

**CHAPTER 3**

**AIR QUALITY CONTROL<sup>1</sup>**

**SUBCHAPTER 3D - AIR POLLUTION CONTROL REQUIREMENTS**

**SECTION .1900 - OPEN BURNING**

**.1901 PURPOSE, SCOPE, AND IMPERMISSIBLE OPEN BURNING**

(a) Purpose. The purpose of this Section is to control air pollution resulting from the open burning of combustible materials.

(b) Scope. This Section applies to all operations involving open burning. This Section does not authorize any open burning which is a crime under G.S. 14-136 through G.S. 14-140.1, or affect the authority of the Division of Forest Resources to issue or deny permits for open burning in or adjacent to woodlands as provided in G.S. 113-60.21 through G.S. 113-60.31. This Section does not affect the authority of any local government to regulate open burning through its fire codes or other ordinances. The issuance of any open burning permit by the Division of Forest Resources or any local government does not relieve any person from the necessity of complying with this Section or any other air quality rule.

(c) Impermissible Open Burning. A person shall not cause, allow, or permit open burning of combustible material except as allowed by Rule .1903 of this Section or as covered by a permit issued under Rule .1904 of this Section. (11-11-96)

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**THIS IS THE FEDERALLY APPROVED REGULATION AS OF AUGUST 1, 1997**

	<b>Date Submitted To EPA</b>	<b>Date Approved by EPA</b>	<b>Federal Register</b>
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<b>1<sup>st</sup> Revision</b>	<b>JUL 1, 1996</b>	<b>AUG 1, 1997</b>	<b>62 FR 41277</b>

**.1902 DEFINITIONS**

For the purpose of this Section, the following definitions apply:

- (1) "Air Curtain Burner" means a stationary or portable combustion device that directs a plane of high velocity forced draft air through a manifold head into a pit with vertical walls in such a manner as to maintain a curtain of air over the surface of the pit and a recirculating motion of air under the curtain.
- (2) "Dangerous materials" means explosives or containers used in the holding or transporting of explosives.
- (3) [Reserved.]<sup>2</sup>
- (4) "Land clearing" means the uprooting or clearing of vegetation in connection with construction for buildings; right-of-way; agricultural, residential, commercial, or

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<sup>1</sup>**Cross references**--Buildings and building regulations, Ch. 7; erosion control, Ch. 9; fire prevention and protection, Ch. 10; zoning ordinance, Ch. 23.

**State law references**--Air pollution control, G.S. §143-215.105 *et seq.*; authority of Board of County Commissioners to establish, administer, and enforce a local air pollution control program. G.S. §143-215.112(c); authority to levy taxes to maintain and administer such program, G.S. §153A-149(c)(3).

<sup>2</sup>See 3B .0102(a)(15); "“HHC means the Health Hazards Control Branch of the Division of Epidemiology.” not adopted in the County Code.

industrial development; mining activities; or the initial clearing of vegetation to enhance property value; but does not include routine maintenance or property clean-up activities.

- (5) "Log" means any limb or trunk whose diameter exceeds six inches.
- (6) "Nuisance" means causing physical irritation exacerbating a documented medical condition, visibility impairment, or evidence of soot or ash on property or structure other than the property on which the burning is done.
- (7) "Occupied structure" means a building in which people may live or work or one intended for housing farm or other domestic animals.
- (8) "Open burning" means the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the atmosphere without passing through a stack, chimney, or a permitted air pollution control device.
- (9) "Person" as used in 3D .1901(c), means:
  - (A) the person in operational control over the open burning, or
  - (B) the landowner or person in possession or control of the land when he has directly or indirectly allowed the open burning or has benefited from it.
- (10) "Public pick-up" means the removal of refuse, yard trimmings, limbs, or other plant material from a residence by a governmental agency, private company contracted by a governmental agency or municipal service.
- (11) "Public road" means any road that is part of the State highway system; or any road, street, or right-of-way dedicated or maintained for public use.
- (12) "RACM" means regulated asbestos containing material as defined in 40 CFR 61.141.
- (13) "Refuse" means any garbage, rubbish, or trade waste.
- (14) Reserved.
- (15) "Salvageable items" means any product or material that was first discarded or damaged and then all, or part, was saved for future use, and include insulated wire, electric motors, and electric transformers.
- (16) "Synthetic material" means man-made material, including tires, asphalt materials such as shingles or asphaltic roofing materials, construction materials, packaging for construction materials, wire, electrical insulation, and treated or coated wood. (11-11-96, 9-14-98)

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**.1903 PERMISSIBLE OPEN BURNING[**

- (a) All open burning is prohibited except open burning allowed under Paragraphs (b) and

(d)]<sup>3</sup> of this Rule or Rule .1904 of this Section.

- (b) The following types of open burning are permissible without a permit:
  - (1) open burning of leaves, tree branches or yard trimmings, excluding logs and stumps, if the following conditions are met:
    - (A) The material burned originates on the premises of private residences and is burned on those premises;
    - (B) There are no public pickup services available;
    - (C) Non-vegetative materials, such as household garbage or other man-made materials are not burned;
    - (D) The burning is started no earlier than 8:00 a.m. and no additional combustible material is added to the fire between 6:00 p.m. on one day and 8:00 a.m. on the following day;
    - (E) The burning does not create a nuisance; and
    - (F) Material is not burned when the Division of Forest Resources has banned burning for that area;
  - (2) open burning for land clearing or right-of-way maintenance if the following conditions are met:
    - (A) Prevailing winds at the time of burning are away from any area, including public road within 250 feet of the burning as measured from the edge of the pavement or other roadway surface, which may be significantly affected by smoke, ash, or other air pollutants from the burning;
    - (B) The location of the burning is at least 1,000 feet from any dwelling, group of dwellings, or commercial or institutional establishment, or other occupied structure not located on the property on which the burning is conducted. The Director may grant exceptions to the setback requirements if:
      - (i) a signed, written statement waiving objections to the open burning associated with the land clearing operation is obtained before the open burning begins from all residents or owners of dwellings, commercial or institutional establishments, or other occupied structures within 1,000 feet of the open burning site, or
      - (ii) an air curtain burner as described in Rule .1904 of this Section, is utilized at the open burning site;
    - (C) Heavy oils, asphaltic materials such as shingles and other roofing materials, items containing natural or synthetic rubber, or any materials other than plant growth are not burned. However, kerosene, distillate oil, or diesel fuel may be used to start the fire;
    - (D) Initial burning begins only between the hours of 8:00 a.m. and 6:00 p.m., and no combustible material is added to the fire between 6:00 p.m. on one day and 8:00 a.m. on the following day, except that, under favorable meteorological conditions, deviation from these hours of burning may be granted by the Director. The owner or operator of the open burning operation shall be responsible for obtaining written approval for burning

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<sup>3</sup>See 3B .0102(a)(17); “**WITHOUT A PERMIT** (a) All open burning is prohibited except open burning allowed under Paragraph (b)” changed to “(a) All open burning is prohibited except open burning allowed under Paragraphs (b) and (d)” in the County Code.

- during periods other than those specified in this Part; and
- (E) No fires are started or vegetation is added to existing fires when the Division of Forest Resources has banned burning for that area. [The material to be burned must originate from the land being cleared or the area being maintained.]<sup>4</sup>;
- (3) camp fires and fires used solely for outdoor cooking and other recreational purposes, or for ceremonial occasions, or for human warmth and comfort and which do not create a nuisance and do not use synthetic materials or refuse or salvageable materials for fuel;
- (4) fires purposely set to forest lands for forest management practices acceptable to the Division of Forest Resources;
- (5) fires purposely set to agricultural lands for disease and pest control and fires set for other agricultural or apicultural practices acceptable to the Department of Agriculture;
- (6) fires purposely set for wildlife management practices acceptable to the Wildlife Management Commission;
- (7) fires for the disposal of dangerous materials when it is the safest and most practical method of disposal;
- (8) fires for the disposal of material generated as a result of a natural disaster, such as tornado, hurricane, or flood if the Director grants permission for the burning. The person desiring to do the burning shall document to the Director that there is no other practical method of disposal of the waste. Factors that the Director shall consider in granting permission for the burning include type, amount, and nature of combustible substances. The Director shall not grant permission for the burning if the primary purpose of the fire is to dispose of synthetic materials or refuse or recovery of salvageable materials. Fires authorized under this Subparagraph shall comply with the conditions of Subparagraph (b)(2) of this Rule;
- (9) fires purposely set by manufacturers of fire extinguishing materials or equipment, testing laboratories, or other persons, for the purpose of testing or developing these materials or equipment in accordance with a valid standard qualification program;
- (10) fires purposely set for the instruction and training of fire-fighting personnel, including fires at permanent fire-fighting training facilities, or when conducted under the supervision of or with the cooperation of one or more of the following agencies:
- (A) the Division of Forest Resources,
- (B) the North Carolina Insurance Department,
- (C) North Carolina technical institutes, or
- (D) North Carolina community colleges, including:
- (i) the North Carolina Fire College, or
- (ii) the North Carolina Rescue College; and
- (11) fires not described in Subparagraph (10) of this Paragraph [or in Paragraph (d) of

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<sup>4</sup>See 3B .0102 (a)(20) & (23); “Debris from land clearing or right-of-way maintenance may be carried off-site for open burning to facilities permitted in accordance with Rule .1904 of this Section for the operation of an air curtain burner. However, no material may be taken off-site for open burning in areas where a permitted air curtain burner is not available” deleted and the bracketed statement is added to the County Code.

this Section]<sup>5</sup>, purposely set for the instruction and training of fire-fighting personnel, provided that:

- (A) The Director [has]<sup>6</sup> been notified according to the procedures and deadlines contained in the appropriate Forsyth County notification form. This form may be obtained by writing the Forsyth County Environmental Affairs Department at the address in Rule .1905 of this Section and requesting it, and
- (B) The Director has granted permission for the burning. Factors that the Director shall consider in granting permission for the burning include type, amount, and nature of combustible substances. The Director shall not grant permission for the burning of salvageable items, such as insulated wire and electric motors or if the primary purpose of the fire is to dispose of synthetic materials or refuse. The Director shall not consider previously demolished structures as having training value. However, the Director may allow an exercise involving the burning of motor vehicles burned over a period of time by a training unit or by several related training units. Any deviations from the dates and times of exercises, including additions, postponements, and deletions, submitted in the schedule in the approved plan shall be communicated verbally to the Director at least one hour before the burn is scheduled.

(c) The authority to conduct open burning under this Section does not exempt or excuse any person from the consequences, damages or injuries which may result from this conduct. It does not excuse or exempt any person from complying with all applicable laws, ordinances, rules or orders of any other governmental entity having jurisdiction even though the open burning is conducted in compliance with this Section.

(d) In Forsyth County a Burning Permit shall be obtained for intentional burning of any institutional, commercial, public, industrial, or residential structure, installation, or building, for the instruction and training of fire-fighting personnel. A permit application may be obtained from the Forsyth County Environmental Affairs Department, at the address noted under Rule .1905. The permit shall be obtained prior to burning. Burning shall take place within the dates specified by the permit, or the Department shall be notified and the permit shall be revised, if necessary, prior to burning.]<sup>7</sup> (11-11-96, 7-28-97, 10-25-99)

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<b>1<sup>st</sup> Revision</b>	<b>OCT 10, 1997</b>	<b>DEC 31, 1998</b>	<b>63 FR 72190</b>
<b>2<sup>nd</sup> Revision</b>	<b>OCT 25, 1999</b>	<b>AUG 8, 2002</b>	<b>67 FR 51763</b>

**.1904 AIR CURTAIN BURNERS**

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<sup>5</sup>See 3B .0102(a)(18); “or Paragraph (d) of this Section” added to the County Code.

<sup>6</sup>See 3B .0102(a)(15); “and the HHCB have” not adopted in the County Code.

<sup>7</sup>See 3B .0102(a)(19); Paragraph “(d)” added to the County Code.

(a) Air permits shall not be required for air curtain burners located at temporary land clearing or right-of-way maintenance sites for less than nine months. [ ]<sup>8</sup>

(b) Air curtain burners described in Paragraph (a) of this Rule shall comply with the following conditions and stipulations:

- (1) Prevailing winds at the time of burning shall be away from any area, including public road within 250 feet of the burning as measured from the edge of the pavement or other roadway surface, which may be significantly affected by smoke, ash, or other air pollutants from the burning;
- (2) Only collected land clearing [ ]<sup>9</sup> materials may be burned. Heavy oils, asphaltic materials, items containing natural or synthetic rubber, tires, grass clippings, collected leaves, paper products, plastics, general trash, garbage, or any materials containing painted or treated wood materials shall not be burned. Leaves still on trees or brush may be burned;
- (3) No fires shall be started or material added to existing fires when the Division of Forest Resources has banned burning for that area;
- (4) Burning shall be conducted only between the hours of 8:00 a.m. and 6:00 p.m.;
- [(5) Reserved;
- (6) Reserved;]<sup>10</sup>
- (7) Air curtain burners shall meet manufacturers specifications for operation and upkeep to ensure complete burning of material charged into the pit. Manufacturers specifications shall be kept on site and be available for inspection by Department staff;
- (8) Except during start-up, visible emissions shall not exceed five percent opacity when averaged over a six-minute period except that one six-minute period with an average opacity of more than five percent but no more than 35 percent shall be allowed for any one-hour period. During start-up, the visible emissions shall not exceed 35 percent opacity when averaged over a six-minute period. Start-up shall not last for more than 30 minutes, and there shall be no more than one start-up per day;
- (9) The owner or operator of an air curtain burner shall not allow ash to build up in the pit to a depth higher than one-third of the depth of the pit or to the point where the ash begins to impede combustion, whichever occurs first. The owner or operator of an air curtain burner shall water the ash prior to its removal to prevent the ash from becoming airborne;
- (10) The owner or operator of an air curtain burner shall not load material into the air curtain burner such that it will protrude above the air curtain;
- (11) Only distillate oil, kerosene, diesel fuel, natural gas, or liquefied petroleum gas

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<sup>8</sup>See 3B .0102(a)(20); “However, air permits shall be required for air curtain burners located at permanent sites or where materials are transported in from another site.” not adopted in the County Code.

<sup>9</sup>See 3B .0102(a)( 21); “and yard waste” not adopted in the County Code.

<sup>10</sup> See 3B .0102(a)(20); “(5) The air curtain burner shall not be operated more than the maximum source operating hours-per-day and days-per-week. The maximum source operating hours-per-day and days-per-week shall be set to protect the ambient air quality standard and prevention of significant deterioration (PSD) increment for particulate. If the air curtain burner will: (A) burn 35 tons of material per day or more in an area where the particulate baseline date for the PSD has been triggered, or (B) burn 210 tons of material per day or more in an area where the particulate baseline date for PSD has not been triggered, the maximum source operating hours-per-day and days-per-week shall be determined using the modeling procedures in Rule .1106(b), (c), and (f) of this Subchapter. This Subparagraph shall not apply to temporary air curtain burners; (6) Operators of the air curtain burner shall be certified to read visible emissions and the facility shall be tested for visible emissions within 90 days after initial operation and within 90 days before permit expiration;” not adopted in the County Code.

- may be used to start the fire; and
- (12) The location of the burning at temporary sites shall be at least 500 feet from any dwelling, group of dwellings, or commercial or institutional establishment, or other occupied structure not located on the property on which the burning is conducted.
- [(13) The material to be burned must originate from the land being cleared or the area being maintained.]<sup>11</sup>

Compliance with this Rule does not relieve any owner or operator of an air curtain burner from the necessity of complying with other rules in this Section or any other air quality rules.

(c) Recordkeeping Requirements. [ ]<sup>12</sup> The owner or operator of an air curtain burner at a temporary site shall keep a log of total number of tons burned per temporary site.

(d) Title V Considerations. Burners that have the potential to burn 15,000 tons of material or more per year may be subject to Subchapter 3Q .0500, Title V Procedures.

(e) Prevention of Significant Deterioration Consideration. Burners that burn 38,000 tons per year or more may be subject to 3D .0530, Prevention of Significant Deterioration. (11-11-96, 10-25-99)

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**.1905 OFFICE LOCATION**

Inquiries, requests and plans shall be handled by the Environmental Affairs Department, located at 537 North Spruce Street, Winston-Salem, NC 27101-1362. (11-11-96)

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<sup>11</sup>See 3B .0102(a)(23); The statement is added to the County Code.

<sup>12</sup>See 3B .0102(a)(20); “The owner or operator of an air curtain burner at a permanent site shall keep a daily log of specific materials burned and amounts of material burned in pounds per hour and tons per year.” not adopted in the County Code.