

Overview: PSD Permitting

2016 Georgia Environmental Conference
Jekyll Island, Georgia

NAAQS

- National Ambient Air Quality Standards = Ambient air quality standards the attainment and maintenance of which ... is requisite to protect public health.
- “Criteria” Pollutants:
 - SO₂, PM_{2.5}, PM₁₀, CO, Ozone, NO₂, Pb
- Attainment v. Nonattainment

New Source Review (NSR)

- Federal preconstruction air permitting requirements designed to attain and maintain NAAQS
- In Georgia, the NSR permitting program is administered by Georgia EPD.
- Two types:
 - Prevention of Significant Deterioration (PSD)
 - Nonattainment New Source Review

PSD Permitting Triggers

- New “major” source
- “Major modification” of existing major source
 - Physical change or change in method of operation, and
 - Significant emissions increase and significant net emissions increase of a “regulated NSR pollutant”

PSD Applicability

- Major Source? (Synthetic minor; Adjacency; Common control)
- Modification?
 - Physical Change? (RMRR)
 - Scope of the “Project”? (Aggregation)
 - Significant Change in Emissions? (NSR Reform Rule; Netting)

PSD Permitting Requirements

Best Available Control Technology (BACT)

+

Air Dispersion Modeling

+

Other Analyses

+

Public Review

=

At BEST, considerable time and expense;

At WORST, project prohibitive

PSD Modeling

- Purpose: to demonstrate that emissions from the project will not cause, or contribute to, air pollution in excess of any (1) PSD increment or (2) NAAQS.
- Modeling is often the most difficult PSD permitting requirement to satisfy.
- More stringent NAAQS will make modeling more important in future applications

PSD Modeling: 2 Steps

Step 1: Single Source Analysis

- Analysis limited to project-related emissions
- Modeled impacts screened against Significant Impact Levels (SILs)
- If impacts < SILs, then STOP

Step 2: Cumulative Source Analysis

- Off-site sources within 50+ km radius are included in analysis
- Requires emissions data from many off-site sources
- Data access and integrity is key to an efficient permit application process.

Overview: PSD Permitting

2016 Georgia Environmental Conference
Jekyll Island, Georgia