Delaware City Refinery
Title V Operating Permit Renewal

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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, NOx, 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
**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.
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.
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.
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