

CHAPTER 3

AIR QUALITY CONTROL¹

SUBCHAPTER 3D - AIR POLLUTION CONTROL REQUIREMENTS

SECTION .0300 - AIR POLLUTION EMERGENCIES

.0301 PURPOSE

Notwithstanding any other provisions of air pollution control regulations or standards, this Section is designed to prevent the excessive buildup of air contaminants during air pollution episodes thereby preventing the occurrence of an emergency due to the effects of these contaminants on the public health. (Ord. No. 9-94, 12-19-94)

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.0302 EPISODE CRITERIA

Conditions justifying the proclamation of an air pollution alert, air pollution warning, or air pollution emergency shall be deemed to exist whenever the Director determines that the accumulation of air contaminants in any place is attaining or has attained levels that could, if such levels are sustained or exceeded, lead to a threat to the health of the public. In making this determination, the Director shall be guided by the following criteria:

- (1) Air Pollution Forecast. An internal watch by the N.C. Division of Air Quality and the Forsyth County Environmental Affairs Department shall be activated by a National Weather Service advisory that an atmospheric stagnation advisory is in effect, or the equivalent local forecast of stagnant atmospheric conditions.
- (2) Alert. The alert level is that concentration of pollutants at which first stage control actions are to begin. The Director shall proclaim an alert when any of the following levels is reached at any monitoring site:
 - (A) sulfur dioxide -- 800 ug/m³ (0.3 p.p.m.), 24-hour average;
 - (B) particulate -- 375 ug/m³, 24-hour average;
 - (C) sulfur dioxide and particulate combined -- product of sulfur dioxide ug/m³, 24-hour average, and particulate ug/m³, 24-hour average, equal to 65,000;
 - (D) carbon monoxide -- 17 mg/m³ (15 p.p.m.), eight-hour average;

¹**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).

- (E) ozone -- 400 ug/m³ (0.2 p.p.m.), one-hour average;
- (F) nitrogen dioxide -- 1130 ug/m³ (0.6 p.p.m.), one-hour average; 282 ug/m³ (0.15 p.p.m.), 24-hour average;
- (G) PM10--350 ug/m³, 24-hour average;

and meteorological conditions are such that pollutant concentrations can be expected to remain at these levels for 12 or more hours or increase or, for ozone, the situation is likely to recur within the next 24- hours unless control actions are taken.

(3) Warning. The warning level indicates that air quality is continuing to degrade and that additional abatement actions are necessary. The Director shall proclaim a warning when any one of the following levels is reached at any monitoring site:

- (A) sulfur dioxide -- 1600 ug/m³(0.6 p.p.m.), 24-hour average;
- (B) particulate -- 625 ug/m³, 24-hour average;
- (C) sulfur dioxide and particulate combined -- product of sulfur dioxide ug/m³, 24-hour average, and particulate ug/m³, 24-hour average, equal to 261,000;
- (D) carbon monoxide -- 34 mg/m³ (30 p.p.m.), eight-hour average;
- (E) ozone -- 800 ug/m³ (0.4 p.p.m.), one-hour average;
- (F) nitrogen dioxide -- 2260 ug/m³ (1.2 p.p.m.), one-hour average; 565 ug/m³ (0.3 p.p.m.), 24-hour average;
- (G) PM10--420 ug/m³; 24-hour average;

and meteorological conditions are such that pollutant concentrations can be expected to remain at these levels for 12 or more hours or increase or, for ozone, the situation is likely to recur within the next 24 hours unless control actions are taken.

(4) Emergency. The emergency level indicates that air quality is continuing to degrade to a level that should never be reached and that the most stringent control actions are necessary. The Secretary of the Department of Environment and Natural Resources with the concurrence of the Governor shall declare an emergency when any one of the following levels is reached at any monitoring site:

- (A) sulfur dioxide -- 2100 ug/m³ (0.8 p.p.m.), 24-hour average;
- (B) particulate -- 875 ug/m³, 24-hour average;
- (C) sulfur dioxide and particulate combined -- product of sulfur dioxide ug/m³, 24-hour average, and particulate ug/m³, 24-hour average, equal to 393,000;
- (D) carbon monoxide -- 46 mg/m³ (40 p.p.m.), eight-hour average;
- (E) ozone -- 1000 ug/m³ (0.5 p.p.m.), one-hour average;
- (F) nitrogen dioxide -- 3000 ug/m³ (1.6 p.p.m.), one-hour average; 750 ug/m³ (0.4 p.p.m.), 24-hour average;
- (G) PM10--500 ug/m³, 24-hour average.

(5) Termination. Once declared any level reached by application of these criteria shall remain in effect until the criteria for that level are no longer met. At that time the next lower level shall be assumed. (Ord. No. 9-94, 12-19-94, 9-14-98)

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.0303 EMISSION REDUCTION PLANS

(a) Air Pollution Alert. Any person responsible for the operation of a source of air pollution described in Regulation .0305 of this Section, shall take all air pollution alert actions required for that source and shall put into effect the preplanned program for an air pollution alert.

(b) Air Pollution Warning. Any person responsible for the operation of a source of air pollution described in Regulation .0306 of this Section, shall take all air pollution warning actions required for that source and shall put into effect the preplanned program for an air pollution warning.

(c) Air Pollution Emergency. Any person responsible for the operation of a source of air pollution described in Regulation .0307 of this Section, shall take all air pollution emergency actions required for that source and shall put into effect the preplanned program for an air pollution emergency. (Ord. No. 9-94, 12-19-94)

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.0304 PREPLANNED ABATEMENT PROGRAM

(a) Any person who is responsible for the operation of a source of air pollution that is described in Regulations .0305, .0306, or .0307 of this Section, or that emits 100 tons per year or more of any one pollutant shall prepare a plan to reduce the emissions of air pollutants into the outdoor atmosphere during periods of an air pollution episode. The plan shall be consistent with good industrial practices and safe operating procedures. When the Director requests that the plan be submitted for his review, the owner or operator of the source shall submit the plan within 30 days of the Director's request.

(b) When requested by the Director in writing, any person responsible for the operation of a source not described in Regulations .0305, .0306, or .0307 of this Section, shall prepare a plan to reduce the emissions of air pollutants into the outdoor atmosphere during periods of air pollution alert, air pollution warning, and air pollution emergency. The plan shall be consistent with good industrial practices and safe operating procedures. (Ord. No. 9-94, 12-19-94)

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.0305 EMISSION REDUCTION PLAN: ALERT LEVEL

- (a) General
 - (1) There shall be no open burning by any person of trade waste, vegetation, refuse, or debris in any form.
 - (2) The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12- noon and 4:00 p.m.
 - (3) Persons operating fuel burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12-noon and 4:00 p.m.
 - (4) Persons operating motor vehicles should eliminate all unnecessary operations.
- (b) Source Curtailment. Any person responsible for the operation of a source of air pollution shall take all required control actions for the alert level that are listed below:
 - (1) Operators of coal or oil fired electric power generating facilities shall:
 - (A) use fuels having low ash and sulfur content,
 - (B) perform boiler lancing and soot blowing between 12-noon and 4:00 p.m., and
 - (C) divert electric power generation to facilities outside of alert area;
 - (2) Operators of coal or oil fired process steam generating facilities shall:
 - (A) use fuels having low ash and sulfur content,
 - (B) perform boiler lancing and soot blowing between 12-noon and 4:00 p.m., and
 - (C) reduce steam load demands consistent with continuing plant operation;
 - (3) Operators of manufacturing industries of the following classifications: primary metals industry; petroleum refining and related industries; chemical and allied products industries; paper and allied products industries; glass, clay, and concrete products industries shall:
 - (A) reduce air pollutants from manufacturing operations by curtailing, postponing or deferring production and related operations;
 - (B) defer trade waste disposal operations which emit particles, gases, vapors, or malodorous substances;
 - (C) reduce heat load demands for processing; and
 - (D) perform boiler lancing or soot blowing between 12-noon to 4:00 p.m.;
 - (4) Municipal and commercial refuse disposal operations shall limit burning of refuse in incinerators to hours between 12-noon to 4:00 p.m.;
 - (5) Other persons requested by the commission to prepare a preplanned abatement plan shall take all required control actions for the alert level contained in their plan. (Ord. No. 9-94, 12-19-94)

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.0306 EMISSION REDUCTION PLAN: WARNING LEVEL

(a) General

- (1) There shall be no open burning by any person of trade waste, refuse, vegetation, or debris in any form.
- (2) The use of incinerators for the disposal of solid waste or liquid waste shall be prohibited.
- (3) Persons operating fuel burning equipment which requires boiler lancing or soot blowing shall perform such operations only between 12-noon and 4:00 p.m.
- (4) Persons operating motor vehicles should minimize their use through car pools and increased use of public transportation.

(b) Source Curtailment. Any person responsible for the operation of a source of air pollution shall take all required control actions for the warning level that are listed below:

- (1) Operators of coal or oil fired electric power generating facilities shall:
 - (A) use fuels having the lowest ash and sulfur content,
 - (B) perform boiler lancing and soot blowing between 12-noon to 4:00 p.m., and
 - (C) divert electric power generating to facilities outside of warning area;
- (2) Operators of coal or oil fired process steam generating facilities shall:
 - (A) use fuels having the lowest ash and sulfur content,
 - (B) perform boiler lancing and soot blowing between 12-noon to 4:00 p.m.,
 - (C) reduce steam load demands consistent with continuing plant operations, and
 - (D) prepare to use the plan of action to be taken if an emergency develops;
- (3) Operators of manufacturing industries of the following classifications: primary metal industries; petroleum refining and related industries; chemical and allied products industries; paper and allied products industries; glass, clay and concrete products industries shall:
 - (A) reduce air pollutants from manufacturing operations by, if necessary, assuming reasonable economic hardship by postponing production and related operations;
 - (B) defer trade waste disposal operations which emit particles, gases, vapors, or malodorous substances;
 - (C) reduce heat load demands for processing consistent with continuing plant operations; and
 - (D) perform boiler lancing or soot blowing between 12- noon to 4:00 p.m.;
- (4) Municipal and commercial refuse disposal operations shall stop incinerating waste;
- (5) Other persons requested by the commission to prepare a preplanned abatement plan shall take all required control actions for the warning level contained in their plan. (Ord. No. 9-94, 12-19-94)

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.0307 EMISSION REDUCTION PLAN: EMERGENCY LEVEL

(a) General

- (1) There shall be no open burning by any person of trade waste, vegetation, refuse, or debris in any form.
- (2) The use of incinerators for the disposal of any form of solid or liquid waste shall be prohibited.
- (3) All places of employment described below shall immediately cease operations:
 - (A) mining and quarrying of nonmetallic minerals;
 - (B) all manufacturing establishments except those required to have in force an air pollution emergency plan;
 - (C) all construction work involving grading or other operations which generate dust;
 - (D) all wholesale and retail establishments except pharmacies and stores primarily engaged in the sale of food;
 - (E) all commercial and manufacturing establishments, automobile repair services and garages, laundries, barbershops, beauty shops and motion picture theaters; and
 - (F) elementary and secondary schools, colleges, universities and professional schools.
- (4) The use of motor vehicles is prohibited except in emergencies with the approval of local or state police.

(b) Source Curtailment. Any person responsible for the operation of a source of air pollution shall take all required control actions for the emergency level that are listed below:

- (1) Operators of coal or oil fired electric power generating facilities shall:
 - (A) use fuels having lowest ash and sulfur content,
 - (B) perform boiler lancing or soot blowing between 12-noon to 4:00 p.m.,
 - (C) divert electric power generating to facilities outside of emergency area;
- (2) Operators of coal or oil fired process steam generating facilities shall:
 - (A) reduce heat and steam demands to that absolutely necessary to prevent equipment damage,
 - (B) perform boiler lancing and soot blowing between 12-noon and 4:00 p.m.,
 - (C) take the action called for in the abatement plan;
- (3) Operators of manufacturing industries of the following classifications: primary metals industries; petroleum refining and related industries; chemical and allied products industries; paper and allied products industries; glass, clay and concrete products industries shall:
 - (A) eliminate air pollutants from manufacturing operations by ceasing, curtailing, postponing or deferring production and related operations to the extent possible without causing injury to persons or damage to equipment;
 - (B) eliminate air pollution from trade waste disposal processes which emit particles, gases, vapors, or malodorous substances;
 - (C) reduce heat load demands for processing to the minimum;
 - (D) perform boiler lancing or soot blowing between 12-noon to 4:00 p.m.;
- (4) Municipal and commercial refuse disposal operations shall stop incinerating waste;

- (5) Other persons requested by the commission to prepare a preplanned abatement plan shall take all required control actions for the emergency level contained in their plan. (Ord. No. 9-94, 12-19-94)
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