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| Minnesota Pollution Control Agency (MPCA), 520 Lafayette Road North, St. Paul, MN 55155-4194 | CH-20  Evaluation of Ambient Air Quality Impacts  Air Quality Permit Program  *Doc Type: Permit Application* |

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| **1a)** AQ Facility ID number: | |  | **1b)** Agency Interest ID number: |  |
| **2)** Facility name: |  | | | |

Answer the questions on this form to determine how potential ambient air quality impacts will be addressed for your project. The pollutants that will be evaluated are PM10, PM2.5, SO2, NO2, and Lead. Answer each question sequentially. See below for form instructions.

1. Which pollutants have equivalent or better (EBD) or re-modeling requirements in your current permit? Check all boxes that apply.

PM10

PM2.5

SO2

NO2

Lead

None.

1. Which remaining pollutants (those not selected in Question 3) have emissions increases greater than the thresholds as determined in Part C of form CH-19? Check all boxes that apply.

PM10

PM2.5

SO2

NO2

Lead

None. Done with this form.

1. Are the emissions increases below the significant impact level (SIL) using AERSCREEN for all pollutants that were indicated in question 4?

Yes. Done with this form. Include the AERSCREEN documentation with your permit application.

No. Only the following pollutants were below the SIL:

Include the AERSCREEN documentation with your permit application. These pollutants do not have to be considered further.

No. I chose not to use AERSCREEN or could not demonstrate that the emissions increases were below the SIL using AERSCREEN for any of the pollutants indicated in Question 4.

1. Did you submit an applicability determination request and did the MPCA agree that the project or facility is unlikely to cause or contribute to an exceedance of the NAAQS or MAAQS for all remaining pollutants?

Yes. Done with this form. Include the MPCA response to your applicability determination request with the permit application.

No. The MPCA response to my applicability determination request only covered the following pollutants:

Include the MPCA response to your applicability determination request with the permit application. These pollutants do not have to be considered further.

No. I submitted an applicability determination request, but the MPCA did not agree that the project is unlikely to cause or contribute to an exceedance of the NAAQS/MAAQS for any of the remaining pollutants.

No. I did not submit an applicability determination request.

1. A demonstration must be completed for all remaining pollutants using one or a combination of the following methods. Select the option(s) chosen and indicate which pollutant(s) the option is being used for. See below for definitions and see the instructions for the documents that must be included with your permit application for each option chosen.

A Project SIL Analysis demonstrating impacts are below the SIL for the following pollutants:

A Cumulative Impact Analysis (CIA) demonstrating impacts are below the NAAQS/MAAQS for the following pollutants:

A passing EBD analysis for the following pollutants:

Ambient air monitoring for the following pollutants (Note: A pre-application meeting is required if you choose this option):

# Instructions for Form CH-20

**1a) AQ Facility ID number --** Fill in your Air Quality (AQ) Facility Identification (ID) Number. This is the first eight digits of the permit number for all permits issued under the operating permit program.

**1b) AQ File number --** Fill in your AQ File Number. This number can be found in the “cc” line of correspondence from the Minnesota Pollution Control Agency (MPCA).

**2) Facility name --** Enter your facility name.

**3)** Review your permit for equivalent or better (EBD) or full dispersion modeling requirements for PM10, PM2.5, SO2, NO2, and/or Lead. These requirements are generally at the TFAC level of the permit. If equivalent or better (EBD) or full dispersion modeling requirements are in your permit for PM10, PM2.5, SO2, NO2, or Lead, then that pollutant or pollutants do not need to be considered in the remainder of the form. Indicate the pollutants that have EBD or re-modeling requirements in your current permit or select None if no EBD or re-modeling requirements exist in your current permit for any of the pollutants being considered.

**4)** For the remaining pollutants (PM10, PM2.5, SO2, NO2, or Lead that were not eliminated in Question 3), indicate which ones have emissions increases above the thresholds in Part C of form CH-19. These pollutants will be evaluated further. If no pollutants remain, then check “None” and you are done with this form.

**5)** The use of AERSCREEN for the purposes of this form is optional and only applies to specific types of changes. If you would like to use this option, then go to the instructions for completing AERSCREEN, follow the instructions for completing the analysis, and indicate the results in Question 5. If the emissions increase of any of the pollutants indicated in Question 4 are less than the Significant Impact Level (SIL) using AERSCREEN, then no further analysis will be required for those pollutants. For any pollutants that are below the SIL using AERSCREEN, include the documentation required by the AERSCREEN instructions with your permit application. If you choose not to use AERSCREEN, or the results for none of the pollutants are below the SIL using AERSCREEN, choose the second “No” and move to question 6 of this form.

**6)** For the remaining pollutants, you may choose to submit an applicability determination request explaining why the project (or the total facility including the project) is unlikely to cause or contribute to an exceedance of the NAAQS or MAAQS. If you would like to use this option, then submit an applicability determination request following the instructions on form CH-16: Applicability determination request (aq-f2-ch16). Record the results of the applicability determination request in Question 6. If the MPCA agrees with your explanation in the response letter to your request for all remaining pollutants, then no further demonstration will be required. If the MPCA does not agree, agrees only in part, or you choose not to use this option, then move on to Question 7 for any remaining pollutants.

**7)** For any remaining pollutants that were not eliminated previously, a demonstration is required using the options listed in Question 7. For each pollutant that remains, select the option chosen and list the pollutant or pollutants for which that option was used. Include the following documents with your permit application for each option chosen.

* **Project SIL Analysis.** The application must include the results of the SIL modeling from an approved modeling protocol.
* **Cumulative Impact Analysis.** The application must include the results of the cumulative modeling from an approved modeling protocol.
* **EBD analysis.** The application must include the AQDM-08 report form and any accompanying required information.
* **Ambient air monitoring.** The application must include an MPCA-approved monitoring plan. Contact [aq.questions.mpca@state.mn.us](mailto:aq.questions.mpca@state.mn.us) for questions about a monitoring plan.

**Definitions:**

**Project SIL Analysis:** The following definition of **Project SIL Analysis** applies when using this form. The Permittee may analyze the ambient impacts from the project by modeling the increases in emissions from the planned project. Do not include emission decreases associated with the project in the modeling analysis. If the modeled ambient impact from the analysis is below the Significant Impact Level for the pollutant and averaging time, no further analysis is needed.

There is currently no SIL value for lead, so a project SIL analysis cannot be performed for lead. A different alternative must be selected.

**Cumulative Impact Analysis:** Refined modeling of the facility (including all changes being applied for) and all nearby sources identified to significantly affect air quality. The modeled impacts are added to appropriate background concentrations. If the overall impacts are less than the appropriate ambient air quality standard, the emissions from the facility are determined not to adversely affect ambient air quality.

**EBD analysis:** An Equivalent or Better Dispersion (EBD) analysis may be appropriate for a project if the facility previously established baseline modeling with an approved cumulative impact analysis. An EBD analysis assesses ambient impacts from the project and adds the results to previous modeling results.

Please refer to the modeling practices manual at <https://www.pca.state.mn.us/business-with-us/air-quality-modeling> for more information. MPCA-approved baseline modeling completed within the past five years is generally considered satisfactory. If the baseline modeling is more than five years old, please consult with MPCA air quality modeling in advance of the EBD submittal by emailing them at [Airmodeling.pca@state.mn.us](mailto:Airmodeling.pca@state.mn.us).

**Ambient air monitoring:** Compliance-level ambient monitoring may be used. There are specific requirements for compliance level monitoring, including siting and quality assurance, which can be discussed with the appropriate MPCA staff members.