

COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD
REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION

9 VAC 5 CHAPTER 70.
AIR POLLUTION EPISODE PREVENTION.

PART I.
Air Pollution Episodes.

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9 VAC 5-70-10. Applicability.

The provisions of this chapter apply in nonattainment areas designated in 9 VAC 5-20-204.

9 VAC 5-70-20. Definitions.

A. For the purpose of these regulations and subsequent amendments or any orders issued by the board, the words or terms shall have the meaning given them in subsection C of this section.

B. As used in this chapter, all terms not defined here shall have the meaning given them in 9 VAC 5 Chapter 10 (9 VAC 5-10-10 et seq.), unless otherwise required by context.

C. Terms defined.

"Air pollution episode" means a situation which is declared by responsible authorities as set forth in 9 VAC 5 Chapter 70 (9 VAC 5-70-10 et seq.) when weather or air pollution conditions or both indicate a potential threat to human health.

"Soiling index" means a measure of the soiling properties of suspended particles in air determined by drawing a measured volume of air through a known area of Whatman No. 4 filter paper for a measured period of time (normally two hours) expressed by COH's/1000 linear feet.

9 VAC 5-70-30. General.

A. An air pollution episode plan provides procedures to be followed whenever the air quality has the potential of reaching levels which could cause significant harm to public health.

B. Whenever the board determines that the accumulation of air pollution may attain, is attaining or has attained a level or levels considered injurious to human health, air pollution episode stages designated as watch, alert, warning and emergency shall be declared. In making a determination, the criteria defined in 9 VAC 5-70-40 shall be used as guidance.

C. To assure compliance with this chapter, owners of sources as applicable shall submit standby emission reduction plans in accordance with 9 VAC 5-70-50. In accordance with such standby emission reduction plans, control requirements as specified in 9 VAC 5-70-60 shall be implemented as a designated level is reached.

D. Nothing contained in this chapter shall be construed as allowing any owner or other person to be in violation of any provision of these regulations or any other applicable regulations, laws, ordinances or orders of the governmental entities having jurisdiction.

9 VAC 5-70-40. Episode determination.

A. A condition justifying the proclamation of a watch, alert, warning or emergency stage shall be deemed to exist whenever the board determines that the accumulation of one or more air pollutants in any place, locality, county or other area in the state may attain, is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a threat to the public health. In making this determination the conditions specified in subsections B, C and D of this section shall be used as guidance.

B. Episode criteria.

1. Watch stage. An internal administrative watch shall be declared by the board whenever the national, local or department meteorologist issues a forecast indicating an atmosphere stagnation will cover any substantial portion of the state for an extended period. Such a weather forecast will indicate meteorological conditions which are expected to inhibit pollutant dispersion. The watch shall be in effect for those areas of the state covered by the weather forecast and it shall continue throughout the atmospheric stagnation period. Such weather forecasts indicating atmospheric stagnation will take the form of:

a. A regional air stagnation advisory, including any substantial chapter of the state, issued by the National Weather Service; and

b. A forecast by the department meteorologist indicating local meteorological conditions which inhibit dispersion for an extended period of time.

2. An alert stage shall be declared by the board when any one of the following pollutant levels is reached at any monitoring site concurrent with:

a. Consultation with the national, local or department meteorologist which indicates that an atmospheric stagnation exists; or

b. A determination by the board that the pollutant level is representative of air quality in an air quality control region and the concentrations of pollutants can be expected to remain at the following indicated levels for 12 or more hours or increase, or in the case of ozone, the situation is likely to recur within the next 24 hours unless control actions are taken. Consultation with the air pollution control agencies of the affected jurisdictions will be accomplished to help evaluate local situations.

POLLUTANT	AVERAGE	$\mu\text{g}/\text{m}^3$	ppm
SO ₂	24 hour	800	.3
PM ₁₀	24 hour	350	N/A
CO	8 hour	17,000	15.0
Ozone	1 hour	400	.2
NO ₂	1 hour	1,130	.6
	24 hour	282	.15

3. A warning stage shall be declared by the board when any one of the following pollutant levels is reached at any monitoring site concurrent with:

a. Consultation with the national, local or department meteorologist which indicates that an atmospheric stagnation exists; or

b. A determination by the board that the pollutant level is representative of air quality in an air quality control region and the concentrations of pollutants can be expected to remain at the following indicated levels for 12 or more hours or increase, or in the case of ozone, the situation is likely to recur within the next 24 hours unless control actions are taken. Consultation with the air pollution control agencies of the affected jurisdictions will be accomplished to help evaluate local situations.

POLLUTANT	AVERAGE	$\mu\text{g}/\text{m}^3$	ppm
SO ₂	24 hour	2,100	.8
PM ₁₀	24 hour	500	N/A
CO	8 hour	46,000	40.0

Ozone	1 hour	1,000	.5
NO ₂	1 hour	3,000	1.6
	24 hour	750	.4

4. An emergency stage shall be declared by the governor of the Commonwealth of Virginia when any of the following pollutant levels is reached at any monitoring site concurrent with:

a. Consultation with the national, local or department meteorologist which indicates that an atmospheric stagnation exists; or

b. A determination by the board that the pollutant level is representative of air quality in an air quality control region and the concentrations of pollutants can be expected to remain at the following indicated levels for 12 or more hours or increase, or in the case of ozone, the situation is likely to recur within the next 24 hours unless control actions are taken. Consultation with the air pollution control agencies of the affected jurisdictions will be accomplished to help evaluate local situations.

POLLUTANT	AVERAGE		µg/m ³	ppm
SO ₂	24 hour	2,100	.8	
PM ₁₀	24 hour	500	N/A	
CO	8 hour	46,000	40.0	
Ozone	1 hour	1,000	.5	
NO ₂	1 hour	3,000	1.6	
	24 hour		750	.4

5. Termination of any existent stage of air pollution episode shall be declared by the governor of the Commonwealth of Virginia or the board based on:

a. Consultation with the national, local or department meteorologist which indicates that the atmospheric conditions justify termination; or

b. Appropriate reduction in pollutant levels. As the criteria for a given stage are no longer being met, the lowest appropriate stage will be assumed.

C. When the board determines that a specified criteria level is being approached and may be reached at one or more monitoring sites solely because of emissions from a limited number of sources, it may act to prevent the attainment of the episode level by notifying such sources that the preplanned abatement strategies of Table VII-A, B or C or the standby plans are required, insofar as it

applies to such sources, and shall be put into effect until a satisfactory reduction in the ambient pollution concentration has been achieved.

D. The alert, warning and emergency stages may be activated on the basis of deteriorating air quality alone (i.e., an air stagnation advisory need not be in effect) subject to the determination specified in subsections B 2 b, B 3 b and B 4 b of this section.

9 VAC 5-70-50. Standby emission reduction plans.

A. Any owner of a stationary source emitting criteria pollutants as set forth in Table VII-A, B, or C shall prepare standby emission reduction plans, consistent with safe operating procedures, for reducing emissions during periods of alert, warning and emergency stages. Standby emission reduction plans shall be designed to reduce or eliminate emissions in accordance with the objectives set forth in Tables VII-A, B and C.

B. Any owner of a source of pollutants not specifically identified under subsection A of this section shall, when requested by the board in writing, prepare standby emission reduction plans, consistent with safe operating procedures, for reducing emissions during periods of alert, warning and emergency stages. Standby emission reduction plans shall be designed to reduce or eliminate emissions in accordance with the objectives set forth in Tables VII-A, B and C.

C. Standby emission reduction plans as required in subsections A and B of this section shall be in writing and show the source of emissions, the approximate amount of reduction of emissions to be achieved, the time necessary to achieve the reduction after being notified to implement the plan and a description of the manner in which the reduction will be achieved during an alert, warning and emergency stage in accordance with the objectives set forth in Tables VII-A, B and C. Such plans shall be submitted in the form specified by the board.

D. During an alert, warning or emergency stage, standby emission reduction plans as required by this section shall be made immediately available on the premises to any person authorized to enforce these regulations.

E. Standby emission reduction plans as required by this section shall be submitted to the board upon request within 30 days of the receipt of such request; such standby emission reduction plans shall be subject to review and approval by the board. If in the opinion of the board, such standby emission reduction plans do not carry out the objectives set forth in Tables VII-A, B and C, the board may disapprove said standby emission reduction plans, state the reason for disapproval and recommend specific amendments to the proposed standby emission reduction plans. A revised plan shall then be resubmitted within a time period specified by the board. If any owner fails to submit a standby emission reduction plan within the time period specified, or submits a plan which in the opinion of the board does not carry out the objectives set forth in Tables VII-A, B and C, the board

shall promulgate such standby emission reduction plan as will meet the objectives stated in Tables VII-A, B and C. Such plan shall thereafter be the standby emission reduction plan which the owner shall put into effect upon the declaration by the governor or the board of an alert, warning or emergency stage.

9 VAC 5-70-60. Control requirements.

A. After an alert stage has been declared by the board, each owner of a source subject to a standby emission reduction plan under 9 VAC 5-70-50 and each owner of any other source designated shall, when requested to do so by the board, take such alert stage actions as requested and shall put into effect the requested provisions of the preplanned abatement strategy for an alert stage as set forth in Table VII-A.

B. After a warning stage has been declared by the board, each owner of a source subject to a standby emission reduction plan under 9 VAC 5-70-50 and each owner of any other source designated shall, when requested to do so by the board, take such warning stage actions as requested and shall put into effect the requested provisions of the preplanned abatement strategy for a warning stage as set forth in Table VII-B.

C. When the board determines that the concentration of a specified criteria pollutant has reached the alert or warning stage levels at one or more monitoring sites solely because of emissions from a limited number of sources it shall notify the owners of such sources that the preplanned abatement strategies of Table VII-A or B or the standby emission reduction plans are required, as applicable, to be put into effect and shall remain in effect until the level of the specified criteria pollutant is within limits.

D. When the board determines that the level of a specific criteria pollutant or a specific type of criteria pollutant caused the declaration of an alert or warning stage and that curtailment of emissions from certain sources would have no effect on that pollutant level, it may determine which standby emission reduction plans and abatement strategies shall be put into effect.

E. After an emergency stage has been declared by the governor, each owner of a source subject to a standby emission reduction plan under 9 VAC 5-70-50 and each owner of any other source designated shall take such emergency stage actions as required and shall put into effect the preplanned abatement strategy for an emergency stage as set forth in Table VII-C.

9 VAC 5-70-70. Local air pollution control agency participation.

A. Local air pollution control agencies shall develop local plans which will establish standard operating procedures and allocation of responsibilities (including public information) to be placed in effect in the event of an air pollution episode. Two copies of such plans and any

subsequent changes to the plans shall be furnished to the board.

B. The statewide episode control center will be located in Richmond. Operational, communication and public information procedures for the control of air pollution episodes by the state episode control center will be promulgated by the board to all local air pollution control agencies and regional offices.

PREPLANNED ABATEMENT STRATEGIES

TABLE VII-A ALERT STAGE.

I. General.

A. There shall be no open burning by any owner or other person.

B. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between noon and 4 p.m.

C. Owners of fuel burning equipment which require boiler lancing or soot blowing shall perform such operations only between the hours of noon and 4 p.m.

D. Owners operating motor vehicles shall eliminate all unnecessary operations.

II. Source curtailment.

A. Owners of coal or oil-fired electric power generating facilities shall take the following control actions:

1. Substantial reduction by utilization of fuels having low ash and sulfur content;
2. Maximum utilization of midday (noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing; and
3. Substantial reduction by diverting electric power generation to facilities outside of alert areas.

B. Owners of coal and oil-fired process steam generating facilities shall take the following control actions:

1. Substantial reduction by utilization of fuels having low ash and sulfur content;

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

3. Substantial reduction of steam load demands consistent with continuing plant operations.

C. Owners of manufacturing industries (of the following classifications: primary metals industries, petroleum refining operations, chemical industries, mineral processing industries, paper and allied products industries, grain industries) shall take the following control actions:

1. Substantial reduction of air pollutants from manufacturing operations by curtailing, postponing or deferring production and allied operations;

2. Maximum reduction by deferring trade waste disposal operations which emit solid particles, gases, vapors or malodorous substances;

3. Maximum reduction of heat load demands for processing; and

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

TABLE VII-B
WARNING STAGE.

I. General.

A. There shall be no open burning by any owner or other person.

B. The use of incinerators for the disposal of any form of solid waste or liquid waste is prohibited.

C. Owners of fuel burning equipment which require boiler lancing or soot blowing shall perform such operations only between the hours of noon and 4 p.m.

D. Owners operating motor vehicles shall reduce operations by the use of car pools and increased use of public transportation and elimination of unnecessary operations.

II. Source curtailment.

A. Owners of coal or oil-fired electric power generating facilities shall take the following control actions:

1. Maximum reduction by utilization of fuels having lowest ash and sulfur content;
2. Maximum utilization of midday (noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing; and
3. Maximum reduction by diverting electric power generation to facilities outside of warning areas.

B. Owners of coal and oil-fired process steam generating facilities shall take the following control actions:

1. Maximum reduction by utilization of fuels having the lowest available ash and sulfur content;
2. Maximum utilization of midday (noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing; and
3. Making ready for use a plan of action to be taken if an emergency develops.

C. Owners of manufacturing industries (which require considerable lead time for shutdown including the following classifications: petroleum refining operations, chemical industries, primary metals industries, glass industries, paper and allied products industries) shall take the following control actions:

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

D. Owners of manufacturing industries (which require relatively short lead times for shutdown including the following classifications: primary metals industries, chemical industries, mineral processing industries, grain industries) shall take the following control actions:

1. Elimination of air pollutants 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;
2. Elimination of air pollutants from trade waste disposal processes which emit solid particles, gases, vapors or malodorous substances;
3. Maximum reduction of heat load demands for processing; and
4. Maximum utilization of midday (noon to 4 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

TABLE VII-C
EMERGENCY STAGE.

I. General.

- A. There shall be no open burning by any owner or other person.
- B. The use of incinerators for the disposal of any form of solid or liquid waste is prohibited.
- C. All places of employment described below shall immediately cease operations.
 1. Mining and quarrying of nonmetallic minerals.
 2. All construction work except that which must proceed to avoid emergent physical harm.
 3. All manufacturing establishments except those required to have in force an air pollution emergency plan.
 4. 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.
 5. 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 chapter.

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

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

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

9. 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.

10. Automobile repair, automobile services, garages.

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

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

D. All commercial and manufacturing establishments not included in this order shall institute such actions as will result in maximum reduction of air pollutants 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.

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

II. Source curtailment.

A. Owners of coal or oil-fired electric power generating facilities shall take the following control actions:

1. Maximum reduction by utilization of fuels having lowest ash and sulfur content;

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

3. Maximum reduction by diverting electric power generation to facilities outside

of emergency areas.

B. Owners of coal and oil-fired process steam generating facilities shall take the following control actions:

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

C. Owners of manufacturing industries (of the following classifications: primary metals industries, petroleum refinishing operations, chemical industries, mineral processing industries, grain industries, paper and allied products industries) shall take the following control actions:

1. Elimination of air pollutants 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;
2. Elimination of air pollutants from trade waste disposal processes which emit solid particles, gases, vapors or malodorous substances;
3. Maximum reduction of heat load demands for processing; and
4. Maximum utilization of midday (noon to 4 p.m.) atmospheric turbulence for boiler lancing or soot blowing.