

Delaware City Refinery Title V Operating Permit Renewal

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Background Information

▶ Title V Permit Overview

- Federal operating permit program implemented at state level
- Title V of the 1990 Clean Air Act (CAA) required EPA to promulgate regulations which in turn required States to establish new operating permit programs
 - DNREC Regulation 1130 drafted to comply with CAA
 - Applies to Major Sources of criteria pollutants: VOCs, NO_x, CO, PM, HAPs, SO₂ – includes most heavy industrial facilities in the US
 - Delaware City Refinery is a Major Source and is therefore subject to Regulation 1130

Background Information

▶ Title V Permit Overview

- Major Sources are required to apply for and have a Title V permit
 - It is well-established that the fundamental purpose of the Title V program is to consolidate into a single document all applicable requirements from Federal, State and local air quality regulations and pre-approved operating air permit terms
 - Therefore, a Title V Permit cannot create new permit requirements that have not already been authorized by DNREC
 - Delaware City Refinery TV Permit: 90+ Regulation 1102 air permits, three parts, 369 pages
 - The Title V permit includes Operational Limitations, Emission Limits, Compliance Methods, Monitoring & Testing Requirements, Reporting Requirements, and Certification Requirements for each process unit at the plant
 - Title V Permits must be renewed every 5 years

Title V Permit Timeline

- ▶ **Delaware City Refinery Title V Permit Issued effective May 28, 2015**
 - AQM-003/00016 – Part 1, Part 2, & Part 3
 - Five year term, expiration date May 27, 2020
 - Renewal permit application due May 27, 2019
 - Renewal permit application submitted May 10, 2019
 - Timely application allows the current permit to remain active past the expiration date, until the Renewal is issued
 - Several revisions were completed during this time period

Title V Permit Timeline

▶ Title V Permit Revisions Since Last Renewal

- Several permit modifications and administrative amendment requests were submitted
- Revised Title V permits were issued:
 - Revision 1 effective April 11, 2017
 - Revision 2 effective October 16, 2017
 - Revision 3 effective April 12, 2018
 - Revision 4 effective October 3, 2019

Title V Permit Renewal & Significant Modification

- ▶ **Title V Permit Renewal Application & Modifications – May 10, 2019**
 - Incorporates conditions from the Ethanol Marketing Project
 - Elimination of the maximum data capture requirements from the Crude NOx CEMS
 - Incorporation of requirements contained in the Consent Decree
 - Replacement of the EPA Tanks 4.09 requirement with the Tanks ESP Pro Version
 - Modification of short-term NOx limits per the July 2019 Settlement Agreement

Title V Permit Renewal & Significant Modification

▶ Ethanol Marketing Project

- Incorporates conditions into the Title V permit of previously authorized permit requirements from the Ethanol Marketing Project – October 19, 2017
 - Permits DCRC to export up to 10,000 BPD of ethanol on an annual average basis via the Marine Piers.
 - Required modifications to Tank 206, Tank 225, the Marine Piers, and the Terminal Truck Loading Rack, and installation of a Vapor Vacuum Control system to reduce fugitive emissions at the Marketing Terminal.

Title V Permit Renewal & Significant Modification

▶ Crude NOx CEMS Requirements

- Removed unit specific data capture requirements from the Crude NOx CEMS to make the data capture requirements consistent with those applicable to other units.
- Crude Unit CEMS requirements are less stringent than those found in the NOx Cap section of the permit.
 - Crude Unit Section Requirements: 85% capture of daily operating hours and 85% capture of monthly operating days.
 - NOx Cap Section Requirements: 90% of operating data each month or 95% operating data each quarter.

Title V Permit Renewal & Significant Modification

▶ Consent Decree Requirements

- Incorporation of requirements contained in the Consent Decree “United States of America et al., v. Motiva Enterprises LLC”, No. H-01-0978:
 - Consent Decree signed in 2001 and contained various LDAR requirements.
 - The Consent Decree is still active and most of its requirements were transitioned into the permit.
 - Three conditions previously omitted are included as part of the Renewal.

Title V Permit Renewal & Significant Modification

▶ July 2019 Settlement Agreement

- DCRC and DNREC entered into a Settlement Agreement on July 11, 2019 resolving appeals of Regulation 1102 permits containing short-term NOx limits.
- The affected permits issued on October 21, 2019 modified NOx provisions of Boiler 3 and 4, Combined Cycle Units I and II, and the Fluid Catalytic Cracking Unit.
- The Renewal incorporates into the Title V permit these modifications to the short-term NOx limits.

Title V Permit Renewal & Significant Modification

▶ Tanks Emissions Software:

- Update all tank sections to reflect the replacement of EPA TANKS 4.09 software, no longer supported by EPA, with TankESP Pro Version to estimate tank air emissions.
- Software is used to estimate the emissions released from tanks based on size, shape, type, capacity, product, etc.

Public Hearing Exhibit

1. DCRC Public Hearing Presentation