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# **Guidance Regarding Application Materials for New Source Review Licenses at Major Sources**

The Maine Department of Environmental Protection (the Department) has developed this guidance document to describe the materials that must be included in an application for a New Source Review (NSR) license for sources that are classified as a major stationary source of air pollutants (major sources).

Owners/operators who wish to construct, install, and operate a new major source or a modification at an existing major source must obtain an NSR license from the Department prior to beginning actual construction (for minor modifications) or commencing construction (for new major sources and major modifications). See <u>Guidance Regarding Construction Activities</u>.

NSR licenses are processed pursuant to *Major and Minor Source Air Emission License Regulation*, 06-096 C.M.R. ch. 115, and are separate and distinct from Part 70 licenses (also known as Title V licenses) issued pursuant to *Part 70 Air Emission License Regulation*, 06-096 C.M.R. ch. 140.

## A. Types of NSR Licenses

There are four types of NSR licenses applicable to major sources. They include New Major Source, Major Modification, Minor Modification, and Minor Revision. Each are listed below with the applicable application components required for each license type. More detailed requirements for each application component are addressed in section B of this guidance.

#### 1. New Major Source

Applications for a New Major Source must include the following components:

- a. Definition of the Project Required
- b. Project Emissions Accounting Required
- c. BACT Analysis Required
- d. LAER Analysis Required for New Major Sources of  $NO_x$  and/or VOC located within the Ozone Transport Region
- e. Identification of Offset Credits Required for New Major Sources of  $NO_x$  and/or VOC located within the Ozone Transport Region
- f. Ambient Air Dispersion Modeling Analysis and Growth Analysis Required
- g. Compliance Monitoring Methods Required



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- h. Applicable Requirements Encouraged
- i. Construction Schedule Required
- j. Application Forms Required
- k. Title, Right, or Interest Required
- I. Publication of Public Notice of Intent to File Required
- m. Copy of the Application Package Provided to EPA Region 1 Required
- n. Certification by the Responsible Official Required
- o. Application Fees Required

## 2. Major Modification

Applications for a Major Modification for existing minor or major sources must include the following components:

- a. Definition of the Project Required
- b. Project Emissions Accounting Required
- c. BACT Analysis Required
- d. LAER Analysis Required for Major Modifications of  $NO_x$  and/or VOC located within the Ozone Transport Region
- e. Identification of Offset Credits Required for Major Modifications of  $NO_x$  and/or VOC located within the Ozone Transport Region
- f. Ambient Air Dispersion Modeling Analysis and Growth Analysis Required
- g. Compliance Monitoring Methods Required
- h. Applicable Requirements Encouraged
- i. Construction Schedule Required
- j. Application Forms Required
- k. Public Notice of Intent to File Required



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- I. Copy of the Application Package Provided to EPA Region 1 Required
- m. Certification by the Responsible Official Required

## 3. Minor Modification

Applications for a Minor Modification must include the following components:

- a. Definition of the Project Required
- b. Project Emissions Accounting Required
- c. BACT Analysis Required
- d. Ambient Air Dispersion Modeling Analysis May be required depending on the size and type of emissions increases
- e. Compliance Monitoring Methods Encouraged
- f. Applicable Requirements Encouraged
- g. Construction Schedule Encouraged
- h. Application Forms Required
- i. Public Notice of Intent to File Required
- j. Certification by the Responsible Official Required

## 4. Minor Revision

Applications for a Minor Revision must include the following components:

- a. Minor Revision Request Letter Required
- b. Applicable Requirements Encouraged
- c. Construction Schedule Encouraged
- d. Application Forms Not required but contact information is encouraged
- e. Certification by the Responsible Official Required



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## **B.** License Application Components

The following paragraphs provide additional detail about each potentially applicable application component, when it may be required, and what must be included.

#### 1. Definition of the Project

The application must define the project. The applicant should provide a narrative description of the project as a whole as well as identify all emissions units and processes that are part of the project. The applicant must describe the nature and location of the project and project as well as any other information the Department may require.

The applicant must identify all of the project-affected emissions units and state whether they are "new" or "existing" units. A project-affected emissions unit is any new unit installed as part of the project, any existing unit that is physically modified as part of the project, or any existing unit that will experience an increase in feed, production, or fuel use, or a change in raw material.

Under NSR definitions, an emissions unit is considered a "new" emissions unit if it has operated for less than two years. Keep in mind that only new emissions units that are part of the project are considered project-affected emissions units. For example, a boiler that began operation 8 months ago is considered a new emissions unit, but it is only a project-affected emissions unit if was installed, modified, or will see increased usage as part of the current project being addressed.

If an emissions unit has operated for more than two years, it is considered an existing unit.

If an emissions unit is being removed <u>as part of the project</u>, the applicant is encouraged to consider it a project-affected emissions unit.

#### 2. Project Emissions Accounting

Applications for New Major Sources, Major Modifications, and Minor Modifications must include a section that addresses the project emissions accounting. This is where the applicant determines the project emissions increases or net emissions increases, as applicable. The project emissions accounting should be determined as outlined below.

a. Determine Baseline Actual Emissions (BAE) for each project-affected emissions unit.

New emissions units, including emissions units on-site and operating prior to the project but installed less than two years ago, must use zero ton per year (tpy) for BAE.

BAE for existing emissions units is based on the average annual emissions over a consecutive 24-month period within the ten years prior to submittal of the application. For projects that



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include an electric utility steam generating unit, the lookback period is five years instead of ten years.

The applicant may choose to use any consecutive 24-month period within the ten- or five-year lookback period, as applicable. For simplicity, applicants often choose two consecutive calendar years in order to use their annual emissions inventory submission as their basis for BAE. The applicant may choose a different 24-month period for each pollutant or the same 24-month period for all pollutants.

The applicant must explain any instances where an emissions unit's BAE do not align with what was previously reported to the Department. For example, the applicant may want to recalculate emissions of  $PM_{10}$  to include condensable particulate matter if emissions of only filterable particulate matter had previously been reported. The applicant must explain how emissions were recalculated and why.

The BAE numbers should be broken down by emissions unit and totaled by pollutant. The applicant may include emissions from emissions units being removed as part of the project.

b. Determine the Post-Project Emissions for each project-affected emissions unit.

New emissions units, including project-affected emissions units on-site and operating but installed less than two years ago, must use the emissions unit's potential to emit (PTE) for post-project emissions.

For existing emissions units, the applicant may elect to use PTE for post-project emissions. This is considered the most conservative approach. The applicant may also elect to use projected actual emissions (PAE).

PAE are the maximum actual annual emissions anticipated to occur in any one of the five years (12-month periods) following the date existing units resume regular operation after the project or any one 12-month period in the ten years following if the project involves increasing the unit's design capacity or its potential to emit of a regulated pollutant.

The post-project emissions should be broken down by emissions unit and totaled by pollutant.

## c. Determine emission adjustments. (Optional)

An applicant may exclude from PAE any emissions that an existing project-affected emissions unit (1) could have accommodated during the baseline period and (2) are unrelated to the current project. This is known as the Demand Growth Exclusion. Only emissions that meet <u>both</u> criteria can be deducted from PAE. The burden of proof is on the applicant to show that both criteria are met. That justification and an accounting of the excluded emissions must be included in the application.



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## d. Determine the Project Emissions Increases

Subtract BAE and any excludable emissions from the post-project emissions on a pollutant-by-pollutant basis. Compare the result to the Significant Emissions Increase levels as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100, as shown below.

	Significant Emissions Increase
Regulated Pollutant	(tpy)
Particulate Matter (PM)	25
PM <sub>10</sub>	15
PM <sub>2.5</sub>	10*
Sulfur dioxide	40
Nitrogen oxides	40
Nitrogen oxides (as precursor to ozone)	40
Carbon monoxide	100
Ozone -measured as VOC or NO <sub>x</sub>	40
Ozone (measured as VOC) in the OTR	40
Lead	0.6
Fluorides	3
Sulfuric acid mist	7
Hydrogen sulfide (H₂S)	10
Total reduced sulfur	10
(including H₂S)	
Reduced sulfur compounds	10
(including H <sub>2</sub> S)	
MWC organics	3.5 x 10 <sup>-6</sup>
(Municipal Waste Combustor emissions	
measured as total tetra-through	
octachlorinated dibenzo-p-dioxins and	
dibenzofurans)	
MWC metals	15
(measured as particulate matter)	
MWC acid gases	40
(measured as SO <sub>2</sub> and HCl)	
Municipal solid waste landfill emissions	50
(measured as nonmethane organic	
compounds)	

<sup>\* 10</sup> tpy of direct emissions; 40 tpy  $SO_2$  emissions; 40 tpy  $NO_x$  emissions unless demonstrated not to be a  $PM_{2.5}$  precursor under 40 C.F.R. Part 51.166(b)(49).

If the project emission increases are below the significant emissions increase levels for all regulated pollutants, the project is minor, and the analysis can stop here.



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If the project emission increases are equal to or greater than the significant emissions increase levels for one or more regulated pollutants, the applicant may choose to consider the project to be major, and the analysis can stop here.

If the project emission increases are equal to or greater than the significant emissions increase levels for one or more regulated pollutants, the applicant may also elect to proceed to netting, sometimes referred to as "Step 2" of the analysis. The only reason to continue to Step 2 would be if the applicant wishes to attempt to "net out" of major new source review permitting, also known as PSD permitting.

## e. Netting (Optional)

Determine <u>all</u> creditable contemporaneous increases and decreases on a pollutant by pollutant basis. Sum project emissions increases with all creditable contemporaneous emissions increases and decreases.

If the net emissions increases are below the significant emissions increase levels for all regulated pollutants, the project is minor.

If the net emissions increases are equal to or greater than the significant emissions increase levels for one or more regulated pollutants, the project is major.

It is uncommon for NSR applications in Maine to include a netting analysis. Facilities typically either propose emission limits to ensure the project remains minor or they proceed with PSD permitting without attempting netting. If a facility is considering including netting in their project emissions accounting, they are encouraged to meet with the Department first to discuss the process.

## f. Greenhouse Gases

If the application is for a New Major Source or Major Modification for an NSR pollutant, other than greenhouse gases (GHGs), the applicant must similarly determine the project emissions increase of GHGs. If the project emissions increase (or net emissions increase) of GHGs exceeds 75,000 tpy of carbon dioxide equivalent ( $CO_2e$ ), the project is also major for GHGs. If the project is major for GHGs, the applicant must include GHGs in the BACT analysis as described below.

## 3. BACT Analysis

Applications for New Major Sources, Major Modifications, and Minor Modifications must include a Best Available Control Technology (BACT) analysis for all new or modified emissions units. BACT is an emission limitation (including visible emissions standards) that is based on the maximum degree of reduction which is achievable for each pollutant taking into account energy, environmental, and economic impacts and other costs.



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A BACT analysis is not required for existing emissions units that are considered project-affected emissions units unless they are also physically modified by the project.

A BACT analysis is not required for pollutants subject to a LAER analysis as described below.

A BACT analysis is not required for GHGs unless the project is major for GHGs as described in the Project Emissions Accounting section above.

For more information on conducting a BACT analysis, see guidance documents authored by the <u>Northeast State for Coordinated Air Use Management</u> and the <u>Department's Bureau of Air Quality</u> available on the Department's website.

## 4. LAER Analysis

Applications for New Major Sources or Major Modifications that are major for either  $NO_x$  or VOC and that are located inside the Ozone Transport Region must include a Lowest Achievable Emission Rate (LAER) analysis. If the project is major for only one pollutant (i.e.,  $NO_x$  or VOC), LAER is only required for that pollutant, and BACT would be required for the pollutant that is not major. LAER is the most stringent emission limitation that has been achieved in practice.

More information about conducting a LAER analysis is available on **EPA's website**.

## 5. Identification of Offset Credits

Applications for New Major Sources or Major Modifications that are major for either  $NO_x$  or VOC and that are located inside the Ozone Transport Region must include a demonstration that the applicant has complied with the applicable provisions of *Growth Offset Regulation*, 06-096 C.M.R. 113.

## 6. Ambient Air Dispersion Modeling Analysis and Growth Analysis

All applications for New Major Sources and Major Modifications must include an ambient air quality analysis, including a growth analysis, conducted pursuant to 06-096 C.M.R. ch. 115, § 7. An air quality dispersion modeling protocol must be submitted to the Department for review and approval prior to submittal of the final analysis with the application package.

The protocol must be submitted at least 30 days prior to the anticipated date of application submittal. Any comments from the Department on the protocol must be addressed, and the Department may require resubmittal of the protocol for an additional review. Applicants should allow adequate time for this process to occur prior to submittal of the application package.



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It is highly recommended that any applicant required to conduct an ambient air dispersion modeling analysis meet with the Department early on to discuss requirements of the protocol and final analyses.

An ambient air dispersion modeling analysis <u>may</u> be required for applications for Minor Modifications at an existing major source. This determination is at the Department's discretion and is dependent on many factors including whether the project includes any new equipment or increase in the size of existing equipment, the size of the affected equipment, and the likelihood the change could cause or contribute to violations of ambient air quality standards. Applicants should check with the Department prior to submitting an application for a Minor Modification to confirm whether an ambient air dispersion modeling analysis is required.

An ambient air dispersion modeling analysis is not required for applications for Minor Revisions.

## 7. Compliance Monitoring Methods

Applications for New Major Sources and Major Modifications must describe all process control, compliance monitoring devices or activities, and any other information necessary to accurately establish emission estimates and to document future compliance. The Department encourages the same information be provided for Minor Modifications.

## 8. Applicable Requirements

Applicants are encouraged to provide a description of which, if any, state or federal rules or regulations (applicable requirements) apply to each emissions unit. If an applicable requirement contains multiple potential compliance options, the applicant should indicate which compliance option(s) they intend to utilize.

#### 9. Construction Schedule

Applications for New Major Sources and Major Modifications must include a schedule for construction. The Department encourages the same information be provided for Minor Modifications and Minor Revisions, if applicable.

#### **10. Application Forms**

Applications for New Major Sources, Major Modifications, and Minor Modifications must include the application form as specified in 06-096 C.M.R. ch. 115, § 2(B). Chapter 115 application forms are provided on the Department's website. Applicants must only include the parts of the form necessary for the project to be licensed. At a minimum, the applicant must complete Section A (Facility Information), Section I (BACT and Other Attachments), Section K (Signatory Requirement), and any other parts of the form pertinent to the project-affected emissions unit(s).



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The Owner or Operator listed on the application form must be the name of the legal entity applying for the license.

## 11. Title, Right, or Interest

Applications for New Major Sources must demonstrate to the Department's satisfaction sufficient title, right, or interest in the property proposed for development. Examples include copies of a deed or lease. Financial information may be redacted from these documents. The name appearing on the documents used to show title, right, or interest must be the same legal name as the entity listed as the Owner/Operator on the application form, or the applicant must provide additional information that demonstrates the legal relationship between the two entities.

## 12. Public Notice of Intent to File

Applications for New Major Sources, Major Modifications, and Minor Modifications must include proof of publication of a <u>public notice of intent to file</u>. Examples of such proof include a photocopy, scan, or clipping showing the notice as it appeared in the printed paper and the date it was published.

The public notice of intent to file must be published no more than 30 days prior than the date of filing of the application package.

When applying for a New Major Source license or a Major Modification, the applicant must mail a copy of the public notice of intent to file to all abutting landowners no more than 30 days prior than the date of filing of the application package. This mailing must be done by certified mail, and a copy of each certified mail receipt must be included with the application package.

A public notice of intent to file is not required for applications for Minor Revisions.

## 13. Copy of the Application Package Provided to EPA Region 1

Applications for New Major Sources and Major Modifications must include proof that a copy of the application package was provided to EPA Region 1. Examples of such proof include a copy of the cover letter addressed to EPA and mail receipt.

#### 14. Certification by the Responsible Official

All applications must include a certification of truth, accuracy, and completeness with the signature and printed name of a responsible official (also known as a signatory requirement). For New Major Sources, Major Modifications, and Minor Modifications, this requirement may be met by completing Section K of the Chapter 115 application forms.



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Applications for Minor Revisions must include a separate signatory requirement.

All certifications must be signed by a responsible official who is an employee of the legal entity applying for the license. Signatures must be original, wet-ink signatures. Digital (e.g., Adobe) or electronic (e.g., scanned) signatures are not allowed.

As defined by 06-096 C.M.R. ch. 100, a responsible official is an officer of a corporation, such as a president, vice-president, or treasurer, or any other person who performs similar policy or decision-making functions.

## 15. Application Fees

Applications for New Major Sources must include payment of an application fee. The amount of the fee is based on the combined proposed annual emissions (ton/year) of particulate matter (PM), sulfur dioxide ( $SO_2$ ), nitrogen oxides ( $NO_x$ ), and volatile organic compounds (VOC) combined with the fee per ton listed on the current fee schedule. In no case shall the fee submitted be less than the minimum annual license fee or more than the maximum annual license fee. Payment may be made by check made out to "Treasurer, State of Maine" or through the Department's payment portal. If using the payment portal, a screenshot or copy of payment receipt must be included with the application package. It is acceptable for a third party (e.g., consulting firm) to make payment on behalf of the applicant as long as proof of payment can be provided.

There is no application fee required for Major Modifications, Minor Modifications, or Minor Revisions.

## 16. Minor Revision Request Letter

Applications for Minor Revisions must include a letter requesting the Minor Revision with the reason for the request and any relevant information such as a description of the revision. For a Minor Revision that includes a licensed emissions increase, the letter must include any relevant emissions calculations and a Best Practical Treatment (BPT) analysis.

## C. Application Submission Procedures

All applications must be provided to the Department in hardcopy format including an original, wet-ink signature on the certification by the responsible official. Applications should be mailed to the following address, as applicable:

Using USPS:

Department of Environmental Protection Air Licensing Supervisor 17 State House Station Augusta, ME 04333-0017 <u>Using FedEx or UPS:</u>

Department of Environmental Protection Air Licensing Supervisor 28 Tyson Drive Augusta, ME 04330



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If the application package includes an ambient air dispersion modeling analysis, two hard copies of the final report should be provided along with one digital copy of the modeling files.

If the application requires a public notice of intent to file, the applicant must make a copy of the entire application package and provide it to the local municipality (i.e., town or city clerk) prior to submission of the application package to the Department. If the project is to be located in an unorganized township, a copy of the application package is instead provided to the county commissioners.

If the application is for a New Major Source or Major Modification, a copy of the application package must be provided to EPA Region I at the following address:

US EPA Region I Air Permits, Toxics, and Indoor Programs Unit 5 Post Office Square, Suite 100 Mail Code OEP05-2 Boston, MA 02109-3912

Although not required, it is strongly encouraged for the applicant to email an electronic copy of all application materials to the Department concurrent with the hard copy being put into the mail. The Department may be able to accept the application for processing based on the electronic copy. However, the hard copy is still required to be submitted, and processing will not be completed without it. Electronic copies may be emailed directly to the Air Licensing Project Manager (if known) or to the Air Licensing Supervisor (jane.gilbert@maine.gov).

## D. Authority to Request Additional Information

The Department's determination that an application is accepted as complete for processing is not a review of the sufficiency of that information and does not preclude the Department form requesting additional information at any time during the processing of the application.

## E. Additional Resources

Guidance regarding what construction activities may take place prior to issuance of an air emission license:

https://www.maine.gov/dep/air/publications/docs/2022%2007%2020%20Construction%20Guidance%20Final.pdf

Frequently Asked Questions about implementation of Maine's approved Clean Air Act Section 176A Petition, including a list of the municipalities located inside the Ozone Transport Region: https://www.maine.gov/dep/air/publications/docs/AL0093%202020%2002.pdf

For more information or assistance, please contact an Air Licensing staff member or email us at DEP-Air-Licensing-Help@maine.gov.