



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

JUN 13 2006

REPLY TO THE ATTENTION OF

(AE-17J)

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

Duane Day, Environmental Manager  
Lanxess Corporation  
356 Three Rivers Parkway  
Addyston, OH 45001

Re: Notice of Violation  
Finding of Violation  
Lanxess Corporation  
Addyston, Ohio

Dear Mr. Day:

The United States Environmental Protection Agency (U.S. EPA) is issuing the enclosed Notice of Violation and Finding of Violation (NOV/FOV) to Lanxess Corporation (you). We find that you have violated Sections 110, 112 and 502(a) of the Clean Air Act, 42 U.S.C. §§ 7410, 7412, and 7661a at your Addyston, Ohio facility.

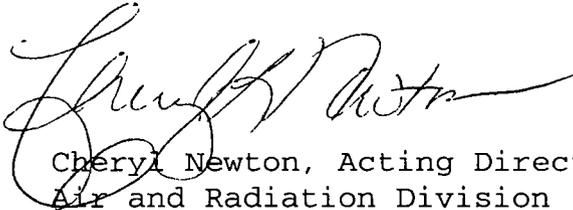
We have several enforcement options under Sections 113(a)(1) and (3) of the Clean Air Act, 42 U.S.C. § 7413(a)(1) and (3). These options include issuing an administrative compliance order, issuing an administrative penalty order, and bringing a judicial civil or criminal action. The options we select may depend on, among other things, the length of time you take to achieve and demonstrate continuous compliance with the rules cited in the NOV/FOV.

We are offering you an opportunity to confer with us about the violations alleged in the NOV/FOV. The conference will give you the opportunity to present information on the specific findings of violation, the efforts you have taken to comply, and the steps you will take to prevent future violations.

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 U.S. EPA contact in this matter is Brian Dickens. You may call him at (312) 886-6073 to request a conference. You should make the request as soon as possible, but no later than 10 calendar days after you receive this letter. We should hold any conference within 30 calendar days of your receipt of this letter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Cheryl Newton".

Cheryl Newton, Acting Director  
Air and Radiation Division

Enclosure

cc: Brad Miller  
Hamilton County Department of Environmental Services

Jim Orlemann  
Ohio Environmental Protection Agency

United States Environmental Protection Agency  
Region 5

IN THE MATTER OF: )  
 ) NOTICE OF VIOLATION  
Lanxess Corporation ) FINDING OF VIOLATION  
Addyston, Ohio )  
 ) EPA-5-06-OH-08  
 )  
Proceedings Pursuant to )  
the Clean Air Act, )  
42 U.S.C. §§ 7401 et seq. )

**NOTICE OF VIOLATION/FINDING OF VIOLATION**

The United States Environmental Protection Agency finds that Lanxess Corporation (Lanxess) at its facility at Addyston, Ohio (Lanxess Facility) is violating Sections 110, 112, and 502(a) of the Clean Air Act, 42 U.S.C. §§ 7410, 7412, and 7661(a). Specifically, Lanxess is violating the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Group IV Polymers and Resins at 40 C.F.R. part 63, subpart JJJ, the NESHAP for Equipment Leaks at 40 C.F.R. part 63, subpart H, the Ohio State Implementation Plan (SIP) and the Ohio Title V permit program as follows:

**Regulatory Authority**

**NESHAP**

1. The NESHAP for Group IV Polymers and Resins, 40 C.F.R. part 63, subpart JJJ, applies to thermoplastic product process units (TPPU) and associated equipment that is manufacturing the same primary product and is located at a plant site that is a major source for Hazardous Air Pollutants (HAPs).
2. The subpart JJJ NESHAP, at 40 C.F.R. § 63.1331, requires the owner and operator of each affected source to comply with the NESHAP for Equipment Leaks, 40 C.F.R. part 63, subpart H.

3. The subpart H NESHAP requirements apply, among other things, to "open-ended valves or lines" and "closed-vent systems," as defined at 40 C.F.R § 63.161.
4. The subpart H NESHAP, at 40 C.F.R § 63.167, requires that each open-ended valve or line be equipped with a cap, blind flange, plug, or a second valve.
5. The subpart H NESHAP, at 40 C.F.R. § 63.172, has standards for closed-vent systems and control devices. Section 63.172(f)(1)(ii) requires that a closed-vent system consisting of hard piping have annual visual inspections for visible, audible, or olfactory indications of leaks.

SIP

6. Section 110 of the Act, 42 U.S.C. 7410, requires each state to adopt and submit to U.S. 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)(2) of the Act, 42 U.S.C. 7410(a)(2), 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 Act, 42 U.S.C. 7413(a) and (b), upon U.S. EPA approval, SIP requirements are federally enforceable under Section 113. See also 40 C.F.R. § 52.23.
7. On October 31, 1980, U.S. EPA approved Ohio Administrative Code (OAC) Rule 3745-31, permit to install regulations, as part of the federally enforceable SIP for Ohio. 45 Fed. Reg. 72146. Since then, U.S. EPA has approved several revisions to OAC 3745-31 into the federally enforceable SIP. The rules were substantially revised and approved as a revision to the SIP on September 8, 1993. 58 Fed. Reg. 47211.
8. OAC 3745-31-02(A) states that no person shall cause, permit, or allow the installation of a new source of air pollutants or allow the modification of an air contaminant source without first obtaining a permit to install (PTI) from the director of the Ohio Environmental Protection Agency (Ohio EPA). OAC Rule 3745-31-05(D) states that the director may impose such special terms and conditions in a PTI as are

appropriate or necessary to ensure compliance with the applicable laws and to ensure adequate protection of environmental quality.

9. Ohio EPA issued to the Lanxess Facility PTI 14-04577 on May 12, 1999, which regulates emissions from emission unit ABS #1 Poly (P001). The PTI requires emissions from P001 to be vented to a flare having a control efficiency of at least 99%, or to a boiler for incineration with a control efficiency of 99.99%.

10. PTI 14-04577 further states that the flare shall comply with the applicable rules of flare equipment in 40 CFR § 63.11(b), which specifies, among other things, the requirement that the net heating value of the stream shall be 300 BTU/scf or greater.

#### Title V

11. Regulations for state operating permit programs are codified at 40 C.F.R. part 70 (part 70 program). U.S. EPA promulgated the part 70 program regulations under the authority of Title V of the Act, 42 U.S.C. §§ 7661-7661f.

12. Section 502(a) of the Act, 42 U.S.C. § 7661a(a), provides that it shall be unlawful for any person to violate any requirement of a permit issued pursuant to a permit program approved under Title V of the Act. The regulation at 40 C.F.R. § 70.6(b)(1) specifies that all terms and conditions in a permit issued under a part 70 program, including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator of U.S. EPA under the Act.

13. U.S. EPA approved Ohio's part 70 program, codified at OAC 3745-77, on August 15, 1995, with an effective date of October 1, 1995. 60 Fed. Reg. 42045.

14. Ohio EPA issued the Lanxess Facility Title V permit 14-31-01-0054 (Lanxess Title V permit) pursuant to Ohio's part 70 program, on August 30, 2004. The permit incorporates the requirements of 40 C.F.R. part 63, subparts H and JJJ, and PTI 14-04577.

15. The Lanxess Title V permit, Part II at Condition A.6.e requires Lanxess to comply with 40 C.F.R. § 63.167, including the requirement that each open-ended valve or line be equipped with a cap, blind flange, plug or second valve.

16. The Lanxess Title V permit Part II conditions at Condition A.6.i. requires Lanxess to comply with 40 C.F.R. § 63.172. Condition A.6.i.ii.a requires Lanxess to conduct annual visual inspections of closed-vent systems constructed of hard-piping for visible, audible, or olfactory indication of leaks.

17. The Lanxess Title V permit, Part III conditions for ABS #1 POLY (P001), at Condition A.I.2.a, requires that the flare be operated at all times that emissions from P001 may be vented to it, and Condition A.II.4 requires Lanxess to adhere to the heat content specifications in 40 CFR § 63.11(b)(6)(ii), which requires that the net heating value of the P001 vent streams shall be 300 BTU/scf or greater.

#### **Facts and Discussion**

18. Lanxess owns and operates an ABS plastic facility at 356 Three Rivers Parkway, Addyston, Ohio.

19. The Lanxess Facility is subject to the subpart JJJ NESHAP for Group IV Polymers and Resins. The Lanxess facility is a major source for HAPs.

20. U.S. EPA representatives inspected the Lanxess Facility on September 12, 13, and 14, 2005.

21. Lanxess's A-13 tank and material lines to and from the tank are subject to the requirements at 40 C.F.R. § 63.167, and the Lanxess Title V permit Part II, Condition A.6.e. The A-13 tank is designated as a day storage tank for acrylonitrile.

22. Lanxess's CN2 premix tank is subject to the requirements at 40 C.F.R. § 63.167, and the Lanxess Title V permit Part II, Condition A.6.e. The CN2 premix tank houses raw materials before they are fed into the reactor. The CN2 premix tank has an ionol chute which allows access into the tank.

23. Lanxess's 9 Emulsion AN premix tank is subject to the requirements at 40 C.F.R. § 63.167, and the Lanxess Title V permit Part II, Condition A.6.e. The 9 Emulsion AN premix tank houses an acrylonitrile mixture before it is fed into the reactor. The 9 Emulsion AN premix tank is equipped with a sample valve.

24. Lanxess operates a "Main Duct" closed vent system at its facility. The Main Duct is subject to the requirements at 40 C.F.R. § 63.172, and the Lanxess Title V permit Part II, Condition A.6.i.ii.a. Documents and statements made by Lanxess personnel at the September 12, 2005 inspection indicate that annual inspections of the Main Duct are deficient, in that only a cursory review of the main duct is conducted, which would not provide detection of leaks at all locations on the Main Duct.

25. Lanxess operates unit P001 such that emissions generated from various operational stages are vented to a flare. These stages include: venting during the transfer of product from a reactor to a cooler, and venting while product is stored in the cooler.

26. Lanxess measured the concentration of organic compounds in the vent streams during the transfer of product from the reactor to the cooler, and while the material was stored in the cooler. These measurements were made in September 2001. The vent streams flowing to the flare during these two stages of the batch had net heat values of less than 300 BTU/scf.

27. The quality of the combustion at a flare is dependent upon the rate of steam addition and the characteristics of the venting gas. Proper operation of the flare requires a steam addition rate sufficient to reduce smoking without supplying excess steam that would inhibit combustion. Lanxess supplied to U.S. EPA in response to an information request a Standard Operating Procedure prescribing how Lanxess operations personnel control the steam addition to the flare tip. However, there is no requirement in the Standard Operating Procedure to directly correlate steam flow at the flare to the concentration of organic compounds in the P001 vent stream.

28. Lanxess stated it believes the proper ratio between steam and vent gas is 0.9 to 1.0. The flare is designed to supply, and Lanxess does supply, approximately 2000 lb/hr of steam while the mass flow rate of the vent gas ranges from 6 to 233 lb/hr of butadiene. The steam to vent gas ratio far exceeds the ratio necessary for proper combustion.

29. U.S. EPA representatives during the September 12, 2005 inspection observed discontinuous combustion at the flare.

30. Given that: (a) vent streams from P001 have a net heating value less than 300 BTU/scf; (b) an excessive amount of steam is being added to the vent gas quenching combustion; and (c) that the steam addition rate does not correlate with the vent gas quality, the flare is not sufficiently combusting process emissions from Lanxess' operations.

### Violations

31. Each open-ended line shall be equipped with a cap. On September 14, 2005, during an inspection, the A-13 tank drainage line was uncapped, which is a violation of 40 C.F.R. § 63.167 and the Lanxess Title V permit Part II, Condition A.6.e.

32. Each open-ended line shall be equipped with a cap. On September 14, 2005, during an inspection, the ionol chute to the CN2 premix tank was uncapped, which is a violation of 40 C.F.R. § 63.167 and the Lanxess Title V permit Part II, Condition A.6.e.

33. Each open-ended line shall be equipped with a cap. On September 14, 2005, during an inspection, the 9 Emulsion AN premix tank sample valve was uncapped, which is a violation of 40 C.F.R. § 63.167 and the Lanxess Title V permit Part II, Condition A.6.e.

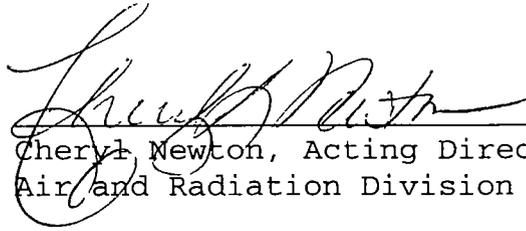
34. Lanxess has conducted deficient annual visual inspections in determining auditory, visual, or olfactory leaks from the main duct, which are violations of 40 C.F.R. § 63.172, and the Title V permit Part II, Condition A.6.i.ii.a.

35. Lanxess is in violation of PTI 14-04577 and its Title V permit Part III (P001), Condition A.I.2.a, for failing to maintain the control efficiency of the flare to at least 99%.

36. Lanxess is in violation of PTI 14-04577 and its Title V permit Part III (P001), Condition A.II.4, or failing to adhere to the heat content specification at 40 CFR § 63.11 for the P001 vented streams.

6/12/06

Date



Cheryl Newton, Acting Director  
Air and Radiation Division

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Finding of Violation, No. EPA-5-06-OH-08, by Certified Mail, Return Receipt Requested, to:

Duane Day, Environmental Manager  
Lanxess Corporation  
356 Three Rivers Parkway  
Addyston, OH 45001

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

Mike Kramer  
Hamilton County Department of Environmental Services  
250 William Howard Taft Road - First Floor  
Cincinnati, Ohio 45219-2660

and

Robert Hodanbosi, Chief  
Division of Air Pollution Control  
Ohio Environmental Protection Agency  
Lazarus Government Center  
PO Box 1049  
Columbus, Ohio 43216

on the 13<sup>th</sup> day of June, 2006.

Loretta Shaffer for  
Loretta Shaffer, Secretary  
AECAS, (MN/OH)

CERTIFIED MAIL RECEIPT NUMBER: 7001 0320 0006 1447 9222