

CHAPTER 6
STANDARDS FOR STATIONARY SOURCES
Subchapter 5 – Emission Standards

Rule 6.501 – Emission Control Requirements

- (1) For the purpose of this rule, Best Available Control Technology (BACT)” means an emission limitation (including a visible emission standard), based on the maximum degree of reduction for each pollutant subject to regulation under the FCAA or the Clean Air Act of Montana, that would be emitted from any proposed stationary source or modification that the department, on a case by case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event may application of BACT result in emission of any pollutant that would exceed the emissions allowed by any applicable standard under Rules 6.506 or 6.507. If the department determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of an emission standard infeasible, it may instead prescribe a design, equipment, work practice or operational standard or combination thereof, to require the application of BACT. Such standard must, to the degree possible, set forth the emission reduction achievable by implementation of such design, equipment, work practice or operation and must provide for compliance by means which achieve equivalent results.
- (2) The owner or operator of a new or altered source for which an air quality permit is required by subchapter 1 of this Chapter shall install on that source the maximum air pollution control capability that is technically practicable and economically feasible, except that:
 - (a) best available control technology must be used; and
 - (b) the lowest achievable emission rate must be met when required by the FCAA.
- (3) The owner or operator of any air pollution source for which an air quality permit is required by subchapter 1 of this Chapter shall operate all equipment to provide the maximum air pollution control for which it was designed.
- (4) The department may establish emission limits on a source based on an approved state implementation plan or maintenance plan to keep emissions within a budget.

Rule 6.502 – Particulate Matter from Fuel Burning Equipment

- (1) For the purpose of this rule, “new fuel burning equipment” means any fuel burning equipment constructed or installed after November 23, 1968.
- (2) The following emission limits apply to solid fuel burning equipment constructed or installed after May 14, 2010 with a heat input capacity from 1,000,000 BTU/hr up to and including 10,000,000 BTU/hr.
 - (a) Inside the Air Stagnation Zone, solid fuel burning equipment must meet LAER and a person may not cause or allow particulate matter emissions in excess of 0.1 pounds per million BTU heat input to be discharged from any stack, opening or chimney into the atmosphere.
 - (b) Outside the Air Stagnation Zone, solid fuel burning equipment must meet BACT and a person may not cause or allow particulate matter emissions in excess of 0.20 lbs per million BTU heat input to be discharged from any stack, opening or chimney into the atmosphere.
- (3) For devices or operations not covered in Rule 6.502(2), a person may not cause or allow particulate matter caused by the combustion of fuel to be discharged from any stack or chimney into the atmosphere in excess of the hourly rates set forth in the following table:

| Heat Input (million BTUs/hr) | Maximum Allowable Emissions of Particulate Matter (lbs/million BTU's) | |
|---------------------------------|--|----------------------------|
| | Existing Fuel Burning Equipment | New Fuel Burning Equipment |
| ≤ 10 | 0.60 | 0.60 |
| 100 | 0.40 | 0.35 |
| 1,000 | 0.28 | 0.20 |
| ≥ 10,000 | 0.19 | 0.12 |

- (4) For a heat input between any two consecutive heat inputs stated in the preceding table, maximum allowable emissions of particulate matter are shown for existing fuel burning equipment on Figure 1 and for new fuel burning equipment on Figure 2. For the purposes hereof, heat input is calculated as the aggregate heat content of all fuels (using the upper limit of their range of heating value) whose products of combustion pass through the stack or chimney.
- (5) When two or more fuel burning units are connected to a single stack, the combined heat input of all units connected to the stack may not exceed that allowable for the same unit connected to a single stack.
- (6) This rule does not apply to:
 - (a) emissions from residential solid fuel combustion devices, such as fireplaces and wood and coal stoves with heat input capacities less than 1,000,000 BTU per hour; and
 - (b) new stationary sources subject to Rule 6.506 for which a particulate emission standard has been promulgated.

FIGURE 1
Maximum Emission of Particulate Matter from Existing Fuel Burning Installations

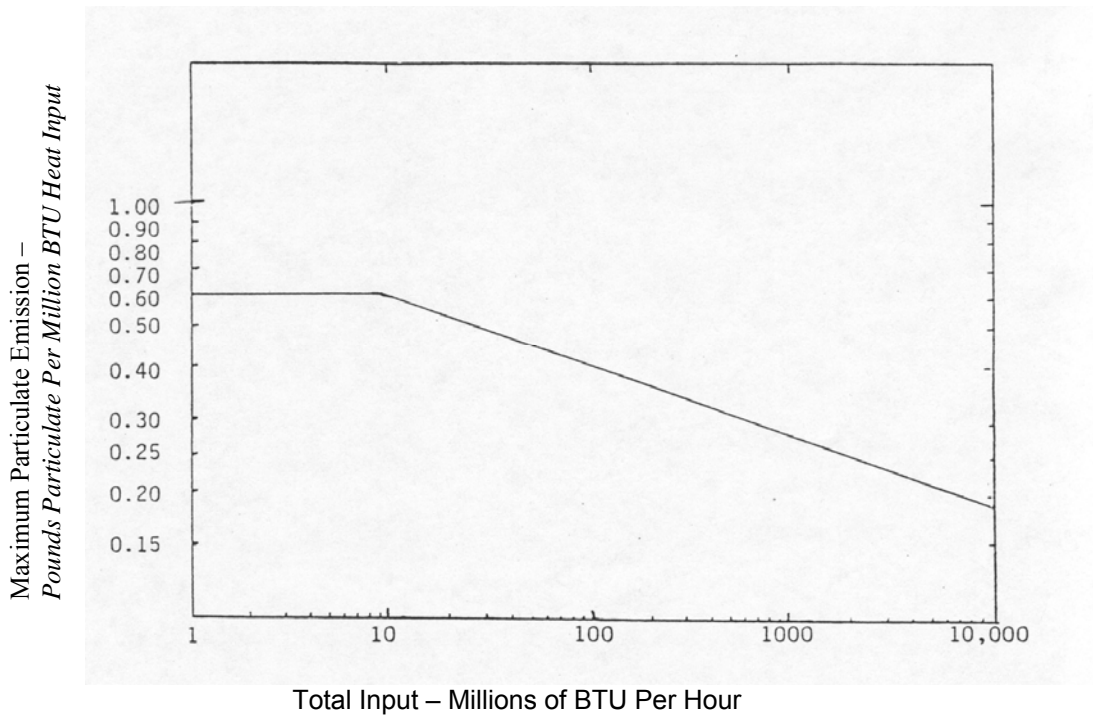
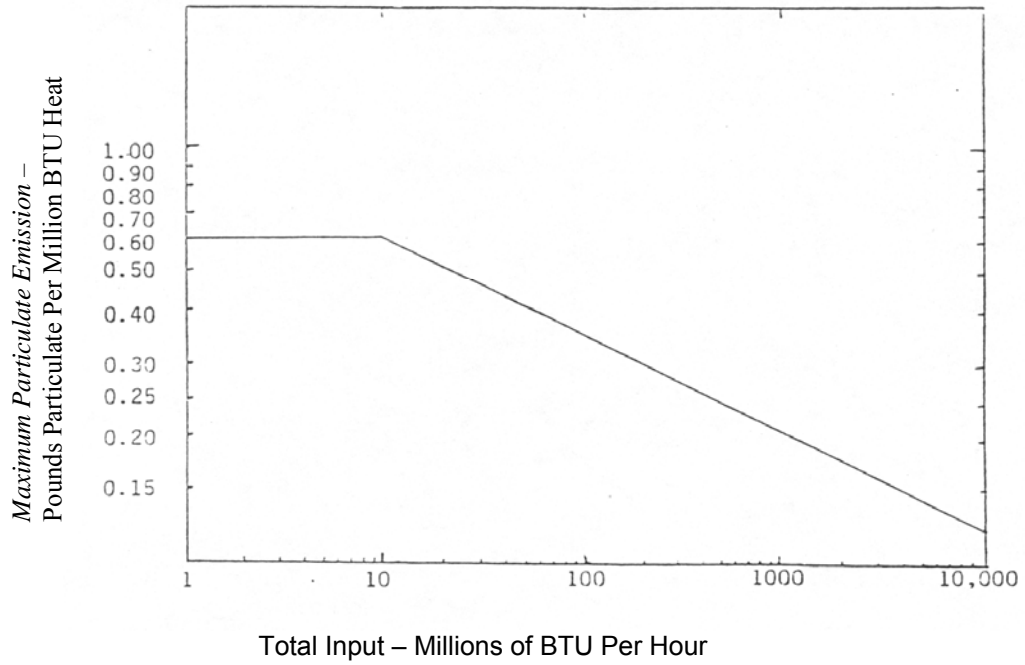


FIGURE 2
Maximum Emission of Particulate Matter from New Fuel Burning Installations



Rule 6.503 – Particulate Matter from Industrial Processes

- (1) A person may not cause or allow particulate matter in excess of the amount shown in the following table to be discharged into the outdoor atmosphere from any operation, process or activity.

| <u>Process (lb/hr)</u> | <u>Weight Rate (tons/hr)</u> | <u>Rate of Emission (lb/hr)</u> |
|------------------------|------------------------------|---------------------------------|
| 100 | 0.0 | 0.551 |
| 200 | 0.10 | 0.877 |
| 400 | 0.20 | 1.40 |
| 600 | 0.30 | 1.83 |
| 800 | 0.40 | 2.22 |
| 1,000 | 0.50 | 2.58 |
| 1,500 | 0.75 | 3.38 |
| 2,000 | 1.00 | 4.10 |
| 2,500 | 1.25 | 4.76 |
| 3,000 | 1.50 | 5.38 |
| 3,500 | 1.75 | 5.96 |
| 4,000 | 2.00 | 6.52 |
| 5,000 | 2.50 | 7.58 |
| 6,000 | 3.00 | 8.56 |
| 7,000 | 3.50 | 9.49 |
| 8,000 | 4.00 | 10.4 |
| 9,000 | 4.50 | 11.2 |
| 10,000 | 5.00 | 12.0 |
| 12,000 | 6.00 | 13.6 |
| 16,000 | 8.00 | 16.5 |
| 18,000 | 9.00 | 17.9 |
| 20,000 | 10.00 | 19.2 |
| 30,000 | 15.00 | 25.2 |
| 40,000 | 20.00 | 30.5 |
| 50,000 | 25.00 | 35.4 |
| 60,000 | 30.00 | 40.0 |
| 70,000 | 35.00 | 41.3 |
| 80,000 | 40.00 | 42.5 |
| 90,000 | 45.00 | 43.6 |
| 100,000 | 50.00 | 44.6 |
| 120,000 | 60.00 | 46.3 |
| 140,000 | 70.00 | 47.8 |
| 160,000 | 80.00 | 49.0 |
| 200,000 | 100.00 | 51.2 |
| 1,000,000 | 500.00 | 69.0 |
| 2,000,000 | 1,000.00 | 77.6 |
| 6,000,000 | 3,000.00 | 92.7 |

- (2) When the process weight rate falls between two values in the table, or exceeds 3,000 tons per hour, the maximum hourly allowable emissions of particulate are calculated using the following equations:

- (a) for process weight rates up to 60,000 pounds per hour:

$$E = 4.10 P^{0.67}$$

- (b) for process weight rates in excess of 60,000 pounds per hour:

$$E = 55.0 P^{0.11} - 40$$

Where E = rate of emission in pounds per hour and P = process weight rate in tons per hour.

- (3) This rule does not apply to particulate matter emitted from:
- (a) the reduction cells of a primary aluminum reduction plant,
 - (b) those new stationary sources listed in Rule 6.506 for which a particulate emission standard has been promulgated,
 - (c) fuel burning equipment, and
 - (d) incinerators.

Rule 6.504 – Visible Air Pollutants

- (1) A person may not cause or allow emissions that exhibit an opacity of forty percent (40%) or greater averaged over six consecutive minutes to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, the provisions of this rule do not apply to transfer of molten metals or emissions from transfer ladles.
- (2) A person may not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of twenty percent (20%) or greater averaged over six consecutive minutes.
- (3) During the building of new fires, cleaning of grates, or soot blowing, the provisions of Sections (1) and (2) apply, except that a maximum average opacity of sixty percent (60%) is permissible for not more than one four minute period in any 60 consecutive minutes. Such a four-minute period means any four consecutive minutes.
- (4) This rule does not apply to emissions from:
 - (a) wood-waste burners;
 - (b) incinerators;
 - (c) motor vehicles;
 - (d) those new stationary sources listed in ARM 17.8.340 for which a visible emission standard has been promulgated; or
 - (e) residential solid-fuel burning devices.

Rule 6.505 – Fluoride Emissions

- (1) A person may not cause or allow to be discharged into the outdoor atmosphere from any phosphate rock or phosphorite processing equipment or equipment used in the production of elemental phosphorous, enriched phosphates, phosphoric acid, defluorinated phosphates, phosphate fertilizers or phosphate concentrates or any equipment used in the processing of fluorides or wastewater enriched fluorides, in a gaseous or particulate form or any combination of gaseous or particulate forms in excess of 0.3 pounds per ton of P₂O₅ (phosphorous pentoxide) introduced into the process of any calcining, nodulizing, defluorinating or acidulating process or

any combination of the foregoing, or any other process, except aluminum reduction, capable of causing a release of fluorides in the form or forms indicated in this rule.

- (2) Pond emissions:
 - (a) A person may not cause or allow fluorides in excess of 108 micrograms per square centimeter per 28 days ($\mu\text{g}/\text{cm}^2/28$ days) to be released into the outdoor atmosphere from any storage pond, settling basin, ditch, liquid holding tank or other liquid holding or conveying device from operations outlined in Section (1). The concentration of fluorides is to be determined using the calcium formate paper method. Papers must be exposed in a standard Montana Box located not less than 18 inches or more than 48 inches above the level of the liquid in the devices herein enumerated and not more than 16 inches laterally from the liquid's edge. Other locations may be permitted if approved by the department.
 - (b) At least four such sampling stations must be placed at locations designated by the department. Two or more calcium formate papers, as designated by the department, must be exposed in the standard Montana Box for a period designated by the department. Regardless of the duration of the sampling period, the values determined must be corrected to 28 days.
 - (c) A minimum of two calcium formate papers for each sampling period from each sample box must be provided to the department, if requested, within ten days from the date of the request.
- (3) Preparation, exposure and analysis:
 - (a) Preparation of calcium formate papers:
 - (i) Soak Whatman #2, 11 cm. filter papers in a 10 percent solution of calcium formate for five minutes.
 - (ii) Dry in a forced air oven at 80°C. Remove immediately when dryness is reached.
 - (b) Exposure of calcium formate papers:
 - (i) Two papers, or more, if directed, are suspended in a standard Montana Box on separate hangers at least two inches apart.
 - (ii) Exposure must be for 28 days + 3 days unless otherwise indicated by the department.
 - (iii) Calcium formate papers must be kept in an air tight container both before and after exposure until the time of analysis.
 - (c) Analysis of calcium formate papers is adapted from Standard Methods for the Examination of Water and Waste Water; using Willard-Winter perchloric acid distillations and the Spadns-Zirconium Lake method for fluoride determination.

Rule 6.506 – New Source Performance Standards

- (1) For the purpose of this rule, the following definitions apply:
 - (a) “Administrator”, as used in 40 CFR Part 60, means the department, except in the case of those duties that cannot be delegated to the local program by the state and the EPA, in which case “administrator” means the administrator of the EPA.
 - (b) “Stationary source” means any building, structure, facility, or installation that emits or may emit any air pollutant subject to regulation under the Federal Clean Air Act.
- (2) The terms and associated definitions specified in 40 CFR 60.2, apply to this rule, except as specified in subsection (1)(a) above.
- (3) The owner and operator of any stationary source or modification, as defined and applied in 40

CFR Part 60, shall comply with the standards and provisions of 40 CFR Part 60.

- (4) For the purpose of this rule, the Control Board hereby adopts and incorporates by reference 40 CFR Part 60, which pertains to standards of performance for new stationary sources and modifications.

Rule 6.507 – Hazardous Air Pollutants

- (1) For the purpose of this rule, the terms and associated definitions specified in 40 CFR 61.02 apply, except that:
 - (a) “Administrator”, as used in 40 CFR Part 61, means the department, except in the case of those duties that cannot be delegated to the local program by the state and the EPA in which case “administrator” means the administrator of the EPA.
- (2) The owner or operator of any existing or new stationary source, as defined and applied in 40 CFR Part 61, shall comply with the standards and provisions of 40 CFR Part 61.
- (3) For the purpose of this rule, the Control Board hereby adopts and incorporates by reference 40 CFR Part 61, which pertains to emission standards for hazardous air pollutants.

Rule 6.508 – Hazardous Air Pollutants for Source Categories

- (1) For this rule, the following definitions apply:
 - (a) “112(g) exemption” means a document issued by the department on a case-by-case basis, finding that a major source of HAP meets the criteria contained in 40 CFR 63.41 [definition of “construct a major source”, (2)(i) through (vi)], and is thus exempt from the requirements of 42 USC 7412(g).
 - (b) “Beginning actual construction” means, in general, initiation of physical on-site construction activities of a permanent nature. Such activities include, but are not limited to, installing building supports and foundations, laying underground pipework, and constructing permanent storage structures.
 - (c) “Construct a major source of HAP” means:
 - (i) to fabricate, erect, or install a major source of HAP; or
 - (ii) to reconstruct a major source of HAP, by replacing components at an existing process or production unit that in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP, whenever:
 - (A) the fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable process or production unit; and
 - (B) it is technically and economically feasible for the reconstructed major source to meet the applicable MACT emission limitation for new sources established under 40 CFR 63 subpart B.
 - (d) “Greenfield site” means a contiguous area under common control that is an undeveloped site.
 - (e) “MACT standard” means a standard that has been promulgated pursuant to 42 USC 7412(d), (h), or (j).
 - (f) “Major source of HAP” means:
 - (i) at any greenfield site, a stationary source or group of stationary sources that is located within a contiguous area and under common control and emits or has the

- potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP; or
- (ii) at any developed site, a new process or production unit which in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP.
 - (g) “Maximum achievable control technology” or “MACT” means the emission limitation that is not less stringent than the emission limitation achieved in practice by the best controlled similar source, and that reflects the maximum degree of reduction in emissions that the department, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the constructed or reconstructed major source of HAP.
 - (h) “Notice of MACT approval” means a document issued by the department containing all federally enforceable conditions necessary to enforce MACT or other control technologies such that the MACT emission limitation is met.
 - (i) “Process or production unit” means any collection of structures and/or equipment, that processes, assembles, applies or otherwise uses material inputs to produce or store an intermediate or final product. A single facility may contain more than one process or production unit.
- (2) The owner or operator of any affected source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR 63, incorporated by reference in this rule. All references in 40 CFR 63, Subpart B to “permitting authority” refer to the department.
 - (3) Any owner or operator who constructs a major source of HAP is required to obtain from the department a notice of MACT approval or a 112(g) exemption pursuant to this rule, prior to beginning actual construction, unless:
 - (a) the major source has been specifically regulated or exempted from regulation under a MACT standard issued pursuant to 42 USC 7412(d), (h) or (j) and incorporated into 40 CFR Part 63;
 - (b) the owner or operator of the major source has already received all necessary air quality permits for such construction as of (the effective date of this rule); or
 - (c) the major source has been excluded from the requirements of 42 USC 7412(g) under 40 CFR 63.40(c), (e) or (f).
 - (4) Unless granted a 112(g) exemption under (6) below, at least 180 days prior to beginning actual construction, an owner or operator who constructs a major source of HAP shall apply to the department for a notice of MACT approval. The application must be made on forms provided by the department, and must include all information required under 40 CFR 63.43(e).
 - (5) When acting upon an application for a notice of MACT approval, the department shall comply with the principles of MACT determination specified in 40 CFR 63.43(d).
 - (6) The owner or operator of a new process or production unit that in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP, may apply to the department for a 112(g) exemption, if the process or production unit meets the criteria contained in 40 CFR 63.41 [definition of “construct a major source” (2)(i) through (vi)]. Application must be made on forms provided by the department, at least 180 days prior to beginning actual construction. The application must include such information as may be necessary to demonstrate that the process of production unit meets the criteria referenced herein.
 - (7) As further described below, and except as expressly modified by this rule, the procedural requirements of Chapter 6, subchapter 1 apply to an application for a notice of MACT approval or 112(g) exemption. For the purpose of this rule:
 - (a) all references in applicable provisions of Chapter 6, subchapter 1 to “permit”, or “air

quality permit” mean “notice of MACT approval” or “112(g) exemption,” as appropriate;

- (b) all references in applicable provisions of Chapter 6, subchapter 1 to “new or altered source” mean “major source of HAP.”
- (8) The following rules govern the application, review and final approval or denial of a notice of MACT approval or 112 (g) exemption: Rules 5.112, 6.103(2), 6.103(4)-(7), 6.106, 6.107(1) and 6.107(6);
- (9) The department shall notify the applicant in writing of any final approval or denial of an application for a notice of MACT approval or 112(g) exemption.
- (10) A notice of MACT approval must contain the elements specified in 40 CFR 63.43(g). The notice expires if fabrication, erection, installation or reconstruction has not commenced within 18 months of issuance, except that the department may grant an extension which may not exceed an additional 12 months.
- (11) An owner or operator of a major source of HAP that receives a notice of MACT approval or a 112(g) exemption from the department shall comply with all conditions and requirements contained in the notice of MACT approval or 112(g) exemption.
- (12) If a MACT standard is promulgated before the date an applicant has received a final and legally effective determination for a major source of HAP subject to the standard, the applicant shall comply with the promulgated standard.
- (13) The department may revoke a notice of MACT approval or 112(g) exemption if it determines that the notice or exemption is no longer appropriate because a MACT standard has been promulgated. In pursuing revocation, the department shall follow the procedures specified in Rule 6.108. A revocation under this section may not become effective prior to the date an owner or operator is required to be in compliance with a MACT standard, unless the owner or operator agrees in writing otherwise.