

Impact of Ozone Nonattainment Designations

Mark Mitchell, P.E. and Erica Wolf, J.D.
DEQ, Air Quality Division
517-284-6795 / mitchellm7@Michigan.gov
517-284-6766 / wolfe1@Michigan.gov

Helpful Acronyms

- CAA = Clean Air Act
- NAAQS = National Ambient Air Quality Standard
- SIP = State Implementation Plan
- VOC = Volatile organic compounds
- NO_x = Nitrogen oxides
- RACT = Reasonable Available Control Technology
- I/M = Inspection maintenance
- RFP = reasonable further progress
- NNSR = Nonattainment New Source Review

NAAQS and Nonattainment Process

- EPA
 - Independent Advisory board recommends NAAQS
 - Sets NAAQS Level
 - Designates nonattainment areas
- MDEQ
 - Ambient air monitoring network monitors NAAQS
 - Recommends nonattainment areas to EPA

Past Ozone Standards

Year	Standard	Michigan Attainment Status	Classification
2008	75 ppb	Attainment	–
1997	80 ppb	Nonattainment Areas	Marginal
1979	120 ppb	Nonattainment Areas	Moderate

2015 Ozone Standard

- 70 ppb
- Marginal Nonattainment Areas

Attainment Timeline

- April 2018 - Final designation of nonattainment status
- October 2018 - Infrastructure SIP
- April 2020 - Emissions: develop inventory and statement
- April 2021 - Attainment SIP/ NNSR SIP Due / Attainment Date

Current CAA Nonattainment Requirements

- NNSR Offsets of 1.1 to 1
- Attainment date in 2021
- Permeant and Enforceable measures
- Last from designation to redesignation

Nonattainment Area Classifications

- Serious
- 93 -105 ppb
- 9 years to attain
- Moderate

- 81 – 93 ppb
- 6 years to attain
- Marginal
- 71 – 81 ppb
- 3 years to attain

Marginal vs Moderate

Differences in NNSR Offsets, Attainment date, VOC and NOx RACT, 15% VOC RFP Reductions, Basic I/M Program, Stage II Gasoline Vapor Recovery

Attainment Strategy – it's a work in progress!

What Happens If We Don't Attain in 3 Years?

- Bump up to Moderate classification

What Happens If We Don't Submit a SIP?

- Federal Implementation Plan
- Sanctions
 - NNSR offset ratio of at least 2 to 1
 - Highway funding sanctions

When Does NNSR Apply?

- 60 days after published in the federal register
- Anticipated to be sometime in July, 2018
- Currently no guidance from EPA on grandfathering of in-house applications. Therefore, a Prevention of Significant Deterioration (PSD) permit must be issued by this date or be replaced by a NNSR application.

What Sources Does NNSR Apply To?

- **New major source and/or major modification of VOCs and/or NOx in a nonattainment area**
 - Traditionally ozone nonattainment only applied to VOCs, this time it applies to both VOCs and NOx
 - Major Source = 100 tons per year (TPY)
 - Major Modification = 40 TPY

Major Components of NNSR Permitting

- **Permitted under Part 19 of Michigan's Air Pollution Control Rules:**
 - Offsets
 - Lowest Achievable Emission Rate (LAER)
 - Compliance Certification
 - Alternative Site Analysis

Offsets

- to 1 ratio for Marginal Nonattainment Areas
- NOx offsets for NOx & VOCs offsets for VOCs
- Must come from the same nonattainment area
- Must be surplus, permanent, quantifiable, & federally enforceable
- Baseline Date – Assuming January 1, 2017
- Are public domain upon an a permit being voided

LAER

- Like best available control technology (BACT), an emission limit
- No economic, energy, or other environmental impacts analyses
- Most stringent emission limit achieved in practice
- Most stringent emission limit contained in a SIP
- BACT can be more restrictive than LAER

Compliance Certification

- Michigan Air Pollution Control Rule – 1908(4)
 - All other major sources owned and operated in Michigan by the same company must be in

compliance otherwise the NNSR permit cannot be approved.

Alternative Site Analysis

- An analysis of alternative sites, sizes, production processes, and environmental control techniques for a proposed source which demonstrates that the benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification.
- Very little guidance on this.

NNSR Applicability Determinations

Very Similar to Prevention of Significant Deterioration (PSD):

- Step 1
 - A2P
 - A2A
- Step 2
 - Netting
- Inclusion of fugitive emissions differs

Pre-Application Meeting

It is highly recommended that prior to submitting a NNSR application, the applicant and their consultant meet with AQD permitting staff to discuss all aspects of the application, especially LAER and the offsets to be used, prior to submittal of the application.