



trinityconsultants.com

Practical Applications of Recent Environmental Policy Changes

Air & Waste Management Association
Southern Section 2018 Annual Meeting
Huntsville, AL
September 26, 2018

Jeremiah Redman
Senior Consultant



Topics

- > Applications of Environmental Policy Updates
 - ❖ Once In-Always In (OIAI) EPA Position for MACT Standards
 - ❖ NSR Reform
 - ◆ Example of Project-Specific Netting
 - ◆ Example of Projected Actual Emissions Management
- > Summary and Wrap-Up

Trinity's Services & Products

Seven Service Areas within Trinity:

1. Environmental Consulting
 - ❖ Permitting and regulatory compliance services
 - ❖ Environmental management services
2. Professional Training
3. EH&S Information Management Solutions
4. Environmental Software
5. Industrial Hygiene and Toxicology
6. EH&S Staffing Services
7. Aquatic Sciences



Applications of Environmental Policy Changes

EPA Policy Reversal on “Once In, Always In” for MACT Standards

MACT & OIAI Overview (1 of 2)

- > Section 112 of CAA contains Maximum Achievable Control Technology (MACT) Standards for new and existing sources of Hazardous Air Pollutants (HAPs)
- > Facilities may be classified as Area (minor) sources and Major sources of HAP
 - ❖ Area sources: <10 tpy of individual HAP; <25 tpy of total HAP
- > MACT requirements can differ significantly depending on source classification
 - ❖ e.g., PCWP MACT only regulates Major sources of HAP

MACT & OIAI Overview (2 of 2)

- > Historically - Once Major Source for a MACT - Always a Major Source for a MACT
 - ❖ “Potential to Emit for MACT Standards” Memo dated 1995 (John Seitz - EPA Office of Air Quality)
 - ❖ If major at first compliance date, facility will always be subject as a major source (even if facility-wide emissions decrease to minor source status)
- > January 25, 2018 - EPA issued a memorandum reversing stance on this issue
 - ❖ “Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act” (Bill Wehrum)
 - ❖ If facility-wide PTE is less than major source thresholds, can be re-classified under the existing MACT Rules

MACT & OIAI Example (1 of 2)

- > Engineered Wood Products facility operates several sources of HAP emissions, including:
 - ❖ Energy Systems
 - ❖ Tube Dryers
 - ❖ Painting/Coating Operations
 - ❖ Small Boiler
 - ❖ Emergency Engines
- > PCWP MACT compliance date for existing sources 10/1/2007
- > Facility installed bioscrubber to comply with PCWP MACT

MACT & OIAI Example (2 of 2)

- > Bioscrubber controls HAP from Energy Systems and Dryers
- > Facility never re-evaluated Facility-Wide HAP emissions until 2016 TVR
- > Facility became subject to the Major Source Boiler MACT on January 31, 2016
 - ❖ No restrictions in place to limit HAP emissions
- > Based on new facility-wide HAP PTE, site can become an area source of HAP (based on new guidance)
 - ❖ No longer subject to Major Source Boiler MACT
 - ❖ No longer subject to PCWP MACT
 - ◆ Note - controls are still required!

Old OIAI Policy (Mis)-Interpretation Example (1 of 2)

- > Facility operates four boilers and classified as major HAP source
 - ❖ Boilers 1-3: Existing Units under Boiler MACT
 - ❖ Boiler 4: New Unit under Boiler MACT (after June 2010)
- > Facility completed process change to become HAP synthetic minor source
 - ❖ Construction permit issued prior to Boiler MACT applicability date (1/31/16) with HAP limits
 - ❖ Internal interpretation that the Existing Units would become subject to Boiler GACT (NESHAP Subpart 6J) not Boiler MACT
 - ❖ New Unit would remain subject to Boiler MACT due to old OIAI policy

Old OIAI Policy (Mis)-Interpretation Example (2 of 2)

- > EPA OAQPS Guidance to State Agency for Construction Permit:
 - ❖ Old OIAI Policy interpreted as one affected unit (New Unit) under NESHAP rule means three Existing Units also subject to Boiler MACT (not Subpart 6J)
 - ❖ Limitation to HAP synthetic minor before compliance applicability date for Existing Units would not change rule applicability, based on their interpretation of the “Seitz Memo”
- > New OIAI Policy - Permit Application Submitted
 - ❖ State agency will be changing the Existing Units under Boiler MACT currently to subject to Subpart 6J
 - ❖ Less compliance burden

MACT & OIAI Summary

- > If currently subject to a major source rule
 - ❖ Re-evaluate facility-wide potential-to-emit of HAP
 - ❖ If less than major source thresholds, could potentially apply for a permit revision to become an area source and reduce compliance requirements
- > State agencies will each have their own interpretation and implementation
 - ❖ Level of controls still required
 - ❖ Level of notification/recordkeeping/reporting required
 - ❖ Justification/recordkeeping for becoming minor source
 - ❖ State Example
 - ◆ Still need to meet RACT requirements (organic HAP = VOC)

What Do We Expect?

- > Variation Between State Agencies
 - ❖ Alabama (ADEM) fully on-board
 - ❖ Other states - policy revisions over next year or so
- > Existing Requirements
 - ❖ Controls will likely remain in place
 - ❖ Recordkeeping/notification/reporting requirements may be reduced
- > Future Requirements
 - ❖ Controls may be reduced
 - ❖ Recordkeeping/notification/reporting requirements may be reduced
- > Monitor State Interpretations

New Source Review (NSR) Policy Changes

NSR Overview (1 of 4)

- > New Source Review (NSR) Program requires major sources (under NSR) to evaluate any modification to ensure that project emissions do not result in a “significant net emissions increase”
- > Pre-defined “significant emission rates” (SERs) as defined in the Rule
- > Traditionally, a two-step process
 - ❖ 1a. Evaluate actual-to-potential project increases
 - ❖ 1b. Evaluate actual-to-projected actual project increases
 - ❖ 2. Facility-wide netting over prior 5-year period

NSR Overview (2 of 4)

> New EPA Guidance

- ❖ *New Source Review Preconstruction Permitting Requirements: Enforceability and Use of the Actual-to-Projected-Actual Applicability Test in Determining Major Modification Applicability*, E. Scott Pruitt, December 7, 2017
 - ◆ Updates to projected actual emissions
 - Facilities get to define how emissions look in the future
 - Facilities work with states to determine appropriate tracking/compliance demonstration

NSR Overview (3 of 4)

> New EPA Guidance

- ❖ *Project Emissions Accounting Under the New Source Review Preconstruction Permitting Program*, E. Scott Pruitt, March 13, 2018
 - ◆ Updates to baseline actual emissions
 - Can include units to be shutdown in baselines
 - » As long as it is “part of the project” (EPA is allowing facilities/states to define the project)
 - » Traditionally, this step would have been included in Step 2 (along with all other modifications in 5-yr period)

NSR Overview (4 of 4)

> Key NSR Definitions (to be used for examples)

- ❖ Potential-to-Emit (PTE) - maximum annual emissions that a new or modified unit could potentially emit
- ❖ Projected actual emissions (PAE) - the future projected annual emissions of a modified unit within the first 5-10 years following the modification
- ❖ Significant emission rate (SER) - a pre-defined emissions threshold for which PSD is triggered if exceeded; varies by pollutant
- ❖ Baseline actual emissions (BAE) - highest 2-yr annual emission rate for modified units within the past 10-years; varies by pollutant
- ❖ Project emissions increase (PEI) - overall emissions increases specifically due to the project; Often referred to as Step 1
- ❖ Net emissions increase (NEI) - overall emissions increases over the contemporaneous 5-yr window; Often referred to as Step 2

NSR Project Netting Example

> Project to Shutdown Boiler 1 and Install Boiler 3

- ❖ $\text{NO}_x \text{ PTE}_{\text{BOILER3}} = 55 \text{ tpy}$
- ❖ $\text{NO}_x \text{ BAE}_{\text{BOILER1}} = 25 \text{ tpy}$
- ❖ Project Associated NO_x Emissions = 3 tpy
- ❖ 5-Yr Contemporaneous NO_x Emissions = +20 tpy

> Traditional NSR Calculation Methodology

- ❖ $\text{PEI (Step 1)} = \text{PTE}_{\text{BOILER3}} + \text{Associated} = 55 + 3 = 58 \text{ tpy}$
- ❖ $\text{NEI (Step 2)} = \text{PEI} + 5\text{-Yr CEI} - \text{Boiler 1} = 58 + 20 - 25 = \underline{53 \text{ tpy}}$
- ❖ $53 \text{ tpy} > \text{SER (40 tpy)} \rightarrow \text{PSD is triggered}$

> New NSR Calculation Methodology

- ❖ $\text{PEI (Step 1)} = \text{PTE}_{\text{BOILER3}} - \text{BAE}_{\text{BOILER1}} + \text{Associated} = 55 - 25 + 3 = \underline{33 \text{ tpy}}$
- ❖ $\text{NEI (Step 2)} = \text{Not Needed, under SER in Step 1!}$
- ❖ $33 \text{ tpy} < \text{SER (40 tpy)} \rightarrow \text{PSD is NOT triggered}$

NSR PAE Example

- > Project to Modify Existing Boiler 3
 - ❖ $\text{NO}_x \text{ PTE}_{\text{BOILER3}} = 100 \text{ tpy}$ (following modification)
 - ❖ $\text{NO}_x \text{ BAE}_{\text{BOILER3}} = 44 \text{ tpy}$
 - ❖ Assume no associated emissions increases
- > $\text{PEI} = \text{PTE} - \text{BAE} = 100 - 44 = \underline{56 \text{ tpy}} > \text{SER} (40 \text{ tpy})$
- > Substitute PAE for the PTE
 - ❖ Propose limitation of 83 tpy NO_x for Boiler 3
 - ❖ $\text{PEI} = \text{PAE} - \text{BAE} = 83 - 44 = \underline{39 \text{ tpy}} < \text{SER} (40 \text{ tpy})$
- > Traditionally, business documentation needed to justify 83 tpy for PAE
- > Under New NSR Guidance, propose emissions tracking/recordkeeping/reporting requirements
 - ❖ No questions asked as long as $\text{PAE} < \text{proposed limitation}$

NSR Summary

- > EPA NSR policy changes are favorable for industry
 - ❖ Projects that may have historically triggered NSR federal air construction permitting may now be completed under a state construction permit
- > States may interpret/implement changes differently
 - ❖ Note that the changes are “policy” changes only and reflect changes of interpretation of the existing rules (i.e., amendments to SIPs and federal rules are not required for these changes to be effective)
 - ❖ State of Alabama/ADEM is on-board with policy revisions

Concluding Thoughts

- > If you are planning a capital project at your site, now is a good time!
 - ❖ Additional favorable environmental changes include revisions to Appendix W (dispersion modeling) and changes to the interpretation of “ambient air”
- > Up-Front communication and planning is recommended
 - ❖ Takes time for federal policy changes to be recognized at the local level
 - ❖ Need to understand state/local authorities’ position on policy changes
 - ❖ Develop permitting strategy and communicate clearly

Questions & Discussion



Trinity Consultants
1 Perimeter Park S
Suite 100N
Birmingham, AL 35243
(205) 970-6035

Presenter:

jredman@trinityconsultants.com