



United States Environmental Protection Agency
Region 7
Enforcement and Compliance Assurance Division

Air Branch

Air Branch Inspection Report
Unannounced Partial Compliance Evaluation
Wacker Chemical Corporation
1 Wacker Drive
Eddyville, IA 52553
FRS# 110001755789

Inspection Date(s):
March 19, 2024

Christopher Appier, Inspector, ECAD, Air Branch

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APPENDICES

A - Title V Operating Permit (89 pages)
B - Confidential Business Information Form (1 page)
C - Receipt for Documents (1 page)
D - Photo Log (20 pages) – Confidential Business Information
E - Piping and Instrument Diagrams (10 pages) – Confidential Business Information
F - Process Flow Diagrams (2 pages) – Confidential Business Information
G - MACT EEEE Initial Notification (2 pages)
H - 2005 MACT DDDDD Initial Notification (7 pages)
I - 2013 MACT DDDDD Initial Notification (3 pages)
J - Toluene Vapor Pressure Records (5 pages) – Confidential Business Information
K - 2022 MACT DDDDD Annual Compliance Report (1 page)

**This Contents page shows all the sections contained in this report
and provides a clear indication of the end of this report.**

INSPECTION OVERVIEW

INSPECTION OBJECTIVE

The objective of the partial compliance evaluation (PCE) inspection was to determine compliance of the facility with the Clean Air Act (CAA), specifically those requirements located in the Code of Federal Regulations at 40 CFR Part 63, Subpart EEEE, National Emission Standards for Hazardous Air Pollutants (NESHAPs): Organic Liquids Distribution (Non-Gasoline) and 40 CFR Part 63, Subpart DDDDD, NESHAPs: Industrial, Commercial, and Institutional Boilers and Process Heaters.

Table 1 lists the inspection team members.

Table 1. PROJECT TEAM MEMBERS		
Team Member	Organization	Project Role
Christopher Appier	EPA Region 7, ECAD, Air Branch	Project manager (PM)
Jonathan Boyd	EPA Region 7, ECAD, Air Branch	Field team member

FACILITY CONTACT INFORMATION

Table 2 lists the primary facility contacts.

Table 2. FACILITY CONTACT INFORMATION		
Name, Title	Phone No.	Email Address
Steven Hughes, Site Director	(641) 969 - 3027	Steven.Hughes@wacker.com
Greg Call, Process Engineer	-	Gregory.Call@wacker.com
Doug Griffiths, Maintenance Planner	-	-
Ryan Kurimski, Production Manager	-	-
Johanna Goodwin, Quality Manager	-	-
Justin Buckingham, Site Logistics	-	-

FACILITY OVERVIEW

The Wacker Chemical Corporation (Wacker) began operating in 1999. The facility uses corn starch from a neighboring agricultural facility to manufacture cyclodextrins. Cyclodextrins are ring-shaped sugar molecules used as stabilizers and carriers in the food and pharmaceutical industries. The facility operates 24 hours a day and employs approximately 35 people.

The last onsite compliance monitoring activity at the facility was on February 21, 2023, and consisted of a Full Compliance Evaluation inspection conducted by the Iowa Department of Natural Resources (IDNR). IDNR completed a Title V certification review on May 8, 2023.

IDNR has issued the following informal enforcement notifications to the facility within the last five years:

IDNR issued a Notice of Violation (NOV) to Wacker on May 15, 2023, for failing to submit an annual compliance certification by the due date.

IDNR issued a NOV to Wacker on August 1, 2023, for failing to pay a Title V fee by the due date. The payment was due on July 1, 2023, and was received on July 25, 2023.

According to Wacker's Title V operating permit (**Appendix A**), issued by IDNR on December 9, 2021, the facility is subject to the following regulations and standards subject to review during this inspection (**Table 3**):

Table 3. APPLICABLE PERMIT CONDITIONS, REGULATIONS AND STANDARDS	
Code of Federal Regulation	Standard Name
40 CFR Part 63	Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)
40 CFR Part 63	Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

40 CFR Part 63, Subpart EEEE (Maximum Available Control Technology [MACT EEEE]) establishes national emission limitations, operating limits, and work practice standards for organic hazardous air pollutants (HAPs) emitted from organic liquids distribution operations at major sources of HAP emissions. It covers tanks, transfer racks, equipment leak components, transportation vehicles, and containers not covered by other Part 63 standards. The requirements for tanks vary based on the volume of organic liquid stored and its vapor pressure. The requirements for transfer racks vary based on annual throughput and if organic liquids are loaded using the rack.

The requirements from MACT EEEE listed below are relevant to facility operations and the observations made during this inspection.

Section 63.2343 establishes the notification, recordkeeping, and reporting requirements for emission sources that are subject to MACT EEEE but does not require emission controls. Such emission sources are not subject to any other notification, recordkeeping, or reporting sections in the subpart.

Section 63.2343(a) requires, for each organic liquid transfer rack that only unloads, documentation to be kept that verifies each transfer rack is not required to be controlled.

Section 63.2343(b)(1) addresses storage tanks subject to MACT EEEE that have a capacity of 5,000 gallons or more but are not subject to controls. It requires the submission of a notification, listing all tanks that meet these criteria.

Section 63.2343(b)(3) requires, for each tank addressed in § 63.2343(b)(1), that a record of the annual average true vapor pressure of the organic HAPs be kept verifying the storage tank is not required to be controlled.

40 CFR Part 63, Subpart DDDDD (MACT DDDDD) establishes national emission limitations and work practice standards for HAPs emitted from industrial, commercial, and institutional boilers and process heaters located at major sources of HAPs.

Section 63.7540(a)(10) requires that boilers with heat input capacity of 10 million BTU per hour or greater receive an annual tune-up to demonstrate continuous compliance.

Table 9 for MACT DDDDD requires that a compliance report be submitted annually with the applicable information listed in § 63.7550(c)(5).

FACILITY OPERATIONS SUMMARY

The facility uses toluene in its production process. The toluene is stored in a 5,600-gallon tank. Toluene is a HAP listed in Table 1 of MACT EEEE. According to the operating permit, the annual true vapor pressure of the toluene is to be recorded and kept to verify that the tank is not required to be controlled.

The facility uses two 51 MMBtu per hour boilers to provide steam to the plant. According to the permit, Wacker has certified that the boilers burn only natural gas. The boilers are required to have annual tune-ups conducted. An annual compliance report is required to demonstrate compliance with the tune-up requirement.

FIELD ACTIVITIES SUMMARY

I arrived at the facility on March 19, 2024, at 9:15 a.m. and completed a drive by surveillance inspection. I did not observe visible emissions. I made entry at the front gate at 9:20 a.m. and introduced myself, presented my credentials, and provided my business card to Mr. Steven Hughes. I then watched a facility safety video in the security guard shack. I conducted an opening conference during which I explained that the purpose of the visit was to determine compliance with the CAA, specifically, to determine compliance with the regulation in Table 3. All facility representatives listed in Table 2 were present at the opening conference. I explained that after asking for some general business information, I would observe process units, emission units, and control equipment, as well as review associated records demonstrating compliance with the regulation. I explained to Mr. Hughes that the facility could make a claim of business confidentiality and provided them with a Confidential Business Information (CBI) form. Mr. Hughes did make a claim of business confidentiality (**Appendix B**).

I was given a facility tour by Messrs. Kurimski, Hughes, and Call. I wore a hard hat, shock resistant steel toe boots, fire retardant clothing, ear plugs, and safety glasses during the facility tour.

I reviewed the condition of the toluene tank and boilers, the operating status of the equipment, and any required recordkeeping associated with the equipment for compliance with the regulations and permit conditions noted in Table 3 only. I obtained copies of the records as indicated on the Receipt for Documents (**Appendix C**).

I conducted a closing conference with Messrs. Hughes, Kurimski, and Call. I provided the facility with copies of a Receipt for Documents and a Small Business Information sheet. I departed the facility at 12:50 p.m.

Observations and potential findings from the facility tour and records review are noted in the **Investigation Observation and Potential Findings** section below.

INVESTIGATION OBSERVATIONS AND POTENTIAL FINDINGS

Ambient weather, as well as site conditions and activities, were documented in the field records. All photographs are claimed as CBI (**Appendix D**). I made the following observations during the inspection. I discussed all observations with facility representatives during the closeout meeting unless otherwise noted in the observation description.

These observations are not final compliance determinations. The EPA Region 7 Air Branch case review team will make the final compliance determinations based on its review of this report and other technical, regulatory, and facility information.

During my review of the facility, the piping and instrument diagrams (**Appendix E**), and its process flow diagrams (**Appendix F**), I did not identify any additional emission units subject to MACT EEEE.

Documentation was provided to me, as required by § 63.2343(a), verifying that the transfer racks on site are not subject to controls (**Appendix E**).

An initial notification (**Appendix G**) for MACT EEEE was sent on December 3, 2004, that met the requirements of § 63.2343(b)(1).

Initial notifications (**Appendices H and I**) for MACT DDDDD were sent on February 28, 2005, and May 29, 2013, that met the requirements of § 63.7545.

I was provided documentation of vapor pressure records (**Appendix J**) that met the requirements of § 63.2343(b)(3).

During the inspection, I was provided MACT DDDDD annual compliance reports for the years of 2018 through 2021 and 2023. The annual compliance report for January 1, 2022, through December 31, 2022, was not submitted into CEDRI until March 19, 2024 (**Appendix K**).

I was provided records of the annual tune-ups conducted on the boilers that meets the requirements of § 63.7540(a)(10). These documents are included in the facility file.

Potential Finding 1: Annual Compliance Report submitted into CEDRI late
Observation Summary: The 2022 MACT DDDDD Annual Compliance Report was due on January 31, 2023, but was submitted into CEDRI on March 20, 2024.
Citation: 40 CFR § 63.7550(a)(4)
Evidence: 2022 Boiler MACT Compliance Report.pdf (Appendix K), CEDRI Database
Description of Observation: During the document review portion of the inspection, the MACT DDDDD Annual Compliance Report for January 1 – December 31, 2022, was not located. I could not find the report in the CEDRI database prior to the inspection. On March 20, 2024, one day after the inspection, the report was submitted into CEDRI. 40 CFR § 63.7550(a)(4) requires that the “Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.” The report was required to be submitted on January 31, 2023. The report was submitted 414 days late.

End of report.