper design of pressure relief systems can reduce the possibility of losses from unintended overpressure. ... Whenever possible, one should design user-friendly plants which can withstand human error and equipment failure without serious effects on safety. ... Equipment designers should consider the way in which it is most likely to fail and, when possible, locate or design equipment so as to minimize the consequences.... A source of ignition should not be listed as the primary cause of a fire or explosion, as leaks of flammable gases are liable to ignite even though we remove known sources of ignition.”

25. Pursuant to Section 112(r)(1) of the CAA, 42 U.S.C. 7412(r)(1), Chesapeake has a general duty at the facility, in the same manner and to the same extent as that required by 29 U.S.C. § 654, to (a) identify hazards which may result from accidental releases of a regulated substance or other extremely hazardous substance from its stationary source, using appropriate hazard assessment techniques, (b) design and maintain a safe facility taking such steps as are necessary to prevent releases, and (c) minimize the consequences of accidental releases which do occur.

Violations

26. On at least August 28, 2012, Chesapeake failed to take such steps as are necessary to prevent releases containing methane into the ambient air from the tanks storing natural gas condensate at its stationary source (the facility) in violation of Section 112(r)(1) of the CAA, 42 U.S.C. 7412(r)(1). With respect to the storage and handling of the natural gas condensate, Chesapeake failed to satisfy the requirements of the General Duty Clause by failing to design and maintain a safe facility, as indicated by industry codes and standards for venting devices for tank vapors, to prevent releases of extremely hazardous substances from its condensate storage tanks at the facility.

ENVIRONMENTAL IMPACT OF VIOLATIONS

27. These violations have resulted or can result in the release of methane, which is a highly flammable liquid. In addition, methane, the primary constituent of natural gas, is a potent greenhouse gas which is more than 20 times as potent as carbon dioxide over a 100-year period when emitted directly to the atmosphere. Increasing concentrations of greenhouse gases in the atmosphere causes rises in the global average temperature near Earth's surface, or global warming, one aspect of global climate change. The buildup of greenhouse gases can change Earth's climate and result in dangerous effects to human health and welfare and to ecosystems.

28. These violations have caused or can cause excess emissions of volatile organic compounds (VOC). VOC emissions increase ground-level (tropospheric) ozone (smog). Ground-level ozone irritates lung airways and can cause wheezing, coughing, painful or difficult breathing, especially in people with respiratory problems. Repeated exposure can lead to more serious health problems such as asthma, reduced lung capacity, and increased susceptibility to pneumonia or bronchitis. In addition, ground-level ozone inhibits the ability of plants to produce and store food, leading to ecological damage.

Date

12/20/13

George T. Czemiak
Director
Air and Radiation Division

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Finding of Violation, No. EPA-5-14-OH-03, by Certified Mail, Return Receipt Requested, to:

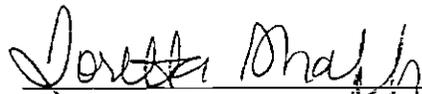
Jody Jones, Manager Regulatory Affairs
Chesapeake Energy Corporation
414 Summers Street
Charleston, West Virginia 25301

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

Robert Hodanbosi
DAPC Central Office
Ohio Environmental Protection Agency
P.O. Box 1049
Columbus, Ohio 43216-1049

Dean Ponchak, Manager
Air Pollution Group
Ohio Environmental Protection Agency
Southeast District Office
2195 Front Street
Logan, Ohio 43138

On the 27 day of December 2013



Loretta Shaffer, Administrative Program
Assistant
AECAB, PAS

70091680 0000 7669 5473

CERTIFIED MAIL RECEIPT NUMBER: