

Open Burning of Storm Debris

A Guide for Communities

Following severe storms, many communities are faced with the task of disposing of large quantities of storm debris. Ohio has specific regulations which limit the burning of storm debris in order to address the effects open burning may have on public health and safety. Ohio EPA has prepared this guide to explain the regulations and assist communities who are considering burning the storm debris consisting of vegetative material, trees and tree limbs. This guide does not address the disposal of other types of debris.

What does Ohio EPA consider “open burning”?

You are open burning any time you light an outdoor fire.

Why do Ohio’s laws prohibit so many kinds of open burning?

Depending upon the material being burned, open fires can release many kinds of toxic fumes. Leaves and plant materials send aloft millions of spores when they catch fire, causing many people with allergies to have difficulty breathing. The pollutants released by open burning also make it more difficult to attain, or maintain, health-based air quality standards, especially in or near the major metropolitan centers. The gases released by open burning can also harm neighboring buildings by corroding metal siding and damaging paint. Finally, open burning can cause safety problems as visibility is reduced on nearby roads.

What are the Alternatives to Open Burning?

Ohio EPA recommends that communities faced with storm debris use options that are more environmentally sound than burning. For example:

- Dry, chip, grind, or mulch for reuse or disposal. There are several options for disposing of material that has been chipped, ground and mulched. These include:
 - " use it for landscaping or allow the public to take it for landscaping purposes;
 - " take it to a composting facility;
 - " take it to a solid waste transfer facility or solid waste landfill;
 - " contact animal clinics/hospitals/vets/farms for use as animal bedding;
 - " contact industrial plants for use as supplemental fuel source;
 - " contact local landscapers/contractors who may have landscaping uses for material; and
 - " contact paper manufacturers who may be able to use it as raw materials.

- Allow the public to come to the staging area and remove whatever they want for firewood: Chip, grind, and mulch the remaining small pieces, and manage as noted above.
- If fallen trees are along rights-of-way, communities can make sure roads and ditches are clear of debris, but leave tree residue in wooded areas where they fell.
- When selecting areas to stage debris, communities must consider locations that will not create additional environmental concerns or problems for the community (noise, dust, traffic, etc.). Choose locations where debris can remain for an extended period of time. Ohio EPA will eventually want the debris removed, but will work with communities who need time to fully explore options for managing the debris. Communities can contact the Division of Solid and Infectious Waste Management at (614) 728-5346 to discuss options for disposing of storm debris.

The Necessity to Burn

Severe storms result in large amounts of debris throughout the State. Ohio EPA recognizes that communities, already faced with economic hardship due to the overtime, equipment and material costs associated with storms, face an additional economic hardship in disposing of the storm debris. Ohio EPA has the authority to allow open burning in emergency situations where other disposal is not practical. If an area has been declared a state of emergency by the Governor and if the community is facing a financial hardship, Ohio EPA will consider requests for open burning of storm debris. To determine if other disposal methods represent an economic hardship for a community, Ohio EPA will consider the cost of chipping and grinding the material, in combination with the size of the community facing the disposal costs. Attachment A includes the open burning hardship table, which will be used as a basis for approving requests to open burn storm debris.

What materials can be burned?

Ohio EPA will consider requests from a community to burn vegetation and wood-based materials only. Other debris, such as housing materials, roofing, siding, furniture, tires and plastics must be disposed of using other methods. You must receive written permission from Ohio EPA before you begin burning vegetative material, trees and tree limbs.

How does a community obtain approval to burn storm debris?

Ohio EPA's open burning program is administered by Ohio EPA's district offices and local air agencies. Communities should contact their district office or local air agency and speak to the appropriate open burning staff. (See Attachment B). Ohio law requires that a written request for open burning must be submitted to the district office or local air agency at least 10 working days prior to burning the materials. The request should be made by the person who will be responsible for the open burning and who

has the authority necessary to represent the community making the request. If the request is approved, the community will receive an open burning permit from the district office or local air agency.

Does Ohio EPA dictate how burning must be done?

Ohio EPA limits the type of materials that can be burned, the location of the burn, and the manner in which the open burning is conducted. For the disposal of storm debris, Ohio EPA will require a community to conduct the burn in a pit, using an air curtain destructor. Attachment C outlines the requirements for the open burning of storm debris using an air curtain destructor.

Communities facing severe economic hardship may request a waiver of the air curtain destructor requirement. Communities must submit a detailed justification outlining the itemized costs associated with separating, transporting, and disposing the material, as well as the cost estimates of the air curtain destructor, and information explaining the hardship faced by the community. Ohio EPA will consider the economic hardship, along with the potential environmental impact of burning the storm debris without emission controls. Attachment D outlines the requirements for open burning of storm debris without the use of an air curtain destructor.

Can an individual burn storm debris that was generated on his or her property?

Yes, as long as the property is not in a restricted area. Restricted areas include:

- within the boundaries of any municipal corporation;
- within corporation limits and a 1,000-foot zone outside any municipal corporation having a population of 1,000 to 10,000; and
- within corporation limits and a one-mile zone outside any municipal corporation with a population of more than 10,000.

Outside a restricted area, landscape wastes (including plant matter such as tree trimmings, branches, stumps, brush, weeds, leaves, grass, shrubbery, yard trimmings and crop residues) generated on the premises can be burned. However, no open burning can take place within 1,000 feet of an inhabited building located off the property where the fire is set. Nor can the fire obscure visibility for roadways, railroad tracks or air fields.

No wastes generated off the premises may be burned. For example, a tree removal contractor may not haul branches and limbs to another site to burn them.

Open burning is prohibited even in unrestricted areas when the local air agency, local planning organization or Ohio EPA has declared an air quality advisory, or when air pollution warnings, alerts or emergencies are in effect.

Are there other restrictions on open burning that a community must follow?

A community should determine if there are local ordinances which restrict open burning.

The local ordinances may be more strict than Ohio EPA's regulations. Ohio Department of Natural Resources also restricts open burning on public land, and near any woodland, brushland, or land containing tree growth, and in any place from which the fire is likely to escape. Communities should contact the Ohio Department of Natural Resources Division of Forestry at (614) 265-6694 for more information.

For more information regarding Ohio EPA's open burning program, please contact Ohio EPA's open burning coordinator at (614) 644-2270.

Attachment A

Community Hardship Table

Village/Township/City Size	Population	Controlled Burning Option	Open Burning Option*
Small Community	Population of less than 5,000	Open burning of storm debris allowed using air curtain destructor if the following conditions apply: (1) area was declared a state of emergency by the Governor and (2) disposal of storm debris using other disposal methods exceeds \$5,000.	Open burning of storm debris if the following conditions apply: (1) area was declared a state of emergency by the Governor and (2) disposal of storm debris using other disposal methods exceeds \$5,000.
Medium Community	Population of greater than 5,000, but less than 25,000	Open burning of storm debris allowed using air curtain destructor if the following conditions apply: (1) area was declared a state of emergency by the Governor and (2) disposal of storm debris using other disposal methods exceeds \$10,000.	Open burning of storm debris allowed if the following conditions apply: (1) area was declared a state of emergency by the Governor and (2) disposal of storm debris using other disposal methods exceeds \$10,000.
Large Community	Population greater than 25,000	Open burning of storm debris allowed using air curtain destructor if the following conditions apply: (1) area was declared a state of emergency by the Governor and (2) disposal of storm debris using other disposal methods exceeds \$20,000.	Open burning of storm debris allowed if the following conditions apply: (1) area was declared a state of emergency by the Governor and (2) disposal of storm debris using other disposal methods exceeds \$20,000.

* Due to number of declared disaster areas in late 2004 and early 2005, and the unprecedented amount of storm debris across the state, Ohio EPA has developed the uncontrolled open burning option for areas demonstrating a severe economic hardship, as outlined above. The uncontrolled burning option only applies to the 2004-2005 storm debris. Ohio EPA will re-evaluate the uncontrolled burning option based on the severity of future natural disasters.

Division of Air Pollution Control


District Office and Local Air Agency Jurisdiction





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The Division of Air Pollution Control's jurisdictional boundaries for district offices and local air agencies are not the same as Ohio EPA's standard district boundaries. Standard district boundaries, indicated by the dark lines, are for reference only.

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Attachment C

Ohio Environmental Protection Agency

Permit Requirements for Air Curtain Destructors Employed for Landscape Waste

The accumulation and open burning with air curtain destructors (ACDs) of storm debris shall be allowed by municipalities upon receipt of written permission from Ohio EPA or the appropriate local air agency, provided the following conditions are met:

1. The material to be burned shall be limited to vegetative material, trees and tree limbs.
2. The ACD shall be at least ½ mile from any hospital, day care, nursing home or any other type of health care facility.
3. The ACD shall be at least 1000 feet from any inhabited building not located on said premises.
4. All material to be burned shall be dry and in a state to sustain good combustion.
5. Burning may not be conducted during unfavorable meteorological conditions such as high winds, temperature inversions, air stagnation, when a pollution alert or ozone action day has been declared. The open burning shall not create a nuisance. The emission of smoke, ashes, dust, dirt, odors or any other substance in such a matter or amount as to endanger the health, safety or welfare of the public or cause unreasonable injury or damage to property, is a public nuisance and is prohibited.
6. All material shall be burned in an open pit which shall be constructed as follows:
 - a. The pit shall be rectangular in shape with four vertical walls.
 - b. The maximum length shall be no longer than the blower manifold.
 - c. The maximum width shall be less than 10 feet. A width of six to eight feet is recommended.
 - d. The nozzles are to be directed down into the pit at a 25 to 30-degree angle from the horizontal.
7. The ACD may be shut off during start-up for a maximum of 25 minutes. Otherwise, the ACD must remain in operation until the fire has been completely extinguished. Smoldering will not be allowed.
8. The burn pit is not to be loaded above two-thirds of its total depth.
9. The loading of the pit shall be done in such a way as to minimize the amount of soil entering the pit.
10. The community must have personnel present at all times when open burning is taking place.
11. The Ohio EPA or local air agency inspector shall be notified when open burning will take place and shall be allowed complete access to the site before, during and after the operation of the ACD.

Attachment D

Open Burning of Storm Debris Conditions for

“Extraordinary Circumstances” Approvals Issued to Communities Demonstrating a Severe Economic Hardship for the Disposal of Storm Debris Under OAC 3745-19-03(D)(3) or OAC 3745-19-04(C)(3)

If a community is located in an area that was declared a state of emergency by the Governor for a natural disaster, such as an ice storm, tornado or flood, and the community has demonstrated a severe economic hardship in accordance to Attachment A that would prevent disposal techniques such as chipping or the use of an air curtain destructor Ohio EPA under OAC 3745-19-03(D)(3) or OAC 3745-19-04(C)(3) may allow for the open burning of trees and vegetative wastes provided the local community meets the following guidelines. The local community must request and receive an Ohio EPA open burning permit from the Director and the community must follow the following guidelines for open burning of the vegetative material, trees and tree limbs.

1. The material burned must be limited to vegetative material, trees and tree limbs resulting from a natural disaster.
2. All material to be burned shall be dry and in a state to sustain good combustion.
3. No burning shall take place within:
 - a. one hundred (100) feet of any uninhabited structure or powerline;
 - b. three hundred (300) feet of a frequently traveled municipal or township road;
 - c. five hundred (500) feet of any state highway;
 - d. one thousand feet (1000) of any interstate highway;
 - e. One-half mile from any school or day care;
 - f. One mile from any hospital, nursing home or any other type of health care facility;
 - g. 1000 feet from any inhabited building;
 - h. 1000 feet from any fuel storage facility with three or less tanks or above ground petroleum or natural gas pipeline; or
 - i. One-half mile from any fuel storage facility with three or more tanks.
4. All fires must be attended at all times during burning until completely extinguished.
5. Burning may not be conducted during unfavorable meteorological conditions such as:
 - a. high winds;
 - b. temperature inversions;
 - c. air stagnation; or
 - d. when a pollution alert or ozone action day has been declared.
6. If at any time a fire creates:
 - a. a threat to public health;
 - b. a nuisance; or
 - c. a fire hazard;the burning shall be extinguished.
7. All burning shall comply with other federal, state, and local laws, rules, and ordinances.
8. Adequate firefighting equipment shall be on-site for extinguishing purposes during burning times.
9. Burning shall be conducted during daylight hours only, and all fires shall be extinguished prior to sunset.
10. The pile to be burned shall be less than or equal to five thousand (5,000) cubic yards and

only one (1) pile may be burned at a time.

11. The district office of Ohio EPA or the local air agency along with the local fire department and health department must be notified at least twenty-four (24) hours in advance of the date and time of the burning.
12. The open burning permit shall be made available at the burning site to state and local officials upon request.
13. The open burning permit shall be valid for no longer than three (3) months from the date of issuance.
14. Any change in the plan must receive an additional approval from the Ohio EPA district office or local air agency, unless the change is to reduce open burning.
15. The Director may add conditions to an approval letter, as necessary, to prevent a public nuisance or protect the public health or the environment. Such conditions may be based on local air quality conditions, including whether the area is a nonattainment county or has been redesignated from nonattainment to attainment status.