

CORRESPONDENCE/MEMORANDUM

DATE: February 22, 2016

TO: Permit Writers
Compliance Staff

FROM: Kristin Hart – Chief, Permits & Stationary Source Modeling Section

SUBJECT: 2016 Approach to Dispersion Modeling for Permits¹

As new standards are incorporated into the Wisconsin Administrative Code and the Wisconsin State Implementation Plan, they will be addressed in air pollution control permits. The procedures outlined in this document are for use in dispersion modeling in support of a permit and apply to direct emissions of coarse particulate matter (PM₁₀), fine particles (PM_{2.5}), nitrogen oxides (NO_x), sulfur dioxide (SO₂), carbon monoxide (CO), and lead (Pb).

cc: AMT
Air attorneys – LS/8

¹ This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin or the Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

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Attainment Area Sources

Major PSD Permit

(including After-The-Fact [ATF] Actions)

- Project may model below the Significant Impact Level (SIL) for the pollutants that will have a net emissions increase from the proposed project above the PSD Significant Emission Rate.
- If a SIL has not been promulgated for a standard, the lowest SIL proposed or presumed by EPA will be used until promulgation.
- If SIL cannot be met for a given pollutant, then increment (PM₁₀, PM_{2.5}, SO₂, and NO_x) and NAAQS (PM₁₀, PM_{2.5}, SO₂, NO_x, CO, and Pb) for permit applicable pollutants at the facility and at nearby facilities will be modeled following all federal and state modeling guidance.

Minor Construction Permit in Baseline County

(including ATF, Portable Source Relocation, and Requested Exemption modeling)

- For PM₁₀, NO_x, SO₂, CO, and Pb, the project may model below the respective SIL for the pollutants addressed in the permit.
- If SIL cannot be met for a given pollutant, then increment (PM₁₀, SO₂, and NO_x where applicable) and NAAQS (PM₁₀, SO₂, NO_x, CO, and Pb) for pollutants addressed in the permit at the facility will be modeled.
- Sources will be modeled against ambient air quality standards and increments promulgated in the Wisconsin Administrative Code.
- Portable sources are not modeled against the increment due to the temporary nature of the emissions.
- The Department has concluded that direct, primary PM_{2.5} emissions will not cause or exacerbate a violation of the PM_{2.5} NAAQS {refer to WDNR Dispersion Modeling Guidelines}, and therefore no modeling is performed for PM_{2.5}.

Minor Construction Permit in Non-baseline County

(including ATF, Portable Source Relocation, and Requested Exemption)

- For PM₁₀, NO_x, SO₂, CO, and Pb, project may model below respective SIL for the pollutants addressed in the permit.
- If SIL cannot be met for a given pollutant, then NAAQS (PM₁₀, SO₂, NO_x, CO, and Pb) for pollutants addressed in the permit at the facility will be modeled.
- Sources will be modeled against ambient air quality standards promulgated in the Wisconsin Administrative Code.
- The Department has concluded that direct, primary PM_{2.5} emissions will not cause or exacerbate the PM_{2.5} NAAQS {refer to WDNR Dispersion Modeling Guidelines}, and therefore no modeling is performed for PM_{2.5}.

Part 70 or Non-Part 70 Operation Initial Permit Issuance

- Increment consumption and full facility NAAQS modeling should be performed for stacks with emissions of PM₁₀, NO_x, SO₂, CO, and Pb above the inclusion level listed in s. NR 407.05, Wis. Adm. Code.
- Sources will be modeled against ambient air quality standards promulgated in the Wisconsin Administrative Code.
- The Department has concluded that direct, primary PM_{2.5} emissions will not cause or exacerbate a violation of the PM_{2.5} NAAQS {refer to WDNR Dispersion Modeling Guidelines}, and therefore no modeling is performed for PM_{2.5}.

Part 70 or Non-Part 70 Operation Permit Revision Affecting Dispersion or Increasing Emissions

- Where any changes have not been already accounted for in a corresponding construction permit, increment consumption and full facility NAAQS modeling should be performed for stacks with emissions of PM₁₀, NO_x, SO₂, CO, and Pb above the inclusion level listed in s. NR407.05, Wis. Adm. Code.
- Sources will be modeled against ambient air quality standards promulgated in the Wisconsin Administrative Code.
- The Department has concluded that direct, primary PM_{2.5} emissions will not cause or exacerbate a violation of the PM_{2.5} NAAQS {refer to WDNR Dispersion Modeling Guidelines}, and therefore no modeling is performed for PM_{2.5}.

Part 70 or Non-Part 70 Operation Permit Renewals, Previously Modeled

- If permit conditions, emission rates of PM₁₀, NO_x, SO₂, CO, and Pb, stack parameters, and ambient air quality standards are unchanged from previous issuance, or have changed such that ambient air impacts would decrease, modeling is not necessary for that pollutant.
- Where any of these have changed such that ambient air quality impacts could increase, increment consumption and full facility NAAQS modeling should be performed for stacks with emissions of PM₁₀, SO₂, NO_x, CO, and Pb above the inclusion level listed in s. NR 407.05, Wis. Adm. Code.
- Sources will be modeled against ambient air quality standards promulgated in the Wisconsin Administrative Code.
- The Department has concluded that direct, primary PM_{2.5} emissions will not cause or exacerbate a violation of the PM_{2.5} NAAQS {refer to WDNR Dispersion Modeling Guidelines}, and therefore no modeling is performed for PM_{2.5}.

Registration Permits

- Company should submit, or the Department will perform NAAQS modeling for PM₁₀, SO₂, and/or NO_x emissions in accordance with ROP/RCP guidance already in place.
- The Department has concluded that direct, primary PM_{2.5} emissions will not cause or exacerbate a violation of the PM_{2.5} NAAQS {refer to WDNR Dispersion Modeling Guidelines}, and therefore no modeling is performed for PM_{2.5}.

General Permits

- Upon development of a general permit or re-issuance of a general permit, modeling to address applicable NAAQS will be performed consistent with the provisions of s. 285.63(1)(b), Wis. Stats.
- For determining case-by-case coverage, pollutants directly addressed by the permit are modeled, but applicable Wisconsin air standards may be considered.
- The Department has concluded that direct, primary PM_{2.5} emissions will not cause or exacerbate a violation of the PM_{2.5} NAAQS {refer to WDNR Dispersion Modeling Guidelines}, and therefore no modeling is performed for PM_{2.5}.
- Decisions regarding the schedule for updating existing or developing new general permits will be made through work planning according to program priorities and available resources.

Note on Integrated Permits

For integrated permits issued together, modeling should be assessed based on the facility operation permit status as comparison to SIL applies only to construction permits.

Nonattainment Area (NAA) Sources

Major Construction Projects Requiring NR 408 Permit (including After-The-Fact [ATF] Actions)

- For the pollutant considered nonattainment, the facility is required to obtain emission offsets for the construction project at the ratio specified in Ch. NR408, Wis. Adm. Code.
- Offsets may come from anywhere in the nonattainment area, including shutdowns at the facility.
- Modeling to quantify the offset benefit may be required under current USEPA guidance.
- For other pollutants emitted by the facility, refer to the appropriate section of the modeling policy.

Minor Construction Permit

(including ATF, Portable Source Relocation, and Requested Exemptions)

- For PM₁₀, NO_x, SO₂, CO, or Pb nonattainment areas, the facility may model project emissions to be below Significant Impact Level (SIL) where applicable, obtain emission offsets, or provide a demonstration that the project meets s. 285.63(1)(b), Wisconsin Statutes.
- Offsets should be 1 ton increase to 1 ton decrease (1:1) and otherwise conform to nonattainment area guidance and any other regulations necessary to bring the area into attainment.
- The Department has concluded that direct, primary PM_{2.5} emissions will not cause or exacerbate a violation of the PM_{2.5} NAAQS {refer to WDNR Dispersion Modeling Guidelines}, and therefore no modeling is performed for PM_{2.5}.

Major/Minor Operation Permit

- Operation permits in nonattainment areas are not modeled for the non-attainment pollutant because the ambient concentrations in the area have been shown to be over the standard.
- Dispersion modeling for all other pollutants should be performed per the appropriate section of the modeling policy.
- Facilities should be informed that further regulatory action may be necessary to bring the area back into attainment, and this may occur outside the usual permit schedules.