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

SEP 20 2015

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Heather McBurnery, Environmental Manager
MarkWest Energy Partners L.P.
MarkWest Utica EMG, L.L.C.
101 E. Market Street
Cadiz, Ohio 43907

Re: Notice and Finding of Violation
MarkWest Energy Partners L.P and
MarkWest Utica EMG, L.L.C.
Jewett, Ohio

Dear Ms. McBurney:

The U.S. Environmental Protection Agency is issuing the enclosed Notice and Finding of Violation (NOV/FOV) to MarkWest Energy Partners L.P. and MarkWest Utica EMG, L.L.C. (collectively MarkWest or you) under Sections 113(a)(1) and (3) of the Clean Air Act, 42 U.S.C. § 7413(a)(1) and (3). We find that you are violating the following at your Hopedale Fractionation Plant in Jewett, Ohio: (1) Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution at 40 C.F.R. §§ 60.5360-5430 (Subpart OOOO); (2) Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 at 40 C.F.R. §§ 60.480a -60.490 (Subpart VVa); (3) Standards of Performance for Volatile Organic Compounds (VOC) From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations at 40 C.F.R. §§ 60.660 – 60.668 (Subpart NNN); (4) Standards of Performance for VOC From SOCMI Reactor Processes at 40 C.F.R. §§ 60.700 – 60.708 (Subpart RRR); (5) Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 at 40 C.F.R. §§ 60.110b-117b (Subpart Kb); and (6) Permit to Install and Operate (PTIO) conditions established pursuant to the Ohio State Implementation Plan (SIP) at Ohio Administrative Code (OAC) 3745-31.

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.

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (100% Post-Consumer)

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 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 Constantinos Loukeris. You may call him at (312) 353-6198 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,

Eric L. Fovey for

George T. Czerniak
Director
Air and Radiation Division

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:	)	
	)	
MarkWest Energy Partners, L.P and	)	**NOTICE OF VIOLATION and**
MarkWest Utica EMG, L.L.C.	)	**FINDING OF VIOLATION**
Jewett, Ohio	)	
	)	
Proceedings Pursuant to	)	**EPA-5-15-OH-21**
the Clean Air Act,	)	
42 U.S.C. §§ 7401 et seq.	)	
	)	

NOTICE AND FINDING OF VIOLATION

The U.S. Environmental Protection Agency finds that MarkWest Energy Partners, L.P. and MarkWest Utica EMG, L.L.C. (collectively "MarkWest") is violating the Clean Air Act (CAA) and its implementing regulations at the company's Hopedale Fractionation Facility in Jewett, Ohio. Specifically, MarkWest is violating: (1) Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution at 40 C.F.R. §§ 60.5360-5430 (Subpart OOOO); (2) Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 at 40 C.F.R. §§ 60.480a -60.490 (Subpart VVa); (3) Standards of Performance for Volatile Organic Compounds (VOC) From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations at 40 C.F.R. §§ 60.660 – 60.668 (Subpart NNN); (4) Standards of Performance for VOC From SOCMI Reactor Processes at 40 C.F.R. §§ 60.700 – 60.708 (Subpart RRR); (5) Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 at 40 C.F.R. §§ 60.110b-117b (Subpart Kb); and (6) Permit to Install and Operate (PTIO) conditions established pursuant to the Ohio State Implementation Plan (SIP) at Ohio Administrative Code (OAC) 3745-31.

Regulatory Authority

New Source Performance Standard Subpart OOOO

1. Section 111 of the CAA, 42 U.S.C. § 7411, authorizes EPA to promulgate regulations establishing New Source Performance Standards (NSPS).

2. Section 111(e) of the CAA, 42 U.S.C. § 7411(e), states that after the effective date of standards of performance promulgated under this section, it shall be unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source.

3. EPA promulgated Subpart OOOO on September 23, 2013. 78 Fed. Reg. 58435.

4. Subpart OOOO at 40 C.F.R. § 60.5365 states that an owner or operator of one or more of the onshore affected facilities listed in paragraphs (a) through (g) of this section for which construction, modification, or reconstruction commenced after August 23, 2011 is subject to the applicable provisions of Subpart OOOO. § 60.5365(f) states that the group of all equipment, except compressors, within a process unit is an affected facility. § 60.5365(f)(3) further provides that the equipment within a process unit of an affected facility located at onshore natural gas process plants and described in paragraph (f) of this section are exempt from Subpart OOOO if they are subject to and controlled according to Subparts VVa, GGG, or GGGa of 40 C.F.R. Part 60.

5. Subpart OOOO at 40 C.F.R. § 60.5430 defines "process unit" to mean components assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids into natural gas products, or other operations associated with the processing of natural gas products.

6. Subpart OOOO at 40 C.F.R. § 60.5430 defines a "natural gas processing plant (gas plant)" as "any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both."

7. Subpart OOOO at 40 C.F.R. § 60.5400 sets forth equipment standards that apply to affected facilities at an onshore natural gas processing plant. This section applies to the group of all equipment, except compressors, within a process unit.

8. Subpart OOOO at 40 C.F.R. § 60.5400(a) states a subject owner or operator must comply with the equipment leak standard requirements of specific portions of Subpart VVa at 40 C.F.R. §§ 60.482-1a(a), (b), and (d), 60.482-2a, and 60.482-4a through 60.482-11a., except as provided in § 60.5401.

9. Subpart OOOO at 40 C.F.R. § 60.5400(d) states that a subject owner or operator must comply with the provisions of § 60.485a of Subpart VVa except as provided in § 60.5400(f).

10. Subpart OOOO at 40 C.F.R. § 60.5400(e) states that a subject owner or operator must comply with the provisions of §§ 60.486a and 60.487a of Subpart VVa except as provided in §§ 60.5401, 60.5421, and 60.5422 of Subpart OOOO.

11. Subpart OOOO at 40 C.F.R. § 60.5400(f) states that a subject owner or operator must use the following provision instead of § 60.485a(d)(1): "Each piece of equipment is presumed to be in VOC service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VOC service or in wet gas service."

NSPS Subpart VVa

12. EPA promulgated NSPS Subpart VVa on November 16, 2007. See 72 Fed. Reg. 64883. (Subpart VVa)

13. Subpart VVa at 40 C.F.R. § 60.482-1a(a) states "[e]ach owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§ 60.482-1a through 60.482-10a or § 60.480a(e) for all equipment within 180 days of initial startup."

14. Subpart VVa at 40 C.F.R. § 60.482-1a(b) states "[c]ompliance with §§ 60.482-1a to 60.482-10a will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in § 60.485a."

15. Subpart VVa at 40 C.F.R. § 60.482-2a(a)(1) states "[e]ach pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in § 60.485a(b), except as provided in § 60.482-1a(c) and (f) and paragraphs (d), (e), and (f) of this section. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period."

16. Subpart VVa at 40 C.F.R. § 60.482-2a(a)(1) states that "each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in § 60.482-1a(f)."

17. Subpart VVa at 40 C.F.R. § 60.482-11a(a) states "[t]he owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after initial startup."

18. Subpart VVa at 40 C.F.R. § 60.481a defines "connector" as meaning flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment or that close an opening in a pipe that could be connected to another pipe.

19. Subpart VVa at 40 C.F.R. § 60.482-11a(d) states that "when a leak is detected pursuant to paragraphs (a) and (b) of this section, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9a. A first attempt at repair as defined in this subpart shall be made no later than 5 calendar days after the leak is detected" from a connector.

20. Subpart VVa at 40 C.F.R. § 60.482-7a(d)(2) states that "a first attempt at repair shall be made no later than 5 calendar days after each leak is detected" from a valve.

21. Subpart VVa at 40 C.F.R. § 60.482-6a(a)(1) states that "each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in § 60.482-1a(c) and paragraphs (d) and (e) of this section."

22. Subpart VVa at 40 C.F.R. § 60.482-6a(a)(2) states that "the cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line."

23. Subpart VVa at 40 C.F.R. § 60.482-7a(a)(1) states that "each valve shall be monitored monthly to detect leaks by the methods specified in § 60.485a(b) and shall comply with paragraphs (b) through (e) of this section."

24. Subpart VVa at 40 C.F.R. § 60.482-7a(a)(2) states that "a valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to paragraphs (a)(2)(i) or (ii)."

25. Subpart VVa at 40 C.F.R. § 60.482-7a(a)(2)(i) states that a facility must "monitor the valve as in paragraph (a)(1) of this section. The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation."

26. Subpart VVa at 40 C.F.R. § 60.485a (b) states "[t]he owner or operator shall determine compliance with the standards in §§ 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: (1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7 of this part."

27. Subpart VVa at 40 C.F.R. § 60.482-4a provides standards for pressure relief devices in gas/vapor service. § 60.482-4a(c) provides that any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in § 60.482-10a is exempted from the requirements of paragraphs (a) and (b) of this section. § 60.482-10a establishes standards for closed vent systems and control devices used to comply with the provisions of Subpart VVa.

28. The NSPS Appendix A-7, at 40 C.F.R. Part 60, Method 21 §§ 8.3.1 and 8.3.1.1, sets forth the technique which must be used to determine if there is a leak from a valve.

NSPS Subparts NNN/RRR

29. On June 29, 1990, EPA promulgated Subpart NNN. See 55 Fed. Reg. 26,942.

30. Subpart NNN at 40 C.F.R. § 60.660(a) states that Subpart NNN applies to each affected facility designated in paragraph (b) of this section that is part of a process unit that produces any of the chemicals listed in 40 C.F.R. § 60.667 as a product, co-product, by-product, or intermediate, except as provided in paragraph (c).

31. Subpart NNN at 40 C.F.R. § 60.660(b) states the affected facility is any of the following for which construction, modification, or reconstruction commenced after December 30, 1983:

    a. Each distillation unit not discharging its vent stream into a recovery system.

b. Each combination of a distillation unit and the recovery system into which its vent stream is discharged.

c. Each combination of two or more distillation units and the common recovery system into which their vent streams are discharged.

32. Subpart NNN at 40 C.F.R. § 60.661 defines "*Distillation operation*" as an operation separating one or more feed stream(s) into two or more exit stream(s), each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor-phase as they approach equilibrium within the distillation unit.

33. Subpart NNN at 40 C.F.R. § 60.661 defines "*Distillation unit*" as a device or vessel in which distillation operations occur, including all associated internals (such as trays or packing) and accessories (such as reboiler, condenser, vacuum pump, steam jet, etc.), plus any associated recovery system.

34. Subpart NNN at 40 C.F.R. § 60.662 states that each owner or operator of any affected facility shall comply with paragraph (a), (b), or (c) of this section for each vent stream on and after the date on which the initial performance test required by 40 C.F.R. § 60.8 and 40 C.F.R. § 60.664 is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial start-up, whichever date comes first. Each owner or operator shall either:

a. Reduce emissions of Total Organic Compounds (TOC) (less methane and ethane) by 98 weight-percent, or to a TOC (less methane and ethane) concentration of 20 parts per million by volume (ppmv), on a dry basis corrected to 3 percent oxygen, whichever is less stringent. If a boiler or process heater is used to comply with this paragraph, then the vent stream shall be introduced into the flame zone of the boiler or process heater;

b. Combust the emissions in a flare that meets the requirements of 40 C.F.R. § 60.18; or

c. Maintain a Total Resource Effectiveness (TRE) index value greater than 1.0 without use of VOC emission control devices.

35. Subpart NNN at 40 C.F.R. § 60.663 sets forth the monitoring of emissions and operations for control devices including flares, boilers or process heaters, and condensers used as a final recovery device in a recovery system.

36. Subpart NNN at 40 C.F.R. § 60.665(a) states that each owner or operator subject to § 60.662 shall notify the Administrator of the specific provisions of 40 C.F.R. § 60.662 with which the owner or operator has elected to comply. Notification shall be submitted with the notification of initial start-up required by 40 C.F.R. § 60.7(a)(3). If an owner or operator elects at a later date to use an alternative provision of 40 C.F.R. § 60.662 with

which he or she will comply, then the Administrator shall be notified by the owner or operator 90 days before implementing a change, and upon implementing the change, a performance test shall be performed as specified by 40 C.F.R. § 60.664 within 180 days.

37. Subpart NNN at 40 C.F.R. § 60.665(b) states that each owner or operator subject to the provisions of this subpart shall keep an up-to-date, readily accessible record of the following data measured during each performance test, and also include the following data in the report of the initial performance test required under 40 C.F.R. § 60.8. Where a boiler or process heater with a design heat input capacity of 44 megawatts (MW) (150 million Btu/hour) or greater is used to comply with 40 C.F.R. § 60.662(a), a report containing performance test data need not be submitted, but a report containing the information in 40 C.F.R. § 60.665(b)(2)(i) is required. The same data specified in this section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a control device, outlet concentration of TOC, or the TRE index value of a vent stream from a recovery system is determined.

38. On August 31, 1993, EPA promulgated Subpart RRR. See 58 Fed. Reg. 45,962.

39. Subpart RRR at 40 C.F.R. § 60.700(a) provides that Subpart RRR applies to each affected facility designated in 40 C.F.R. § 60.700(b) that is part of a process unit that produces any of the chemicals listed in 40 C.F.R. § 60.707 as a product, co-product, by-product, or intermediate, except as provided in 40 C.F.R. § 60.700(c).

40. Subpart RRR, at 40 C.F.R. § 60.700(b) states that the affected facility is any of the following for which construction, modification, or reconstruction commenced after June 29, 1990:

    a. Each reactor process not discharging its vent stream into a recovery system.

    b. Each combination of a reactor process and the recovery system into which its vent stream is discharged.

    c. Each combination of two or more reactor processes and the common recovery system into which their vent streams are discharged.

41. Subpart RRR at 40 C.F.R. § 60.701 defines "*Reactor processes*" as unit operations in which one or more chemicals, or reactants other than air, are combined or decomposed in such a way that their molecular structures are altered and one or more new organic compounds are formed.

42. Subpart RRR at 40 C.F.R. § 60.702 states that each owner or operator of any affected facility shall comply with paragraph (a), (b), or (c) of this section for each vent stream on and after the date on which the initial performance test required by 40 C.F.R. § 60.8 and 40 C.F.R. § 60.704 is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial start-up, whichever date comes first. Each owner or operator shall either:

a. Reduce emissions of TOC (less methane and ethane) by 98 weight-percent, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. If a boiler or process heater is used to comply with this paragraph, then the vent stream shall be introduced into the flame zone of the boiler or process heater;

b. Combust the emissions in a flare that meets the requirements of § 60.18; or

c. Maintain a TRE index value greater than 1.0 without use of a VOC emission control device.

43. Subpart RRR at 40 C.F.R. § 60.703 sets forth the requirements for the monitoring of emissions and operations for control devices including flares, boilers or process heaters, and condensers used as a final recovery device in a recovery system.

44. Subpart RRR, at 40 C.F.R. § 60.705(a), states that each owner or operator subject to 40 C.F.R. § 60.702 shall notify the Administrator of the specific provisions of 40 C.F.R. § 60.702 with which the owner or operator has elected to comply. Notification shall be submitted with the notification of initial start-up required by 40 C.F.R. § 60.7(a)(3). If an owner or operator elects at a later date to use an alternative provision of 40 C.F.R. § 60.702 with which he or she will comply, then the Administrator shall be notified by the owner or operator 90 days before implementing a change and, upon implementing the change, a performance test shall be performed as specified by 40 C.F.R. § 60.704 no later than 180 days from initial start-up.

45. Subpart RRR at 40 C.F.R. § 60.705(b) states that each owner or operator subject to the provisions of this subpart shall keep an up-to-date, readily accessible record of the following data measured during each performance test, and also include the following data in the report of the initial performance test required under 40 C.F.R. § 60.8. Where a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used or where the reactor process vent stream is introduced as the primary fuel to any size boiler or process heater to comply with 40 C.F.R. § 60.702(a), a report containing performance test data need not be submitted, but a report containing the information in 40 C.F.R. § 60.705(b)(2)(i) is required. The same data specified in this section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a combustion device, outlet concentration of TOC, or the TRE index value of a vent stream from a recovery system is determined.

NSPS Subpart Kb

46. On April 8, 1987, EPA promulgated Subpart Kb. See 52 Fed. Reg. 11,429.

47. Subpart Kb at 40 C.F.R. § 60.110b(a) states that except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

48. Subpart Kb at 40 C.F.R. § 60.112b(a) states that the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of four compliance options, including, at § 60.112b(a)(3), the following option:

> (3) A closed vent system and control device meeting the following specifications:
>
> > (i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in Part 60, Subpart VV, §60.485(b).
> >
> > (ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§ 60.18) of the General Provisions.

PTIO Permit P0116897

49. Section 110(a)(1) of the CAA, 42 U.S.C. § 7410(a)(1), requires each state to adopt and submit to EPA for approval a SIP that provides for the implementation, maintenance, and enforcement of the National Ambient Air Quality Standards (NAAQS). Under Section 110(a) of the CAA, 42 U.S.C. § 7410(a), each SIP must include a permit program to regulate the modification and construction of any stationary source of air pollution as necessary to assure that NAAQS are achieved. Pursuant to Section 113(a) and (b) of the CAA, 42 U.S.C. § 7413(a) and (b), upon EPA approval, SIP requirements are federally enforceable under Section 113. Under 40 C.F.R. § 52.23, any permit limitation or condition contained within a permit issued under an EPA-approved program that is incorporated in a SIP, is a requirement of the SIP, and is federally enforceable under Section 113.

50. On February 20, 2013, EPA approved revisions to OAC 3745-31, the regulations governing the Ohio PTIO program, as part of the federally enforceable SIP for the State of Ohio. See 78 Fed. Reg. 11,748.

51. On October 14, 2014, Ohio EPA issued to the Hopedale Fractionation Plant PTIO Permit No. P0116897. Condition C.2.b.2.a of the PTIO provides that for any transfer of natural gas liquids from a pressurized storage tank to a railcar, the displaced vapors shall be collected from a vapor recovery system. The vapor recovery system shall be equipped with a vapor tight vapor line from the pressurized storage tanks to the rail vessels and a means to ensure that the vapor line is connected before natural gas liquids are transferred. The vapor recovery system shall be designed and operated to route at least 98.7 percent of displaced vapors from the loading process back to the pressurized storage tanks.

Findings of Fact

52. MarkWest owns and operates an onshore natural gas processing plant, at 6155 E. US Route 6, Jewett, Ohio, called the Hopedale Fractionating Plant (HFP), which removes natural gas liquids from field gas and fractionates the natural gas liquids.

53. On December 12, 2013, MarkWest notified Ohio EPA that the HFP is subject to Subpart OOOO (and by reference Subpart VVa) and Subpart Kb.

54. EPA conducted an inspection of the HFP on May 26-28, 2015 (May 2015 inspection).

55. During the May 2015 inspection, EPA identified at least 24 fin fan assemblies, containing approximately 510 connectors per assembly, which are not included in MarkWest's LDAR program and have not been monitored in accordance with Subpart VVa.

56. Since January 2014, MarkWest produces propane, listed in 40 C.F.R. §§ 60.667 and 60.707, as a product, co-product, by-product, or intermediate from the two depropranizers (one in the FRAC1 process unit and one in the FRAC2 process unit).

57. Since January 2014, MarkWest produces n-butane, butanes, mixed, and/or isobutane, all listed in 40 C.F.R. §§ 60.667 and 60.707, as a product, co-product, by-product, or intermediate from the debutanizer and deisobutanizer in the FRAC2 process unit.

58. MarkWest operates distillation units in the FRAC1 and FRAC2 process units at the HFP.

59. MarkWest operates reactor processes in the FRAC1 and FRAC2 process units at the HFP.

60. MarkWest's distillation units and reactor processes in the FRAC1 and FRAC2 process units are affected facilities subject to Subparts NNN and RRR, respectively.

61. MarkWest has not submitted a notification that the HFP's distillation units and reactor processes are subject to Subparts NNN and RRR, respectively.

62. MarkWest operates two 6,360 m^3 (~40,000 barrels) natural gasoline storage tanks that are subject to Subpart Kb.

63. During the May 2015 inspection, EPA observed the pressure relief devices on each of the natural gasoline storage tanks to be venting to atmosphere using a FLIR® GF-320, as confirmed by MarkWest using a portable VOC instrument with the following readings:

    a. Tag# 11251 – 1,977 ppm

    b. Tag# 11252 – 26,297 ppm

    c. Tag# 2845 – 4,781 ppm

64. In reviewing MarkWest's leak history, EPA discovered the following leaks that did not have a first attempt at repair within 5 days:

Tag #	Leak Date	Component Type
000687	2/18/2015	Valve
003383	12/9/2014	Connector

65. For the three quarterly monitoring events since July 2015, MarkWest reported an average of 0.98% as the percentage of valves leaking in the FRAC1, Railroad, and Truck Loading process units whereas EPA found a 2.89% leaking rate during the May 2015 inspection.

66. MarkWest utilizes a flare to control emissions from pressure relief devices at the HFP to comply with requirements for pressure relief devices under Subparts OOOO and VVa.

67. MarkWest operates approximately 75 pilot designed pressure relief devices throughout the HFP. These pilot pressure relief devices are designed to release gas directly to atmosphere from the pilot vents with any overpressure greater than 1 percent and up to 15 percent prior to actuating the main pressure-relief valve to the flare.

68. During the May 2015 inspection, EPA identified a pressure relief device (Tag # 000829) at the FRAC1 process unit venting to atmosphere using a portable VOC instrument (2,800 ppm), and confirmed by MarkWest tagging the pressure relief device as leaking.

69. During the May 2015 inspection, EPA observed several connections between the loading arm and the top of the railcar to not be vapor tight or capturing all the material being loaded, based upon identifying vented VOC emissions using a FLIR® GF-320 and portable VOC instrument with the following readings:

Tag #	Equipment	EPA Reading (ppm)	MarkWest Reading (ppm)
4470	Hoses	830	Not Confirmed
5026	Hoses	722	Not Confirmed
4706	Hoses	1,300	6,378
4353	Connector 1 on Hose (Bay 5 South)	18,000	17,079
4353	Connector 2 on Hose (Bay 5 South)	25,000	Flameout
4035	Connector 1 on Hose (Bay 4 South)	16,000	Not Confirmed

Violations

70. MarkWest failed to perform Method 21 properly on 5 insulated valves (4 valves in FRAC1 and 1 valve in FRAC2), in violation of 40 C.F.R. §§ 60.5400(a) and 60.482-

7a(a)(1) (and by reference § 60.485(b)) and 40 C.F.R. Part 60, Method 21 §§ 8.3.1 and 8.3.1.1.

71. MarkWest failed to identify and monitor 10 valves (8 bleeder valves in FRAC1 and 2 bleeder valves in FRAC2) subject to the standards set forth at 40 C.F.R. §§ 60.5400(a) and 60.482-1a to 60.482-11a, in violation of 40 C.F.R. §§ 60.5400(a) and 60.482-7a(a)(1).

72. MarkWest failed to perform Method 21 properly on valves per paragraph 65, in violation of 40 C.F.R. §§ 60.5400(a) and 60.482-7a(a)(1), and 40 C.F.R. Part 60 Method 21, §§ 8.3.1 and 8.3.1.1, from at least July 2014 until May 2015.

73. MarkWest failed to perform the initial monthly monitoring of all pumps in each process unit at the HFP within 30 days after the end of the startup period in violation of 40 C.F.R. §§ 60.5400(a) and 60.482-2a(a)(1).

74. MarkWest failed to perform annual monitoring on all connectors (specifically all fin fans in VOC service) in violation of 40 C.F.R. §§ 60.5400(a) and 60.482-11a(a).

75. MarkWest failed to perform initial monthly monitoring of all valves within 30 days in process unit at the HFP after the initial startup date in violation of 40 C.F.R. §§ 60.5400(a), 60.482-7a(a)(2), and 60.482-7a(a)(1).

76. MarkWest failed to equip each open-ended valve or line (Tag# 3092, the Butane 3A hose in Truck Loading process unit, and vapor recovery hose for Natural Gasoline West line in Truck Loading process unit) with a cap, blind flange, plug, or a second valve in violation of 40 C.F.R. §§ 60.54.00(a) and 60.482-6a(a)(1).

77. MarkWest failed to seal each open-ended valve or line (closure devices associated with Tag #'s: 001438, 000890, 3224, 3460, 4313, 3926A) with a cap, blind flange, plug, or a second valve in violation of 40 C.F.R. §§ 60.5400(a) and 60.482-6a(a)(2).

78. MarkWest failed to perform weekly visual inspections on pumps in each of the process units at the HFP for the period of January 2014 through February 2015 in violation of 40 C.F.R. §§ 60.5400(a) and 60.482a(a)(2).

79. MarkWest failed to make timely first attempts at repairs within 5 days on the valve listed in paragraph 64 in violation of 40 C.F.R. §§ 60.5400(a) and 60.482-7a(d)(2).

80. MarkWest failed to make timely first attempts at repairs within 5 days on the connector listed in paragraph 64 in violation of 40 C.F.R. §§ 60.5400(a) and 60.482-11a(d).

81. MarkWest failed to demonstrate compliance with the provisions of Subpart NNN for its distillation operations and meet Subpart NNN's various monitoring, recordkeeping, and reporting requirements, in violation of 40 C.F.R. §§ 60.662, 60.663, 60.665(a), and 60.665(b).

82. MarkWest failed to demonstrate compliance with the provisions of Subpart RRR for its reactor processes and meet Subpart RRR's various monitoring, recordkeeping, and reporting requirements, in violation of 40 C.F.R. § 60.702, 60.703, 60.705(a), and 60.705(b).

83. Based on pressure relief device design information and VOC monitoring conducted during the May 2015 inspection, MarkWest has failed to comply with closed vent and control device requirements for pilot-designed pressure relief devices at the HFP, in violation of 40 C.F.R. §§ 60.5400(a) and § 60.482-4a(c). Further, MarkWest has failed to comply with the emission control requirements of Subpart NNN and Subpart RRR with respect to uncontrolled vented emissions from the pilot designed pressure relief devices associated with subject distillation operations and reactor processes, in violation of 40 C.F.R. §§ 60.662 and 60.702, respectively.

84. Based on observations of uncontrolled vented emissions from pressure relief devices on the two natural gasoline storage tanks at the inspection of the HFP, MarkWest failed to design a closed-vent system on each natural gasoline storage vessel that collects all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background in violation of 40 C.F.R. § 60.112b(a)(3)(i). Moreover, MarkWest failed to reduce inlet VOC emissions by 95 percent or greater for each natural gasoline storage vessel in violation of 40 C.F.R. § 60.112b(a)(3)(ii).

84. MarkWest failed to operate a vapor tight vapor line on transfers of natural gas liquids from a pressurized storage tank to a railcar in violation of Condition C.2.b.2.a of PTIO Permit No. P0116897.

Enforcement Authority

85. Sections 113(a)(1) and (3) of the CAA, 42 U.S.C. § 7413(a)(1) and (3), provide that 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 SIP or permit, any rule promulgated under the NSPS requirements of Section 111(e) of the CAA, 42 U.S.C. § 7411(e), Title V of the CAA, 42 U.S.C. §§ 7661-7661f, or any rule or permit issued thereunder, the Administrator may issue an administrative penalty order under Section 113(d), issue an order requiring compliance with such requirement or prohibition, or bring a civil action pursuant to Section 113(b) for injunctive relief and/or civil penalties.

Environmental Impact of Violations

86. MarkWest's above-referenced violations have caused excess emissions of VOC.

87. Excess VOC emissions can cause eye, nose, and throat irritation; headaches, loss of coordination, nausea; damage to the liver, kidney, and central nervous system. Some organics can cause cancer in animals and some are suspected or known to cause cancer in humans.

88. VOC emissions are a precursor to ground-level ozone. Breathing ozone contributes to a variety of health problems including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level ozone also can reduce lung function and inflame lung tissue. Repeated exposure may permanently scar lung tissue.

9/30/15
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-OH-21, by Certified Mail, Return Receipt Requested, to:

Heather McBurnery, Environmental Manager
MarkWest Energy Partners L.P.
MarkWest Utica EMG, LLC
101 E. Market Street
Cadiz, Ohio 43907

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

Bob Hodanbosi
Chief, Division of Air Pollution Control
Ohio Environmental Protection Agency
1800 WaterMark Drive
Columbus, Ohio 43266-1049

Melisa Witherspoon
APC Manager, Southeast District Offcie
Ohio Environmental Protection Agency
2195 Front Street
Logan, Ohio 43138

On the 21st day of September 2015.

Kathy Jones
for Loretta Shaffer
Program Technician
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 7014 2870 0001 9581 4236