



## Rhode Island Department of Environmental Management

### OFFICE OF AIR RESOURCES

### Expedited Minor Source Permit Application Instructions

April 2017

#### General Information

Any applicant for a minor source permit may request expedited processing of their permit application. In order to be eligible for expedited processing, the minor source permit application shall contain all of the elements described in Subsection 9.3.9 of Air Pollution Control Regulation No. 9.

This document provides instructions to applicants of the required content of an application for each of the specific elements in Subsection 9.3.9. Within thirty (30) days of submission of a minor source permit application for which expedited processing is requested, the Office of Air Resources will conduct a completeness review of the application to determine if all of the required elements described in Subsection 9.3.9 have been included and prepared consistent with these instructions. A minor source permit application for which expedited processing is requested that does not contain all of the elements described in Subsection 9.3.9 or is not prepared consistent with these guidelines will not be assigned to the permit queue for expedited processing until it has been deemed complete. In addition, an Expedited Minor Source Permit Application Checklist shall be completed and accompany each application.

Prior to the submission of a minor source permit application for which expedited processing is requested, the applicant must request and, if required by the Office of Air Resources, must attend a pre-application meeting with staff of the Office of Air Resources.

#### **9.3.9(a) A completed application form for each installation and air pollution control system described in subsection 9.3.1.**

Expedited applications for approval of plans to construct, install or modify a minor source shall be submitted to the Office of Air Resources in duplicate (2 copies) by the owner or operator of any source described in Subsection 9.3.1. Application forms may be obtained from the Office of Air Resources "Forms and Applications" webpage:

<http://www.dem.ri.gov/documents/forms/#air>

A separate application is required for each installation and air pollution control system described in Subsection 9.3.1.

An application must be signed and will not be considered complete unless it is signed by the appropriate company representative as described below:

- (1) **For a corporation or limited liability company (LLC):** a president, secretary, treasurer or vice-president of the corporation or member of the LLC in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for the permit;
- (2) **For a partnership or sole proprietorship:** a general partner or the proprietor, respectively;
- (3) **For a municipality, State, Federal or other public agency:** either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

The application shall include the contact information, including telephone number and email address of the facility representative(s) responsible for answering any questions pertaining to the permit application.

The application should also identify the person to whom the permit will be issued to (if different from the contact above) and the mailing address (if different from the facility's address).

**9.3.9(b) A detailed description of the proposed project and, if the project is to take place at an existing source, a description of the operations that take place at the existing source.**

In addition to a project narrative, the following shall be included, as applicable:

- A process flow diagram(s) indicating all related equipment, air pollution control equipment and stacks
- Identify and describe all emission points
- Identify all materials entering and leaving each device indicating quantities and parameters relevant to the proper operation of the device
- All monitoring devices and controls

A description explaining how emissions and operational parameters for all process and control equipment will be monitored and measured shall be included.

**9.3.9(c) A calculation of the "potential to emit" of the proposed project and the "potential to emit" of any existing stationary source. Supporting calculations shall be included with the application.**

The “Potential to emit” is the quantity of air contaminants that the facility could release into the air while operating at the maximum design capacity, operating 100% of the time with the highest polluting materials.

The application shall specifically identify and quantify emissions of each air contaminant that may potentially be emitted from the proposed project and existing emission sources. Furthermore, hourly and annual emissions for each air contaminant shall be provided

The USEPA has prepared guidance on potential to emit for small businesses that can be found at <https://www3.epa.gov/airtoxics/1998sbapptebroc.pdf>.

When determining the “potential to emit” the application shall include the following:

- Provide sample or actual calculations. Calculations must be provided for each emission unit at the facility that could emit air contaminants. Include all operating parameters such as maximum design capacity, flow rate(s), temperature(s), pressure(s), control efficiency, etc., which are necessary for the reviewer to replicate the emissions calculations. Also provide any assumptions made, any operational restrictions or limitations, or proposed limitations in determining the emission rates.

Certain emission units may not directly emit contaminants to the atmosphere through a stack or vent, however these emissions will eventually exhaust into the atmosphere through building ventilation or escape through doors or windows. These types of emissions (fugitives) must be included in your calculations.

- Provide supporting documentation and references for any emission estimation methods utilized which may include published emission factors, stack test data, manufacturer’s guarantees, mass balance calculations, air dispersion modeling, etc. Vendor data, specifications and design information shall be included.
- Provide applicable MSDS, SDS, Air Quality Data Sheets, or equivalent supporting documents for all materials which contain potential air contaminants.

**9.3.9(d) A demonstration that (1) the proposed new source is not a “major stationary source” or (2) the proposed modification to an existing stationary source is not a “major modification”**

Definitions of “major stationary source” can be found in Air Pollution Control Regulation No. 9 (see Sections 9.4 and 9.5).

**(1) Proposed New Sources:**

For proposed new sources, the applicant must demonstrate that the new source is not a “major stationary source”. The application shall include calculations of the potential to emit for the proposed new source. The detailed calculations should be provided as well as a summary table that shows the facility-wide, potential to emit for each air contaminant.

**(2) Proposed Modification to an Existing Stationary Source:**

For proposed modifications to an existing stationary source, the applicant must demonstrate the proposed modification is not a “major modification”. The applicant shall first determine if the existing source is a “major stationary source”.

For an existing minor source, if the potential emissions from the proposed project exceed the threshold for a major stationary source, the project is subject to major source permitting requirements. Therefore, the applicant must provide calculations of the potential to emit for the proposed modification to the existing source in the same manner as described above for “Proposed New Sources” and compare those to the thresholds for a major stationary source in Sections 9.4 and 9.5 of Air Pollution Control Regulation No. 9.

The detailed calculations should be provided, as well as a summary table that shows the potential-to emit of the proposed modification for each air contaminant.

For an existing major source, the project is subject to major source permitting requirements if it is a major modification. A project is a major modification if it would result in both a significant emissions increase and a significant net emissions increase.

The first step for determining if the proposed modification is a “major modification” is to evaluate whether the potential to emit of the proposed modification would result in a significant emissions increase. The applicant must provide calculations of the potential to emit for the proposed modification to the existing source in the same manner as described for (1) and compare those to the significant thresholds found in the definition of the term “significant” in Section 9.1 of Air Pollution Control Regulation No. 9. If the significant thresholds are **not** exceeded, the proposed modification is not a “major modification” and no further analysis is required.

If the significant thresholds **are** exceeded, the applicant must evaluate whether there is also a significant net emissions increase for those pollutants for which there is a significant emissions increase. In evaluating a net emissions increase, the applicant must consider all increases or decreases in actual emissions that occurred over the period of five consecutive calendar years which includes the calendar year in which the proposed change will occur. See the definition of “net emissions increase” in Section 9.1 of Air Pollution Control Regulation No. 9. The applicant must provide calculations of the net emissions increase and compare those to the significant thresholds found in the definition of the term “significant” in Section 9.1 of Air Pollution Control Regulation No. 9. If the significant thresholds are **not** exceeded for the net emissions increase, the proposed modification is not a “major modification”.

The detailed calculations for the emissions increase and/or net emissions increase should be provided, as well as a summary table that shows the emissions increase and/or net emissions increase of the proposed modification for each air contaminant.

**9.3.9(e) Identification of the applicable state and federal air pollution control regulations the proposed project is subject to. For each regulation that is identified as applicable, the applicant must demonstrate how the proposed project is capable of complying with all applicable aspects of that regulation.**

The applicant shall identify each and every state and federal regulation that is applicable to the proposed project. Examples of the summary tables identifying the applicable state and federal regulations are below:

**Applicable State Regulation Summary Table:**

<b>Applicable Rhode Island Air Pollution Control Regulations</b>	
<b>Regulation No.</b>	<b>Regulation Title</b>
1	Visible Emissions
7	Emission of Air Contaminants Detrimental to Person or Property
9	Air Pollution Control Permits
13	Particulate Emissions from Fossil Fuel Fired Steam or Hot Water Generating Units
14	Record Keeping and Reporting
16	Operation of Air Pollution Control Systems
17	Odors
19	Control of Volatile Organic Compounds form Surface Coating Operations
22	Air Toxics

**Applicable Federal Regulation Summary Table:**

<b>Applicable Federal Regulations</b>	
<b>New Source Performance Standards (NSPS) – 40 CFR Part 60</b>	
<b>Subpart</b>	<b>Regulation Title</b>
Dc	Small Industrial-Commercial-Institutional Steam Generating Units for Which Construction is Commenced After 06/9/89 ( $\geq 10$ MMBTU/hr and $< 100$ MMBTU/hr)
<b>MACT Standards – 40 CFR Part 63</b>	
II	NES Shipbuilding and Ship Repair (Surface Coating)

For each applicable federal regulation identified, the application shall include a table identifying the applicability or non-applicability of each and every condition of the identified rule. All discussions relating to state federal regulations shall include the specific rule citation. Examples of Federal Regulation tables are included below:

**Federal Regulation Table Citing Applicability for Specific Rule Conditions:**

<b>40 CFR PART 63, Subpart JJJJJ</b>	
	<b>§63.11193 Am I subject to this subpart?</b>
Applicable	You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler as defined in §63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in §63.2, except as specified in §63.11195.
	<b>§63.11194 What is the affected source of this subpart?</b>
Applicable	(a) This subpart applies to each new, reconstructed, or existing affected source as defined in paragraphs (a)(1) and (2) of this section.
Not applicable	(1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers within a subcategory, as listed in §63.11200 and defined in §63.11237, located at an area source.
Applicable	(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler within a subcategory, as listed in §63.11200 and as defined in §63.11237, located at an area source.
Not applicable	(b) An affected source is an <b>existing</b> source if you commenced construction or reconstruction of the affected source on or before June 4, 2010.
Applicable	(c) An affected source is a <b>new</b> source if you commenced construction of the affected source after June 4, 2010, and the boiler meets the applicability criteria at the time you commence construction.

If a condition in a rule is unclear, the applicant shall make every effort to determine the applicability or meaning of the condition. For federal rules, it is suggested that the applicant visit the USEPA website for more information or contact EPA Region 1 for assistance. All EPA rule determinations shall be included in the application.

The applicant should contact the Office of Air Resources for any questions concerning state regulations.

For regulations that could reasonably apply but do not, the applicant shall include a discussion and/or demonstration of the reason the rule does not apply.

If the applicant is subject to a regulation but is exempt, the applicant shall include a discussion supporting their justification for the exemption and provide all necessary supporting information.

**9.3.9(f) A demonstration that the stationary source will be in compliance with all applicable state or federal air pollution control rules or regulations at the time the stationary source or modification commences operation.**

The demonstration shall include (as applicable): All emissions standards, monitoring, recordkeeping, reporting, test methods, compliance demonstrations, certification methods, and calculations required by the regulations.

Any alternate methods, justifications, or explanations preferred by the applicant shall be addressed in the application in detail.

Compliance with each requirement must be demonstrated according to any prescribed method within the rule or another method deemed acceptable by the Office of Air Resources and/or the USEPA.

A permit will not be issued if the source is not in compliance with all applicable state and federal regulations.

**9.3.9(g) A Best Available Control Technology (BACT) analysis. The applicant must perform an analysis, using the “top-down” method to ensure compliance with subsection 9.3.3(a)(1). The applicant shall use a number of information sources to conduct this evaluation, including where applicable:**

- (1) Published BACT determinations or guidelines of various state and local air pollution control agencies.**
- (2) EPA's RACT/BACT/LAER Clearinghouse that contains information on BACT determinations made for mostly major projects.**
- (3) Information obtained from other permitting authorities including those in the Connecticut, Maine, Massachusetts, Vermont, New Hampshire, New Jersey and New York.**

The applicant must conduct a “top-down” BACT analysis. A proposed, new stationary source shall conduct a BACT analysis for each pollutant it would have the potential to emit from each new emission unit. A proposed modification to an existing source shall conduct a BACT analysis for each pollutant from each emission unit for which there would be a net emissions increase at the existing source.

The BACT analysis starts by identifying, for each emission unit, the most stringent level of control available for a similar or identical source or source category. The assumption is that the most stringent level of control is BACT. Failing to identify the most stringent level of control in an attempt to avoid stringent controls will result in delays in the review of the application since

the applicant will be required to revise and resubmit the BACT analysis. The applicant has the burden of proof for applying a less stringent level of control.

If the most stringent level of control is selected, no further analysis is required. If the most stringent level of control is **not** selected, the applicant must demonstrate why it is not feasible on the basis of technical, energy, environmental or economic reasons. If it can be shown that the most stringent level of control is infeasible, then the next most stringent level of control is similarly evaluated. This continues until the level of control under consideration cannot be ruled out.

Additional guidance for conducting a “top-down” BACT analysis can be found in the June 1991 NESCAUM BACT GUIDELINE (Appendix A) and in the October 1990 draft EPA New Source Review Workshop Manual (<https://www.epa.gov/sites/production/files/2015-07/documents/1990wman.pdf>)

The applicant should use a number of information sources to conduct the BACT evaluation, including the above cited sources listed in Subsection 9.3.9(g).

All components of the BACT analysis with applicable information sources shall be clearly documented in the application. In addition, supporting calculations, where applicable, shall be included.

**9.3.9(h) An Air Quality Impact Analysis that demonstrates that (1) emissions from the stationary source will not cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard and (2) emissions from the stationary source will not cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels.**

A modeling protocol as required in the Rhode Island Air Dispersion Modeling Guidelines for Stationary Sources shall be submitted to the Office of Air Resources for review and approval **prior to** submitting an expedited permit application.

The Air Quality Impact Analysis shall demonstrate that:

- (1) Emissions from the stationary source will not cause or contribute to air pollution in violation of any applicable state or national air quality standard, and
- (2) Emissions from the stationary source will not cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control

Regulation No. 22 and any Calculated Acceptable Ambient Levels. The Air Quality Impact Analysis Report shall contain all of the information specified in the Guidelines.

**9.3.9(i) A new stationary source or a modification of an existing stationary source must conduct any studies required by the Guidelines for Assessing Health Risk from Proposed Air Pollution Sources.**

On October 21, 2015, DEM revised the Guidelines for Assessing Health Risk from Proposed Air Pollution Sources. The guidelines do not apply to new minor sources or minor modifications to an existing source and therefore, any minor source permit application for which expedited processing is requested no longer has to include this element.

**9.3.9(j) A proposed draft permit. The proposed draft permit shall contain terms and conditions in the following areas: Emission Limitations, Operating Requirements, Monitoring Requirements, Testing Requirements and Recordkeeping and Reporting Requirements. An electronic version of the draft permit shall be included with the application.**

The applicant shall include in the proposed draft permit all applicable condition(s) from each state and federal regulation. If a permit condition results from a state or federal regulation, the permit condition shall include the rule citation. The application must include an electronic version of the proposed draft permit in Microsoft Word format.

It is suggested that the applicant visit <http://www.dem.ri.gov/programs/air/permits.php> to view the pre-construction permits issued by the Office of Air Resources since September 2002. This will allow the applicant to become familiar with the format used in our permits. A minor source permit issued by the Office of Air Resources typically contains the following sections (as applicable):

- Emission Limitations,
- Operating Requirements,
- Monitoring Requirements,
- Testing Requirements,
- Recordkeeping and Reporting Requirements, and
- Other Conditions

The applicant may also request a Microsoft Word version of the permits issued by this office to use as a guide or template.