

## **CHAPTER 4 MISSOULA COUNTY AIR STAGNATION AND EMERGENCY EPISODE AVOIDANCE PLAN**

### **Rule 4.101 - Purpose**

This chapter serves a dual purpose. As Missoula County's Air Stagnation Plan it protects the community from significant harm during air stagnation periods and prevents violation of the particulate matter ambient standards. As Missoula County's Emergency Episode Avoidance Plan, its purpose is to prevent high ambient concentrations of regulated air pollutants that may endanger public health and welfare. To both these ends, the regulations of this chapter control emissions from sources within Missoula County when meteorological conditions are not adequate to prevent high ambient concentrations of air pollutants. Planning for air stagnation and emergency episodes assures that emissions reduction is conducted effectively with minimal inconvenience to the sources and the general public.

### **Rule 4.102 - Applicability**

- (1) The provisions regarding Stage 1 Air Alerts apply to all persons and sources of air pollution located within Impact Zone M as defined in Rule 2.101(23).
- (2) All other provisions of this chapter apply to all persons and sources of air pollution in Missoula County.
- (3) The department may call Alerts, Warnings, Emergencies and Crises to be in effect in all or any portion of the county, using available scientific and meteorological data to determine the areas affected by high ambient concentrations of pollutants.
- (4) When Alerts are not required, the department may call for voluntary compliance in any or all portions of the county, using available scientific and meteorological data to determine the areas affected by high ambient concentrations of pollutants.
- (5) As specified in the 1991 stipulation between the Control Board and the Department of Health and Environmental Sciences (predecessor to DEQ) and agreed upon by the Board of Health and Environmental Sciences (predecessor to the Board of Environmental Review), the provisions of this chapter apply, as described in this Rule, to sources in Missoula County that are permitted by DEQ.

### **Rule 4.103 - General Provisions**

- (1) The four air pollution control stages are Stage I Alert, Stage II Warning, Stage III Emergency and Stage IV Crisis. Each stage is associated with thresholds of specific air pollutants. When ambient concentrations of air pollutants as specified in Rule 4.104 exceed a threshold, or in the case of particulate matter, are expected to exceed a threshold, required control activities must be implemented ~~(State and County Only) except as allowed by Rule 4.112.~~
- (2) Nothing in this chapter limits the authority of the Control Board or department to act in an emergency situation. The department may act to protect the public from imminent danger caused by any air pollutant. Such action may include but is not limited to verbal orders to cease emission release, or ordering the use of specified procedures in the management of actual or potential toxic air pollution releases resulting from accidents involving the transportation, use, or storage of toxic chemicals or mixtures of chemicals that could result in the release of toxic chemicals.
- (3) When in effect, the requirements of this chapter supersede all other regulations under this Program that are less restrictive.

**Rule 4.104 - Air Pollution Control Stages**

(1) Stage I – ALERT for Particulate Matter

(a) The department may declare a Stage I Alert for particulate matter if it determines using available scientific and meteorological data that, any of the following conditions occurs. If the department determines that the primary air pollution source is crustal, an alert can be called for the air stagnation zone, rather than all of Impact Zone M:

~~(i) (State and County Only) whenever the ambient concentration of PM<sub>2.5</sub> meets or exceeds 21 ug/m<sup>3</sup> averaged over an eight hour period; or~~

(ii) whenever the ambient concentration of PM<sub>10</sub> exceeds 80 ug/m<sup>3</sup> averaged over an eight hour period.

(b) The department shall declare a Stage I Alert for particulate matter if it determines using available scientific and meteorological data, that any of the following conditions occur unless dispersion conditions are expected to improve rapidly. If the department determines that the primary air pollution source is crustal, an alert can be called for the air stagnation zone, rather than all of Impact Zone M:

~~(i) (State and County Only) whenever the ambient concentration of PM<sub>2.5</sub> meets or exceeds 28 ug/m<sup>3</sup> averaged over an eight hour average; or  
(ii) (State and County Only) whenever the ambient concentration of PM<sub>2.5</sub> can reasonably be expected to exceed 35 ug/m<sup>3</sup> averaged over the next 24 hours if a Stage I Alert is not called; or~~

(iii) whenever the ambient concentration of PM<sub>10</sub> can reasonably be expected to exceed 150 ug/m<sup>3</sup> averaged over the next 24 hours if a Stage I Alert is not called.

(2) Stage II - WARNING

(a) The department shall declare a Stage II Warning for particulate matter if it determines using available scientific and meteorological data, that any of the following conditions occurs unless dispersion conditions are expected to improve rapidly:

~~(i) (State and County Only) whenever the ambient concentration of PM<sub>2.5</sub> meets or exceeds 35 ug/m<sup>3</sup> for an eight hour average; or  
(ii) (State and County Only) whenever scientific and meteorological data indicate that the 24-hour average PM<sub>2.5</sub> concentrations will remain at or above 35 ug/m<sup>3</sup> if a Stage II Warning is not called; or~~

(iii) whenever the ambient concentration of PM<sub>10</sub> exceeds 150 ug/m<sup>3</sup> averaged over an eight hour period and an Alert is already in effect; or

(iv) whenever the ambient concentration of PM<sub>10</sub> exceeds 180 ug/m<sup>3</sup> average over an eight hour period and an Alert is not already in effect; or

(v) whenever scientific and meteorological data indicate that the 24 hour average PM<sub>10</sub> concentrations will remain at or above 150 ug/m<sup>3</sup> if a Stage II Warning is not called.

(b) The department shall declare a Stage II WARNING whenever the ambient concentration of any of the following pollutants listed equals or exceeds the specified levels:

|                 |                        |                 |
|-----------------|------------------------|-----------------|
| S0 <sub>2</sub> | 800 ug/m <sup>3</sup>  | 24-hour average |
| CO              | 17 mg/m <sup>3</sup>   | 3-hour average  |
| O <sub>3</sub>  | 400 ug/m <sup>3</sup>  | 1-hour average  |
| NO <sub>2</sub> | 1130 ug/m <sup>3</sup> | 1-hour average  |
| NO <sub>2</sub> | 282 ug/m <sup>3</sup>  | 24-hour average |

(3) Stage III – EMERGENCY

The department shall declare a Stage III Emergency whenever the ambient concentration of any of the following pollutants listed equals or exceeds the specified levels:

~~(State and County Only) PM<sub>2.5</sub> 80 ug/m<sup>3</sup> 24-hour average~~

|                  |                        |                 |
|------------------|------------------------|-----------------|
| PM <sub>10</sub> | 420 ug/m <sup>3</sup>  | 24-hour average |
| SO <sub>2</sub>  | 1600 ug/m <sup>3</sup> | 24-hour average |
| CO               | 34 mg/m <sup>3</sup>   | 3-hour average  |
| O <sub>3</sub>   | 800 ug/m <sup>3</sup>  | 1-hour average  |
| NO <sub>2</sub>  | 2260 ug/m <sup>3</sup> | 1-hour average  |
| NO <sub>2</sub>  | 565 ug/m <sup>3</sup>  | 24-hour average |

(4) Stage IV – CRISIS

The department shall declare a Stage IV CRISIS whenever the ambient concentration of any of the following pollutants listed equals or exceeds the specified levels:

|  |
|--|
| <del>(State and County Only) PM<sub>2.5</sub> 135 ug/m<sup>3</sup> 24-hour average</del> |
|--|

|                  |                        |                 |
|------------------|------------------------|-----------------|
| PM <sub>10</sub> | 500 ug/m <sup>3</sup>  | 24-hour average |
| SO <sub>2</sub>  | 2100 ug/m <sup>3</sup> | 24-hour average |
| CO               | 46 mg/m <sup>3</sup>   | 8-hour average  |
| O <sub>3</sub>   | 1000 ug/m <sup>3</sup> | 1-hour average  |
| NO <sub>2</sub>  | 3000 ug/m <sup>3</sup> | 1-hour average  |
| NO <sub>2</sub>  | 750 ug/m <sup>3</sup>  | 24-hour average |

- (5) Ambient concentrations of pollutants are determined by the department using a reference method, or a device that correlates to a reference method air quality monitor or sampler.
- (6) The department shall reduce an air pollution control stage to the appropriate stage when the department determines measurements of the ambient air indicate a corresponding reduction in pollutant levels and available meteorological data indicates that the concentration of such pollutant will not immediately increase again.

**Rule 4.105 - Emergency Operations**

- (1) The department shall prepare an emergency episode operations plan, which includes the following information:
  - (a) an explanation of ambient air quality surveillance procedures;
  - (b) a description of how meteorological information is obtained and used during episodes;
  - (c) provisions for increased monitoring during episodes;
  - (d) provisions for increased staffing during episodes; and
  - (e) a communications plan for use during episodes.

**Rule 4.106 - Abatement Plan For Certain Sources**

- (1) Each governmental road department shall have an abatement plan that describes what actions they will take to minimize road dust during air stagnation and emergency episodes. The plans must demonstrate the use of all reasonable measures to reduce road dust along heavily traveled streets and are subject to review and approval by the department.
- (2) Each stationary source within Missoula County emitting or capable of emitting twenty-five (25) tons or more of PM<sub>10</sub>, SO<sub>2</sub>, CO, O<sub>3</sub> or NO<sub>2</sub> per year shall have a plan of abatement for reducing emissions of each such pollutant when the ambient concentration of such pollutant equals or exceeds the concentrations set forth in Rule 4.104. The plan, which is subject to review and approval by the department, must sufficiently demonstrate the ability of the source to reduce emissions as required under each stage of the emergency episode avoidance plan.
- (3) Within 60 days of notification by the department that new requirements are in effect, a source required by this rule to have an abatement plan shall submit an updated plan to the department for review and approval.

- (4) The department may require sources to periodically review and update their abatement plans, and submit them to the department for review and approval.

**Rule 4.107 - Enforcement Procedure**

- (1) If any of the provisions of this chapter are being violated, or if, based on scientific and meteorological data, the Control Board or department has reasonable grounds to believe that there exists in Missoula County a condition of air pollution that requires immediate action to protect the public health or safety, the department or the Control Board or any law enforcement officer acting under the direction of the department or Control Board may order any person or persons causing or contributing to the air pollution to immediately reduce or completely discontinue the emission of pollutants.
- (2) The order must specify the provision of the Program being violated and the manner of violation, and must direct the person or persons causing or contributing to the air pollution to reduce or completely discontinue the emission of air pollutants immediately. The order must notify the person to whom it is directed of the right to request a hearing. The order must be personally delivered to the person or persons in violation or their agent.
- (3) If a hearing is requested by a person or persons allegedly in violation of the provisions of this chapter, within 24 hours the department shall fix a time and place for a hearing to be held before the Control Board or a hearing examiner appointed by the Control Board. Not more than 24 hours after the commencement of such hearing, and without adjournment, the Control Board or hearing examiner shall affirm, modify, or set aside the order. A request for a hearing does not stay or nullify an order.
- (4) If a person fails to comply with an order issued under this chapter, the department or the Control Board may initiate action under Chapter 15 of this Program.
- (5) The right to request a hearing before the Control Board under this chapter does not apply to violations of Chapter 9. Enforcement procedures for violations of Chapter 9 are described in Rule 15.104.

**Rule 4.108 - Stage I Alert Control Activities**

- (1) During a Stage I Alert, the department shall:
  - (a) advise citizens via public media and the department's Air Pollution Hotline of the actions listed under an Alert, and of medical precautions.
  - (b) shall suspend outdoor burning.
  - (c) may require construction companies to take additional effective dust-control action for roads under construction or repair.
- (2) During a Stage I Alert, the following general curtailment provisions take effect:
  - (a) Residential solid fuel burning devices shall comply with the applicable requirements of Chapter 9.
  - (b) Citizens should limit driving to necessary trips only and should avoid driving on unpaved surfaces such as dirt roads and unpaved shoulders and alleys.
  - (c) The City, County and State road departments shall take actions appropriate under the prevailing weather conditions to reduce road dust along heavily traveled streets, as described in their abatement plans required by Rule 4.106.
- (3) During a Stage I Alert, the following curtailment provisions for stationary sources take effect:
  - (a) Air pollution control equipment must be used to its maximum efficiency;

(b) Incinerators, except pathological incinerators, air pollution control devices and crematoriums, shall cease operation during an Alert.

(c) Commercial boiler operators should limit manual boiler lancing and soot blowing to between the hours of 12 p.m. and 4 p.m.

(d) A stationary source may not switch to a higher sulfur or ash content fuel unless:

- (i) the source has continuous emission reduction equipment for the control of emissions caused by the alternate fuel; or
- (ii) the low sulfur or ash content fuel supply has been interrupted by the utility supplying the fuel.

(e) Each stationary source emitting or capable of emitting twenty-five (25) tons or more per year of any pollutant shall implement its abatement plan to reduce emissions during an Alert.

**Rule 4.109 - Stage II Warning Control Activities**

(1) During a Stage II Warning, the department shall:

(a) advise citizens via public media and the Air Pollution Hotline of the actions described under a Warning, and of medical precautions.

(b) advise the public to eliminate all nonessential driving, and urge citizens to carpool or use non-motorized or public transportation.

(c) inspect operating stationary sources required to implement an abatement plan by Rule 4.106 to ensure compliance with the plan.

(d) notify DEQ so it can initiate notification and communication procedures contained in the Montana Emergency Episode Avoidance Plan (Montana SIP, Chapter 9). However, the department is responsible for notifying state and county permitted sources and the public of requirements under this plan.

(2) During a Stage II Warning, the following general curtailment provisions take effect:

(a) All Alert conditions remain in effect except where Warning steps are more stringent.

(b) Solid fuel burning devices must comply with the applicable requirements of Chapter 9.

(c) For sources other than solid fuel burning devices, a person may not cause, allow or discharge visible emissions from any source unless such source has a State or County operating permit.

(3) During a Stage II Warning, the following curtailment provisions for stationary sources take effect:

(a) All Alert restrictions apply, except where Warning steps are more stringent;

(b) Pathological incinerators and crematoriums must limit operations to the hours between 12:00 p.m. and 4 p.m.;

(c) Commercial boiler operators shall limit manual boiler lancing and soot blowing to between the hours of 12 noon and 4 p.m.;

(d) Each stationary source emitting or capable of emitting twenty-five (25) tons or more per year of any pollutant shall implement its abatement plan to reduce emissions during a Warning using the maximum efficiency of abatement equipment in accordance with that plan.

(e) If so advised by the department, the source shall prepare to take action as advised under the Emergency conditions.

(4) The following additional provisions for stationary sources take effect if a Warning is in effect for any pollutant other than  $PM_{10}$  or when ambient  $PM_{10}$  levels reach  $350 \mu g/m^3$ :

- (a) The source must show substantial reductions in the emissions of air pollutants by using fuels with low ash and sulfur content;
- (b) The source must show substantial reduction of air pollutants from manufacturing operations by curtailing, postponing, or deferring production and all operations;
- (c) The source must show maximum reduction of air pollutants by deferring trade waste disposal operations that emit solid particles, gas vapors or malodorous substances; and
- (d) The source must show maximum reduction of heat load demands for processing.

**Rule 4.110 - Stage III Emergency Control Activities**

- (1) During a Stage III Emergency, the department shall:
  - (a) advise citizens via public media and the department's Air Pollution Hotline of the actions described under an Emergency and of medical precautions.
  - (b) inspect stationary sources required to implement an abatement plan by Rule 4.106 to ensure compliance with the plan.
  - (c) if conditions continue to worsen, issue a specific advisement that total curtailment under a Crisis condition is possible.
  - (d) notify DEQ so it can initiate notification and communication procedures contained in the Montana Emergency Episode Avoidance Plan (Montana State Implementation Plan, Chapter 9). However, the department is responsible for notifying state and county permitted sources and the public of requirements under this plan.
- (2) During a Stage III Emergency, the following general curtailment provisions take effect:
  - (a) All Alert and Warning conditions apply, except where Emergency steps are more stringent.
  - (b) All nonessential public gatherings should be voluntarily canceled.
  - (c) Persons driving motor vehicles must reduce operations by use of carpools, non-motorized transportation and public transportation and by eliminating unnecessary driving.
  - (d) Solid fuel burning devices may not be operated.
- (3) During a Stage III Emergency, the following curtailment provisions for stationary sources take effect:
  - (a) All Warning restrictions remain in effect, except where Emergency steps are more stringent;
  - (b) Incinerators, except pollution control devices, must cease operation;
  - (c) For manufacturing industries that require a relatively short lead time for shut down, the source must show 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.
  - (d) For sources still allowed to operate, a minimum forty percent (40%) reduction in emissions below maximum permissible operating emissions is required, except this requirement does not apply to those sources where the department determines such reductions are not physically possible. For manufacturing operations, the source may have to assume reasonable economic hardship by postponing production and allied operation to meet this reduction;
  - (e) Each stationary source emitting or capable of emitting twenty-five (25) tons or more per year of any pollutant shall implement its abatement plan to reduce emissions during an Emergency.

**Rule 4.111 - Stage IV Crisis Control Activities**

- (1) During a Stage IV Crisis, the department shall:
  - (a) inspect stationary sources required to implement an abatement plan by Rule 4.106 to ensure compliance with the plan.
  - (b) The department will notify DEQ so it can initiate notification and communication procedures contained in the Montana Emergency Episode Avoidance Plan (Montana State Implementation Plan, Chapter 9). However, the department is responsible for notifying state and county permitted sources and the public of requirements under this plan.
- (2) During a Stage IV Crisis, the following general curtailment provisions take effect:
  - (a) All conditions from the Alert, Warning, and Emergency stages apply except where Crisis steps are more stringent.
  - (b) Only those establishments (e.g., places of employment or business) associated with essential services may remain open. Essential services are news media, medically associated services (hospitals, labs, pharmacies), direct food supply (grocery markets, restaurants), drinking water supply and wastewater treatment, police, fire and health officials and their associated establishments. It is expressly intended that any service not defined as essential cease all business. Depending on the duration and nature of the crisis, the department may add the operation of certain services and facilities to the list of essential services. Examples of businesses and establishments considered nonessential include, but are not limited to: banks (except for supplying funds for essential services), all offices, bars and taverns, laundries, gas stations, barber shops, schools (all levels), repair shops, amusement and recreation facilities, libraries, and city, state and federal offices (except those identified as essential services).
  - (c) The use of motor vehicles is prohibited except in emergencies with the approval of law enforcement and the department.
- (3) During a Stage IV Crisis, the following curtailment provisions for stationary sources take effect:
  - (a) Stationary sources shall cease all manufacturing functions, but they may maintain operations necessary to prevent injury to persons or damage to equipment.
  - (b) Each stationary source emitting or capable of emitting twenty-five (25) tons or more per year of any pollutant shall implement its abatement plan to reduce emissions during a Crisis.

**Rule 4.112 – (State and County Only) Wildfire Smoke Episodes**

- (1) A Wildfire Smoke Episode is defined as a period of time in which the department determines, using available scientific and meteorological data, that wildfire smoke is the primary source of PM<sub>2.5</sub> in the airshed.
- (2) During a Wildfire Smoke Episode, the department may waive the PM<sub>2.5</sub> requirements in 4.104 if the department determines, using available scientific and meteorological data, that instituting the Missoula County Air Stagnation and Emergency Episode Avoidance Plan would have negligible impacts on PM<sub>2.5</sub> levels.
- (3) During a Wildfire Smoke Episode, the department shall advise citizens via public media and the department's Air Pollution Hotline of current air pollution levels and health advisories.
- (4) The department shall only waive the PM<sub>2.5</sub> requirements in 4.104 for the duration of the Wildfire Smoke Episode. At any time, the department may reinstate all or parts of 4.104 as conditions change or as deemed necessary to protect human health.

- (5) ~~The department shall evaluate the impact of wildfire smoke on PM<sub>2.5</sub> levels, using scientific and meteorological data, at a minimum of once a day during the Wildfire Smoke Episode.~~
- (6) ~~All other Missoula City-County Air Pollution Control Program Rules remain in effect during a Wildfire Smoke Episode.~~

**Rule 4.113 - Contingency Measure~~s~~**

Upon notification by the DEQ and EPA that a violation of the 24 hour NAAQS for PM<sub>10</sub> has occurred, and with departmental determination that solid fuel burning devices are greater than 40% percent of the cause, the department shall conduct extensive nighttime enforcement of the wood burning regulations when a Stage I Alert is declared.