



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
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AUG 26 2015

Ms. Kristin Hart  
Chief  
Permits and Stationary Source Modeling Section  
Bureau of Air Management  
Wisconsin Department of Natural Resources  
PO Box 7921  
Madison, Wisconsin 53707-7921

REPLY TO THE ATTENTION OF:

Dear Ms. Hart:

The U.S. Environmental Protection Agency has reviewed the Wisconsin Department of Natural Resources' (WDNR) draft "Guidance for Including PM<sub>2.5</sub> (Particulate Matter of less than 2.5 Micrometers) in Air Pollution Control Permit Applications". EPA has some concerns with WDNR's guidance, particularly with WDNR's conclusions that "PM<sub>2.5</sub> emissions will not be estimated in an air permit review for fugitive dust sources, mechanical handling, grain handling, and other low temperature particulate sources."

EPA is also concerned by WDNR's statement that "Permit applicants should assume that mechanical processes such as crushing, grinding, sanding, sizing, evaporation of sprays, suspension of dusts, etc. are not sources of PM<sub>2.5</sub> emissions and not include PM<sub>2.5</sub> emission estimates for these types of sources in the application. This includes applications for all permit types including non-Title V and Title V operation permits, registration and general permits, minor source construction permits, and PSD (Prevention of Significant Deterioration) and NAA (Nonattainment Area) major source construction permits."

EPA's May 20, 2014, "Guidance for PM<sub>2.5</sub> Permit Modeling" provides "that each permitting action will be considered on a case-by-case basis". Therefore, a blanket PM<sub>2.5</sub> exemption cannot be given to exempt such a broad range of source types from permitting requirements. All sources need to evaluate their emissions of PM<sub>2.5</sub> for major source applicability. While some sources with mechanical processes or fugitive dust may have low or negligible emissions of PM<sub>2.5</sub>, this should be determined on a case-by-case basis. There have been numerous PM<sub>2.5</sub> studies by EPA, academic institutions, and industry groups which demonstrate that emissions of PM<sub>2.5</sub> from mechanical processes are not all zero. Some examples include the April 2003 Emission Factor Documentation for AP-42 Final Report for Emissions from Grain Elevators and Grain Processing Plants<sup>1</sup>, the November 2, 2001 Emission Factors for Barges and Marine Vessels Final Test Report<sup>2</sup>, and the "TEOM-Based Measurement of Industrial Unpaved Road PM<sub>10</sub>, PM<sub>2.5</sub>, AND PM<sub>10-2.5</sub> Emission Factors" by John Hayden, Vice President for Environmental Affairs, National Stone, Sand & Gravel Association, and John Richards,

<sup>1</sup> <http://www.epa.gov/ttn/chief/ap42/ch09/bgdocs/b9s0909-1.pdf>

<sup>2</sup> [http://www.epa.gov/ttn/chief/ap42/ch09/related/rel\\_c09s0901.pdf](http://www.epa.gov/ttn/chief/ap42/ch09/related/rel_c09s0901.pdf)

President, Air Control Techniques<sup>3</sup>, which provided continuous, real time measurement of PM<sub>10</sub> and PM<sub>2.5</sub> concentrations and found that a percentage of the PM emitted was in fact PM<sub>2.5</sub>. (“TEOM” is tapered electrode oscillating microbalance, and “PM<sub>10</sub>” is Particulate Matter of less than 10 Micrometers.)

WDNR’s guidance refers to a *de minimis* level for PM<sub>2.5</sub>, “This memo offers guidance to permit applicants on when it is appropriate to assume that a given emissions unit emits PM<sub>2.5</sub> emissions above *de minimis* levels...” However, it is unclear what *de minimis* level WDNR is referencing. The Significant Monitoring Concentration for PM<sub>2.5</sub> was vacated and the Significant Impact Level for PM<sub>2.5</sub> was repealed as a result of the January 22, 2013 US Court of Appeals for the District of Columbia Circuit's decision. The significant emissions rate, which is used to determine PSD and Nonattainment New Source Review (NSR) applicability, is not intended to be compared to emissions from individual units, but rather is to be compared to the sum of all emission increases from each unit affected by any given project. While the PM<sub>2.5</sub> emissions from mechanical processes alone may not result in a significant emissions rate, a project involving multiple emission units, for example both a mechanical process and a combustion unit, may together necessitate PSD review. For this reason it is essential that PM<sub>2.5</sub> emissions be evaluated on a case-by-case instead of assuming that PM<sub>2.5</sub> emissions are zero for all mechanical processes.

Further, fugitive PM emissions, including PM<sub>2.5</sub> are required to be included in calculating the potential to emit of certain stationary sources. These sources include any belonging to one of the 28 named PSD source categories explicitly listed in section 169 of the Clean Air Act (Act) as being subject to a 100 tons per year emissions threshold for classification of major sources and, according to 40 C.F.R. 52.21(b)(1)(iii)(aa) "any other source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act." This is important because fugitive emissions can determine whether a source is a major source for purposes of NSR.

Additionally, the major NSR regulations are intended to require each unit that emits the pollutant for which the overall project emissions exceed the significance rate to undergo Best Available Control Technologies (BACT) or Lowest Achievable Emissions Rate (LAER) review, regardless of whether the individual unit’s emissions are significant on their own. It is not appropriate to broadly state that PM<sub>2.5</sub> emission limits, including BACT or LAER, will not be established for mechanical processes. (“Since mechanical processes are not considered significant sources of PM<sub>2.5</sub> emissions, no PM<sub>2.5</sub> limitations for these types of emission units will be included in permits for major PSD sources or major modifications to PSD sources.”) Rather, if PSD is triggered, a BACT or LAER analysis should be conducted on a case-by-case basis for each unit whose emissions contribute to the net emissions increase of the project.

Overall, EPA does not believe that a broad statement that mechanical processes do not emit PM<sub>2.5</sub> is accurate or appropriate. EPA believes that such an assumption may cause WDNR to issue permits that are inconsistent with its State Implementation Plan and with the federal major NSR program. EPA urges WDNR to revise this guidance so that it does not apply to major NSR or affect how major NSR applicability is determined.

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<sup>3</sup> <http://www.epa.gov/ttnchie1/conference/ei14/session7/hayden.pdf>

We appreciate the opportunity to review WDNR's guidance documents and we look forward to working with you to address them. If you have any questions, please feel free to contact Susan Kraj, of my staff, at (312) 353-2654.

Sincerely,

A handwritten signature in cursive script that reads "Genevieve Damico".

Genevieve Damico  
Chief  
Air Permits Section

Cc: Kevin L. Gunderson, Environmental Specialist  
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