

The attached policy, “2015 Approach to Dispersion Modeling for Permits” was developed to inform internal staff, permit applicants, and external stakeholders when dispersion modeling could be used to determine one part of approvability during review of air pollution control permits.

For a permit to be approvable by the Department, it must be shown that the permit action will not cause or exacerbate a violation of any National Ambient Air Quality Standard or Prevention of Significant Deterioration increment. Dispersion modeling is one tool that may be used to make this determination, or finding.

This draft document was developed by Department staff from policy first released in 2011. Once the 30-day public notice period is complete, all comments will be considered, revisions will be made as necessary, and the final policy will be made available to the appropriate internal staff and external stakeholders.

Comments related to this draft guidance document should be sent to John Roth, (608) 267-0805 or john.roth@wisconsin.gov.

CORRESPONDENCE/MEMORANDUM

DATE: {Final Date to be Inserted}

TO: Permit Writers
Compliance Staff

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

SUBJECT: DRAFT 2015 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 during dispersion modeling performed in support of air pollution control permits. During 2015, Air Management staff and supervisors discussed options, and formulated the attached policy. The procedures outlined in this document 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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Nonattainment Area (NAA) Sources:

Major Construction Projects that Require a Chapter NR 408 Permit (including After the Fact (ATF))

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 itself. Modeling is not required at this time, but future USEPA guidance may recommend modeling to show that offsets benefit the area in question. For any other pollutants emitted at the facility, refer to the appropriate section below.

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. The Department has concluded that direct, primary PM_{2.5} emissions will not cause or exacerbate a violation of the PM_{2.5} National Ambient Air Quality Standards (NAAQS) [{link}](#), and therefore no modeling is performed for PM_{2.5}. Facilities should conform to any regulations that are necessary to bring the area back into attainment.

Major/Minor Operation Permit

Operation permits in a nonattainment area cannot be modeled for the non-attainment pollutant because the ambient concentration in the area has been shown to be over the standard. Dispersion modeling for all other pollutants should be performed per the Attainment Area policy. Non-attainment pollutant 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.

Attainment Area Sources:

Major PSD Permit (including ATF)

Project may model below the Significant Impact Level (SIL) for the pollutants that will have a significant net emissions increase from the proposed project. If SIL cannot be met, increment and NAAQS (traditional standards plus PM_{2.5}, 1-hour SO₂, and 1-hour NO₂) for those reviewed pollutants for all nearby sources should be modeled. If a SIL has not been promulgated for a standard, the lowest SIL proposed or presumed by EPA will be used until promulgation. Increment will not be considered until baselines are set for the pollutant. If the SIL is not met in an analysis for PSD for a pollutant without an increment standard, the facility (and nearby sources) will have to model against the NAAQS.

Minor Construction Permit, Baseline County (including ATF, Portable Source Relocation, and Requested Exemption modeling)

For PM₁₀, NO_x, SO₂, CO, and Pb, the project may model below applicable SIL; otherwise all increment sources plus single facility NAAQS should be modeled for all pollutants that have an ambient air quality standard promulgated in the Wisconsin Administrative Code. Increment will not be considered until baselines are set for the pollutant. If the SIL is not met in an analysis for a pollutant without an increment standard, the facility will have to model against the NAAQS. 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 [{link}](#), and therefore no modeling is performed for PM_{2.5}.

Minor Construction Permit, Non-baseline County (including ATF, Portable Source Relocation, and Requested Exemption)

For PM₁₀, NO_x, SO₂, CO, and Pb, project may model below applicable SIL, otherwise single facility NAAQS should be modeled. If the SIL is not met in an analysis for a pollutant, the facility will have to model against the NAAQS. The Department has concluded that direct, primary PM_{2.5} emissions will not cause or exacerbate the PM_{2.5} NAAQS [{link}](#), 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 PM₁₀, NO_x, SO₂, CO, and Pb, where applicable. The Department has concluded that direct, primary PM_{2.5} emissions will not cause or exacerbate a violation of the PM_{2.5} NAAQS {link}, and therefore no modeling is performed for PM_{2.5}.

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

Increment consumption and full facility NAAQS modeling should be performed for PM₁₀, NO_x, SO₂, CO, and Pb, where applicable. The Department has concluded that direct, primary PM_{2.5} emissions will not cause or exacerbate a violation of the PM_{2.5} NAAQS {link}, 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 could decrease, modeling is not required. Where any of these have changed such that ambient air quality impacts could increase, applicable pollutants and averaging periods should be modeled, including increment consumption and full facility NAAQS. The Department has concluded that direct, primary PM_{2.5} emissions will not cause or exacerbate a violation of the PM_{2.5} NAAQS {link}, and therefore no modeling is performed for PM_{2.5}.

Registration Permits

Company should submit, or the Department will perform NAAQS modeling for PM₁₀ (and/or SO₂, NO_x) 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 {link}, 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 all applicable Wisconsin air standards could be considered. 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.