



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC 26 2019

REPLY TO THE ATTENTION OF

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Dow Chemical Company in Kankakee, Rohm and Haas Chemicals, LLC
Attn: Todd Dykton, Environmental Specialist
1400 Harvard Drive
Kankakee, IL 60901

Re: Finding of Violation
The Dow Chemical Company in Kankakee, Rohm and Haas Chemicals LLC
Kankakee, Illinois

Dear Mr. Dykton:

Pursuant to the Section 113(a) of the Clean Air Act (CAA), 42 U.S.C. § 7413(a), the U.S. Environmental Protection Agency is issuing the enclosed Finding of Violation (FOV) to The Dow Chemical Company in Kankakee, Rohm and Haas Chemical, LLC (Dow). EPA finds that Dow has and continues to violate the New Source Performance Standards for Storage Vessels for Petroleum Liquids, 40 C.F.R. Part 60, Subpart Kb at its facility located at 1400 Harvard Drive, Kankakee, Illinois. EPA has several enforcement options under Section 113 of the CAA, which include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

Through this letter EPA is offering you an opportunity to confer with us about the violations alleged in the enclosed 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 related to EPA's findings and alleged violations prior to the conference date.

Please plan for Dow'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 Karina Kuc. You may contact her at (312) 353-5090 or kuc.karina@epa.gov to request a conference. You should make the request within 20 calendar days following receipt of this letter. We should hold any conference within 45 calendar days following receipt of this letter.

Sincerely,



for Michael D. Harris
Director
Enforcement and Compliance Assurance Division

Enclosure

cc: Kent Mohr, Compliance Section Manager, Bureau of Air, IEPA

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:

The Dow Chemical Company in Kankakee,
Rohm and Haas Chemicals, LLC
Kankakee, Illinois

Proceedings Pursuant to
the Clean Air Act,
42 U.S.C. §§ 7401 et seq.

FINDING OF VIOLATION

EPA-5-20-IL-03

FINDING OF VIOLATION

The U.S. Environmental Protection Agency is issuing this Finding of Violation under Section 113(a)(3) of the Clean Air Act (CAA), 42 U.S.C. § 7413(a)(3). EPA finds that The Dow Chemical Company in Kankakee, Rohm and Haas Chemical Company, LLC (Dow) is violating the New Source Performance Standards (NSPS), as follows:

Statutory and Regulatory Background

NSPS for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

1. Pursuant to Sections 111(b)(1)(A) of the CAA, EPA identified synthetic organic chemical manufacturing industry and volatile organic liquid (VOL) storage vessels and handling equipment as one category of stationary sources that cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare.
2. Section 111(b) of the CAA, 42 U.S.C. § 7411(b), requires EPA to publish a list of categories of stationary sources and, within a year after the inclusion of a category of stationary sources in the list, to publish proposed regulations establishing federal standards of performance for new sources within the source category. These emission standards are known as the NSPS. EPA codified these standards at 40 C.F.R. Part 60.
3. On April 8, 1987, EPA promulgated the Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 at 40 C.F.R. Part 60, Subpart Kb (Subpart Kb). See 52 Fed. Reg. 11429 (Apr. 8, 1988), and 40 C.F.R. §§ 60.110b - 60.117b.

4. Subpart Kb, at 40 C.F.R. § 60.111b, defines "storage vessel" to mean each tank, reservoir, or container used for the storage of VOLs (with exceptions that are not applicable here).
5. Subpart Kb, at 40 C.F.R. § 60.111b, defines "volatile organic liquid (VOL)" as any organic liquid which can emit volatile organic compounds (as defined in 40 CFR 51.100) into the atmosphere.
6. Subpart Kb, at 40 C.F.R. § 60.110b(a), specifies that the regulation applies to each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store VOLs for which construction, reconstruction, or modification is commenced after July 23, 1984.
7. Subpart Kb, at 40 C.F.R. § 60.110b(b), states that the subpart does not apply to storage vessels with a capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure of less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m^3 but less than 151 m^3 and stores a liquid with a maximum true vapor pressure less than 15.0 kPa.
8. Subpart Kb, at 40 C.F.R. § 60.111b, defines "Maximum true vapor pressure" as the equilibrium partial pressure exerted by the volatile organic compounds (as defined in 40 CFR 51.100) in the stored VOL at the temperature equal to the highest calendar-month average of the VOL storage temperature for VOL's stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for VOL's stored at the ambient temperature, as determined:
 - a. In accordance with methods described in American Petroleum Institute Bulletin 2517, Evaporation Loss From External Floating Roof Tanks, (incorporated by reference—see § 60.17); or
 - b. As obtained from standard reference texts; or
 - c. As determined by ASTM D2879-83, 96, or 97 (incorporated by reference—see § 60.17); or
 - d. Any other method approved by the Administrator.
9. Subpart Kb, at 40 C.F.R. § 60.112b(a), specifies 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 the following:

- a. a fixed roof in combination with an internal floating roof, meeting the specifications identified under 40 C.F.R. § 60.112b(a)(1)(i-ix);
 - b. an external floating roof, defined as a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof, meeting the specifications identified under 40 C.F.R. § 60.112b(a)(2)(i-iii);
 - c. a closed vent system and control device meeting the specifications identified under 40 C.F.R. § 60.112b(a)(3)(i-ii); or
 - d. a system equivalent to those described in 40 C.F.R. § 60.112b(a)(1-3) as provided by submittal of a written application to the Administrator including certain information, and approval of the alternative means of emission (AMEL) as specified in 40 C.F.R. § 60.114b.
10. CAA Section 111(e) makes it unlawful to operate a new source in violation of an NSPS that applies to that source.

Findings

11. Dow owns and operates a chemical manufacturing facility at 1400 Harvard Drive, Kankakee, Illinois (the Facility).
12. Dow is a corporation doing business in Illinois and is a “person”, as that term is defined in Section 302(e) of the CAA, 42 U.S.C. § 7602(e).
13. The Facility was constructed and originally permitted by Unocal.
14. At the Facility, Dow owns and operates numerous storage vessels, including the storage vessel identified as tank TK-72¹ (TK-72), which stores vinyl acetate. Dow has represented that TK-72 was constructed in or about 1990, has a working capacity of approximately 580 m³, and operates at ambient temperature.
15. Vinyl acetate has a maximum true vapor pressure of 12.8 kilopascals (kPa) at 74.7°F. As defined in 40 C.F.R. § 60.111b, the local maximum monthly average temperature as reported by the National Weather Service is 74.7°F.
16. Since construction of the Facility, Dow has operated under a series of Federally Enforceable State Operating Permits (FESOP). The most recent FESOP is identified as 89060066 and was issued on September 23, 2011².

¹ This tank is misidentified as TK-2 in Dow’s FESOP.

² FESOP 89060066 has an expiration date of January 14, 2013. However, prior to the expiration date, Dow submitted to IEPA a timely FESOP renewal application. In December 2013, Dow submitted an application for a Title V permit which has not yet been issued by IEPA.

17. Provision 4a of FESOP 89060066 states, "This permit is issued based on storage tanks not being subject to New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 CFR 60, Subpart Kb, pursuant to 40 CFR 60.110b(b)."
18. In a letter dated April 16, 2015, Dow disclosed to the Illinois Environmental Protection Agency (IEPA) that although Dow's FESOP indicated that no storage vessel at the Facility was subject to NSPS Subpart Kb, during an internal audit, Dow determined that TK-72 meets the applicability criteria of 40 C.F.R §§ 60.110b(a) and 60.112b(a)³.
19. Dow informally notified EPA via phone and e-mail of the noncompliance of TK-72 on or about February 1, 2017.
20. EPA conducted inspections of the Facility on March 7, 2017 and May 20, 2019.
21. On September 8, 2017, EPA issued to Dow a CAA Section 114 request for information. The request sought information on permitting history and equipment and operating specifications of TK-72, among other things.
22. On November 1, 2017, Dow responded to EPA's September 8, 2017 CAA Section 114 request for information.
23. To date, TK-72 is not equipped and has never been equipped with any of the control systems identified in 40 C.F.R. § 60.112b(a)(1)-(3).
24. In a letter from EPA to Dow, dated January 23, 2018, EPA indicated that Dow should implement one of four compliance options in 40 C.F.R. § 60.112b(a) for TK-72 and, if Dow intends to seek permission from the Administrator for an AMEL for TK-72, an application should be submitted.
25. In a letter to EPA Office of Air Quality Planning and Standards (OAQPS), dated May 7, 2018, Dow requested an AMEL determination for TK-72 pursuant to 40 C.F.R. § 60.112b(a)(4).
26. In November 2019, EPA OAQPS informed Dow that its proposed AMEL does not demonstrate equivalency with the requirements of 40 C.F.R. Part 60, Subpart Kb and that OAQPS did not approve Dow's request for an AMEL.

³ Dow attests that, to the best of its knowledge, the origin of provision 4a of FESOP 89060066 was based on an error in calculating the vapor pressure of vinyl acetate at the time of the initial construction permitting action by the previous owner of the facility.

Violation

27. Dow has failed to equip TK-72 with any of the emission controls set forth at 40 C.F.R. § 60.112b(a) in violation of the CAA Sections 111 and the CAA implementing regulations at 40 C.F.R. Part 60, Subpart Kb.

Environmental Impact of Violations

28. VOCs, along with nitrogen oxides (NO_x), are major precursors in the formation of atmospheric and ground-level ozone, a photochemical oxidant associated with a number of detrimental health effects, including birth defects and cancer, and environmental and ecological effects. In the presence of sunlight, and influenced by a variety of meteorological conditions, VOCs and hazardous air pollutants react with oxygen in the air to produce ozone. Although ozone's precursors are naturally occurring in the environment, their existence is greatly enhanced in and around urban areas by anthropogenic contributions.

12-26-19
Date

Sara Breneman
Michael D. Harris
Director
Enforcement and Compliance Assurance Division

CERTIFICATE OF MAILING

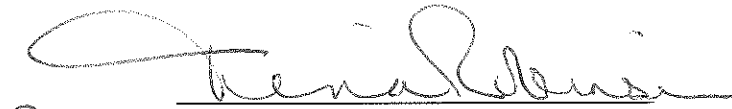
I certify that I sent a Finding of Violation, No. EPA-5-20-IL-03, by Certified Mail, Return Receipt Requested, to:

Todd Dykton,
The Dow Chemical Company
1400 Harvard Drive
Kankakee, IL 60901

I also certify that I sent copies of the Finding of Violation by email to:

Kent Mohr, Manager
Compliance Section
Bureau of Air
Illinois Environmental Protection Agency
Kent.Mohr@Illinois.gov

On the 27 day of December, 2019


Kathy Jones
Program Technician
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 20181830000054146905