

# Emerging Air Permitting Issues

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*Presented by*  
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# ***NAQS Environmental Experts*** **Our Role & Background**

# COMPANY HISTORY

- NAQS was established in 2003 in Lincoln, NE
- 2005 First Fortune 500 Client
- NAQS employees have a wealth of environmental regulatory experience
  - Former regulator, government, and industry experience

# ORGANIZATIONAL POSITION

- **Our Mission: Bridge the gap between industry and regulators by engaging employees with undisputable expertise, excellent critical thinking abilities, and strong communication skills.**

# SERVICES

- Permitting
  - Applications
  - Strategies
  - Draft Permits
  - Permit Reviews
- Compliance Assistance
- Regulatory Analysis
- Emissions Inventories
- Compliance Certifications
- Deviation Reports
- Stack Testing Assistance
- Litigation Support
- Training
- Audits
- Compliance Management
- Executive Training
- Risk Management Planning
- GHG Inventories and Management
- Strategic Project Planning
- Dispersion Modeling
- Hazardous Waste

# SELECT CLIENTS

Partnering with a spectrum of clients ranging from small municipalities to Fortune 500 Companies





# Permit Enforceability

# Permit Enforceability

- Who has heard of the following terms?
  - Legally Enforceable
  - Federally Enforceable
  - Practicably Enforceable
  - Enforceable as a Practical Matter
- What do these terms actually mean?



# Permit Enforceability

- Why does it matter?
  - Permitting authorities are required to issue air permits with conditions that are legally and practicably enforceable
  - NDEQ has drawn more attention to permit enforceability

# Recent NDEQ Statements on Permit Enforceability

- “Permit Limitations must be both **federally and practically enforceable** to limit potential to emit”
- “The NDEQ in the past issued permits with source-wide HAP limits (<10 and < 25 tpy) which the NDEQ has determined are not **practically enforceable** because they do not allow for verification of compliance with the limit”

# Recent NDEQ Statements on Permit Enforceability

- “Tons per year limitations are not **practically enforceable** because compliance cannot be demonstrated by performance testing due to the long averaging period (12 month rolling total)”
- “In order to establish a **more practically enforceable** limitation, the group Acetaldehyde limitation was separated into equivalent emission point specific limitations”

# Permit Enforceability

- Enforceable as a Practical Matter
  - Not defined in Nebraska Title 129
  - First defined in preamble to PSD regulation changes made by EPA on December 31, 2002
  - Has since been defined in federal regulation
    - 40 CFR §49.152 and §49.167 (July 1, 2011)
    - Applies to permits issued by EPA for facilities on Tribal Lands

# Permit Enforceability

- By definition, a permit condition is enforceable as a practical matter if the condition is both:
  1. Legally Enforceable
  2. Practicably Enforceable

# Permit Enforceability

- Legally Enforceable
  - “A requirement is ‘legally enforceable’ if some authority has the right to enforce the restriction”
  - Examples:
    - Construction and Operating Permit conditions
    - Title 129, Chapter 20 opacity requirements
  - A requirement does not need to be “federally enforceable” in order for it to be considered legally enforceable



# Permit Enforceability

- Federally Enforceable
  - Defined in Nebraska Title 129
    - “All limitations, conditions and requirements within any applicable State Implementation Plan, any permit requirements established in any permit issued pursuant to this Title, and any requirements in Chapters 18 and 23, 27, or 28 which are enforceable by the Administrator”

# Permit Enforceability

- Practicably Enforceable
  - Practical enforceability of a permit condition is achieved if the permit provisions specify three criteria:
    1. The limitation or standard and the emissions units or activities subject to the limitation or standard
    2. The time period for the limitation or standard (e.g., hourly, daily, monthly, and/or annual limits such as annual rolling limits)
    3. The method to determine compliance, including appropriate monitoring, recordkeeping, reporting, and testing

# Permit Enforceability

- Practicably Enforceable (cont.)
  - This is a Yes/No question
    - Permit conditions can't be made “more” practicably enforceable
  - Practical Enforceability not impacted by:
    - Type of permit (CP/OP, major/minor)
    - Source category
    - Use of a CEMS

# Permit Enforceability

- Which types of limitations are practicably enforceable???
  - Individual emission point lb/hr limits?
  - Group lb/hr or tons/yr limits?
  - Source-wide lb/hr or tons/yr limits?
- All can be made practicably enforceable!
  - Unless specified by state or federal regulation, type of limit should be negotiable

# Permit Enforceability

- Why is this important?
  - NDEQ is pushing replace tons/yr limitations with lb/hr limitations
    - There is greater legal liability with lb/hr limitations
    - There are fewer compliance options with lb/hr limitations

# Enforceable as a Practical Matter and Ton per Year Limitations

- *Example:*
  - Ethanol plant wishes to remain a minor source of acetaldehyde
  - Primary acetaldehyde emission points are a fermentation scrubber (EP-1), a thermal oxidizer unit (EP-2), and a DDGS cooler (EP-3)
  - In order to remain a minor HAP source, facility needs to limit combined acetaldehyde emissions from the emission points to < 10.0 tons per year



# Enforceable as a Practical Matter and Ton per Year Limitations

- *Example (cont.):*
  - How could this look as lb/hr limits?
    - EP-1: 1.20 lb/hr
    - EP-2: 0.65 lb/hr
    - EP-3: 0.43 lb/hr
    - Total Emissions = 2.28 lb/hr = 9.99 tons/yr
  - Performance test results show the following:
    - EP-1: **1.35 lb/hr**
    - EP-2: 0.38 lb/hr
    - EP-3: 0.22 lb/hr
    - Total Emissions = 1.95 lb/hr = 8.54 tpy

# Enforceable as a Practical Matter and Ton per Year Limitations

- *Example (cont.):*
  - What are the consequences of the lb/hr limits and stack test?
    - Permit violation for EP-1 – Likely NOV and possible fine
    - Money and time spent to revise current permit to stay a minor HAP source
    - What happens during the next stack test? Could face a similar scenario
    - What is gained from a human health and environmental protection standpoint?

# Enforceable as a Practical Matter and Ton per Year Limitations

- *Example (cont.):*
  - What if the individual lb/hr limits were replaced with a tons/yr limitation?
    - Potential emissions still limited to minor source levels
    - Stack test would not result in NOV or need for excess emissions report
    - Would not need to revise existing permits
    - Allowed to manage emissions between the units in most economical manner
    - Same public health and environmental protection as individual lb/hr limits

# Source-Wide Tons Per Year Limitations

# How Can Source-Wide Tons/Yr Limits be Made Practicably Enforceable???

1. Permit must specify the limitation or standard and the emissions units or activities subject to the standard
  - Specify in permit a limit of 10 tons/yr of acetaldehyde
  - Specify in permit which emission units are subject to this limitation
    - Can be done explicitly in permit condition or through calculation attachments

# How Can Source-Wide Tons/Yr Limits be Made Practicably Enforceable???

2. Permit must specify the time period for the limitation or standard
  - Specify in permit that the acetaldehyde limit is an annual limitation measured on a 12-month rolling basis



# How Can Source-Wide Tons/Yr Limits be Made Practicably Enforceable???

3. Permit must specify the method to determine compliance, including appropriate monitoring, recordkeeping, reporting, and testing
  - Specify in permit an acetaldehyde emissions calculation methodology (Attachment A)
  - Specify appropriate testing, if necessary, to establish emission factors to use in calculations
  - Specify that monthly and 12-month rolling total emissions records must be kept

# Examples of Practicably Enforceable Source-Wide Tons/Yr Limits

- Many existing ethanol plant construction and operating permits issued in Nebraska!
- [Title V Operating Permit](#) issued by Missouri DNR to ethanol plant
- [Minor Source Operating Permit](#) on public notice drafted by EPA Region 7 for a NE Municipal Power Plant on Tribal Lands

# Speaking of Tribal Lands...

## 40 CFR §49.152

- Federal Minor New Source Review Program in Indian Country

## 40 CFR §49.167

- Federal Major New Source Review Program for Nonattainment Areas in Indian Country

# What are 40 CFR §§ 49.152 and 49.167

- Do these definitions apply in Nebraska?
  - Yes, but only on Tribal lands (Thurston Co and portions of Knox Co and Richardson Co)
- Why is this important?
  - Places sources regulated by the NDEQ at a potential disadvantage
  - Sources located on Tribal lands could obtain ton per year limitations; whereas a neighboring source could be pushed to take lb/hr limitations

# Once In Always In Policy

# Once In Always In

- Once In Always In policy established by EPA in May of 1995
  - Stated that facilities that are major HAP sources at the “first compliance date” of a NESHAP are required to comply permanently with the standard.
  - Could not avoid major source NESHAP requirements by decreasing HAP emissions after the first compliance date of the rule

# Once In Always In

- Once In Always In rescinded by EPA in January 2018
  - Decision to rescind policy based on plain reading of definitions for “major source” and “area source” in NESHAP regulations
  - A major source becomes an area source at such time that a source takes an enforceable limit on PTE of HAPs below the major source thresholds
  - Limit can be taken at any time to avoid major source NESHAP requirements

# Major vs. Minor Source Classification Under the Operating Permit Program



# OPERATING PERMIT CLASSIFICATIONS

- Major Source (Class I)
  - Potential to Emit (PTE) more than:
    - 100 tons per year (tpy) of PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, SO<sub>x</sub>, CO, or VOC;
    - 25 tpy of all HAPs combined; or,
    - 10 tpy of any single HAP
- Minor Source (Class II)
  - Any source with PTE below the Major Source thresholds

# OPERATING PERMIT CLASSIFICATIONS

- Major source definition for operating permit program differs from definition used in construction permit program
  - PSD construction permitting major source threshold is 250 tpy for criteria pollutants
  - PSD construction permitting has a threshold for PM
    - OP program only includes PM10 and PM2.5 in major source analysis

# Major Source - Pros

- **Pros**
  - Potentially more flexibility
    - No limitations keeping PTE below the OP applicable thresholds
  - Potentially less monitoring and recordkeeping
    - Only applies to those conditions that were necessary to remain Minor
    - If Minor for HAPs, the requirements would be the same
  - Potentially less frequent performance testing
    - If minor for HAP, would likely continue with existing testing frequencies, unless using CEMS

# Major Source - Cons

- Cons
  - Emission fees
  - Semi-annual reporting vs annual
  - Subject to CAM
    - Would impact the fermentation scrubber, baghouses, dryers, and possibly other equipment
    - Would cause a violation of an operating parameter to be a violation of both the CP requirement and the federal CAM program – could cause NOV instead of LOW

# Major Source - Cons

- Cons (cont.)
  - More scrutiny
    - Subject to EPA inspections and oversight
    - Subject to more frequent NDEQ inspections (twice every five years in accordance with the EPA/NDEQ inspection policy)
  - Higher CP application fees

# Major Source - Cons

- Cons (cont.)
  - HAPs
    - Subject to the MON
      - Must keep total HAP emission rate less than 20 ppm **at all times**
      - May have to install additional control to meet the MON requirements.
    - Would be subject to additional major source NESHAPs

# Minor Source - Pros

- Pros
  - No emission fees
  - Annual reporting vs semi-annual reporting
  - Not subject to CAM
    - Can rely on what is in the CP for demonstrating compliance

# Minor Source - Pros

- Pros (Cont.)
  - Less scrutiny
    - Subject to NDEQ inspections once every five years (according to EPA/NDEQ inspection policy)
  - HAPs
    - Not subject to the MON
  - Lower CP application fees



# Minor Source - Pros

- Pros (Cont.)
  - Less EPA involvement
    - EPA gives the state the freedom to manage their minor source program the way they see fit
    - Only exception is when dealing with certain HPVs
  - NDEQ considering a 10 year term for Class II sources
    - Current regulations require a term of up to five years
    - Reduces the cost of submitting a renewal application

# Minor Source - Cons

- Cons
  - Less flexibility
    - Only in regard to pollutants with minor source limitations
  - More monitoring and recordkeeping
    - Only applies to limitations keeping PTE below the OP applicability thresholds
    - If Minor for HAPs, the requirements would be the same
  - More frequent performance testing, unless using CEMS

# Class I (Major) Source

<b>Pros</b>	<b>Cons</b>
Possibly More Flexibility	Emissions Fees
Possibly Less Testing	Greater EPA Involvement
Possibly Less Monitoring	Semi-Annual Reporting
Possibly Less Recordkeeping	Subject to CAM
	Increased CP Application Fees

# Class II (Minor)

<b>Pros</b>	<b>Cons</b>
No Emissions Fees	Less Flexibility
Less EPA Involvement	More Testing
Annual Reporting	More Monitoring
Not Subject to CAM	More Recordkeeping
Smaller CP Application Fees	
Possible 10 year permit term?	

# QUESTIONS???

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