



Massachusetts
Department
of
ENVIRONMENTAL
PROTECTION

f a c t s h e e t

School Furnaces, Boilers, Emergency Generators and Incinerators

Schools across Massachusetts are equipped with heating systems, emergency generators and incinerators that sometimes lack the necessary state air quality approvals. Specific regulatory requirements for school furnaces and boilers depend on when the units were installed, how large they are in terms of fuel input capacity, and the type of fuel they burn.

The Massachusetts Department of Environmental Protection (MassDEP) has prepared this fact sheet to help you better understand and comply with all applicable state air quality requirements, thereby ensuring a healthier learning and working environment inside your school, and cleaner air for your community.

Furnaces and Boilers

If the *combined* maximum energy input capacity of all furnaces, boilers and emergency generators is 10 million BTU per hour or more, your school is required at least to submit a periodic Source Registration to MassDEP. Source Registration forms and instructions may be obtained from the agency's Web site (see reverse).

In general, new boilers and furnaces, as well as modifications to existing units, have also required pre-construction MassDEP Plan Approvals since 1970. Specific thresholds triggering this requirement were revised in 1990 and 2001.

For a furnace or boiler with a maximum energy input capacity rating of 10 million BTU per hour or more (5 million BTU per hour or more when the primary fuel is 1% sulfur residual fuel oil) that was installed *on or before September 14, 2001*, you must obtain a MassDEP Plan Approval for the unit if you have not previously done so.

For a furnace or boiler rated at 10 million BTU per hour or more that was installed *after September 14, 2001*, MassDEP has substituted its Environmental Results Program (ERP) for the Plan Approval requirement. Under ERP, your school must:

- Submit an ERP compliance certification within 60 days of turning the unit on, and annually thereafter.
- Use natural gas as the primary fuel and red dye distillate fuel oil for no more than 90 days per calendar year either as a backup or as the primary fuel when conditions for using natural gas cannot be reasonably met.
- Ensure that the smokestack used for venting furnace or boiler emissions is at least 1.5 times the height of the building to which it is attached.

For furnaces and boilers installed before 1990 and rated at less than 3 million BTU per hour – and units installed between 1990 and 2001, and rated at less than 5 million BTU per hour – you are not required to obtain a Plan Approval or participate in ERP.

Any furnace or boiler rated at 3 million BTU per hour or more must be inspected, tested and maintained on at least an annual basis according to manufacturers' instructions.

There should be no visible emissions from the furnace or boiler. Gray or black smoke rising from the stack is an indication that the unit is not burning fuel efficiently and needs maintenance.

Emergency Generators and Incinerators

If your school has an emergency generator rated at more than 3 million BTU per hour, you must:

- Operate the unit for no more than 300 hours in any 12-month rolling period, including normal maintenance and testing, or apply to MassDEP for a Plan Approval.
- Follow the manufacturer's recommendations for operation and maintenance, and post all records on or near the emergency generator.

If your school has an incinerator, you should have a Plan Approval on file with MassDEP. If the incinerator is no longer in use, it should be permanently disabled.

For Additional Information

To learn more about regulation of furnaces and boilers subject to state permits and plan approvals, as well as submission of periodic Source Registrations, contact the nearest MassDEP regional office.

- Central Regional Office, Worcester: 508-792-7650
- Northeast Regional Office, Wilmington: 978-694-3200
- Southeast Regional Office, Lakeville: 508-946-2714
- Western Regional Office, Springfield: 413-784-1100

To obtain a Source Registration materials or a compliance workbook and certification forms covering furnaces and boilers subject to Environmental Results Program (ERP) requirements:

- Download Source Registration forms and instructions from:
<http://www.mass.gov/dep/air/approvals/aqforms.htm#source>
- Download ERP files from:
<http://www.mass.gov/dep/service/online/erpforms.htm#boilers>

You may also wish to review the following MassDEP regulations on the agency's Web site:

- 310 CMR 7.02(4)(a)2, 7.03, 7.04(4)(a) and 7.12(1)-(2) Furnaces and Boilers, 310 CMR 7.02(8)(i) and 7.03(10) Emergency Generators, and 310 CMR 7.08(1) Incinerators at <http://www.mass.gov/dep/air/laws/regulati.htm>
- 310 CMR 7.26(30)-(37) Environmental Results Program at <http://www.mass.gov/dep/service/approvals/erpregs.htm>

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