Public Meeting on Optima Belle

West Virginia Division of Air Quality

Jonathan Carney, P.E.

August 3, 2023

Overview

- Permitting under the Clean Air Act
- Permitting Process
- What Is Being Permitted?
- Permit Requirements
  - Limits
  - Monitoring
  - Testing
- Summary

Permitting under the Clean Air Act

- The CAA was a mandate to the U.S. EPA to protect public health and welfare.

- EPA developed National Ambient Air Quality Standards (NAAQS) and regulations for emissions of Hazardous Air Pollutants (HAPs), which are designed to be protective of human health and the environment.

- State and federal rules and regulations were established to ensure these standards are met and kept through permitting and enforcement.

Permitting under the Clean Air Act (cont'd)

What the permitting process does do:

- Determine/enforce compliance with state/federal air quality rules and regulations
- Determine/enforce compliance with facility's air emissions
- Provide framework for public notice/participation

What the permitting process **cannot** do:

- Take into consideration any other important, but non-air quality benefits/impacts/information such as jobs, public support (or lack thereof), reports from outside agencies, property values, traffic, zoning, national energy issues, economics of the project (i.e. jobs), infrastructure, etc.
- Require or prohibit the location of facilities in any particular area.
- Address non-air quality environmental impacts (e.g. water)

Permitting Process

- Company applies for an air permit and publishes a legal ad, beginning a 30-day public comment period.

- Application is reviewed for completeness and company is notified of any deficiencies.

- Application undergoes a technical review to determine which air quality rules apply, and if the proposal meets those rules.

Permitting Process (cont'd)

- If the proposed project meets all applicable air quality rules, DAQ publishes a legal ad, beginning a second 30-day public comment period. At this time, a copy of the evaluation and draft permit is made available for public review.

- After the close of the comment period, all comments received are reviewed and addressed by the DAQ and a final decision is made.

- All documents can be found under "Popular Searches" at: https://dep.wv.gov/daq/permitting/Pages/NSR-Permit-Applications.aspx

What is being permitted?

--**Equipment being removed**

- Xylene/Toluene Storage Tank
- Two reactors
- Super Sack Unloading to Double Cone Dryer
- Super Sack Filling from Double Cone Dryer
- Caustic Storage Tank
- Filter Dryer
- Reactor Condenser
- Dust Collector

This equipment damaged in the 2020 incident has been removed from the draft permit and will not be returned to service.

What is being permitted? (cont'd)

--New equipment to be installed

- Reactor Stripper
- Three Alumina Columns
- Two Mole Sieve Columns
- Bag Dump Station
- Nine Reactors
- Reactor Condenser
- Rail Loading at Building 114 for HMAPS
- Charge Vessels
- Filter Dryer
- Vacuum Pump
- Centrifuge
- Wet Cake Bin
- Centrate Tank
- Dryer
- Wet Cake Conveyor
- Four Filters
- Truck Loading and Unloading
- Dust Collector

What is being permitted? (cont'd)

- The new equipment that is replacing the removed equipment is to be utilized in the same flexible fashion.
- The emission control units remain the same and they include:
  - Main Scrubber
  - Incinerator
  - Incinerator Scrubber
  - Dust collectors
- The new equipment will allow the facility to produce a new material, HMAPs, in addition to the materials currently permitted.

What is being permitted? (cont'd)

- Proposed Emission Increases

Pollutant	**Increase (pounds per year)**
VOC	820.00
Styrene	0.04
Ethylbenzene	1.92
Total HAPs	1.96

Permit Requirements

Limits

- The new equipment will be subject to the existing permit requirements in that the permit defines the Small Lots Manufacturing (SLM) unit as the totality of the process equipment listed in Section 1.0 SLM
- Production in the SLM unit is limited to the products that meet the emission limits in the permit.
- The emission control units, Main Scrubber, Incinerator, and Incinerator Scrubber, are required to operate within specific operating parameters. These include scrubber solution pH and flow rate for the scrubbers and temperature range and air flow for the incinerator.

Permit Requirements (cont'd.)

Limits

- 45CSR6 and 45CSR7 - The facility is required to comply with visible emission limits.
- 40CFR63 Subpart H – The facility is required to comply with leak detection requirements of this subpart.
- Air Pollution Control Equipment is required to be operated and maintained in accordance with manufacturer specifications.

Permit Requirements (cont'd.)

Monitoring

- Production rates of each product
- Visual emission checks
- Continuous monitoring of temperature and air flow of incinerator
- Continuous monitoring of pH and flow rate of scrubbers
- Recordkeeping of monitoring information is required

Summary

- Emission units that have been removed from the facility have been removed from the draft permit
- New equipment to be installed will be used to produce the same batch sizes and yearly quantities in the existing permit, so the emission estimates for existing production are unchanged.
- New Material Production of HMAPs will increase VOC's and introduce new HAP's emissions to the process, ethylbenzene and styrene.
- The draft permit allows this facility to be operated with a potential to emit, with controls, below major source threshold levels. The facility will remain an area source of HAPs.

Summary (cont'd.)

- 45CSR13-5.7 states: The Secretary shall issue such permit or registration unless he or she determines that the proposed construction, modification or relocation will violate applicable emission standards, will interfere with attainment or maintenance of an applicable ambient air quality standard, cause or contribute to a violation of an applicable air quality increment, or be inconsistent with the intent and purpose of this rule or W. Va. Code §22-5-1, et seq., in which case the Secretary shall issue an order denying such construction, modification, relocation and operation. The Secretary shall, to the extent possible, give priority to the issuance of any such permit so as to avoid undue delay and hardship.

DEP Email Notice Service

Sign up for DEP's e-mail notification service at https://dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx or write to:

DEP Public Information Office
Public Notice List
601 57th Street, S.E.
Charleston, WV 25304

You have the option to receive notices of activities by county or statewide.

Public comment period has been extended.

Written public comments will be accepted until 5 P.M. on

Friday, August 11, 2023

Contact Information

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Additional Comments can be e-mailed to Jonathan.W.Carney@wv.gov with “Optima Belle,LLC Comments” in the subject line.

Controlled Potentials To Emit Currently Permitted		
Pollutant	**Pounds per hour**	**Tons per year**
PM	4.14	6.49
PM10	2.05	3.67
PM2.5	0.42	1.72
SO_2	0.05	0.19
NO_x	21.73	22.38
CO	1.45	6.35
VOC	43.96	21.88
Acetonitrile	0.05	0.02
Benzene	0.01	0.01
Butyl Carbitol	0.01	0.01
Catechol	0.16	0.03

Controlled Potentials To Emit Currently Permitted		
Pollutant	**Pounds per hour**	**Tons per year**
Chlorobenzene	0.00	0.00
Chromium Compounds	0.89	0.05
Hexane	0.96	0.27
Hydrogen Chloride	2.31	0.55
Methanol	9.20	7.99
Methylene Chloride	1.87	0.23
Methyl Tert-Butyl Ether	0.86	0.19
P-Xylene	0.04	0.01
Titanium Tetrachloride	0.01	0.01
Toluene	1.77	0.34
Methyl Chloride	4.60	0.51

Controlled Potentials To Emit Currently Permitted		
Pollutant	**Pounds per hour**	**Tons per year**
Ammonia	2.00	2.41
Ethanol	3.46	1.06
Tributylamine	0.40	0.08
Ethyl chloride	7.97	1.13
Methyl Chloroformate	0.26	0.04
Triethyl Phosphite	0.07	0.06
HAPs	27.05	10.70