



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

MAY 29 2015

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

William T. Sperry, President
Savoy Energy, L.P.
920 Hastings Street, Suite A
PO Box 1560
Traverse City, Michigan 49685-1560

Re: Notice and Finding of Violation
Savoy Energy, L.P.
Adrian Township, MI

Dear Mr. Sperry:

The U.S. Environmental Protection Agency is issuing the enclosed Notice and Finding of Violation (NOV/FOV) to Savoy Energy, L.P. (you) under Section 113(a)(1) and (3) of the Clean Air Act, 42 U.S.C. § 7413(a)(1) and (3). For the reasons stated in the NOV/FOV, we find that you are violating and/or have violated the New Source Performance Standards and the Michigan State Implementation Plan at your facilities located in Adrian Township, Michigan: the Adrian 25 Central Processing Facility (CPF), located at Highway 25 and Howell Highway; and the Goetz 8 Trust CPF, located at approximately Shepherd Road and Pentecost Highway.

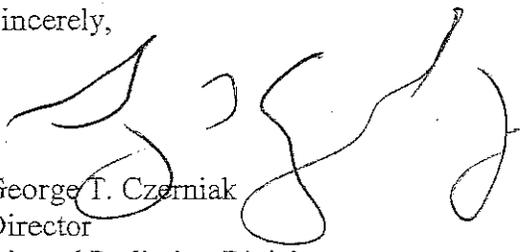
Section 113 of the Clean Air Act gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

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 facilities' 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 Natalie Topinka. You may call her at (312) 886-3853 to request a conference. You should make the request within 10 calendar days following receipt of this letter. We hold any conference within 30 calendar days following receipt of this letter.

Sincerely,


George T. Czerniak
Director
Air and Radiation Division

cc: Diane Kavanaugh-Vetort, Michigan DEQ

5. Subpart OOOO, at 40 C.F.R. § 60.5430, defines a “Group 2 storage vessel” as “a storage vessel, as defined in this section, for which construction, modification or reconstruction has commenced after April 12, 2013.”
6. Subpart OOOO, at 40 C.F.R. § 60.5365(e), defines a “storage vessel affected facility” as “a single storage vessel located in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment....”
7. Subpart OOOO, at 40 C.F.R. §60.5365, states “[y]ou are subject to the applicable provisions of this subpart if you are the owner or operator of one or more of the onshore affected facilities listed in paragraphs (a) through (g) of this section for which you commence construction, modification or reconstruction after August 23, 2011.

(e) Each storage vessel affected facility, which is a single storage vessel located in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment, and has the potential for VOC emissions equal to or greater than 6 tpy as determined according to this section by October 15, 2013 for Group 1 storage vessels and by April 15, 2014, or 30 days after startup (whichever is later) for Group 2 storage vessels except as provided in paragraphs (e)(1) through (4) of this section. The potential for VOC emissions must be calculated using a generally accepted model or calculation methodology, based on the maximum average daily throughput determined for a 30-day period of production prior to the applicable emission determination deadline specified in this section. The determination may take into account requirements under a legally and practically enforceable limit in an operating permit or other requirement established under a Federal, State, local or tribal authority.”

(f) The group of all equipment, except compressors, within a process unit is an affected facility.

....

8. Subpart OOOO, at 40 C.F.R. § 60.5395, requires the owner or operator of a Group 2 storage vessel affected facility to comply with paragraphs (d) through (g) of this section.
9. Subpart OOOO, at 40 C.F.R. § 60.5395(d), states “[y]ou must comply with the control requirements of paragraph (d)(1) of this section . . . (1) Reduce VOC emissions by 95.0 percent according to the schedule specified in (d)(1)(i) and (ii) of this section.
 - (i) For each Group 2 storage vessel affected facility, you must achieve the required emissions reductions by April 15, 2014, or within 60 days after startup, whichever is later”
10. Subpart OOOO, at 40 C.F.R. § 60.5395(e)(1), states “[e]xcept as required in paragraph (e)(2) of this section, if you use a control device to reduce emissions from your storage vessel affected facility, you must equip the storage vessel with a cover that meets the requirements of §60.5411(b) and is connected through a closed vent system that meets

the requirements of §60.5411(c), and you must route emissions to a control device that meets the conditions specified in §60.5412(c) and (d). As an alternative to routing the closed vent system to a control device, you may route the closed vent system to a process.”

11. Subpart OOOO, at 40 C.F.R. § 60.5411 (b)(1) states, “[t]he cover and all openings on the cover (e.g., access hatches, sampling ports, pressure relief valves and gauge wells) shall form a continuous impermeable barrier over the entire surface area of the liquid in the storage vessel”
12. Subpart OOOO, at 40 C.F.R. § 60.5411(b)(2) states, “[e]ach cover opening shall be secured in a closed, sealed position (e.g., covered by a gasketed lid or cap) whenever material is in the unit on which the cover is installed except during those times when it is necessary to use an opening as follows:
 - (i) To add material to, or remove material from the unit (this includes openings necessary to equalize or balance the internal pressure of the unit following changes in the level of the material in the unit);
 - (ii) To inspect or sample the material in the unit;
 - (iii) To inspect, maintain, repair, or replace equipment located inside the unit; or
 - (iv) To vent liquids, gases, or fumes from the unit through a closed-vent system designed and operated in accordance with the requirements of paragraph (a) or (c) of this section to a control device or to a process.”
13. Subpart OOOO, at 40 C.F.R. § 60.5411(b)(3), states “[e]ach storage vessel thief hatch shall be equipped, maintained and operated with a weighted mechanism or equivalent, to ensure that the lid remains properly seated. You must select gasket material for the hatch based on composition of the fluid in the storage vessel and weather conditions.”
14. Subpart OOOO, at 40 C.F.R. § 60.5411(c)(1), states “[y]ou must design the closed vent system to route all gases, vapors, and fumes emitted from the material in the storage vessel to a control device that meets the requirements specified in §60.5412(c) and (d), or to a process.”
15. Subpart OOOO, at 40 C.F.R. § 60.5411(c)(2), states “[y]ou must design and operate a closed vent system with no detectable emissions, as determined using olfactory, visual and auditory inspections”
16. Subpart OOOO, at 40 C.F.R. § 60.5415(e), states “[y]ou must demonstrate continuous compliance according to paragraph (e)(3) of this section for each storage vessel affected facility, for which you are using a control device or routing emissions to a process to meet the requirement of §60.5395(d)(1).

17. Subpart OOOO, at 40 C.F.R. § 60.5415(e)(3), states “[f]or each storage vessel affected facility, you must comply with paragraphs (e)(3)(i) and (ii) of this section.” Paragraphs (e)(3)(i) and (ii) state, respectively, “You must reduce VOC emissions as specified in §60.5395(d)” and “[f]or each control device installed to meet the requirements of §60.5395(d), you must demonstrate continuous compliance with the performance requirements of §60.5412(d) for each storage vessel affected facility using the procedure specified in paragraph (e)(3)(ii)(A) and either (e)(3)(ii)(B) or (e)(3)(ii)(C) of this section.”
18. Subpart OOOO, at 40 C.F.R. § 60.5415(e)(3)(ii)(A), (B) and (C) state, respectively, “[y]ou must comply with §60.5416(c) for each cover and closed vent system,” “[y]ou must comply with §60.5417(h) for each control device,” and “[e]ach closed vent system that routes emissions to a process must be operated as specified in §60.5411(c)(2).”
19. Subpart OOOO, at 40 C.F.R. § 60.5416(c), for *Cover and closed vent system inspections for storage vessel affected facilities*, states “[i]f you install a control device or route emissions to a process, you must inspect each closed vent system according to the procedures and schedule specified in paragraphs (c)(1) of this section, inspect each cover according to the procedures and schedule specified in paragraph (c)(2) of this section”
20. Subpart OOOO, at 40 C.F.R. § 60.5416(c)(2), states “[f]or each cover, you must conduct inspections at least once every calendar month as specified in paragraphs (c)(2)(i) through (iii) of this section.” Paragraph (c)(2)(i) states “[y]ou must maintain records of the inspection results as specified in §60.5420(c)(7).”
21. Subpart OOOO, at 40 C.F.R. § 60.5420(c), states “[y]ou must maintain the records identified as specified in §60.7(f) and in paragraphs (c)(1) through (13) of this section. All records required by this subpart must be maintained either onsite or at the nearest local field office for at least 5 years.
22. Subpart OOOO, at 40 C.F.R. § 60.5420(c)(6), requires maintaining records of each closed vent system inspection required under §60.5416(a)(1) for centrifugal compressors or §60.5416(c)(1) for storage vessels, and 40 C.F.R. § 60.5420(c)(7) requires maintaining records of each cover inspection required under §60.5416(a)(3) for centrifugal or reciprocating compressors or §60.5416(c)(2) for storage vessels.
23. Subpart OOOO, at 40 C.F.R. § 60.5417(d), states “[y]ou must install, calibrate, operate, and maintain a device equipped with a continuous recorder to measure the values of operating parameters appropriate for the control device as specified in either paragraph (d)(1), (2), or (3) of this section. Paragraph (d)(1) specifies “[a] continuous monitoring system that measures the operating parameters in paragraphs (d)(1)(i) through (viii) of this section, as applicable.” Paragraph (d)(1)(iii) specifies “[f]or a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.”

24. Subpart OOOO, at 40 C.F.R. § 60.5400, applies to the group of all equipment, except compressors, within a process unit.

40 C.F.R. § 60.5400(a) states, “You must comply with the requirements of §§ 60.482-1a(a), (b), and (d), 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in § 60.5401.”

40 C.F.R. § 60.5400(b) states, “You may elect to comply with the requirements of §§ 60.483-1a and 60.483-2a, as an alternative.”

40 C.F.R. § 60.5400(c) states, “You may apply to the Administrator for permission to use an alternative means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to that achieved by the controls required in this subpart according to the requirements of § 60.5402 of this subpart.”

40 C.F.R. § 60.5400(d) states, “You must comply with the provisions of § 60.485a of this part except as provided in paragraph (f) of this section.”

40 C.F.R. § 60.5400(e) states, “You must comply with the provisions of §§ 60.486a and 60.487a of this part except as provided in §§ 60.5401, 60.5421, and 60.5422 of this part.

40 C.F.R. § 60.5400(f) “You 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. For a piece of equipment to be considered not in VOC service, it must be determined that the VOC content can be reasonably expected never to exceed 10.0 percent by weight. For a piece of equipment to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. For purposes of determining the percent VOC content of the process fluid that is contained in or contacts a piece of equipment, procedures that conform to the methods described in ASTM E169-93, E168-92, or E260-96 (incorporated by reference as specified in § 60.17) must be used.”

25. EPA promulgated the Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After November 7, 2006, at 40 C.F.R. Part 60, Subpart VVa (“Subpart VVa”) at 72 *Fed. Reg.* 64883 (November 16, 2007).

26. 40 C.F.R. § 60.482-2a through § 60.482-11a require, in summary, that pumps and valves in light liquid service pump must be monitored to detect leaks, pressure relief devices in gas/vapor service shall be operated with no detectable emissions, sampling connection systems shall be equipped with a closed-purge, closed-loop, or closed-vent system, opened valves or lines shall be equipped with a cap, blind flange, plug, or a second valve, visual, audible or olfactory leaks must be eliminated at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, and

closed vent systems and control devices must reduce volatile organic compound (VOC) emissions by at least 95 percent.

27. 40 C.F.R. § 60.483-1a and § 60.483-2a allow, in summary, for alternative standards for valves.
28. 40 C.F.R. § 60.485a provides, in summary, the test methods and procedures that must be used to detect leaks. 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....”
29. 40 C.F.R. § 60.486a lists the recordkeeping provisions for Subpart VVa. In summary, sources must keep records of when leaks are detected, closed vent systems descriptions, a list of identification numbers for equipment subject to the requirements of Subpart VVa, monitoring schedules, and the design specifications of the affected facility.
30. 40 C.F.R. § 60.487a requires each owner and operator subject to the provisions of Subpart VVa to submit semiannual reports to the Administrator beginning six months after the initial startup date.

Savoy’s Permits to Install

31. The Michigan Department of Environmental Quality issued to Savoy Permit to Install No. 23-14 on March 27, 2014, for its Adrian 25 Facility.
32. For the Adrian 25 Facility, Permit to Install 23-14, Design/Equipment Parameters for Flexible Group ID FGNATGASPLANT, states that Savoy shall equip and maintain each 400 barrel liquid storage vessel at the facility with a cover meeting the requirements in 40 C.F.R. § 60.5411(b).
33. For the Adrian 25 Facility, Permit to Install 23-14, Design/Equipment Parameters for Flexible Group ID FGNATGASPLANT, states that Savoy shall not store any liquid in a storage vessel unless the vapors from each storage vessel are routed to a process via a closed vent system meeting the requirements of 40 C.F.R. § 60.5411(c).
34. For the Adrian 25 Facility, Permit to Install 23-14, General Condition 6 states that Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. This requirement references Michigan Rule 336.1901, as discussed in paragraph 38, below.
35. The Michigan Department of Environmental Quality issued to Savoy Permit to Install No. 121-11A on December 7, 2011, for its Goetz 8 Facility.

36. For the Goetz 8 Facility, Permit to Install 121-11A, Process/Operational Restrictions for Flexible Group ID FGFACILITY, states that Savoy shall comply with all provisions, including recordkeeping and reporting, of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and KKK, as they apply to FGFACILITY.

Michigan State Implementation Plan

37. On May 6, 1980, EPA approved Michigan Rule 336.1901 as part of the federally enforceable State Implementation Plan (SIP) for Michigan. 45 *Fed. Reg.* 29790.
38. Michigan Rule 336.1901 states that a facility shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property.

Adrian 25 Facility

39. Savoy Energy, LP owns and operates the Adrian 25 Central Processing Facility (CPF) (Adrian 25 Facility), at Highway 52 and Howell Highway (Latitude 41.924696, Longitude -84.014909), Adrian Township, Michigan.
40. The Adrian 25 Facility stores oil and produced water (brine) in eight 400-barrel liquid storage vessels on-site before the liquids are transported off-site by truck. Four of those storage vessels are designated to contain oil, and four are designated to contain produced water.
41. At the Adrian 25 Facility, two produced water storage vessels and two oil storage vessels have construction dates of February 21, 2014, making them "Group 2 storage vessels" per the definition at 40 C.F.R. § 60.5430.
42. At the Adrian 25 Facility, the vapor headspaces of all eight 400-barrel liquid storage vessels are connected via a closed vent system, which allows emissions from the liquids stored in the vessels to flow to the vapor headspace of any other vessel before being directed to a flare for combustion.
43. EPA sent two Clean Air Act Section 114 Information Requests ("Information Requests") to Savoy on August 7, 2014, and December 3, 2014.
44. Savoy responded to EPA's Information Requests on October 14, 2014, and January 23, 2015. Savoy's responses included calculations of potential VOC emissions from the storage vessels at the Adrian 25 Facility, including results from liquid sampling and emissions modeling.

45. Based on information Savoy submitted in its responses to EPA's Information Requests, potential emissions from all the storage vessels at the Adrian 25 Facility combined are greater than 6 tons VOC per year.
46. Because emissions from any one or all storage vessels may pass to the headspace of any other storage vessel through a closed vent system, the PTE of each storage vessel at the Adrian 25 Facility is greater than 6 tons VOC per year.
47. At the Adrian 25 Facility, each of the eight 400-barrel liquid storage vessels is a "storage vessel affected facility" per the definition at 40 C.F.R. § 60.5365.
48. On April 28, 2014, EPA representatives inspected the Adrian 25 Facility.
49. On April 28, 2014, at the Adrian 25 Facility, EPA inspectors found the thief hatches of three water storage vessels, at least one oil storage vessel, and the pressure relief valve of the vapor capture system leaking hydrocarbon emissions based on visual, audible, and olfactory detection observations. The EPA inspectors confirmed the leaks using a FLIR GF320 infrared camera.
50. In its response to EPA's Information Requests, Savoy stated that its only inspection at the Adrian 25 Facility conducted pursuant to 40 C.F.R. §§ 60.5411 and 60.5416 occurred on July 16, 2014.
51. During the April 28, 2014 inspection, a Savoy representative stated to EPA that the flare pilot light was checked manually to ensure it remained lit. In its response to EPA's Information Requests, Savoy stated that on July 24, 2014, it installed a thermocouple to monitor the pilot light flare at the Adrian 25 Facility.
52. Throughout at least March 2014, EPA received complaints from citizens of ongoing odor and related health affects attributed to the Savoy Adrian 25 Facility.

Goetz 8 Facility

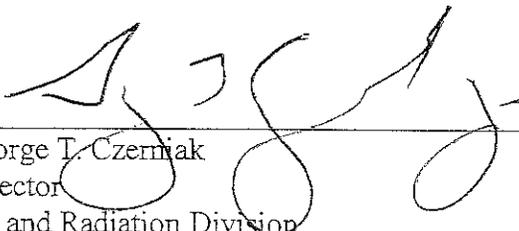
53. Savoy Energy, LP owns and operates the Goetz 8 Trust CPF (Goetz 8 Facility), at approximately Shepherd Road and Pentecost Highway (Latitude 41.96351583, Longitude -84.09723694), Adrian Township, Michigan.
54. From December 15, 2011 to October 2, 2014, the Goetz 8 Facility operated a mechanical refrigeration unit and met the definition of a "natural gas processing plant" as defined at 40 CFR § 60.5430 because it engaged in the extraction of natural gas liquids from field gas.
55. On April 29, 2014, EPA representatives inspected the Goetz 8 Facility.
56. During the April 29, 2014 EPA inspection, Savoy facility representatives stated that Savoy had not performed Method 21 monitoring at the Goetz 8 Facility prior to April 2014.

Environmental Impact of Violations

- 66. Savoy's above-referenced violations have caused, may and will cause excess hazardous air pollutant (HAP) and VOC emissions.
- 67. Excess HAP emissions can cause serious health effects, such as birth defects and cancer, and harmful environmental and ecological effects.
- 68. Excess VOC emissions can cause eye, nose, and throat irritation; headaches, loss of coordination, nausea; damage to liver, kidney, and central nervous system. Some VOCs can cause cancer in animals and some are suspected or known to cause cancer in humans.
- 69. 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.

Date

5/29/15



George T. Czerniak
Director
Air and Radiation Division

Violations

57. By failing to maintain and operate the thief hatches of its Group 2 affected storage vessel facilities at the Adrian 25 Facility such that they remained properly seated and sealed, Savoy is in violation of 40 C.F.R. §§ 60.5395(e)(1) and 60.5411(b)(1) through (3) and its Permit to Install 23-14, Design/Equipment Parameters for Flexible Group ID FGNATGASPLANT.
58. By installing and operating the thief hatches with a spring weight inadequate to prevent the release of emissions under normal operating conditions at the Adrian 25 Facility, Savoy failed to design the closed vent system to route all gases, vapors, and fumes emitted from the material in the storage vessel to a control device that meets the requirements specified in §60.5412(c) and (d), or to a process, in violation of 40 C.F.R. § 60.5411(c)(1) and (2) and its Permit to Install 23-14, Design/Equipment Parameters for Flexible Group ID FGNATGASPLANT.
59. By failing to route all gases, vapors, and fumes emitted from the material in the storage vessel to a control device at the Adrian 25 Facility, Savoy failed to reduce VOC emissions by 95.0 percent by April 15, 2014, in violation of 40 C.F.R. § 60.5395(d).
60. By failing to conduct inspections of its storage vessel covers and closed vent systems each calendar month at the Adrian 25 Facility, Savoy is in violation of 40 C.F.R. §§ 60.5416(c) and 60.5420(c).
61. Prior to July 24, 2014, Savoy failed to use a flare heat sensing monitoring device at the Adrian 25 Facility to ensure a continuously lit pilot flame, in violation of 40 C.F.R. § 60.5417 (d)(1)(iii).
62. From December 15, 2011 until October 2, 2014, Savoy failed to perform Method 21 monitoring at the Goetz 8 Facility under Subpart VVa as required by 40 C.F.R. § 60.485a (b), in violation of 40 C.F.R. § 60.5400(d).
63. Savoy has not complied with the recordkeeping provisions of 40 C.F.R. §60.486a at the Goetz 8 Facility, in violation of 40 C.F.R. § 60.5400(e).
64. Savoy has not submitted semiannual reports to the Administrator under 40 C.F.R. § 60.487a for the Goetz 8 Facility, in violation of 40 C.F.R. § 60.5400(e).
65. Due to numerous odor complaints from citizens, the Savoy Adrian 25 Facility emissions of air contaminants have caused injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or caused unreasonable interference with the comfortable enjoyment of life and property, in violation of Michigan Rule 336.1901 and the Michigan SIP.

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Notice of Violation, No. EPA-5-15-MI-04, by

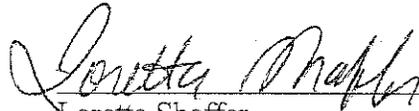
Certified Mail, Return Receipt Requested, to:

William T. Sperry, President
Savoy Exploration, Incorporated
P.O. Box 1560
Traverse City, Michigan 49685-1560

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

Diane Kavanaugh-Vetort
State Office Building, 4th Floor
301 E Louis B Glick Highway
Jackson, Michigan 49201-1556

On the 29 day of May 2015.



Loretta Shaffer
Program Technician
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER:

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