



Buyer's Guide to Air Quality Regulations Affecting Biomass Burning Units

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Biomass burning units include stoves, furnaces, and boilers that are designed to burn corn, wood, cherry pits, oat hull, switch grass, pelletized wood, or other biomass material. The Michigan Department of Environmental Quality (MDEQ) supports and encourages using biomass resources for energy generation; however, potential health and environmental concerns have been identified with the use of these devices. The emissions from poorly designed or operated units often result in nuisance complaints. In addition, many units are being installed without first obtaining an air permit from the MDEQ, when one may be required. The checklist below was developed to inform you about the air quality regulations that your unit may be subject to, as well as some measures you can take to minimize the impact your unit will have on human health and the environment.

- An air permit from the MDEQ, Air Quality Division should be obtained prior to installing a biomass burning unit at a commercial or institutional establishment. Currently, an air permit is not required for the installation of a wood-fired burner with a rated heat input capacity that is less than 6,000,000 Btu per hour. **An air permit is not required if the unit is installed at a residence;** however, all units must comply with the Michigan Air Pollution Control Rules, which include limits on visible emissions and particulate. The permit application can be downloaded at www.deq.state.mi.us/aps/appinfoev.shtml. If you are not sure whether or not an air permit is required, contact the MDEQ at (800) 662-9278.
- Biomass burning units installed at a commercial or institutional establishment may be required to be equipped with an air pollution control device such as a cyclone. Use of a pollution control device to capture particulates in the exhaust stream will minimize fallout onto nearby property. Units that have excessive visible emissions or fallout may be subject to enforcement action by the MDEQ.
- The biomass burner should only be operated using the fuels specified by the manufacturer. For example, do not burn wood in a unit specifically designed to burn corn.
- For corn burning units, only burn clean, shelled corn. DO NOT burn seed corn! Seed corn is treated with chemicals and will release toxic pollutants when burned. The shelled corn should have a moisture content of 15% or less. A moisture content of 12% is ideal.
- Do not burn trash, chemicals, treated wood, or other hazardous materials in your unit. Burning these items releases toxic chemicals and is a health and safety hazard. Commercial and institutional establishments are prohibited from burning waste unless it is in an approved incinerator that has been permitted by the MDEQ.
- If you are required to obtain an air permit for the unit, you may need to submit emission data as part of your permit application. Be sure that the emissions from the unit have been tested by the manufacturer to ensure that it will meet all state requirements.
- The stack of the unit should, at a minimum, be taller than the roofline of all nearby structures. Stacks that are too short do not allow the emissions to adequately disperse. This is often the cause of nuisance complaints and may affect the health of you and your neighbors.
- Prior to installing the unit, determine if any township, city, or county restrictions apply.

IMPORTANT!

An air permit may be required prior to installing your biomass burning unit. Failure to obtain an air permit may result in enforcement action by the MDEQ.

**For questions or additional information contact the MDEQ Environmental Assistance Center
(800) 662-9278 or deq-ead-env-assist@michigan.gov**