



Open Burning of Natural Disaster Debris
June 15, 2017



Steve Hall, Raleigh Regional Office
Department of Environmental Quality
Division of Air Quality



Disposal of Natural Disaster Debris



Open burning should always be a last resort.

Department of Environmental Quality



Why Limit Open Burning?

- Smoke from open burning activities pollutes the air and is unhealthy to breathe.
- Potential health effects include:
 - Lung and eye irritation
 - Heart problems
 - Headaches, dizziness
 - Asthma attacks
 - Coughing and wheezing
- Sensitive groups (e.g., asthmatics, elderly, etc.) are particularly at risk from breathing fine particles from open burning activities over an extended period of time.

Why Limit Open Burning?



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NC Open Burning Rules

North Carolina Administrative Code (NCAC), Title 15A, Subchapter 2D, Section .1900 – Open Burning

- One of North Carolina's oldest air quality rules
- First adopted in 1971
- Regulates outdoor open burning
- Sets conditions for allowable fires
- Prohibits burning of synthetic materials
- Violators can be fined up to \$25,000 per day per violation

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NC Open Burning Rules

Restrictions for residential open burning in NC include:

- Only leaves, branches, and other vegetative growth can be burned... nothing else.
- No synthetic (man-made) materials can be burned.
- All materials burned must originate on the property.
- Open burning is not allowed in areas with public pickup.
- No burning on Air Quality Action Days (Code Orange or higher).
- Burning should be conducted during daylight hours (officially 8:00 am to 6:00 pm).

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NC Open Burning Rules

Restrictions for land clearing open burning in NC include:

- Only land-cleared plant growth material can be burned... nothing else.
- Construction, demolition, and synthetic materials should be separated out.
- May use kerosene or diesel fuel to start fire.
- At least a 500-foot buffer must be maintained between each burn pile and the closest occupied dwelling.
- 500-foot requirement can be waived by regional office with submittal of waiver form or use of an air curtain burner.

NC Open Burning Rules

Restrictions for land clearing open burning in NC include:

- Wind direction must be away from any public roadway within 250 feet of burn pile.
- Burning should be conducted during daylight hours (officially 8:00 am to 6:00 pm).
- No burning on Air Quality Action Days (Code Orange or higher).
- Materials should not be transported offsite to burn except in special cases.

NC Open Burning Rules

Other types of open burning activities addressed under NC rules include:

- Camp fires / cooking fires / ceremonial fires
- Forestry / wildlife / agricultural management activities
- Fire-fighting personnel training
- Fire-fighting equipment testing and research
- Disposal of dangerous materials
- Disposal of material generated from natural disasters

Open Burning of Natural Disaster Debris

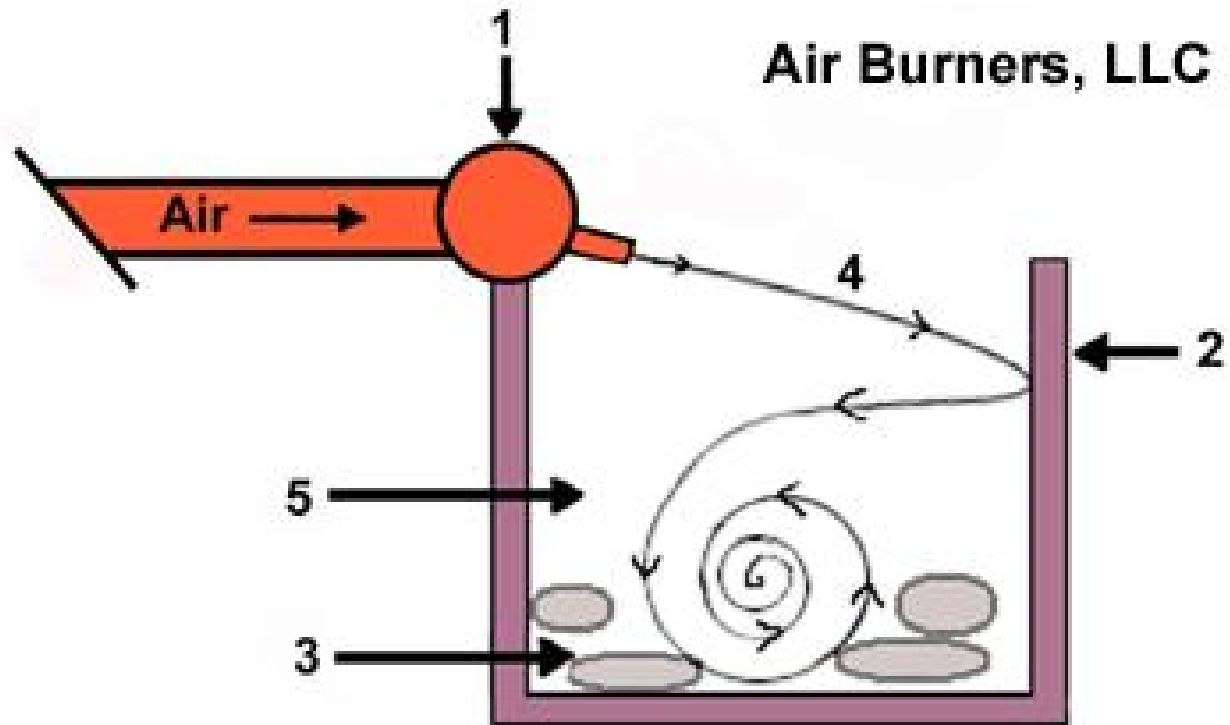
- Open burning should always be a last resort.
- Air curtain burners may be necessary in federally designated disaster areas.
- Time period of burning may be limited to nine months.
- Burning must be preapproved by the appropriate regional office air quality supervisor.
- Written notification for approval must be submitted to the appropriate regional office.
- Sufficient documentation must be provided showing that there is no other practical method of disposal.

Open Burning of Natural Disaster Debris



- Regional office supervisor shall consider the following factors before granting permission to burn natural disaster debris: type, amount, and nature of combustible substances, and the location of the burning.
- Regional office supervisor shall not grant permission for the burning of any debris if the primary purpose of the fire is to dispose of synthetic materials or refuse or to recover salvageable materials.
- Open burning of natural disaster debris must also comply with the land clearing and/or air curtain burner requirements in the NC open burning rules.

Air Curtain Burners



Air Curtain Burners

Restrictions for air curtain burner use in NC include:

- Only vegetative material originating onsite may be burned.
- Wind direction must be away from any public road within 250 feet of burn pile.
- At least a 300-foot buffer should be maintained between each burn pit and the closest occupied dwelling.
- Visible emissions limited to 10% opacity (excluding 45 minute start-up period).
- Prior notification and DAQ approval required before use.

Air Curtain Burners

Restrictions for air curtain burner use in NC include:

- Manufacturer's specifications must be kept on site.
- Burning hours limited to between 8:00 am and 6:00 pm.
- Material should not protrude above the air curtain.
- Ash should not be allowed to build up in the pit so that it impedes combustion (<1/3 the depth of the pit).
- Operator must allow ash to cool and then water ash prior to removal from pit.
- No burning on Air Quality Action Days (Code Orange or higher).

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Air Curtain Burners

Properly Operating



Improperly Operating



Recent Legislative Actions

The NC open burning rules have been modified through the recent passage of the following state laws:

- Session Law 2011-394 (House Bill 119) - reduces land clearing setback requirement from 1,000 to 500 feet.
- Session Law 2013-413 (House Bill 74) - allows for the transport of land clearing debris to another location to burn as long as the following conditions are met:
 - Location is not a permitted solid waste management site.
 - Burning at new location is limited to four times per year.
 - There are no more than two 20-foot diameter piles onsite.
 - At least a 500-foot buffer is maintained between each burn pile and the closest occupied dwelling.

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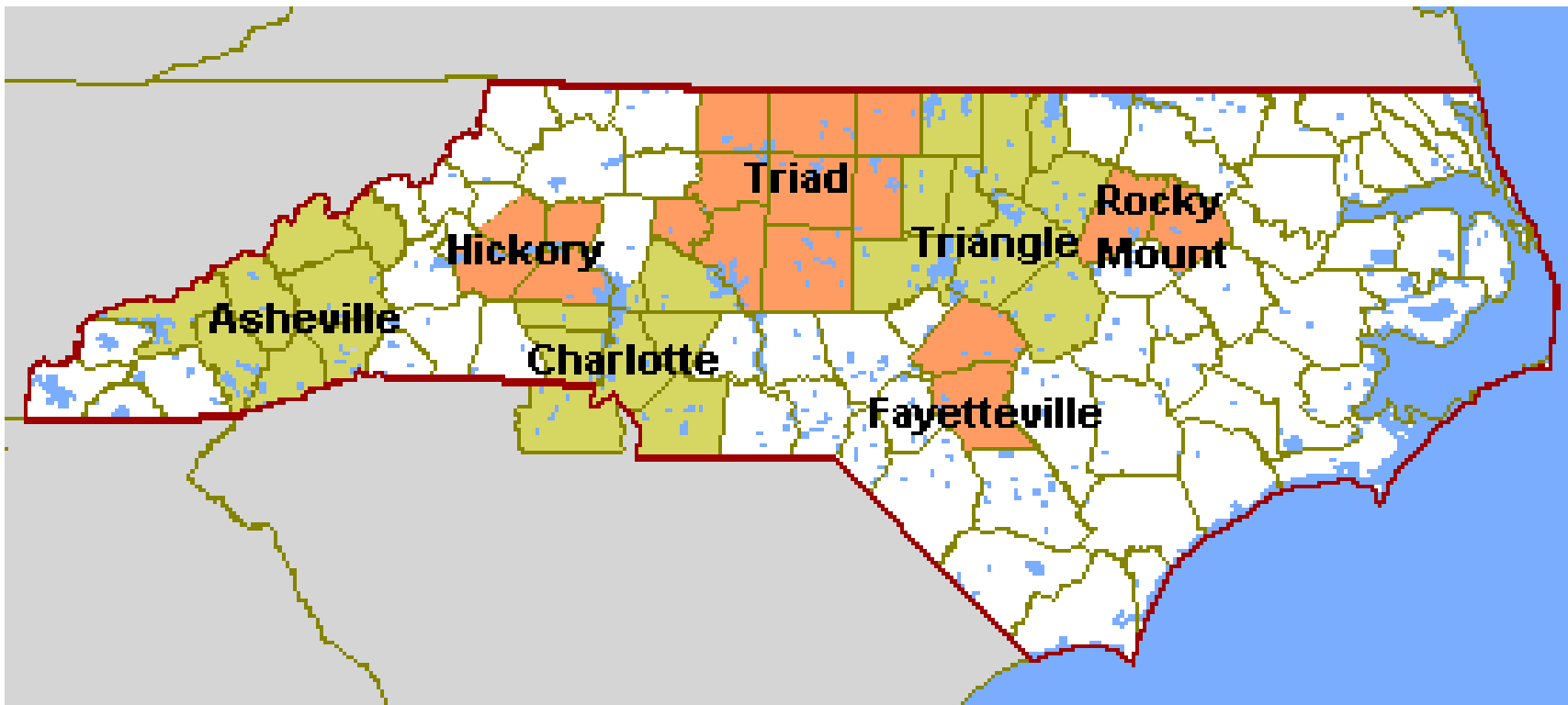


Recent Legislative Actions

The NC open burning rules have been modified through the recent passage of the following state laws:

- Session Law 2014-120 (Senate Bill 734) - allows for residential burning of logs and stumps and declares this type of burning cannot be considered a nuisance.
- Session Law 2015-286 (House Bill 765) - allows for the burning of polyethylene agricultural plastics used in connection with agricultural operations under certain conditions.

Air Quality Forecast Areas



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NC Open Burning Rules

On Code **Orange**, **Red**, or **Purple** days in a specific air quality forecast area, you cannot burn the following:

- Yard waste
- Land clearing debris
- Natural disaster material
- Most types of open burning with a couple of exceptions

*DAQ recommends **no burning** throughout the rest of the state on Code Orange, Red, or Purple days.*

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What We Do

The Division of Air Quality (DAQ) works with the state's citizens to protect and improve outdoor, or ambient, air quality in North Carolina for the health, benefit and economic well-being of all. To carry out this mission, the DAQ operates a statewide air quality monitoring network to measure the level of pollutants in the outdoor air, develops and implements plans to meet future air quality initiatives, assures compliance with air quality rules, and educates, informs and assists the public with regard to air quality issues.

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North Carolina Air Quality Forecast Center

Welcome to the Air Quality Forecast web page. Tomorrow's forecasts are posted each day by 3pm (EDT) and are updated at 10am the next morning, if necessary.

Forecast Links

- Morning Edition
- Forecast Discussion
- AQ Forecast Center on Facebook
- Forecast Emails (Enviroflash)
- Printable Forecast Flyers
- Forecast Tweets
- Forecast RSS Feeds (Enviroflash)
- Realtime AQ Data Page
- Charlotte Air Quality Data
- Forecast Model Output
- Forecast Statistics
- Air Awareness Program
- Open Burning Page
- Forsyth County Office of Environmental Assistance and Protection
- Mecklenburg County Air Quality Department
- Additional Information
- Hurricane Preparedness: ReadyNC.org

Previously Observed Today's Forecast Tomorrow's Forecast

Air Quality Forecast for Friday, 06/09/2017

Last Updated: 06/08/2017 02:52 PM EDT

Legend: Good (Green), Moderate (Yellow), Unhealthy for Sensitive Groups (Orange), Unhealthy (Red), Very Unhealthy (Purple)

Forecast Area	Ozone AQI	PM2.5 AQI	Color Code	Notices
Asheville Ridge Tops	48	40	GOOD GREEN	
Asheville Valleys	47	40	GOOD GREEN	
Charlotte	54	42	CAUTION YELLOW	
Fayetteville	49	43	GOOD GREEN	
Hickory	47	41	GOOD GREEN	
Rocky Mount	49	42	GOOD GREEN	
Triad	50	35	GOOD GREEN	Forecast courtesy of Forsyth County OEAP
Triangle	50	43	GOOD GREEN	

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https://deq.nc.gov/about/divisions/air-quality/air-quality-enforcement/open-burning

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Open Burning

The Open Burning Rule is one of North Carolina's oldest air quality regulations, first adopted in 1971. The rule prohibits much outdoor burning and sets conditions for allowable fires. Under the rule, it is always illegal to burn trash and other non-vegetative materials. Leaves, branches and other plant growth can be burned under certain conditions. Violators can be fined up to \$25,000 or more.

ESPAÑOL

NOTE: The N.C. General Assembly has amended several sections of the Open Burning Rule over the past two sessions. In the 2014 session, legislators removed the restriction on burning stumps and logs over 6 inches in diameter for homeowners. Lawmakers also changed the rule so that smoke from allowable residential burning of large logs and stumps will not be considered a nuisance. More details can be viewed at [Regulatory Reform Act of 2014, Sect. 24](#) [\(Open Burning Without an Air Quality Permit\)](#).

In the 2013 session, legislators amended restrictions on the transport of vegetative matter for outdoor burning. Under the change, vegetation from land-clearing operations may now be transported off-site and burned in another location under certain circumstances. Such burning may be allowed if the material is: burned not more than four times a year, located at least 500 feet from occupied buildings, and contains no more than two piles less than 20 feet in diameter. More details can be viewed in [Regulatory Reform Act of 2013, Sect. 28](#) [\(Open Burning Without an Air Quality Permit\)](#).

Press Releases
News about open burning.
Publications and Other Information
View or download brochures, fact sheets, presentations, and other information about North Carolina's Open Burning Rule.
Burning Questions
View a list of questions and answers about open burning and associated policies in North Carolina.
Regulations

Air Quality Compliance

- [EPA Policies](#)
- [Annual Compliance Certification](#)
- [Excess Emissions, Deviations, and Malfunction Determinations](#)
- [Civil Penalty Assessments](#)
- [Emission Measurement](#)
- [Special Orders by Consent](#)
- [Maps of Facilities with Air Permits](#)
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https://deq.nc.gov/about/divisions/air-quality/air-quality-enforcement/open-burning

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Regulations

View the contents of North Carolina's Open Burning Rule (15 NCAC 2D .1900).


Setback Waivers

Download and submit forms to the DAQ for consideration to burn land clearing debris within 500 feet of occupied dwellings.

 **Firefighter Information**

Download fire training forms and other fire department related information.

For questions about air quality related to open burning, please call (919) 707-8400 or the [DAQ regional office](#) for your county.

 [Click for Photo Examples of Illegal Open Burning](#)

Teachers and Students

Teachers and students can learn more about the dangers of open burning to both our environment and our health in this section. Teachers will find three fun, engaging, and student-centered classroom activities that they can easily bring into their classrooms. Click to learn more about the "Breathe, Don't Burn" Project.

Additional Links

Follow this link to find more information on open burning from the U.S. Environmental Protection Agency, North Carolina Forest Service, and N.C. Division of Pollution Prevention & Environmental Assistance. EPA has much information on the health and environmental effects of smoke from open burning. Forest Resources issues burn permits and fire danger alerts.

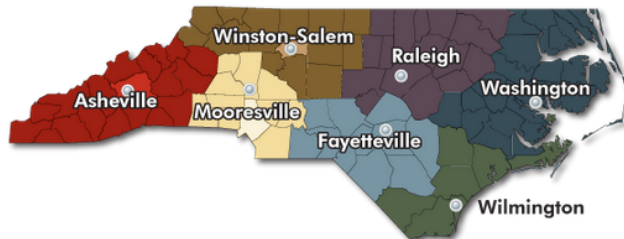
Stage I Vapor Recovery

- [Compliance Assurance Monitoring \(CAM\)](#)
- [Compliance Monitoring Strategy \(CMS\)](#)
- [How NC DAQ Will Evaluate Natural Gas Curtailment](#)
- [Chemical Accident Prevention](#)
- [Recycled Oil Management Program](#)
- [Continuous Emissions Monitoring Systems \(CEMS\)](#)

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Regional Offices

DAQ Regional Offices are based in Asheville, Mooresville, Winston-Salem, Raleigh, Fayetteville, Wilmington and Washington. Staff operate [air monitoring](#) equipment, perform inspections, enforce [air quality regulations](#) and issue [permits](#) for [facilities](#) across the state.



Click on a region of the map to learn more about your closest Regional Office or [Local Program](#).

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Raleigh Regional Office



Counties Served by the Raleigh Regional Office

Chatham	Granville	Nash	Vance
Durham	Halifax	Northampton	Wake
Edgecombe	Johnston	Orange	Warren
Franklin	Lee	Person	Wilson



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Counties Served by the Wilmington Regional Office

Brunswick Carteret	Columbus Duplin	New Hanover Onslow	Pender
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