CHAPTER 33.1-15-11
PREVENTION OF AIR POLLUTION EMERGENCY EPISODES

Section
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33.1-15-11-01. Air pollution emergency.

This chapter 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 air contaminants on human health.

History: Effective January 1, 2019.
General Authority: NDCC 23.1-06-04; S.L. 2017, ch. 199, § 1
Law Implemented: NDCC 23.1-06-04; S.L. 2017, ch. 199, § 21

33.1-15-11-02. Air pollution 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 department determines that the accumulation of air contaminants in any place within North Dakota is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a substantial threat to human health. In making this determination, the department will be guided by the criteria listed in table 6.

History: Effective January 1, 2019.
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Law Implemented: NDCC 23.1-06-04; S.L. 2017, ch. 199, § 21

33.1-15-11-03. Abatement strategies emission reduction plans.

1. When the department declares an air pollution alert, air pollution warning, or air pollution emergency, any person responsible for the operation of a source of air contaminants as set forth in table 7 shall take all actions as required by table 7 for such source of air contaminants for the level declared and shall put into effect the preplanned abatement strategies plan for the level declared. The department shall notify the public by means of a public announcement whenever an air pollution alert, air pollution warning, or air pollution emergency has been determined to exist.

2. When the department determines that a specified criteria level has been reached at one or more monitoring sites solely because of emissions from a limited number of sources, the department shall notify such source or sources that the actions set forth in table 7 or the preplanned abatement strategies plans are required, insofar as it applies to such source or sources and shall be put into effect until the criteria of the specified level are no longer met.

History: Effective January 1, 2019.
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Law Implemented: NDCC 23.1-06-04; S.L. 2017, ch. 199, § 21

33.1-15-11-04. Preplanned abatement strategies plans.

1. Any person responsible for the operation of a source of air contaminants as set forth in table 7 shall prepare abatement strategies plans for reducing the emission of air contaminants during periods of an air pollution alert, air pollution warning, and air pollution emergency. Abatement

strategies plans shall be designed to reduce or eliminate emissions of air contaminants in accordance with the objectives set forth in table 7.

2. Any person responsible for the operation of a source of air contaminants not set forth under subsection 1 shall, when requested by the department, in writing, prepare abatement strategies plans for reducing the emission of air contaminants during periods of an air pollution alert, air pollution warning, and air pollution emergency. Abatement strategies plans shall be designed to reduce or eliminate emissions of air contaminants in accordance with the objectives set forth in table 7.

3. Abatement strategies plans as required under subsections 1 and 2 shall be in writing and identify the sources of air contaminants, the approximate amount of reduction of air contaminants, and a brief description of the manner in which the reduction will be achieved during an air pollution alert, air pollution warning, and air pollution emergency.

4. During a condition of air pollution alert, air pollution warning, and air pollution emergency, abatement strategies plans as required by subsections 1 and 2 shall be made available on the premises to any person authorized to enforce the provisions of applicable rules and regulations.

5. Abatement strategies plans as required by subsections 1 and 2 shall be submitted to the department upon request within thirty days of the receipt of such request; such abatement strategies plans shall be subject to review and approval by the department. If, in the opinion of the department an abatement strategies plan does not effectively carry out the objectives as set forth in table 7, the department may disapprove it, state the reasons for disapproval, and order the preparation of an amended abatement strategies plan within the time period specified in the order.

History: Effective January 1, 2019.
General Authority: NDCC 23.1-06-04; S.L. 2017, ch. 199, § 1
Law Implemented: NDCC 23.1-06-04; S.L. 2017, ch. 199, § 21

Table 6.

Air Pollution Episode Criteria

1. Air pollution forecast:

   An internal watch by the department shall be actuated by a national weather service advisory that an atmospheric stagnation advisory is in effect or the equivalent local forecast of a stagnant atmospheric condition.

2. Air pollution alert:

   The alert level is that concentration of contaminants at which first stage control actions are to begin. An alert will be declared when any one of the following levels is reached at any monitoring site:

   SO_2-800 µg/m (0.3 ppm), 24-hour average.

   PM_{10} - 350 µg/m^3, 24-hour average.

   CO-17 mg/m^3 (15 ppm), 8-hour average.

   Ozone (O_3) - 400 µg/m^3 (0.2 ppm), 1-hour average.

   NO_2 - 1,130 µg/m^3 (0.6 ppm), 1-hour average; 282 µg/m^3 (0.15 ppm), 24-hour average.

   In addition to the levels listed for the above pollutants, meteorological conditions are such that pollutant concentrations can be expected to remain at the above levels for twelve or more hours or increase, or in the case of ozone, the situation is likely to recur within the next twenty-four hours unless control actions are taken.

3. Air pollution warning:

   The warning level indicates that air quality is continuing to degrade and that additional control actions are necessary. A warning will be declared when any one of the following levels is reached at any monitoring site:

   SO_2 - 1,600 µg/m^3 (0.6 ppm), 24-hour average.

   PM_{10} - 420 µg/m^3, 24-hour average.

   CO-34 mg/m^3 (30 ppm), 8-hour average.

   Ozone (O_3) - 800 µg/m^3 (0.4 ppm), 1-hour average.

   NO_2 - 2,260 µg/m^3 (1.2 ppm), 1-hour average; 565 µg/m^3 (0.3 ppm), 24-hour average.

   In addition to the levels listed for the above pollutants, meteorological conditions are such that pollutant concentrations can be expected to remain at the above levels for twelve or more hours or increase, or in the case of ozone, the situation is likely to recur within the next twenty-four hours unless control actions are taken.

4. Air pollution emergency:

   The emergency level indicates that air quality is continuing to degrade 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 following levels is reached at any monitoring site:

SO_2 - 2,100 μg/m^3 (0.8 ppm), 24-hour average.

PM_{10} - 500 μg/m^3, 24-hour average.

CO-46 mg/m^3 (40 ppm), 8-hour average.

Ozone (O_3) - 1,000 μg/m^3 (0.5 ppm), 1-hour average.

NO_2 - 3,000 μg/m^3 (1.6 ppm), 1-hour average; 750 μg/m^3 (0.4 ppm), 24-hour average.

In addition to the levels listed for the above pollutants, meteorological conditions are such that pollutant concentrations can be expected to remain at the above levels for twelve or more hours or increase, or in the case of ozone, the situation is likely to recur within the next twenty-four hours unless control actions are taken.

5. 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.

Table 7.

Abatement Strategies Emission Reduction Plans
Air Pollution Alert Level
Part A. 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 twelve noon and four p.m.

3. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of twelve noon and four p.m.

4. Persons operating motor vehicles should eliminate all unnecessary operations.

Part B. 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 Contaminants	Control Action
1. Coal- or oil-fired electric power generating facilities.	a. Substantial reduction by utilization of fuels having low ash and sulfur content. b. Maximum utilization of midday (twelve noon to four p.m.) atmospheric turbulence for boiler lancing and soot blowing. c. Substantial reduction by diverting electric power generation to facilities outside of alert area.
2. Coal- and oil-fired process steam generating facilities.	a. Substantial reduction by utilization of fuels having low ash and sulfur content. b. Maximum utilization of midday (twelve noon to four 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 industry. Petroleum refining operations. Chemical industries. Mineral processing industries. Grain industry. Paper and allied products. Other energy and fuel facilities.	a. Substantial reduction of air contaminants from manufacturing operations by curtailing, postponing, or deferring production and all operations. b. Maximum reduction by deferring trade waste disposal operations which emit solid particles, gas vapors, and malodorous substances. c. Maximum reduction of heat load demands by processing. d. Maximum utilization of midday (twelve noon to four p.m.) atmospheric turbulence for boiler lancing or soot blowing.

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 twelve noon and four 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.

Part B. 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 Contaminants	Control Action
1. Coal- or oil-fired electric power generating facilities.	a. Maximum reduction by utilization of fuels having lowest ash and sulfur content. b. Maximum utilization of midday (twelve noon to four 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. Coal- and oil-fired process steam generating facilities.	a. Maximum reduction by utilization of fuels having the lowest available ash and sulfur content. b. Maximum utilization of midday (twelve noon to four 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 including the following classifications: Petroleum refining. Chemical industries. Primary metals industries. Glass industry. Paper and allied products. Other energy and fuel facilities.	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 (twelve noon to four p.m.) atmospheric turbulence for boiler lancing or soot blowing.
4. Manufacturing industries which require relatively short lead times for shutdown including the following classifications: Primary metals industries. Chemical industries. Grain industry. Mineral processing industries.	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 industrial waste disposal which emits solid particles, gases, vapors, or malodorous substances. c. Maximum reduction of heat load demands for processing. d. Maximum utilization of midday (twelve noon to four p.m.) atmospheric turbulence for boiler lancing or soot blowing.

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 abatement strategies 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 contaminants 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 police or state highway patrol.

Part B. 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 Contaminants	Control Action
1. Coal- or oil-fired electric power generating facilities.	a. Maximum reduction by utilization of fuels having lowest ash and sulfur content. b. Maximum utilization of midday (twelve noon to four p.m.) atmospheric turbulence for boiler lancing or 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.	a. Maximum reduction by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage. b. Maximum utilization of midday (twelve noon to four p.m.) atmospheric turbulence for boiler lancing and soot blowing. c. Taking the action called for in the abatement strategies plan for the emergency level.
3. Manufacturing industries of the following classifications: Primary metals industries. Petroleum refining. Chemical industries. Mineral processing industries. Grain industry. Paper and allied products. Other energy and fuel facilities.	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 (twelve noon to four p.m.) atmospheric turbulence for boiler lancing or soot blowing.