

Chapter 137 -- Air Pollution Episodes

§137.1. Purpose.

The purpose of this chapter is to prevent the excessive build-up of air pollutants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of the pollutants on the health of persons.

§137.2. Monitoring facilities.

The Department will publish and make available information on the location of air quality monitoring facilities designated by the Department for the purposes of this Chapter. Information on the sampling techniques employed at the facilities will also be published and made available.

§137.3. Episode criteria.

Conditions justifying the declaration of a forecast will be deemed to exist whenever the Department determines that the meteorological conditions are such that the ambient air contaminant concentrations in any part of an air quality control region may be expected to substantially increase above normal levels. Conditions justifying the declaration of an alert, warning or emergency will be deemed to exist whenever the Department determines that the concentration of ambient air contaminants in a part of an air quality control region is attaining or has attained levels which could, if the levels are sustained or exceeded, lead to a substantial threat to the health of persons. In making the determinations, the Department will consider the following:

(1) Forecast level. A forecast will be declared when meteorological conditions are such that ambient air contaminant concentrations may be expected to increase substantially above normal levels.

(2) Alert level. An alert should be declared when one or more of the following levels is reached at a designated air quality monitoring facility and meteorological conditions are such that pollutant concentrations may be expected to remain at the level for 12 or more hours or increase unless control actions are taken:

- (i) SO₂ – 0.3 p.p.m., 6-hour average.
- (ii) PM₁₀ – 350 µg/m³, 24-hour average.
- (iii) Ozone – 0.2 p.p.m., 1-hour average.
- (iv) NO₂ – 0.15 p.p.m., 24-hour average; 0.6 p.p.m., 1-hour average.

(3) Warning level. A warning should be declared when one or more of the following levels is reached at a designated air quality monitoring facility and meteorological conditions are such that pollutant concentrations may be expected to remain at the level for 12 or more hours or increase unless control actions are taken:

- (i) SO₂ – 0.6 p.p.m., 6-hour average.
- (ii) PM₁₀ – 420µg/m³, 24-hour average.
- (iii) CO – 30 p.p.m., 8-hour average.
- (iv) Ozone – 0.4 p.p.m., 1-hour average.
- (v) NO₂ – 0.3 p.p.m., 24-hour average; 1.2 p.p.m., 1-hour average.

(4) Emergency level. An emergency should be declared when one or more of the following levels is reached at a designated air quality monitoring facility and meteorological conditions are such that this level can be expected to continue for 12 or more hours:

- (i) SO₂ – 0.8 p.p.m., 24-hour average.
- (ii) PM₂ – 500 µg/m³, 24-hour average.
- (iii) CO – 40 p.p.m., 8-hour average.
- (iv) Ozone – 0.5 p.p.m., 1-hour average.
- (v) NO₂ – 0.4 p.p.m., 24-hour average; 1.6 p.p.m., 1-hour average.

(5) Termination -- Once declared, any level reached in accordance with these criteria should remain in effect until the criteria for the alert level are no longer met and meteorological conditions are such that pollutant concentrations can be expected to decrease.

§137.4. Standby plans.

(a) This section applies to the following classes of sources located in the counties identified in subsection (b):

- (1) Coal or oil-fired electric generating facilities.
- (2) Coal or oil-fired steam generating facilities rated at more than 100 million Btu per hour of heat input.
- (3) Manufacturing industries of the following classifications which employ more than

20 employees at any one location:

- (i) Primary and secondary metals industries.
- (ii) Petroleum refining and related industries.
- (iii) Chemical and allied products industries.
- (iv) Paper and allied products industries.
- (v) Glass, clay and concrete products industries.

(4) Municipal and commercial refuse disposal and salvage operations other than incinerators rated at less than 1,000 pounds per hour of refuse.

(5) Other sources determined to be of significance by the Department. The persons responsible for the sources will be so advised by the Department.

(b) The Department will annually classify each county as an area requiring a standby plan based on monitored exceedance of any of the NAAQS.

(c) Any person responsible for the operation of a facility in subsection (a) and located in a county classified in subsection (b) as requiring a standby plan shall submit standby plans for reducing the emission of air contaminants from that facility during alert, warning and emergency levels to the Department within 90 days of the Department's request. The plans shall be designed to reduce or eliminate the emissions of air contaminants in accordance with the objectives in Sections 137.11 - 137.14 (relating to level actions). The plans shall be in writing on forms published and distributed by the Department and shall identify the approximate amount of reduction of various air contaminants and a description of the manner in which the reductions will be achieved.

(d) If the Department determines that a standby plan does not provide for effectively achieving the objectives in Sections 137.11 - 137.14, the Department may disapprove the plan, state its reasons for the disapproval and either order the preparation of an amended plan within a time period specified in the order or issue, by order, a plan to replace the disapproved plan.

(e) The Department may amend or otherwise change a standby plan if it determines that good cause exists for the action. An amendment or change will be in writing and will be accompanied by a notice of sufficient cause for the action.

(f) For facilities required to submit standby plans under subsection (e), during a forecast, alert, warning or emergency level, the standby plan shall be made available by the person responsible for the facility to employees of the Department on the premises of the source.

§137.5. Implementation of emission reduction procedures.

(a) If the Department declares that a forecast, alert, warning or emergency level exists in an area of this Commonwealth, the person responsible for the operation of a source whose emissions may affect air quality in that area shall implement the standby plan required by § 137.4 (relating to standby plans), for the source.

(b) A person responsible for the operation of a source not required to prepare a standby plan in accordance with §137.4 shall, when the Department declares that a forecast, alert, warning or emergency level exists in an area of this Commonwealth in which the source is located, implement applicable emission reduction procedures in accordance with the objectives of §§137.11--137.14.

LEVEL ACTIONS

§137.11. Forecast level actions.

Forecast level actions shall prepare for the implementation of standby plans for an alert level action.

§137.12. Alert level actions.

(a) General requirements. General requirements for alert level actions shall include the following:

- (1) The prohibition of open burning of material.
- (2) The limitation of incineration to the hours 12 noon and 4 p.m.
- (3) The limitation of soot blowing and boiler lancing of combustion units to the hours 12 noon and 4 p.m.
- (4) The substantial reduction of emissions of air contaminants by the reduction of operating levels.
- (5) The substantial reduction of space heating and cooling requirements.
- (6) The reduction to a minimum of the emissions of air contaminants from sources which are not in compliance with the emission limitations set forth in this article and from sources operating under a temporary variance granted by the Department.
- (7) The deferment or postponement of operations which may be deferred or postponed.
- (8) The reduction of the use of electricity.

(9) The elimination of unnecessary operations of motor vehicles.

(10) Preparation for the implementation of standby plans for a warning level action.

(b) Requirements for specific sources. In addition to taking the actions listed in subsection (a) of this section, the following sources shall take the indicated control actions:

(1) Thermal electric generating facilities. Thermal electric generating facilities shall conform with all of the following:

(i) Switch to low ash and low sulfur fuel.

(ii) Maximally shift the load from old (high polluting) units to new (low polluting) units.

(iii) Maximally shift the load to facilities outside the alert area.

(2) Industrial boilers. Industrial boilers shall switch to low ash and low sulfur fuel.

(3) Blast furnaces. Blast furnaces shall undergo a substantial reduction of production.

(4) Coke ovens. Coke ovens shall undergo a substantial increase of coking time.

(5) Sinter plants. Sinter plants shall conform with the following:

(i) Substantially reduce production.

(ii) Switch to low sulfur ore, coal, and coke.

(6) Steel making furnaces. Steel making furnaces shall conform with all of the following:

(i) Substantially reduce production.

(ii) Substantially reduce oxygen usage.

(iii) Switch to low sulfur fuel.

(7) Slag quenching. Slag quenching sources shall cease operations.

§137.13. Warning level actions.

(a) General requirements. General requirements for warning level actions shall include all of the following:

- (1) The continuance of all control taken for alert level.
- (2) The cessation of incineration of all solid or liquid waste.
- (3) The reduction to a minimum of the emissions of air contaminants by ceasing, curtailing, postponing, or deferring operations to the extent possible without causing injury to persons or damage to equipment.
- (4) The reduction to a minimum of space heating and cooling requirements.
- (5) The reduction to a minimum of the use of electricity.
- (6) The use of car pools and public transportation for necessary travel.
- (7) Preparation for the implementation of standby plans for an emergency level action.

(b) Requirements for specific sources. In addition to taking the actions listed in subsection (a) the following sources take the indicated control actions:

- (1) Thermal electric generating facilities. Thermal electric generating facilities shall substantially reduce power supplies to users outside the warning area.
- (2) Blast furnaces. Blast furnaces shall undergo a maximum reduction of production.
- (3) Coke ovens. Coke ovens shall cease charging and pushing to the extent possible without causing damage to equipment. Where ovens are pushed and charged to generate enough gas for underfiring, use of the ovens in best repair with respect to the emission of air contaminants shall occur.
- (4) Sinter plants. Sinter plants shall cease production.
- (5) Steel making furnaces. Steel making furnaces shall cease production to the extent possible without causing damage to equipment.
- (6) Mines and quarries. Mines and quarries shall undergo a maximum reduction of operations without causing damage to equipment.

§137.14. Emergency level actions.

(a) General requirements. General requirements for emergency level actions includes all of the following:

- (1) The continuance of all control actions taken for warning level.

(2) At all places of employment, the immediate cessation of operations to the extent possible without causing injury to persons or damage to equipment except that the following establishments may remain in operation:

(i) Commercial establishments engaged in selling or distributing food or medical and surgical supplies.

(ii) Those governmental and semigovernmental offices determined by the head of the respective governments or of the respective semigovernmental agencies to be vital for public safety or welfare or for the enforcement of the provisions of this article.

(iii) Those engaged in rendering medical or surgical services.

(3) The cessation of operations of motor vehicles, except in emergencies, when approved by police officials.

(b) Requirements for specific sources. In addition to taking the actions listed in subsection (a) thermal electric generating facilities shall undergo a maximum reduction of power supplies to users outside the emergency area.