

# AERA process

This document is a guide as to what documents and information is required at the protocol and report stage of an AERA process. More information on the AERA process can be found in our guidance document (<https://www.pca.state.mn.us/sites/default/files/aq9-18.pdf>). There are two parts to the AERA process the protocol and the report stage. An AERA process begins at the protocol stage. Once an AERA is “Approved” or “Conditionally Approved” it will advance to the report stage.

## Protocol stage

The protocol stage is the first step in the AERA process. During this stage, all the required forms/spreadsheets and modeling files are needed. Forms can be found on our website at: <https://www.pca.state.mn.us/business-with-us/air-emissions-risk-analysis-aera>. Below is a detailed list of applicable forms required for the submittal:

1. AERA-01: Deliverable checklist ([aq9-01](#))
2. AERA-02: Qualitative information ([aq9-02](#)) **Note: Guidance for this form can be found here: [AERA-02 guidance](#)**
3. AERA-03: Dispersion factor analysis ([aq-03](#))
4. AERA-05: Emissions ([aq-05](#))
5. AERA-24: AERA certification ([aq9-24](#))
6. Air emissions risk assessment screening spreadsheet (RASS) ([aq-22](#))
7. GI-02: Process flow diagram ([aq-f1-gi02](#))
8. GI-03: Facility and stack/vent diagram ([aq-f1-gi03](#))

If applicable:

1. AERA-04: Emergency internal combustion engine certification ([aq-04](#))
2. AERA-13: Ethanol determination checklist ([aq9-13](#))
3. AERA-19: Cumulative air risk analysis form ([aq9-19](#)) **Note: This form is needed if an EAW is being completed for the facility. An example of this form can be found here: [AERA-19 Example](#)**
4. AERA-26: Refined HHRAP-based analysis form ([aq9-26](#))
5. AERA-27: MPCA Mercury Risk Estimation Method (MMREM) form ([aq9-27](#))

If a facility is located in the Cumulative Levels and Effects statute (CL&E) area ([Minn. Stat. § 116.07, subd. 4a](#)) additional documents are required:

1. Q/CHI analysis methodology as required by process document
  - Contact the agency at [AirToxics.PCA@state.mn.us](mailto:AirToxics.PCA@state.mn.us) for a current copy of the spreadsheet

For new or expanded facilities with taconite production, secondary metal processors, the combustion of fuels in electricity generating stations and industrial boilers (except when burning only natural gas), and sewage sludge/garbage/municipal incineration the following form is required:

1. HG-01: Mercury releases to ambient air ([aq-f11-hg01](#))

Additionally, the project proposer may be asked to address potential adverse impacts to nearby bodies of water from their mercury emissions. More information on MPCA's Mercury Risk Estimation Method (MMREM) for the Fish Consumption Pathway can be found on our website, but can also be found at this link:

<https://www.pca.state.mn.us/sites/default/files/aq9-16.pdf>. If the project proposer is asked to evaluate nearby bodies of water, the following spreadsheet is required:

1. Calculations of local mercury hazard quotients from mercury emissions from a project ([aq9-17](#))

In addition to the forms/spreadsheets listed above, modeling files are also required at the protocol stage as distinct files (not embedded). Modeling files required are: input, output, terrain, building, and meteorology files. Furthermore, listed are some items that should be taken into consideration when modeling:

1. **All** stacks at the facility must be modeled. This includes stacks that are already present at the facility and may not be apart of an EAW.
2. Make sure emission rates are at 1 g/s.
3. Receptors should be placed on a discrete Cartesian grid. Furthermore, receptors should go out to at least 10km from the property boundary. (For more information on receptors, please reference the [MPCA Air Dispersion Modeling Practices](#)).
4. Some insignificant activities (such as tanks) as described in Minn. R. 7007.1300 are not considered an insignificant activity for an AERA process. Refer to the [AERA guidance](#) for more information, and make sure to include these sources in modeling.

## Report stage

Once a protocol is deemed "Approved" or "Conditionally Approved" then the project can move to the report stage. The report stage is very similar to the protocol stage, but during this stage all results are considered final. The same forms, spreadsheets, and modeling files listed above for the protocol stage are also required for the report stage.

For any questions on this process, please email the Air Toxics inbox at [AirToxics.PCA@state.mn.us](mailto:AirToxics.PCA@state.mn.us).