

310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

310 CMR 8.00: THE PREVENTION AND/OR ABATEMENT OF AIR POLLUTION EPISODE AND AIR POLLUTION INCIDENT EMERGENCIES

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8.01: Introduction

The purpose of 310 CMR 8.00 is to prevent ambient air contaminant concentrations at any location in the Commonwealth from reaching levels which would constitute significant harm, or imminent and substantial endangerment to the health of persons. The levels which would constitute significant harm, or imminent and substantial endangerment, to the health of persons as have been defined by the Administrator of the Environmental Protection Agency are set forth in Table 1.

TABLE 1.  
CONTAMINANT CONCENTRATION LEVELS

Prescribed by the EPA Administrator as would cause significant harm, or Imminent and Substantial Endangerment, to Health.

Ambient Air Contaminant Concentration Levels					
Contaminant	Ave. ug/m <sup>3</sup>	ppm	COHs	Duration (average)	Product
Sulfur Dioxide (SO <sub>2</sub> )	2,620	1.0		24-hr.	
Particulate Matter					
PM10	600			24-hr.	
Tape Stain (COHs)			8	24-hr.	
Product of: (SO <sub>2</sub> ) X (COHs) (SO <sub>2</sub> )			(COHs)	24-hr.	1.5
Carbon Monoxide	144,000	125		1-hr.	
Carbon Monoxide	86,300	75		4-hr.	
Carbon Monoxide	57,500	50		8-hr.	
Photochemical Oxidant	1,200	0.6*		1-hr.	
Nitrogen Dioxide	3,750	2.0		1-hr.	

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Nitrogen Dioxide	938	0.5	24-hr.
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\*expressed as Ozone (O<sub>3</sub>)

8.02: Definitions

When used in 310 CMR 8.00 and in communications, notices, or orders relative thereto, the following words and phrases shall have the meanings ascribed below:

Air Contaminant means any substance or man-made physical phenomenon in the ambient air space and includes, but is not limited to dust, flyash, gas, fume, mist, odor, smoke, vapor, pollen, microorganism, radioactive material, ionizing radiation, heat, sound, any combination thereof, or any decay or reaction product thereof.

Air Contaminant Source means any place at or from which any air contaminant is emitted to the ambient air space.

Air Pollution means the presence in the ambient air space of one or more air contaminants or combinations thereof in such concentrations and of such duration as to:

- (a) cause a nuisance;
- (b) be injurious to human or animal life, to vegetation, or to property; or
- (c) unreasonably interfere with the comfortable enjoyment of life and property or the conduct of business.

Air Pollution Episode means a state of the ambient air environment in which the concentrations of air contaminants are elevated to or are in excess of certain defined levels and that certain meteorological conditions are expected to continue.

Air Pollution Episode Alert (APEA) means that degree of Air Pollution Episode which meets the criteria for determination of an Air Pollution Episode Alert as set forth in 310 CMR 8.03.

Air Pollution Episode Emergency (APEE) means that degree of Air Pollution Episode which meets the criteria for determination of an Air Pollution Episode Emergency as set forth in 310 CMR 8.03.

Air Pollution Episode Warning (APEW) means that degree of Air Pollution Episode which meets the criteria for determination of an Air Pollution Episode Warning as set forth in 310 CMR 8.03.

Air Pollution Incident Emergency (APIE) means a condition in the atmosphere in the Commonwealth or any part thereof, which constitutes a present or reasonably imminent danger to health.

Ambient Air Space means unconfined space occupied by the atmosphere above the geographical area of the District.

Atmospheric Stagnation Advisory means an advisory, issued by the National Weather Service, relative to meteorological conditions that are predicted to be manifest for 36 hours or more and to be characterized by poor ventilation and potential increase of ambient air contaminant concentration levels. (The advisories may be prepared for regions of substantial area, or as the need may dictate, for local, relatively small areas.)

COH - Coefficient of Haze means the unit which quantifies the increase in photometric density of a filter tape due to deposition of particles per 1000 linear feet of air through a one inch diameter filter when sampled at the rate of approximately 0.25 cfm.

Commissioner means the Commissioner of the Department of Environmental Protection or his official designees.

Department means the Department of Environmental Protection.

Emission means any discharge or release of an air contaminant to the ambient air space.

8.02: continued

Emission Reduction Plan(s) means the plans for reducing emissions during Air Pollution Episode Alerts, Warning, and/or Emergencies.

ug/m<sup>3</sup> means micrograms per cubic meter.

News Media means certain channels of communication by which information is conveyed between persons; it includes, but is not limited to, radio, television, and newspapers.

p.p.m. means parts per million.

Person means any individual, partnership, association, firm, syndicate, company, trust, corporation, department, authority, bureau, agency, political subdivision of the Commonwealth, law enforcement agency, fire fighting agency, or any other entity recognized by law as the subject of rights and duties.

PM10 or Particulate Matter 10 means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method based on Appendix J of Part 50 of CFR and designated in accordance with Part 53 or by an equivalent method designated in part 53.

8.03: Air Pollution Episode Criteria

(1) Episode Criteria. Conditions justifying the proclamation of air pollution alert, air pollution warning, or air pollution emergency shall be deemed to exist whenever the Department determines that the accumulation of air pollutants in any place is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a substantial threat to the health of persons. In making this determination, the Department will be guided by the following criteria:

(a) Air Pollution Forecast. An internal watch by the Department shall be actuated by a National Weather Service advisory that Atmospheric Stagnation Advisory is in effect.

(b) Alert. The Alert level is that concentration of pollutants at which first stage control actions is to begin. An Alert will be declared when any one of the levels listed in 310 CMR 8.03(2)(a) is reached at any monitoring site and meteorological conditions are such that the Department is of the opinion that, unless appropriate control actions to reduce emissions are taken, ambient air contaminant concentration levels will remain at or in excess of the above levels for 12 or more hours.

(c) Warning. The warning level indicates that air quality is continuing to deteriorate and that additional control actions are necessary. A warning will be declared when any one of the levels listed in 310 CMR 8.03(2)(b) is reached at any monitoring site and meteorological conditions are such that the Department is of the opinion that, unless appropriate control actions to reduce emissions are taken, ambient air contaminant concentration levels will remain at or in excess of the above levels for 12 or more hours.

(d) Emergency. The emergency level indicates that air quality is continuing to deteriorate toward a level of significant harm to the health of persons and that the most stringent control actions are necessary. An emergency will be declared when any one of the levels listed in 310 CMR 8.03(2)(c) is reached at any monitoring site and meteorological conditions are such that the Department is of the opinion that, unless appropriate control actions to reduce emissions are taken, ambient air contaminant concentration levels will remain at or in excess of the above levels for 12 or more hours.

(e) Termination. Once declared, any status reached by application of these criteria will remain in effect until the criteria for that level are no longer met. At such time, the next lower status will be assumed, or the episode will be declared over.

8.03: continued

(2) Criteria to be used to determine an Air Pollution Episode.

8.03(2)(a) Criteria for Determination of Air Pollution Episode Alert (APEA)

CONTAMINANT	Ambient Air Contaminant Concentration Levels				
	Ave. ug/m <sup>3</sup>	ppm	COHs	Duration	Product
Sulfur Dioxide (SO <sub>2</sub> )	800	0.3		24-hr.	
Particulate Matter PM10	350			24-hr.	
Tape Stain (COHs)			3	24-hr.	
Product of: (SO <sub>2</sub> ) X (COHs)		(SO <sub>2</sub> )	(COHs)	24-hr.	0.2
Carbon Monoxide	17,000	15		8-hr.	
Ozone (O <sub>3</sub> )	400	0.2		1-hr.	
Nitrogen Dioxide	1,130	0.6		1-hr.	
Nitrogen Dioxide	282	0.15		24-hr.	

Meteorological Conditions are such that the Department is of the opinion that, unless appropriate control actions to reduce emissions are taken, ambient air contaminant levels will remain at or in excess of the above levels for 12 or more hours.

8.03(2)(b) Criteria for Determination of Air Pollution Episode Warning (APEW)

CONTAMINANT	Ambient Air Contaminant Concentration Levels				
	Ave. ug/m <sup>3</sup>	ppm	COHs	Duration	Product
Sulfur Dioxide (SO <sub>2</sub> )	1,600	0.6		24-hr.	
Particulate Matter PM10	420			24-hr.	
Tape Stain (COHs)			5	24-hr.	
Product of: (SO <sub>2</sub> ) X (COHs)		(SO <sub>2</sub> )	(COHs)	24-hr.	0.8
Carbon Monoxide	34,000	30		8-hr.	
Ozone (O <sub>3</sub> )	800	0.4		1-hr.	
Nitrogen Dioxide	2,260	1.2		1-hr.	
Nitrogen Dioxide	565	0.3		24-hr.	

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Meteorological Conditions are such that the Department is of the opinion that, unless appropriate control actions to reduce emissions are taken, ambient air contaminant levels will remain at or in excess of the above levels for 12 or more hours.

8.03: continued

8.03(2)(c) Criteria for Determination of Air Pollution Episode  
Emergency (APEE)

CONTAMINANT	Ambient Air Contaminant Concentration Levels				Product
	Ave. ug/m <sup>3</sup>	ppm	COHs	Duration	
Sulfur Dioxide (SO <sub>2</sub> )	2,100	0.8		24-hr.	
Particulate Matter					
PM10	500			24-hr.	
Tape Stain (COHs)			8	24-hr.	
Product of:					
(SO <sub>2</sub> ) X (COHs)		(SO <sub>2</sub> )	(COHs)	24-hr.	1.2
Carbon Monoxide	46,000	40		8-hr.	
Ozone (O <sub>3</sub> )	1,000	0.5		1-hr.	
Nitrogen Dioxide	3,000	1.6		1-hr.	
Nitrogen Dioxide	750	0.4		24-hr.	

Meteorological Conditions are such that the Department is of the opinion that ambient air contaminant levels will remain at or in excess of the above levels for 12 or more hours.

8.04: Air Pollution Episode Potential Advisories

- (1) Atmospheric Stagnation Advisories received by the Department shall be evaluated by the Department in light of manifest local meteorological conditions, weather forecast, ambient air contaminant concentration levels observed, and anticipated weather-influenced emissions.
- (2) During periods of suspected poor atmospheric ventilation, Atmospheric Stagnation Advisories, and Air Pollution Episodes, the Department will maintain close liaison with the National Weather Service to exchange information of mutual benefit.

8.05: Declaration of Air Pollution Episodes and Incidents

- (1) The Commissioner, based upon the Department's evaluation of such information relative to ambient air contaminant concentration levels as may be available to the Department, meteorological conditions extant, the Criteria set forth in 310 CMR 8.03 and/or other substantive and germane information, shall declare an
  - (a) Air Pollution Episode Alert,
  - (b) Air Pollution Episode Warning, or
  - (c) Air Pollution Incident Emergency.

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8.05: continued

	<u>Alert</u>	<u>Warning</u>	<u>Emergency</u>	<u>PM</u> <u>SO<sub>2</sub></u>	<u>O<sub>3</sub></u>	<u>CO</u>
Process Steam Generating Facility	-	-	X	X		
Boiler lancing or soot blowing between 12 AM - 4AM unless notified otherwise by the Department	X	X	X	-	-	-
Use of lowest sulfur content fuel available	X	X	X	X	-	-
Use of lowest ash content fuel available	X	X	X	X	-	-
Purchase instead of generate electric power from steam	X	X	X	X	-	-
Make ready for use of ERP	-	X	-	X	-	-
Put ERP into operation	-	-	X	X	-	-
Other Industries						
Boiler lancing or soot blowing between 12AM - 4PM unless notified otherwise by the Department	X	X	X	-	-	-
Purchase instead of generate electric power	X	X	X	X*	-	-
Make ready for ERP	-	X	-	X*	-	-
Put ERP into operation	-	-	X	X*	-	-
Notification of sensitive persons	X	X	X	X	X	X
Stop all sandblasting and demolition activities	X	X	X	X	-	-
Stop construction activities that generate pollutants	X	X	X	X	-	-
The following shall cease operations						
Mining and quarrying of non-metallic minerals	-	-	X	-	-	-
Manufacturing establishments with no ERP	-	-	X	-	-	-
Wholesale trade establishments	-	-	X	-	-	-
Non-essential local, county, state, and federal offices	-	-	X	-	-	-
Retail trade establishments	-	-	X	-	-	-
Banks, credit agencies, etc.	-	-	X	-	-	-
Domestic services	-	-	X	-	-	-
Recreational and sporting Facilities and events	-	-	X	-	-	-
Educational institutions	-	-	X	-	-	-

\* applies only to Industries discharging organics

(2) The Commissioner, with the approval of the Governor, based upon the Department's evaluation of such information relative to the ambient air contaminant concentration levels as may be available to the Department, meteorological conditions extant, the Criteria set forth in 310 CMR 8.03 and/or other substantive and germane information may declare an Air Pollution Episode Emergency.

## 8.05: continued

(3) When an Air Pollution episode or Incident Emergency is declared, the Commissioner shall specify the contaminant(s) and portion(s) of the Commonwealth in which said Episodes or Incident Emergencies pertain.

(4) Notice of a declaration of an Air Pollution Episode or Incident Emergency shall be made through the News Media to the extent feasible and such other means of communication as the Commissioner deems appropriate.

8.06: Termination of Air Pollution Episodes and Incident Emergencies

(1) Whenever an Air Pollution Episode is declared, said level (or status) of episode will remain in effect until the criteria for that said level are no longer being met and, at such time, the next lower level (or status) will be assumed.

(2) When the conditions which occasioned the need for declaration of an Air Pollution Episode or Incident Emergency no longer exist, the Commissioner shall declare a termination.

8.07: Emission Reductions Strategies

Upon the declaration of an Air Pollution Episode, any person responsible for or having control over an ambient air contaminant emission source shall implement, to the extent possible, any indicated action strategies as listed below for the episode level and contaminant of concern as declared by the Commissioner.

<u>Action Strategies</u>	<u>Alert</u>	<u>Warning</u>	<u>Emergency</u>	<u>PM SO<sub>2</sub></u>	<u>O<sub>3</sub></u>	<u>CO</u>
Notification to sensitive persons	x	x	x	x	x	x
APC Regulations in force	x	x	x	x	x	x
Open burning variances cancelled	x	x	x	x	x	x
Incinerator use not allowed	-	x	x	x	-	-
Request public to voluntarily curtail motor vehicle use	x	-	-	-	x	x
Stop unnecessary motor vehicle use	-	x	x	-	x	x
Electric Power Generating Facilities Boiler lancing or soot blowing between 12 AM - 4PM only unless notified otherwise by the Department	x	x	x	-	-	-
Electric Power Generating Facilities input capacity = 250 MBTU/hr. Use of lowest sulfur content fuel available	x	x	x	x	-	-
Use of lowest ash content fuel available	x	x	x	x	-	-
Power source switching	x	x	x	x	-	-
Make ready for use of (ERP) Emission Reduction Plan Enact ERP	-	x	-	x	-	-

8.08: Emission Reduction Plans (ERP)

- (1) Any person responsible for the operation of an emission source as set forth in 310 CMR 8.07 or any other emission source when specified by the Department in writing shall prepare standby Emission Reduction Plans (ERP) to reduce or eliminate emissions of air contaminants.
- (2) Standby Emission Reduction Plans required by 310 CMR 8.08(1) shall be in writing and shall identify the sources of air contaminants, the approximate amount of reduction of contaminants, and a brief description of the manner in which the reduction will be achieved.
- (3) ERPs Submittal and Approval.
  - (a) Standby plans (ERPs) required by 301 CMR 8.08(2) shall be submitted to the Department upon request within 30 days of the receipt of such request.
  - (b) Standby plans (ERPs) shall be subject to review and approval by the Department. If, in the opinion of the Department, any ERP is inadequate, the Department shall disapprove the plan and request the preparation of an amended plan. The Department shall give the reasons for disapproval and shall require resubmittal of the plan with a reasonable period of time as determined by the Department.
- (4) During a declared Air Pollution Episode, standby ERPs as required by 310 CMR 8.08(2) shall be made available on the premises to any person authorized to enforce the provisions of 310 CMR 8.00 and the person responsible for the operation of the emissions source shall be responsible for its implementation.
- (5) Any person responsible for the operation of a stationary emission source having a capability of emitting 100 tons or more per year of sulfur dioxide, nitrogen dioxide, particulate matter (PM), carbon monoxide, or hydrocarbons shall be subject to the provisions of 310 CMR 8.08(1), 8.08(2), 8.08(3) and 8.08(4).
- (6) Any person subject to the provisions of 310 CMR 8.08(5) shall submit an ERP to the Department for the Department's review for approval.

8.15: Air Pollution Incident Emergency (APIE)

- (1) The Commissioner shall declare an Air Pollution Incident Emergency if in his opinion, such is deemed advisable to prevent or abate a condition or impending condition which constitutes a present or reasonably imminent danger to the public health.
- (2) By nature of Air Pollution Incident Emergencies, as defined, APIE's do not lend themselves to specific pre-planned strategies for the specific emission sources as in the case of Air Pollution Episodes.
- (3) Upon declaration of an Air Pollution Incident Emergency the Commissioner or his designee shall assume and exercise such authority and powers as are provided in M.G.L. c. 111, § 2B as amended, and as the Commissioner or his designees may deem necessary to effect a prevention or an abatement of the conditions which occasioned his declaration of the APIE.
- (4) Appropriate agencies of the Commonwealth and political subdivisions thereof shall cooperate with the Commissioner and his designees in efforts to effect the prevention or abatement of the Air Pollution Incident Emergency.
- (5) Steps taken by any person to effect or assist in the prevention or abatement of an Air Pollution Incident Emergency shall not be proof conclusive in any action to establish responsibility for the event or happening that occasioned the APIE and shall not prejudice his rights under the law.

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### 8.21: Hearings

The Department will grant a hearing, upon application in writing for the purpose of reconsideration to any person to whom an Order has been issued, provided that such application is made within ten days of the receipt of the Order. The Order will remain in full force and must be obeyed during the reconsideration process unless modified by the Department.

### 8.22: Enforcement Provisions

Any official of any police department or agency, fire department or agency, or health agency of the Commonwealth or political subdivision thereof is hereby authorized to enforce, as provided for in M.G.L. c. 111, § 2B or 142B, 310 CMR 8.07, 8.08(4) and 8.09.

### 8.30: Severability

Each of section of 310 CMR 8.00 shall be construed as separate to the end that if any regulation or sentence, clause, or phrase thereof shall be held invalid for any reason, the remainder of 310 CMR 8.00 and all other regulations shall continue in full force.

### 8.31: Relief

M.G.L. c. 111, § 2B provides that any aggrieved person may appeal to the Commissioner or his designee for relief from the continuance of an Order. If the Commissioner or his designee finds that the continuance of any Order in whole or in part is unreasonable or unnecessary in light of the then prevailing conditions of air pollution, he may terminate or modify any such Order.

## REGULATORY AUTHORITY

310 CMR 8.00: M.G.L. c. 111, § 2B.