

CHAPTER 26
PREVENTION OF AIR POLLUTION EMERGENCY EPISODES

[Prior to 7/1/83, DEQ Ch 8]

[Prior to 12/3/86, Water, Air and Waste Management[900]]

567—26.1(455B) General.

26.1(1) Purpose. The provisions of this chapter are 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 health of persons.

26.1(2) Reserved.

567—26.2(455B) Episode criteria.

26.2(1) Evaluation. Conditions justifying the proclamation of an air pollution alert, air pollution warning or air pollution emergency shall be deemed to exist whenever the commission or the director determines that the meteorological conditions are such that the accumulation of air contaminants in any place is reaching, or has reached, levels which could, if sustained or exceeded, lead to a substantial threat to the health of persons.

Air pollution forecast. Initial consideration of air pollution episode activities will be activated by receipt from the National Weather Service of an air pollution forecast. Receipt of such a forecast shall be the basis for activities such as, but not limited to, increased monitoring of the air contaminants in the area involved.

26.2(2) Declaration. In making determinations for the declaration of an air pollution episode condition, the commission, or the director will be guided by the criteria stated in the following paragraphs.

a. Air pollution alert. An alert will be declared when any one of the following levels is reached at any monitoring site, and when meteorological conditions are such that the contaminant concentrations can be expected to remain at those levels for 12 or more hours, or increase, unless control actions are taken.

- (1) Sulfur dioxide—800 micrograms per cubic meter (0.3 ppm), 24-hour average.
- (2) Fine particulate matter (PM-10)—350 micrograms per cubic meter, 24-hour average.
- (3) Carbon monoxide—17 milligrams per cubic meter (15 ppm), eight-hour average.
- (4) Oxidants (ozone)—200 micrograms per cubic meter (0.1 ppm), one-hour average.
- (5) Nitrogen dioxide—1,130 micrograms per cubic meter (0.6 ppm), one-hour average, or 282 micrograms per cubic meter (0.15 ppm), 24-hour average.

b. Air pollution warning. A warning will be declared when any one of the following levels is reached at any monitoring site and when meteorological conditions are such that the contaminant concentrations can be expected to remain at those levels for 12 or more hours or increase, unless control actions are taken.

- (1) Sulfur dioxide—1,600 micrograms per cubic meter (0.6 ppm), 24-hour average.
- (2) Fine particulate matter (PM-10)—420 micrograms per cubic meter, 24-hour average.
- (3) Carbon monoxide—34 milligrams per cubic meter (30 ppm), eight-hour average.
- (4) Oxidants (ozone)—800 micrograms per cubic meter (0.4 ppm), one-hour average.
- (5) Nitrogen dioxide—2,260 micrograms per cubic meter (1.2 ppm), one-hour average, or 565 micrograms per cubic meter (0.3 ppm), 24-hour average.

c. Air pollution emergency. An emergency will be declared when any one of the following levels is reached at any monitoring site, and when meteorological conditions are such that this condition can be expected to continue for 12 or more hours.

- (1) Sulfur dioxide—2,100 micrograms per cubic meter (0.8 ppm), 24-hour average.
- (2) Fine particulate matter (PM-10)—500 micrograms per cubic meter, 24-hour average.
- (3) Carbon monoxide—46 milligrams per cubic meter (40 ppm), eight-hour average.
- (4) Oxidants (ozone)—1,200 micrograms per cubic meter (0.6 ppm), one-hour average.
- (5) Nitrogen dioxide—3,000 micrograms per cubic meter (1.6 ppm), one-hour average or 750 micrograms per cubic meter (0.4 ppm), 24-hour average.

d. 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. As meteorological factors and air contaminants change, an appropriate change in episode level will be declared.

567—26.3(455B) Preplanned abatement strategies.

26.3(1) Planned strategies. Standby plans shall be designed to reduce or to eliminate emissions of air contaminants in accordance with the objectives set forth in Tables III—V, which are made a part of this chapter.

a. Plan preparation. Any person responsible for the operation of a source of air contaminants as set forth in Tables III—V shall prepare standby plans for reducing the emission of air contaminants, which shall be implemented upon the declaration of an air pollution episode and continued for the duration of the declared episode.

Any person responsible for the operation of a source of air contaminants not set forth under this paragraph shall, when requested by the director in writing, prepare standby plans for reducing the emission of such air contaminant or contaminants during the periods of an air pollution episode, as specified in this chapter.

b. Plan content. Standby plans as required under this subrule shall be in writing. Each standby plan 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 during an air pollution alert, air pollution warning or air pollution emergency, as specified in this chapter.

c. Review of plans. Standby plans as required by this subrule shall be submitted to the director on or before January 1, 1973. Each standby plan shall be subject to review. If, in the opinion of the director, a standby plan does not provide for adequate reduction of emissions, the director may disapprove the plan, state the reasons for disapproval and order the preparation of an amended standby plan within a time period specified in the order. The action of the director in securing a modification of a standby plan may be appealed to the commission.

d. Availability. During a declared air pollution episode, standby plans as required by this subrule shall be made available on the premises to any person authorized to enforce applicable rules.

26.3(2) Reserved.

This rule is intended to implement Iowa Code section 455B.133.

567—26.4(455B) Actions taken during episodes.

26.4(1) Emission reduction activities. Any person responsible for the operation of a source of air contaminants as set forth in Tables III—V, herein, which is located within the area involved, shall follow the actions specified below during periods of an air pollution alert, air pollution warning or air pollution emergency as may be declared.

a. Air pollution alert. When an air pollution alert has been declared, all persons in the area involved responsible for the operation of a source of air contaminants as set forth in Table III herein shall take all air pollution alert actions as required for such sources of air contaminants, and persons responsible for the operation of specific sources set forth in Table III herein shall put into effect the preplanned abatement strategy for an air pollution alert.

b. Air pollution warning. When an air pollution warning has been declared, all persons in the area involved responsible for the operation of a source of air contaminants as set forth in Table IV herein shall take all air pollution warning actions as required for such sources of air contaminants, and persons responsible for the operation of specific sources set forth in Table IV herein shall put into effect the preplanned abatement strategy for an air pollution warning.

c. Air pollution emergency. When an air pollution emergency has been declared, all persons in the area involved responsible for the operation of a source of air contaminants as set forth in Table V herein shall take all air pollution emergency actions as required for such sources of air contaminants, and persons responsible for the operation of specific sources set forth in Table V herein shall put into effect the preplanned abatement strategy for an air pollution emergency.

d. Special conditions. When the director determines that a specified episode level has been reached at one or more monitoring sites solely because of emissions from a limited number of sources, the director shall specify the persons responsible for such sources that the preplanned abatement strategy of Tables III, IV and V, or the standby plans, are required insofar as they apply to such sources, and such actions shall be put into effect until notified that the criteria of the specified level are no longer met.

26.4(2) Reserved.

TABLE III
ABATEMENT STRATEGIES EMISSION REDUCTION ACTIONS ALERT LEVEL

GENERAL

1. There shall be no open burning by any persons of tree 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 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 p.m.
4. Persons operating motor vehicles should eliminate all unnecessary operations.

SOURCE CURTAILMENT

Any person responsible for the operation of a source of air contaminants listed below shall take all required control actions for this alert level.

SOURCE OF AIR POLLUTION

1. Coal- or oil-fired electric power generating facilities.

Control Actions

 - a.* Substantial reduction by utilization of fuels having low ash and sulfur content.
 - b.* Maximum utilization of midday (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing or soot blowing.
 - c.* Substantial reduction by diverting electric power generation to facilities outside of alert level.
2. Coal- and oil-fired process steam generating facilities.

Control Actions

 - a.* Substantial reduction by utilization of fuels having low ash and sulfur content.
 - b.* Maximum utilization of midday (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
 - c.* Substantial reduction of steam load demands consistent with continuing plant operations.
3. Manufacturing industries of the following classifications:
 - Primary Metals Industries
 - Petroleum Refining Operations
 - Chemical Industries
 - Mineral Processing Industries
 - Paper and Allied Products
 - Grain Industry

Control Actions

 - a.* Substantial reduction of air contaminants from manufacturing operations by curtailing, postponing or deferring production and all operation.
 - b.* Maximum reduction by deferring trade waste disposal operations which emit solid particles, gas vapors or malodorous substances.
 - c.* Maximum reduction of heat load demands for processing.

d. Maximum utilization of midday (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

TABLE IV
ABATEMENT STRATEGIES EMISSION REDUCTION ACTIONS WARNING LEVEL

GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse or debris in any form.
2. The use of incinerators for the disposal of any form 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 the hours of 12 noon and 4 p.m.
4. Persons operating motor vehicles must reduce operations by the use of car pools and increased use of public transportation and elimination of unnecessary operation.

SOURCE CURTAILMENT

Any person responsible for the operation of a source of air contaminants listed below shall take all required control actions for this warning level.

SOURCE OF AIR POLLUTION

1. Coal- or oil-fired electric power generating facilities.

Control Actions

 - a. Maximum reduction by utilization of fuels having lowest ash and sulfur content.
 - b. Maximum utilization of midday (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
 - c. Maximum reduction by diverting electric power generation to facilities outside of warning area.
2. Oil and oil-fired process steam generating facilities.

Control Actions

 - a. Maximum reduction by utilization of fuels having the lowest available ash and sulfur content.
 - b. Maximum utilization of midday (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
 - c. Making ready for use a plan of action to be taken if an emergency develops.
3. Manufacturing industries which require considerable lead time for shutdown include the following classifications:
 - Petroleum Refining
 - Chemical Industries
 - Primary Metals Industries
 - Glass Industries
 - Paper and Allied Products

Control Actions

 - a. Maximum reduction of air contaminants from manufacturing operations by, if necessary, assuming reasonable economic hardships by postponing production and allied operation.
 - b. Maximum reduction by deferring trade waste disposal operations which emit solid particles, gases, vapors or malodorous substances.
 - c. Maximum reduction of heat load demands for processing.
 - d. Maximum utilization of midday (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

4. Manufacturing industries which require relatively short lead times for shutdown including the following classifications:

- Primary Metals Industries
- Chemical Industries
- Mineral Processing Industries
- Grain Industry

Control Actions

a. Elimination of air contaminants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.

b. Elimination of air contaminants from trade waste disposal processes which emit solid particles, gases, vapors or malodorous substances.

c. Maximum reduction of heat load demands for processing.

d. Maximum utilization of midday (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

TABLE V
ABATEMENT STRATEGIES EMISSION REDUCTION ACTIONS
EMERGENCY LEVEL

GENERAL

1. There shall be no open burning by any persons of tree 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 construction work except that which must proceed to avoid emergent physical harm.

c. All manufacturing establishments except those required to have in force an air pollution emergency plan.

d. All wholesale trade establishments: i.e., places of business primarily engaged in selling merchandise to retailers or industrial, commercial, institutional or professional users, or to other wholesalers, or acting as agents in buying merchandise for or selling merchandise to such persons or companies, except those engaged in the distribution of drugs, surgical supplies and food.

e. All offices of local, county and state government including authorities, joint meetings and other public bodies excepting such agencies which are determined by the chief administrative officer of local, county or state government, authorities, joint meetings and other public bodies to be vital for public safety and welfare and the enforcement of the provisions of this order.

f. All retail trade establishments except pharmacies, surgical supply distributors and stores primarily engaged in the sale of food.

g. Banks, credit agencies other than banks, securities and commodities brokers, dealers, exchanges and services; offices of insurance carriers, agents and brokers, real estate offices.

h. Wholesale and retail laundries, laundry services and cleaning and dyeing establishments, photographic studios, beauty shops, barber shops, shoe repair shops.

i. Advertising offices, consumer credit reporting, adjustment and collection agencies, duplicating, addressing, blueprinting, photocopying, mailing, mailing list and stenographic services, equipment rental services, commercial testing laboratories.

j. Automobile repair, automobile services, garages.

k. Establishments rendering amusement and recreational services including motion picture theaters.

l. Elementary and secondary schools, colleges, universities, professional schools, junior colleges, vocational schools and public and private libraries.

4. All commercial and manufacturing establishments not included in this order will institute such actions as will result in maximum reduction of air contaminants from their operation by ceasing, curtailing or postponing operations which emit air pollutants to the extent possible without causing injury to persons or damage to equipment.

5. The use of motor vehicles is prohibited except in emergencies with the approval of local or state police.

SOURCE CURTAILMENT

Any person responsible for the operation of a source of air contaminants listed below shall take all required control actions for this emergency level.

SOURCE OF AIR POLLUTION

1. Coal- or oil-fired electric power generating facilities.

Control Actions

- a. Maximum reduction by utilization of fuels having lowest ash and sulfur content.
- b. Maximum utilization of midday (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
- c. Maximum reduction by diverting electric power generation to facilities outside of emergency area.

2. Coal- and oil-fired process steam generating facilities.

Control Actions

- a. Maximum reduction by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage.
- b. Maximum utilization of midday (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
- c. Taking the action called for in the emergency plan.

3. Manufacturing industries of the following classifications:

Primary Metals Industries
 Petroleum Refining
 Chemical Industries
 Mineral Processing Industries
 Grain Industry
 Paper and Allied Products

Control Actions

- a. Elimination of air contaminants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.
- b. Elimination of air contaminants from trade waste disposal processes which emit solid particles, gases, vapors or malodorous substances.
- c. Maximum reduction of heat load demands for processing.
- d. Maximum utilization of midday (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

These rules are intended to implement Iowa Code chapter 455B.

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