



# BWP AQ 09 Potential Emission Restriction Permit Application Instructions and Supporting Materials

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## Introduction

A **Restricted Emission Status (RES)** approval is an approval that legally limits the amount of potential emissions from your facility. Such a limitation on emissions may require restrictions on the raw materials used, process or control device operations, or production quantities. Your facility's potential emissions determine the air quality regulations with which you must comply and the annual compliance fee you must pay.

Regulation 310 CMR 7.02(9) provides for Restricted Emission Status approvals. The legal authority for this regulation is MGL Chapter 111, sections 142B and 142D.

For specific information on who must apply for a Restricted Emission Status approval refer to 310 CMR 7.02(9). The application material submitted to MassDEP and the approval letter become enforceable restrictions on the facility's operations and emissions.

### Who must apply?

You must file a Restricted Emission Status Plan if you wish to:

- a. change a facility's classification pursuant to 310 CMR 4.00 for compliance fee purposes;
- b. limit potential emissions to remain below the applicable thresholds requiring filing of an Emission Control Plan (pursuant to 310 CMR 7.18 - VOC RACT or 310 CMR 7.19 - NO<sub>x</sub> RACT);
- c. limit potential emissions to remain below "major source" thresholds requiring filing of an Operating Permit (pursuant to 310 CMR 7.00 Appendix C);
- d. limit potential emissions for purposes of applicability of any other air quality regulation.

### What are Potential Emissions?

**Federal Potential Emissions** means the maximum capacity of a stationary source to emit a regulated pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit a regulated pollutant, including air pollution control equipment and restriction on hours of operation or in the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is **federally enforceable**.

### To be federally enforceable:

- A limitation on any facility's capacity to emit a pollutant shall include testing, monitoring, and record keeping procedures sufficient to demonstrate compliance with the limitations. Examples of permit or SIP limitations generally considered federally enforceable are limitations on the allowable capacity of the equipment, requirements for the installation, operation and maintenance of pollution control equipment, limits on hours of operation, and restrictions on amounts of materials combusted, stored, or produced.
- Restrictions on operation, production, or emissions must be stated in terms of the shortest averaging time that can be used as a practical matter, e.g., pounds per hour, or gallons per hour, and they must be tied to other enforceable operating restrictions at the source. General limitations on potential to emit, such as yearly limits (e.g., in tons per year), by themselves, are not



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considered federally enforceable. The use of hourly, daily, weekly or monthly rolling limits are generally acceptable.

Any federally enforceable limitations or conditions must be enforceable as a practical matter, ensure continuous compliance with the restrictions, and include adequate testing, monitoring, and record keeping procedures sufficient to demonstrate compliance with the limitations or conditions of an applicable federally enforceable approval. Fugitive emissions, to the extent quantifiable, are included in determining the potential to emit of a stationary source. Secondary emissions do not count in determining the potential to emit of a stationary source.

Refer to the specific regulations for details on requirements and qualifications.

### **What other requirements should be considered when applying for this approval?**

This form is not to be used in applying for approval to construct or modify any facility, nor may this form be used to contravene the requirements of any written approval issued by the Department.

Please note that even if you restrict potential VOC emissions to below "major source" status (i.e. 50 tons per year), if your VOC emissions include 10 or more tons per year of a single Hazardous Air Pollutant (HAP) or 25 or more tons per year of any combination of HAPs, your facility would still be "major" and thus would still be subject to Operating Permit as contained in 310 CMR 7.00 Appendix C. See list of HAPs attached to application form. In addition, a limit on the facility's potential to emit HAP to avoid applicability to a standard under 40 CFR part 63 (MACT) must be in place prior to the first substantive requirement of that subpart otherwise the facility continues to be subject to the federal requirements.

### **Instructions**

The application is an online form that can be found at:  
<https://permitting.state.ma.us/CitizenAccess>

You will need to create an account to access the form. Screen by screen instruction to assist you in completing the form is available at: <http://mass.gov/dep/aq-res>

Please note that when completing the form online, every field with a red asterisk is required data. You will not be able to advance to the next page in the form or submit the form without entering something in each field of the form marked with a red asterisk.

The form allows the preparer to "Save and Resume Later" any form you start. It is recommended that the first person to open a form in the online system enter the first page of data and then click "Save and Resume". This action will create a PIN that can be shared with another person (consultant, staff or signatory). Once another person activates the PIN in their account, they will be able to open the form and add information or approve it as the signatory. See <http://mass.gov/dep/aq-res> for more detailed instructions on activating a PIN and sharing a form.

The following provides general instruction on the forms by section.

### **Step 1: Facility and Facility Owner Information**

Provide general information such as facility name, facility owner, address and EPA Identification number. You can search for your facility from a pre-loaded list. If you are proposing a new facility you can enter the information for the proposed facility and NOT select from the existing facility list.



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The form also requires you to enter information about the facility Owner and Contact . If you have previously completed an on-line application for the same facility or owner, you may be able to look up and select ownership information.

Finally, you are required to enter either the primary NAICS or SIC code for the facility. Only one code is required.

### **Step 2: Application Information**

Application Information is collected in a series of tables and / or questions.

Page 1 of the Application information asks the applicant to identify the reason for requesting a Restricted Emission Status Approval and asks the applicant to provide some information on the emission history of the facility. For the emission history, the applicant must identify each of the air contaminants to be restricted, including specific single hazardous air pollutants as well as total HAP if applicable. Both the current potential to emit and the actual emissions must be provided. Finally, the applicant is asked to provide information on fuel or material use that resulted in the actual emissions reported. It is important to include all material use and all sources of emissions at the facility in this table. Emission Information is required in several places in the form and additional guidance on emission is presented in this document starting on page 4.

Page 2 of the Application information requires the applicant to identify what type of equipment will be restricted (fuel utilization, process or both). Based on the selected type, tables will be presented on Pages 3 and 4 where the applicant must provide further detail about the equipment, fuel or raw material used and current plan approvals or applicable requirements relative to that equipment or process.

Page 5 is where the applicant will propose fuel and/ or raw material use restrictions that will result in reduced or restricted emissions. Restrictions are provided on a per-emission unit basis but additional administrative controls, such as a limit on the hours of operation can be proposed. The following provides additional guidance on operating restrictions.

#### **Operating Restrictions**

Provide the restriction that will be used to define emissions. The form presumes a fuel or raw material restriction in the first table, by individual unit, but you are not confined to this option. Alternatives can be described in “Additional Restrictions” text field. The following briefly describes the intent and requirements of a restriction.

Applicability of many of the Department’s air pollution control (310 CMR 7.00: Air Pollution Control) regulations is based not on actual emissions, but rather on potential emissions. Simply stated, potential emissions are the amount of emissions that will never be exceeded (usually defined on a yearly basis). While the actual emissions may vary year to year depending upon many factors, these emissions will never exceed the potential.

**Without restrictions** imposed, potential emissions are the emissions that would result if the equipment operated at 100% of its rated capacity, 100% of the time (24 hours per day, 7 days per week, 52 weeks per year).

**With restrictions** imposed, potential emissions can be defined as something less than 100% rated capacity, 100% of the time.



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Examples of restrictions are:

- Limit on the amount of fuel burned.
- Limit on the amount of raw material processed.
- Limit on the production rate (derating the equipment).
- Limit on the hours of operation.
- Equipment modifications to limit throughput.

The major considerations in choosing a restriction are:

**Facility Needs.** Do not propose a restriction which would be unreasonable for the facility. These restrictions are enforceable by law and the facility can be subject to enforcement actions including substantial penalties for exceeding a restriction.

**Time Frames.** Restrictions must be expressed as a short term rate (for example, per hour, day, or month) and as a yearly (12 month rolling calendar period) rate.

**Enforceability.** Any restriction proposed must be verifiable as a practical matter. A proposal to restrict emissions to 1 ton per month of NO<sub>x</sub>, for example, is unverifiable. However, a proposal to restrict usage of #2 fuel oil to 50,000 gallons per month is readily verifiable through records of fuel purchases at the facility. (See Section J).

For further information, refer to the definition of potential emissions and EPA's June 13, 1989, guidance entitled "Guidance on Limiting Potential to Emit in New Source Permitting"  
[http://www.epa.gov/ttnatw01/pte/june13\\_89.pdf](http://www.epa.gov/ttnatw01/pte/june13_89.pdf)

Page 6 is where **Emission Information** should be provided to support the restriction. There are three tables the applicant must complete: Emission Rate, Total Emissions and Facility-Wide Short and Long Term Emissions. Provide the equipment emission rate and calculate total emissions based on this rate, and the restrictions specified on the previous page. Attach any necessary calculations. The following provides additional guidance on emissions.

**Emission Rate** is the rate at which the equipment emits a pollutant. For combustion equipment, this rate is usually specified in terms of lbs. per million BTU, lbs. per gallon of fuel, lbs. per pound of fuel, lbs. per horsepower, etc. For other equipment the rate is usually in lbs. per hour but can be based on other units. Emission rates are very dependent upon individual equipment, air pollution control equipment and fuels used. Each unit is a unique case, but emission rates can be determined from:

**Approvals or emission standards.** If the unit has been previously approved, in writing, by the MassDEP, or is subject to a standard, and an emission rate was established, this is the preferred source for emission rates.

**Testing.** Testing of the unit could yield an accurate emission rate.

**Manufacturer's information.** Often manufacturers can provide data on emission rates for a particular unit.

**Standard factors.** Standard emission factors are available for a limited number of sources. These are listed below, but should only be used as a last resort. Refer to EPA document AP-42 "Compilation of Air Pollution Emission Factors" and other documents for details.



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**Engineering estimates.** Estimates can sometimes be derived from other information with certain assumptions. For example, SO<sub>x</sub> emission rates can be calculated assuming a maximum sulfur content in fuel and total conversion to SO<sub>x</sub>. VOC emissions can be calculated assuming all VOC in a coating is emitted.

**Standard Factors** (For use only when no other information is available):

### Boilers and Ovens:

#### Sulfur Dioxide (SO<sub>2</sub>)

- 2 pounds of SO<sub>2</sub> emitted for every pound of sulfur contained in the fuel (Use the maximum legal sulfur content possible, lbs. per BTU).

#### Nitrogen Oxides (NO<sub>x</sub>)

- 67 lbs. of NO<sub>x</sub> for every 1,000 gallons of oil burned in boilers > 100 million Btu/hr.
- 55 lbs. of NO<sub>x</sub> for every 1,000 gallons of oil burned in boilers 0.5 to 100 million Btu/hr. using residual fuels (#6, #5, #4).
- 20 lbs. of NO<sub>x</sub> for every 1,000 gallons of oil burned in boilers 0.5 to 100 million Btu/hr. using distillate fuels (#2, #1).
- 18 lbs. of NO<sub>x</sub> for every 1,000 gallons of oil burned in boilers less than 0.5 million Btu/hr. using distillate fuels (#2, #1).
- 550 lbs. of NO<sub>x</sub> for every 1,000,000 cubic feet of gas burned in boilers >100 million Btu/hr.
- 140 lbs. of NO<sub>x</sub> for every 1,000,000 cubic feet of gas burned in boilers 10 to 100 million Btu/hr.
- 100 lbs. of NO<sub>x</sub> for every 1,000,000 cubic feet of gas burned in boilers less than 10 million Btu/hr.

### Diesel Engines, Turbines and Other Combustion Equipment:

SO<sub>2</sub>: Calculated as indicated for boilers.

NO<sub>x</sub>: Calculated from equipment manufacturer's specifications (or as contained in a written MassDEP approval).

**Total Emissions** are the emission factors multiplied by the short term and twelve month rolling calendar period restrictions, accounting for any necessary conversions. For example, a boiler that emits 20 lbs. of NO<sub>x</sub> per 1,000 gallons of fuel and has a fuel restriction of 2,000 gallons per month would have potential emissions of 40 lbs. per month of NO<sub>x</sub>. A facility that emits 7.5 lbs. of VOC per gallon of coating and has a restriction of 100 gallons of that coating per month would have potential emissions of 750 lbs. per month of VOC.



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Page 7 asks the Applicant to provide information on the monitoring and recordkeeping that will be performed at the facility to ensure that the facility stays in compliance with the restricted emission limit. Add a row for each method used to monitor, track or evaluate material use and emissions. The term “monitor” in this context is not limited to monitoring instruments but can include review of Material Safety Sheets to confirm VOC content of a coating, keeping a log of material use or keeping a record of fuel deliveries along with the fuel specification sheet provided with delivery.

Along with monitoring, the table asks for how the records will be kept and managed. Most records will need to be maintained on site but there is a regulatory requirement to file an Annual RES report with MassDEP so the records kept should be designed in a way to support the reporting requirement. See <https://www.mass.gov/guides/massdep-facility-wide-emission-restrictions-caps-reporting> for a copy of the Workbook for Annual Emissions Reporting and On-Site Recordkeeping.

### **Step 3: Documents**

The system will ask that documents be attached to support the application. The documents could include such things as copies of Manufacture specifications, or a document that provides the calculation of emissions.

The document attachment process is very similar to attaching a document to an email. Start by clicking on the “Browse” button. This will bring up a pop-up box. Click on “Browse again and you can search your computer for the document you want to attach. Once you have attached the document, you click “continue which brings you back to the main screen.

On the main screen you will be asked to identify the attachment type (pick from a drop down list) and provide a brief description of the attachment.

### **Step 4: Special Fees**

310 CMR 4.00 identifies certain circumstances where special fees are applied. Most applicants for an RES will not be subject to special fees but if you are, the applicant should pick the applicable fee exemption type and provide supporting information on this page.

### **Step 5: Applicants and Contributors**

This page is where the “Responsible Official” (hereafter called the signatory) for the application is identified. You will NOT enter a name (unless the person filling out the application is the signatory). First you will be asked to fill in the company name, pick the appropriate organization type (LLC, Corporation, Sole Proprietorship). This is called “Source of Signatory Authority. Then pick the appropriate title or position of the person who will be the signatory.

The Signatory or Responsible Official must create an account in ePLACE and access the application to submit it. No other person can submit the application. When the signatory logs into the application, their name as provided in their account information will show up in the box labelled “Applicant Information.”

### **Step 6: Application Review and Submittal**

The entire application is presented for final review in this step. You can reopen the application to edit it by clicking on the “Edit Application” button at the top or, if the information provided is complete and accurate you can proceed to submit the application.



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At the bottom of the review page is the applicant certification statement. The applicant (signatory) must certify that the information contained on the form is true, accurate and complete by clicking a box of agreement.

The permit fee can be paid either online or by check through the mail. The Applicant is asked to select the method preferred. If the applicant chooses to pay the fee online, an electronic check or credit card payment is allowed. Both carry a nominal handling fee. The applicant will be sent to a payment page and asked to complete information specific to the credit card or electronic check.

If the applicant chooses to pay by mail then a check should be sent to the address provided below in the FAQ.

Once the applicant certifies, pays the application fee (or indicates that the fee will be paid by mail) and clicks the “Continue” button, the application is submitted. The applicant will receive email notice of a successful submittal and within five minutes the applicant will receive a printable copy of the application as submitted (minus attachments).

### **After Submittal**

If you log into ePLACE and click on the “My Records” button, you will be able to view the status of your application through the review and approval process. The timeline for review will not start until the fee has been paid or a fee exemption (if requested) has been verified).

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If you are unable to file online, you can obtain a paper form by contacting your MassDEP Regional Office. Please return the completed form to the appropriate regional office, Attention BAW Permit Chief. If you need assistance in finding the appropriate region or its mailing address see: <https://www.mass.gov/service-details/massdep-regional-offices-by-community>. Should you have any questions about this regulation or your facility, please also contact the appropriate regional office.

### **Frequently Asked Questions**

#### **1. What is the application fee for this approval?**

The application fee is \$1,900.

#### **2. Where can I get a copy of the timelines?**

The timelines are available on the MassDEP Website: <https://www.mass.gov/guides/massdep-permitting-assistance>

#### **3. What is the annual compliance fee for this approval?**

The amount of the annual compliance assurance fee is depends on the facility's total potential emissions established by this RES approval. Please consult Table 4.03, (Air Quality section) of 310 CMR 4.03 for more information. If you fail to pay the annual compliance assurance fee, your approval could be suspended or revoked.



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#### **4. How long is this approval in effect?**

A RES approval is in effect for the useful life of the approved emission unit(s) even if there is a change in ownership, or until the facility-wide PTE approved by this action is no longer valid. At that time, a modification to the RES may be required by 310 CMR 7.02(10) Modification of a Restricted Emission Status (RES).

#### **5. How can I avoid the most common mistakes made in applying for this approval?**

- a. Answer all questions on the application form and indicate "N/A" (not applicable) where appropriate.
- b. Submit all supplementary information requested in the application.
- c. Submit fee by either paying online or paying by mail. Send your check to Department of Environmental Protection, P.O. Box 4062, Boston, MA 02211, and put your application number on the check in the remarks section.

#### **6. What are the regulations that apply to this approval? Where can I get copies?**

These regulations include, but are not limited to:

- a. Air Pollution Control Regulations, 310 CMR 6.00 - 8.00.
- b. Timely Action and Fee Provisions, 310 CMR 4.00.
- c. Administrative Penalty Regulations, 310 CMR 5.00.

They may be purchased at:

**State House Bookstore  
Room 116  
Boston, MA 02133  
617-727-2834**

**State House West Bookstore  
21 Elm Street  
Springfield, MA 01103  
413-784-1376**