

New Source Review - MDNR Regulation Highlights and Federal Updates

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MDNR Regulation Highlights – Overview of NSR Applicability

Construction Permits Needed

The owner or operator of a new or existing installation throughout Missouri that meets any of the following provisions must obtain a permit before any new construction or modification:

1. New installations with PTE > *de minimis* levels, 10-6.060(1)(A)1.
2. If existing site-wide PTE < *de minimis* levels, **projects with emission increases above *de minimis*** (including fugitive emissions), 10-6.060(1)(A)2.
3. If existing site-wide PTE > *de minimis* levels, **projects with any emission increases**, including fugitive emissions, 10-6.060(1)(A)3.
4. **Major Modifications** as defined in 52.21(b)(2)...e.g. emission increases above the EPA PSD Significant Emission Rates (SERs)

MDNR Definition of Emission Increase: 10-6.060

The sum of post project potential to emit minus the pre-project potential to emit for each new and modified emission unit. Decreases and netting are not to be included in the emission increase calculations.

The pre-project and post-project potential emissions should include fugitive emissions for all installations!

MDNR APCP De Minimis Emission Levels (tpy)

> Particulate Matter	25.0
> PM ₁₀	15.0
> PM _{2.5}	10.0
> Sulfur dioxide	40.0
> Nitrogen oxides	40.0
> Carbon monoxide	100.0
> Ozone (measured as VOC)	40.0
> Lead	0.60
> HAPs each	10.0
> HAPs total	25.0

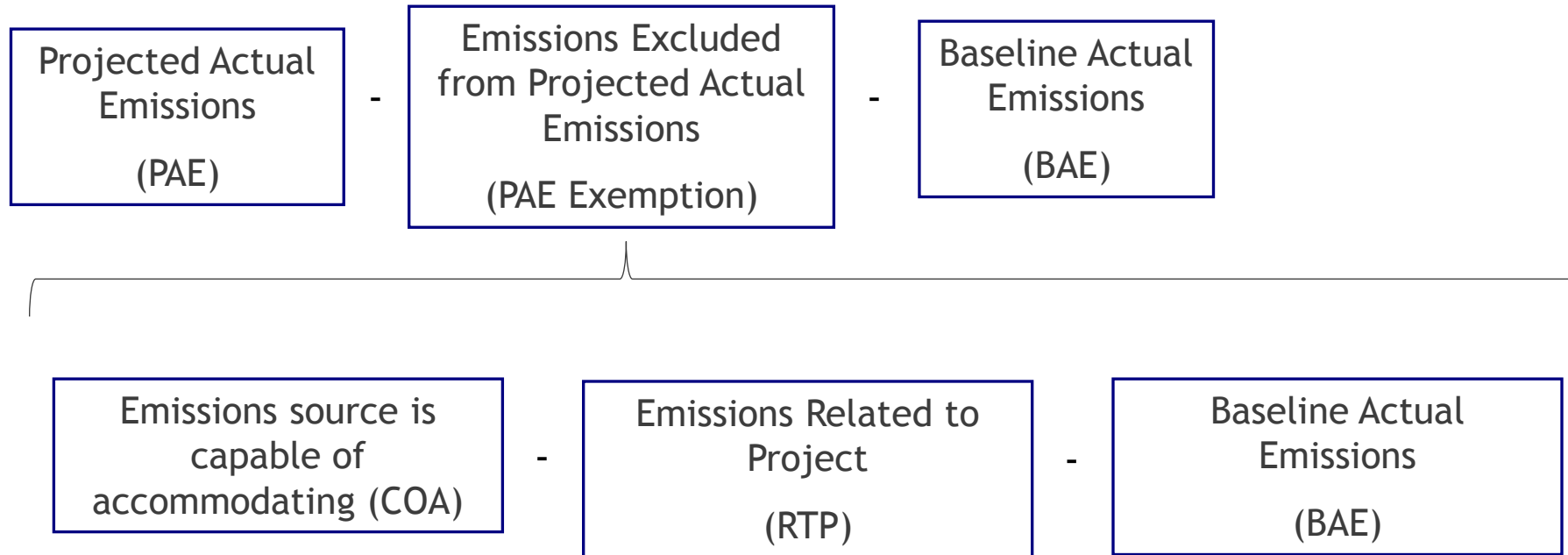
MDNR APCP De Minimis Emission Levels (tpy)

▶ Fluorides	3.0
▶ Mercury	0.1
▶ Beryllium	0.0004
▶ Asbestos	0.007
▶ Sulfuric acid mist	7.0
▶ Hydrogen sulfide	10.0
▶ Vinyl chloride	1.0
▶ Total reduced sulfur	10.0
▶ Reduced sulfur compounds	10.0
▶ Municipal waste combustor organics	3.5E-6
▶ Municipal waste combustor metals	15.0
▶ Municipal waste combustor acid gases	40.0
▶ Municipal solid waste landfill emissions	50.0

Federal Definition of Major Modification

- ▶ Physical change or change in the method of operation at a major stationary source that would result in a **significant project emissions increase** (Step 1) and a **significant net emissions increase** (Step 2).
- ▶ EPA Significant Emission Rates (SERs) are the same as the MDNR *de minimis* levels
- ▶ Emissions increase as it is used in the definition of major modification does not have the same meaning as the MDNR definition of emission increase.

Project Emissions Increase (PEI) =



$$\text{Increase} = \text{PAE} - [\text{COA} - \text{RTP} - \text{BAE}] - \text{BAE}$$



Net Emission Increase (NEI) =

Step 1: Project Emission Increases (PEI)

-

Step 2: Other contemporaneous emission decreases

+

Step 2: Other contemporaneous emission increases

Emission Considerations for Construction Permit Reviews–

- ▶ Existing site-wide PTE in tpy
- ▶ Post-project PTE in lbs/hr and tpy
- ▶ Baseline Actual Emissions (BAE) in tpy
- ▶ Projected Actual Emissions (PAE) in tpy
- ▶ Excluded emissions based on Capable of Accommodating (COA) in tpy
- ▶ Emissions Related to Project (RTP) in tpy

Federal NSR Updates – Trump Deregulation Administration

Overview of Trump Administration Approach to Reform

- ▶ Jan 24, 2017: Presidential Memorandum “Streamlining Permitting and Reducing Regulatory Burdens on Domestic Manufacturing”
- ▶ Required Dept. of Commerce to engage stakeholders on potential federal actions to streamline permitting and issue a report
- ▶ Oct 6, 2017: Dept. of Commerce Report: Streamlining Permitting and Reducing Regulatory Burdens for Domestic Manufacturing
 - Issue #1 – CWA and WOTUS
 - Issue #2 – NESHAP/NSPS
 - **Issue #3 – NSR/PSD Permits**

Review of Completed NSR Permit Policy Actions

- ▶ Completed Guidance Documents
 - Actual-to-Projected Actual Emissions Applicability Memo (12/7/17)
 - Project Emissions Accounting NSR Memo (3/13/18)
 - PM2.5 and Ozone Significant Impact Level (SIL) Guidance (4/17/18)
 - Source Determination Clarification – Common Control Interpretations
 - ◆ Meadowbrook memo to Pennsylvania DEP (4/30/18)
 - ◆ Ameresco memo to Wisconsin DNR (10/16/18)
 - Source Determination Clarification – Adjacent (11/26/19)
 - Ambient Air Policy – Effective Measures (12/10/19)
 - Plantwide Applicability Limit (PAL) Memo (8/4/20)

Review of Completed NSR Permit Policy Actions

- ▶ Completed Rulemaking
 - Project Emissions Accounting Final Rule (10/22/20)
- ▶ Completed Reconsiderations
 - Project Aggregation Reconsideration Final Rule (11/15/2018)
 - Reasonable Possibility Rule Reconsideration Response (11/5/19)



Ongoing NSR Permit Policy Actions

- ▶ Guidance Documents
 - Begin Actual Construction Final Guidance
 - Ozone and Fine Particulate Matter Permit Modeling Guidance
- ▶ Rulemakings
 - NSR Error Corrections Final Rule
 - Treatment of Biogenic CO₂ in PSD Proposed Rule
- ▶ Reconsiderations
 - Ethanol Production Major Source Proposed Rule Reconsideration

Begin Actual Construction – Final Guidance

- ▶ EPA released draft guidance on March 25, 2020: *Interpretation of “Begin Actual Construction” Under the New Source Review Preconstruction Permitting Regulations.*
- ▶ Currently, EPA considers almost every physical on-site construction activity that is of a permanent nature to constitute the beginning of “actual construction,” even where that activity does not involve construction “on an emissions unit.”
- ▶ EPA is adopting a revised interpretation that is more consistent with the regulatory text. A source owner or operator may, prior to obtaining an NSR permit, undertake physical on-site activities – including activities that may be costly, that may significantly alter the site, and/or are permanent in nature – provided that those activities do not constitute physical construction on an emissions unit.
- ▶ Comment period closed January 2020
- ▶ Final guidance expected Fall 2020

Ozone and Fine Particulate Matter Permit Modeling – Final Guidance

- ▶ 02/10/20 – EPA issued draft guidance for ozone and Fine Particulate Matter Permit Modeling. Comment period through 04/17/20
 - Updated the EPA's 2014 Guidance for PM2.5 Permit Modeling
 - Based on the 2017 updates to the EPA's Guideline on Air Quality Models
 - Based on EPA's 2019 Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and PM2.5 under the PSD Permitting Program

NSR Error Corrections - Final Rule

- ▶ Proposed rule 12/20/2019
- ▶ Correct NSR regulation typos and incorrect citations, and update the regulations to remove vacated elements
- ▶ Comment period closed January 2020
- ▶ Final rule expected Fall 2020

Treatment of Biogenic CO₂ in PSD Proposed Rule

- ▶ EPA delivered a proposed rule to the White House Office of Management and Budget on Feb. 24 focused on the treatment of biogenic carbon dioxide emissions under the Clean Air Act's permitting programs
- ▶ OMB review marks a final step before a proposed rule is released for public comment.
- ▶ A summary posted to the OMB website indicates the proposed rule “will establish the treatment of biogenic carbon dioxide (CO₂) emissions from the use of certain biomass feedstocks at stationary sources under the prevention of significant deterioration (PSD) and title V permitting programs.” The summary goes on to state that the proposed rule “will be based on the agency’s policy regarding the treatment of biogenic CO₂ emissions under the Clean Air Act.”

Ethanol Production Major Source Proposed Rule Reconsideration

- ▶ EPA excluded fuel-grade ethanol plants as chemical process plants, thus raising the major source threshold for ethanol plants from 100 tpy to 250 tpy.
- ▶ EPA denied all of the NRDC requests for reconsideration but one.
- ▶ EPA is currently considering whether the rule violates the anti-backsliding provisions of CAA section 193 with regard to nonattainment areas.

In conclusion

**What is next for
NSR Reform?
New Agenda?**

Questions



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