

DEPARTMENT: POLLUTION CONTROL AGENCY

STATE OF MINNESOTA
Office Memorandum

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SUBJECT: Interim Paved Roads Modeling Practice

The Minnesota Pollution Control Agency (MPCA) practices around modeling paved roads have evolved through the years. In 2011, the MPCA released a memo on Air Quality Policy on Paved Roads and Fugitive Particulate Matter. This memo noted that under specific circumstances, the MPCA would no longer require the inclusion of paved road fugitive PM emissions in air quality modeling analyses that support air quality permitting or environmental review. In 2016, issues with the memo were found and began to be evaluated internally and in 2018, during the July 12 Air Quality Dispersion Modeling Open House, issues with the memo were discussed and a proposal was made to no longer follow the 2011 memo and instead follow new working practices that would focus on control of dust from paved roads through enforceable dust management plans.

In 2020, as a result of EPA statements about its expectations for modeling demonstrations, including paved roads, MPCA staff felt unable to defend the current best management practices approach. As a result a change was made to the 2020 modeling practices manual stating that "MPCA now expects paved roads to be included in the list of volume sources to be modeled. Base the emission rates on calculations using the most appropriate emission factor and averaging times. The facility may apply control efficiencies based on control strategies outlined in a federally enforceable fugitive dust control plan." As facilities have begun to implement these new practices, they have had questions around the emissions calculations and the types of activities to include. Air Quality Permits and Air Assessment leadership recognize that clearer practices and instructions need to be developed as well as a more formal update to the 2011 Air Quality Policy on Paved Roads and Fugitive Particulate Matter memo. However, this will take time. Until a final version of this practice is developed, the interim practice introduced in late 2020 will supersede all previous memos and practices.

Interim practices for facility and project modeling

- Calculated emissions should include all activities reasonably related to ongoing production. Facilities may omit calculating and modeling emissions from daily employee commuting and administrative visitor traffic.
- Emissions from vehicles delivering materials used in the process and from vehicles transporting materials resulting from the process (including products, byproducts, and wastes) should be included as well as emissions from activities that support the production activities.
- It is anticipated that lots used exclusively for employee parking may be omitted from the calculations. Emissions from portions of a parking lot used for process-related deliveries will generally need to be calculated.

Working Practice Memorandum performance

The *Working Practice Memorandum* concept was designed as a method to bring new techniques and practices to air quality dispersion modeling practitioners for use and evaluation. The MPCA presents this information based on the validity and reliability of the underlying literature and practices; however, it also recognizes that it may not be suitable in all situations all of the time. We invite users to send their feedback to the MPCA Risk Evaluation and Air Modeling (REAM) unit via our email address: AirModeling.PCA@state.mn.us. Based on user feedback and MPCA experience with project review and effectiveness, a decision will be made to either adopt the practice as presented, modify the practice and continue with the *Working Practice Memorandum*, or, remove the practice entirely.

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