STATE OF COLORADO

John W. Hickenlooper, Governor
Christopher E. Urbina, MD, MPH, Executive Director and Chief Medical Officer

Dedicated to protecting and improving the health and environment of the people of Colorado

COLORADO AIR QUALITY CONTROL COMMISSION
http://www.cdphe.state.co.us

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Colorado Department of Public Health and Environment

NOTICE OF PUBLIC RULEMAKING HEARING BEFORE THE COLORADO AIR QUALITY CONTROL COMMISSION

Regarding proposed revisions to:

Regulation Number 6
Standards of Performance for New Stationary Sources

SUBJECT:

The Division requested that the Commission set a rulemaking hearing to consider a proposed addition to Regulation Number 6, Part B, Section I.B. Specifically, the proposed addition would reduce the regulatory burden on owners and operators of these engines and in some cases could reduce the emission control requirements for these engines to the minimum standards required by federal NSPS IIII or NSPS JJJJ requirements. Typographical, grammatical and formatting errors found throughout the regulation will also be corrected.

HEARING SCHEDULE:

DATE: March 21, 2013
TIME: 9:00 AM
PLACE: Colorado Department of Public Health & Environment
4300 Cherry Creek Drive South, Sabin Conference Room
Denver, Colorado 80246

The hearing may be continued at such places and time as the Commission may announce. Interested parties may contact the Commission Office at 303-692-3476 to confirm meeting dates and times.

PUBLIC COMMENT:

The Commission encourages all interested persons to provide their views either orally at the hearing or in writing prior to or at the hearing. The Commission especially solicits comments and analyses from persons who will incur directly some cost or benefit from the proposed revisions. Public testimony will be taken as close to the start of the hearing as possible and during the hearing as necessary. Written and/or electronic submissions are requested, but not required to be submitted prior to the hearing to allow review prior to presentation at the hearing. Written and/or electronic submissions should be mailed to the Commission Office at least 14 days prior to the hearing.

PARTY STATUS:

Any person may obtain party status for the purpose of this hearing by complying with the requirements of the Commissions Procedural Rules. A petition for party status must be filed by electronic mail with the Office of the Air Quality Control Commission no later than close of business on **January 17, 2013.** The petition must: *1) identify the applicant; 2) provide the name, address, telephone and facsimile numbers, and email address of the applicants representative; and 3) briefly summarize what, if any, policy, factual, and legal issues the applicant has with the proposal(s) as of the time of filing the application.* Electronically mailed copies must also be received, by this same date, by the Division staff person and the Assistant Attorneys General representing the Division and the Commission identified below.

Any person may petition the Commission to file documents in paper copy format if they are unable for any reason to comply with the requirements of 1.3.8(2) of the Commission's Procedural Rules. An original and fifteen paper copies must be filed in the Office of the Air Quality Control Commission, Colorado Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, Colorado 80246. Individuals may also obtain party status by submitting an alternative to the proposed rule. The submittal of an alternative proposal must be accompanied by an electronic copy of the alternative proposed rule and all other associated documents as required by the Commission's procedural rules, and must be filed by electronic mail with the Office of the Commission by **January 17, 2013** for party status requests. Alternative rules must also be filed by electronic mail with the Division staff person and with each of the Assistant Attorneys General.

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Requests received beyond the above stated deadline shall only be considered upon a written motion for good cause shown. The Commission reserves the right to deny party status to anyone that does not comply with the Commission's procedural rules.

STATUS CONFERENCE:

A status conference will be held **January 23, 2013 at 1:00 p.m.,** at the Department of Public Health and Environment to ascertain and discuss the issues involved, and to ensure that parties are making all necessary efforts to discuss and resolve such issues prior to the submission of prehearing statements. Attendance at this status conference is mandatory for anyone who has requested party status.

PREHEARING CONFERENCE/PREHEARING STATEMENTS:

Attendance at the prehearing conference is mandatory for all parties to this hearing. A prehearing conference will be held **February 26, 2013 at 2:00 p.m.** in the Commission Offices at 4300 Cherry Creek Drive South, Denver. All parties must submit by electronic mail a prehearing statement to the Commission Office by close of business **February 19, 2013.** In addition, electronically mailed copies of these documents must be delivered by that date to all persons who have requested party status. A copy of the prehearing statement must also be electronically mailed to the Division point of contact and each of the Assistant Attorneys General identified above by close of business **February 19, 2013**. Any revisions to the prehearing statement must be submitted to the Administrator of the Commission at the prehearing conference and by electronic mail to the Commission Office on the day of the prehearing conference. Any exhibit included in the prehearing statements will be electronically mailed to individual Commissioners for review prior to the hearing, provided the party files electronic copies of such exhibit. Rebuttals to the prehearing statement may be submitted to the Commission Office and all other parties by close of business **March 4, 2013**.

EXCEPTIONS TO FILE DOCUMENTS BY ELECTRONIC MAIL:

The Commission's Procedural Rules provide for an exception to file documents by electronic mail. If granted an exception to electronic filing pursuant to the provisions of 1.3.8(3) of the Commission's Procedural Rules, the applicant for party status shall file an original and fifteen copies of the prehearing statement in the Office of the Air Quality Control Commission, and shall also deliver copies to each other party, applicant for party status, the Assistant Attorneys General representing the Commission and Division, and the Division staff person for the proceedings, by electronic mail or as otherwise provided by the exception granted under Subsection 1.3.8(3), by that same day.

STATUTORY AUTHORITY FOR THE COMMISSION'S ACTIONS:

The Colorado Air Pollution Prevention and Control Act provide the authority for the Colorado Air Quality Control Commission to adopt and modify Regulation Number 6. Section 25-7-106(6), C.R.S., grants the Commission the authority to prescribe testing, monitoring, and record keeping requirements for sources of air pollution. The Commission's action is taken pursuant to authority granted and procedures set forth in Sections 25-7-105, 25-7-106, 25-7-110, 25-7-110.5 and 25-7-114, C.R.S. These revisions are not required by federal law and are not currently included in the State Implementation Plan.

The rulemaking hearing will be conducted in accordance with Sections 24-4-103 and 25-7-110, 110.5 and 110.8 C.R.S., as applicable and amended, the Procedural Rules of the Commission and as otherwise stated in this notice. This list of statutory authority is not intended as an exhaustive list of the Commission's statutory authority to act in this matter.

Dated this 21st day of December 2012 at Denver, Colorado

Colorado Air Quality Control Commission

Michael Silverstein, Administrator

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Air Quality Control Commission

REGULATION NUMBER 6

STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

5 CCR 1001-8

PART B

Non-Federal NSPS for Specific Facilities and Sources

I. GENERAL PROVISIONS

I.A. Except as specifically provided in the sections of this part, Subpart A (General Provisions) of Regulation Number 6, Part A is incorporated herein in its entirety by reference.

I.B. In addition to the provisions stated in Part A, Subpart A, Subsection 60.14 (~~c~~e) (6) of the CFR, regarding applicability, the following applies: relocation of a source within the State of Colorado is not, by itself, considered to be a modification. Relocation of a source from outside of the State of Colorado into the State of Colorado is considered to be a new source, subject to the requirements of this Regulation Number 6, with the exception of internal combustion engines.

I.C. Internal combustion engines (ICE) relocated from the outside of the State of Colorado into the State of Colorado is subject to any applicable requirements in Part A and the following requirements.

I.C.1. Definitions

Unless otherwise specified, all terms used in this Section are the same as defined in 40 CFR Part 60, Subparts IIII or JJJJ.

I.C.1.a. The **relocation date** is the earliest date of the options identified in Section I.C.1.a. Once set, the relocation date does not change regardless of the ICE being moved within or outside of the State of Colorado. The relocation date is:

I.C.1.a.(i) the date that the ICE owner/operator submits an Air Pollution Emission Notice, complete with the serial number of the ICE, to the Air Pollution Control Division; or

I.C.1.a.(ii) the date that the ICE is placed and secured at the location within the State of Colorado where it is intended to be operated.

I.C.1.b. The **manufacture date** is the date of manufacture as defined in the applicable provision of Part A, Subpart IIII or JJJJ.

I.C.2. Standards

I.C.2.a. ICE with a manufacturer's rated horsepower less than 500 must have a relocation date no later than 5 years after the manufacture date; or

I.C.2.b. ICE shall meet the most recent emission standard required in 40 CFR Part 60, Subparts IIII or JJJJ as of the relocation date, considering horsepower and engine displacement, whether alone or through air pollution controls. Compliance with Section I.C.2.b. shall be demonstrated through either:

I.C.2.b.(i) Manufacturer certified emission factors; or

I.C.2.b.(ii) Division approved stack test under representative conditions.

I.C.3. Testing, Recordkeeping and Reporting Requirements

I.C.3.a. The owner/operator shall maintain records of the manufacture date and relocation date for the life of the ICE.

I.C.3.b. The owner/operator shall maintain records of the most recent stack test results used to comply with this relocation requirement for the life of the ICE.

I.C.3.c. The owner/operator shall follow any Division required operating and maintenance plan, if applicable.

I.C.3.d. The owner/operator shall operate and maintain the ICE and any air pollution control equipment pursuant to manufacturer specifications or equivalent to the extent practicable, and consistent with technological limitations and good engineering and maintenance practices. The owner or operator shall keep manufacturer specifications or equivalent on file.

II. STANDARDS OF PERFORMANCE FOR NEW FUEL-BURNING EQUIPMENT

II.A. Applicability and Designation of Affected Facility

The provisions of this section are applicable to fuel burning equipment constructed, reconstructed, or modified after January 30, 1979.

II.B. Definitions

As used in this Section, all terms shall have the meaning given to them in the Common Provisions Regulation and in Part A, Subpart A of this regulation.

II.C. Standard for Particulate Matter

On and after the date on which the required performance test is completed, no owner or operator subject to the provisions of this regulation may discharge, or cause the discharge into the atmosphere of any particulate matter which is:

II.C.1. In excess of 0.5 lbs. per million Btu heat input for fuel burning equipment of not more than one million Btu per hour total input.

II.C.2. For fuel burning equipment generating greater than one million but less than 250 million Btu per hour heat input, the following equation will be used to determine the allowable particulate emission limitation:

$$PE = 0.5\ (FI)^{-0.26}$$

Where:

PE is the allowable particulate emissions in pounds per million Btu heat input.

FI is the fuel input in million Btu per hour.

If two or more units connect to any opening, the maximum allowable emission rate shall be the sum of the individual emission rates.

II.C.3. Greater than 20 percent opacity.

II.D. Standard for Sulfur Dioxide

On and after the date on which the required performance test is completed, no owner or operator subject to the provisions of this regulation may discharge, or cause the discharge into the atmosphere sulfur dioxide in excess of:

II.D.1. All coal-fired operations, including coal-fired steam generation:

II.D.1.a. Sources converted from other fuels to coal: 1.2 lbs SO_2/million Btu of coal heat input;

II.D.1.b. Sources with coal heat input of less than 250 million Btu per hour: 1.2 lbs SO_2/million Btu coal heat input;

II.D.1.c. Sources with a coal heat input of 250 million Btu per hour or greater: 0.4 lbs. SO_2/million Btu coal heat input.

II.D.1.d. Industrial-commercial-institutional steam generating units with a coal heat input of greater than 250 million BTU per hour: 30 percent (70 percent reduction) of the potential combustion concentration when emissions are less than 0.60 pounds per million BTU heat input.

II.D.2. All oil-fired operations, including oil-fired steam generation:

II.D.2.a. Sources with an oil heat input of less than 250 million Btu per hour: 0.8 lbs. SO_2/million Btu of oil heat input:

II.D.2.b. Sources with an oil heat input of 250 million Btu per hour or greater: 0.3 lbs. SO_2/million Btu of oil heat input.

II.D.2.c. Industrial-commercial-institutional steam generating units with an oil heat input of greater than 250 million BTU per hour: 100 percent (zero percent reduction) of the potential combustion concentration when emissions are less than 0.20 pounds per million BTU heat input.

II.D.3. Combustion Turbines

II.D.3.a. Sources with a heat input of less than 250 million Btu per hour: 0.8 lbs. SO_2/million Btu.

II.D.3.b. Sources with heat input of 250 million Btu per hour or greater: 0.35 lbs. SO_2/million Btu.

II.E. Test Methods and Procedures

The reference methods contained in Appendix A of this regulation, except as provided under Part A, Subpart A, Section 60.8(b), shall be used to determine compliance with the standards prescribed in Subsection C. and D. as follows:

II.E.1. Method 1 for selecting sample site and velocity traverses;

II.E.2. Method 2 for velocity and volumetric flow rate;

II.E.3. Method 3 for gas analysis to be used when applying Reference Methods 5 and 6;

II.E.4. Method 5 for concentration of particulate matter and associated moisture content; and

II.E.5. Method 6 for concentration of SO_2.

III. STANDARDS OF PERFORMANCE FOR NEW MANUFACTURING PROCESSES

III.A. Applicability and Designation of Affected Facility

The provisions of this section are applicable to the following affected facilities: new manufacturing processes, regardless of production rate, and new alfalfa dehydration plants constructed, reconstructed, or modified after January 30, 1979.

III.B. Definitions

As used in this section, all terms not defined herein shall have the meaning given them in the Common Provisions Regulation and in Part A, Subpart A of this Regulation, unless otherwise required by context.

III.C. Standard for Particulate Matter

On and after the date on which the required performance test is conducted, no person subject to the provisions of this regulation shall discharge, or cause the discharge, into the atmosphere from any affected facility, particulate matter in excess of:

III.C.1. For process equipment of process weight rates up to 60,000 lbs/hr the allowable emission rate shall be determined by use of the equation:

$$E = 3.59(P)^{0.62}$$

Where:

E is the Allowable Emission in lbs/hr.

P is the Process Weight rate in tons/hr.

III.C.2. For process equipment of process weight rates equal to or greater than 60,000 lbs/hr the allowable emission rate shall be determined by use of the equation:

$$E = 17.31(P)^{0.16}$$

Where:

E is the Allowable Particulate Emissions in lbs/hr.

P is the Process Weight rate in tons/hr.

III.C.3. Greater than 20 percent opacity.

III.D. Standard for Sulfur Dioxide

On and after the date on which the required performance test is completed, an owner or operator subject to the provisions of this section shall:

III.D.1. Limit the discharge of sulfur dioxide to a maximum of 2.0 tons/day, or

III.D.2. Utilize best practical control technology for control of sulfur dioxide as determined by the Division, subject to review by the Air Pollution Control Commission.

This subsection shall not apply to any manufacturing process specifically covered by Section IV. of this Part.

III.E. Test Methods and Procedures

The reference methods contained in Appendix A of this regulation, except as provided under Part A, Subpart A, Section 60.8(b), shall be used to determine compliance with the standards prescribed in Subsection C. and D. as follows:

III.E.1. Method 1 for sample site and velocity traverses;

III.E.2. Method 2 for velocity and volumetric flow rate;

III.E.3. Method 3 for gas analysis to be used when applying reference Methods 5 and 6;

III.E.4. Method 5 for concentration of particulate matter and associated moisture content; and

III.E.5. Method 6 for concentration of SO_2.

IV. STANDARDS OF PERFORMANCE FOR NEW SOURCES OF SULFUR DIOXIDE

IV.A. Applicability and Designation of Affected Facilities

The affected facilities to which the provisions of this Section apply are: natural gas desulfurization, petroleum refineries, production of oil from shale, shale oil upgrading facilities, refining of oil from shale and any other new source of SO_2 not specifically covered by other sections of this regulation, constructed, reconstructed, or modified after January 30, 1979. For purposes of this regulation, shale oil production facilities, and upgrading/refining facilities shall be considered separate sources and subject to separate SO_2 limitations.

IV.B. Definitions

As used in this section, all terms not defined herein shall have the meaning given them in the Common Provisions Regulation and in Part A, Subpart A of this Regulation, unless otherwise required by the context.

IV.B.1. "Shale oil production facility" A facility which utilizes a retorting operation (in-situ or surface retorting or both) to recover oil from shale.

IV.B.2. "Shale oil upgrading facility" A facility which produces from raw shale oil a semi-refined oil, (or products,) substantially equivalent to petroleum crude oil (or products) through

hydrogenation and/or other processing, including, but not limited to, de-arsenation, distillation, cracking, reforming and coking.

IV.B.3. "Shale oil refining facilities" A facility engaged in refining processed (upgraded) shale oil to produce gasoline, kerosene distillate fuel oils, residual fuel oils, lubricants, or other products through distillation, cracking, or reforming of unfinished oil shale derivatives.

NOTE: A shale oil refining facility may also refine raw shale oil, just as an upgrading facility could also refine the upgraded shale oil it produces. In addition, a petroleum refinery could upgrade or refine shale oil. The difference is that the standards in this section allow 0.3 lb SO_2 per barrel for extraction of oil from shale, then another 0.3 lb SO_2/barrel for the total combined upgrading and refining of the shale oil (e.g., if a new upgrading facility emits 0.21 lbs SO_2/barrel, a new refining operation can not emit more than 0.09 lb SO_2 per barrel). Crude oil refining is allowed 0.3 lb SO_2 per barrel: there is no equivalent to the extraction of oil from shale.

IV.C. Standard for Sulfur Dioxide

IV.C.1. On and after the date on which the required performance test has been completed, no owner or operator subject to the provisions of this regulation may discharge, or cause the discharge, into the atmosphere from any natural gas desulfurization facilities, sulfur dioxide in excess of:

IV.C.1.a. 2.0 lbs. SO_2/1000 standard cubic feet of delivered natural gas, for sources emitting less than three (3) tons per day of SO_2.

IV.C.1.b. 0.8 lbs.SO_2/1000 standard cubic feet of delivered natural gas, for sources emitting three or more tons per day of SO_2.

IV.C.2. On and after the date on which the required performance test is completed, no owner or operator subject to the provisions of this regulation may discharge, or cause the discharge, into the atmosphere from any petroleum refining facility, sulfur dioxide in excess of:

IV.C.2.a. 0.3 lbs. sulfur dioxide for the sum of all SO_2 emissions from a given refining facility, per barrel of oil processed.

IV.C.3. On and after the date on which the required performance test is completed, no owner or operator subject to the provisions of this regulation may discharge, or cause the discharge into the atmosphere from the production of oil from shale, sulfur dioxide in excess of:

IV.C.3.a. Facilities producing 1,000 or more barrels of oil per day:

Standard. Shale oil production facilities shall employ Best Available Control Technology (BACT) (as determined by the Division after consultation with the Commission). In no event shall the total sulfur dioxide emissions from a production facility exceed 0.30 lbs. SO_2 per barrel of oil produced.

IV.C.3.b. Facilities producing less than 1,000 barrels of oil per day:

There shall be no process emission standard for purposes of this regulation for sources processing less than 1000 barrels per day.

IV.C.4. On and after the date on which the required performance test is completed, no owner or operator subject to the provisions of this regulation may discharge, or cause the discharge into the atmosphere from any shale oil upgrading or refining facilities or combination thereof, sulfur dioxide in excess of:

IV.C.3.a. Facilities producing 1,000 or more barrels of oil per day:

IV.C.3.a.(i). 0.3 lbs sulfur dioxide per barrel of oil processed for the sum of all SO_2 emissions from shale oil upgrading and refining, even if such facilities are physically separated.

IV.C.3.b. Facilities processing less than 1,000 barrels of oil per day: no process emission standard.

IV.D. Test Methods and Procedures

The reference methods contained in Appendix A of this regulation, except as provided under Part A, Subpart A, Section 60.8(b), shall be used to determine compliance with the standards prescribed in Subsection C. as follows:

IV.D.1. Method 1 for selecting sample site and velocity traverses;

IV.D.2. Method 2 for velocity and volumetric flow rate;

IV.d.3. Method 3 for gas analysis to be used when applying Method 6; and

IV.D.4. Method 6 for concentration of SO_2.

V. STANDARDS OF PERFORMANCE FOR BIOMEDICAL WASTE INCINERATORS

V.A. Applicability and Designation of Affected Facility

The affected facilities to which the provisions of this Section apply are all new or modified incinerators used for the disposal of biomedical waste constructed, reconstructed or modified after August 30, 1989.

Exemption: The affected facilities do not include crematory incinerators.

V.B. Definitions

As used in this Section, all terms not defined herein shall have the meaning given them in the Common Provision Regulation and in Part A, Subpart A of this regulation, unless otherwise required by the context.

V.B.1. Biomedical waste - waste that includes anatomical/pathological wastes, infectious wastes, chemotherapeutic wastes and other wastes generated in health care facilities and medical laboratories that require special handling.

V.B.2. Anatomical/pathological waste - human or animal remains consisting of carcasses, tissues, organs or body parts that may or may not be infectious.

V.B.3. Infectious wastes - For the purpose of this regulation, the definition of infectious waste contained in 25-l5-402, C.R.S. shall apply.

V.B.4. Chemotherapeutic waste - All wastes resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of

malignant cells. Chemotherapeutic waste shall not include any waste containing antineoplastic agents that are listed as hazardous wastes.

V.B.5. Hazardous Waste - Hazardous waste as defined in 25-15-101 C.R.S.

V.B.6. Crematory incinerator - any incinerator designed and used solely for the burning of anatomical pathological waste, a crematory incinerator may also burn incidental items normally cremated as part of the funeral process.

V.B.7. Design capacity - The maximum waste feed rate that the incinerator is designed to completely combust considering the rates of heat releases it can accommodate from the destruction of combustible material contained in the wastes.

V.C. Emission Limitations

V.C.1. On and after the date, which the required performance test has been completed, every affected facility subject to the provisions of this Section must comply with the following emission standards:

V.C.1.a. Standard for Particulate Matter:

V.C.1.a.(i)~~.~~ All incinerators located at a facility with a total incineration design capacity of 1000 pounds per hour or greater shall not exceed 0.015 grains per dry standard cubic foot corrected to 7% O_2, including condensable particulate.

V.C.1.a.(ii)~~.~~ All incinerators located at a facility with a total incineration design capacity of 200 pounds per hour or greater shall not exceed 0.03 grains per dry standard cubic foot corrected to 7% O_2, including condensable particulate.

V.C.1.a.(iii)~~.~~ All incinerators located at a facility with a total incineration design capacity of less than 200 pounds per hour shall not exceed 0.08 grains per dry standard cubic foot corrected to 7% O_2, including condensable particulate.

V.C.1.b. Standard for Hydrogen Chloride (HCl):

V.C.1.b.(i)~~.~~ All incinerators located at a facility with a total incineration design capacity of 200 pounds per hour or greater shall either:

V.C.1.b.(i)(~~a~~A) Not exceed 50 parts per million, dry volume corrected to 7% O_2 over any continuous one-hour period, or

V.C.1.b.(i)(~~b~~B) Achieve a 90% reduction, by weight, on an hourly basis.

V.C.1.b.(ii)~~.~~ All incinerators located at a facility with a total incineration design capacity of less than 200 pounds per hour shall either:

V.C.1.b.(ii)(~~a~~A) Not exceed four (4) pounds per hour, or

V.C.1.b.(ii)(~~b~~B) Achieve a 90% reduction, by weight, on an hourly basis.

V.C.1.c. Standard for Carbon Monoxide (CO):

All incinerators shall not exceed 100 parts per million dry volume corrected to 7% O_2 over any continuous one-hour period as measured at a location upstream of the control devices.

V.C.1.d. Standard for Visible Emissions:

All incinerators shall not exceed a visible emission limitation of 10 percent opacity.

V.C.2. The owner or operator of an incinerator located at a facility with a total incineration design capacity of up to 400 pounds per hour may obtain an exemption from the applicable requirements set forth in this regulation, for units equal to or greater than 200 pounds per hour provided that:

V.C.2.a. The operator complies with the requirements set forth in this regulation. For incinerators located at a facility with a total incineration design capacity of less than 200 pounds per hour, and

V.C.2.b. The operator obtains a permit from the Division that contains a condition limiting the operation of such an incinerator to six hours in any one-day. The violation of such a permit condition shall also be a violation of this regulation.

V.D. Design and Operating Requirements

V.D.1. All incinerators shall be equipped with a secondary combustion chamber or zone which provides for turbulent mixing and:

V.D.1.a. Two (2) seconds of residence time at 1800ºF or greater for incinerators located at a facility with a total incineration design capacity of 200 pounds per hour or greater, or

V.D.1.b. One (l) second of residence time at 1800ºF or greater for incinerators located at a facility with a total incineration design capacity of less than 200 pounds per hour.

V.D.2. Auxiliary burners must be designed to provide the combustion chamber temperatures as described in paragraph 1 of this subsection without the assistance of the heat content of the waste. The auxiliary burner fuel and the combustion air shall be modulated automatically to maintain a secondary chamber exit temperature of at least 1800ºF.

V.D.3. The waste charging system of any incinerator must be designed so as to prevent disruption of the combustion process as waste is charged. Batch fed units must be equipped with a lockout mechanism to prevent charging after start-up. Units with automatic feed systems shall be equipped with a sealed feeding device capable of preventing combustion upsets during charging. The volume of the loading system shall be designed to prevent overcharging thereby assuring complete combustion of the waste.

V.D.4. For batch fed incinerators, interlocks must be provided to prevent charging until:

V.D.4.a. the secondary chamber exit temperature is established and holding at 1800ºF; and,

V.D.4.b. the combustion cycle is complete.

V.D.5. For continually fed incinerators, the charging of waste to the incinerator shall automatically cease through the use of an interlock system if:

V.D.5.a. The incinerator's secondary temperature drops below 1800ºF for any continuous 15-minute period, or

V.D.5.b. The carbon monoxide emissions are equal to or greater than 150 parts per million by volume, corrected to seven percent O_2 on a dry basis for any continuous 15-minute period.

V.D.6. Each incinerator shall operate so that during shutdown the incinerator continues to meet applicable emission limitations and the secondary combustion chamber or combustion zone temperature is maintained at 1800ºF or above until the waste is completely combusted.

V.D.7. Incinerators with a capacity of 200 pounds per hour or greater must be designed such that the flue gas temperature at the outlet of the final control device does not exceed 300°F unless a demonstration is made that an equivalent collection of condensable heavy metals and toxic organics can be achieved at a higher temperature or through the use of alternate technologies.

V.D.8. Radioactive waste and hazardous waste may not be burned in an incinerator subject to this Section unless the incinerator has met the requirements of the Radiation Control Division and the Hazardous Materials and Waste Management Division.

V.E. Performance Testing and Compliance Provision

V.E.1. The performance tests and procedures shall be in accordance with Part A, Subpart A, Section 60.8. of this regulation. The reference method contained in Appendix A of this regulation, except as provided under Part A, Subpart A, Section 60.8(b), shall be used to determine compliance with the standards prescribed in Subsection C as applicable. Other tests not described in Appendix A should be conducted in accordance with the Division's source testing procedures described in the compliance test manual. All tests shall be conducted at the maximum design rate using waste that is representative of normal operation.

V.E.2. The owner or operator of any biomedical waste incinerator that has a capacity of less than 200 pounds per hour shall conduct a performance test under the provisions of Part A, Subpart A, Section 60.8. of this regulation to demonstrate compliance with the standards for Particulate Matter (PM), Carbon Monoxide (CO) and Hydrogen Chloride (HCl).

V.E.3. The owner or operator of any biomedical waste incinerator that has a capacity of 200 pounds per hour or greater shall conduct a performance test to demonstrate compliance with the standards for Particulate Matter (PM), Carbon Monoxide (CO), and Hydrogen Chloride (HCl). Additional source tests shall be conducted for: a) arsenic and compounds (expressed as arsenic); b) beryllium and compounds (expressed as beryllium); c) cadmium and compounds (expressed as cadmium); d) hexavalent chromium and compounds (expressed as chromium); e) lead and compounds (expressed as lead); f) mercury and compounds (expressed as mercury); g) nickel and compounds (expressed as nickel); and h) polychlorinated dibenzo-p-dioxins (PCDD) and polychlorinated dibenzo furans (PCDF) expressed as 2,3,7,8 tetrachlorinated dibenzo-p-dioxin (TCDD).

Source tests shall be conducted for the above-specified pollutants every year, except that the Division may waive some tests if consistent emission rates are found, but in no case shall tests be conducted less than once every three years.

V.F. Monitoring Requirements

V.F.1. The owner or operator of any incinerator with a capacity of 200 pounds per hour or greater subject to the provisions of this Section must install, calibrate, operate and maintain in accordance with Appendix B instruments for continuously monitoring and recording the following emission and operating parameters:

V.F.1.a. Carbon Monoxide (CO)

V.F.1.b. Oxygen (O_2)

V.F.2. The owner or operator of any incinerator must install, calibrate, operate, and maintain devices that continuously record the temperature of gases leaving the primary and secondary (or final) combustion chambers. Such devices shall have an accuracy of $\pm$ 0.75% of the temperature being measured expressed in degrees Celsius (ºC) or $\pm$ 2.5ºC whichever is greater. Sensors shall be located such that flames from the burners do not impinge on the sensors.

V.G. Recordkeeping and Reporting Requirements

V.G.1. The owner or operator of an incinerator subject to the provisions of this Section shall maintain a monthly summary file of daily burning rates and hours of operation. The summaries shall be retained for at least two (2) years following the date of such records and summaries.

V.G.2. The owner or operator of an incinerator subject to the provisions of this Section shall submit continuous emission/operating data gathered from the monitors to the Division on a quarterly basis. The data shall be retained for at least two (2) years following the date of record and shall be made available to the Division during facility inspections.

V.G.3. The owner or operator of an incinerator subject to the provisions of this Section shall notify the Division by telephone following any failure of process equipment, failure of any air pollution control equipment, failure of any monitoring equipment, or a process operational error which results in an increase in emissions above any allowable rate. Notification shall be made no later than two (2) hours after the start of next working day, followed by written notice to the Division to include the measures undertaken to correct the problem.

VI. STANDARDS OF PERFORMANCE FOR MUNICIPAL WASTE COMBUSTORS

VI.A. Applicability

VI.A.1. This section applies to any facility or equipment constructed, reconstructed, or modified after August 30, 1989, that burns or is designed to burn municipal solid waste. This regulation also applies to any facility or equipment, designed to burn Refuse Derived Fuel (RDF) either in combination with other fuels or as an only fuel constructed, reconstructed or modified after August 30, 1989.

VI.A.2. Any facility that is subject to Part A, Subparts Ea, Cb or Eb is not subject to this section, except as set forth in Subsections F. and G. of this Section VI.

VI.A.3. Any facility that is subject to this section shall comply with all applicable requirements of the Colorado Solid Waste Act and its implementing regulations as promulgated by the Colorado Board of Health (Solid Waste Regulations, 6 CCR 1007-2).

VI.B. Definitions

As used in this section, all terms not defined herein shall have the meaning given in the Common Provisions regulation and in Subpart A of Part A of this Regulation Number 6 unless otherwise required by the context.

VI.B.1. Municipal Solid Waste (MSW) - means solid waste collected by a public or private hauler from more than one waste generator, but excluding hazardous waste and infectious waste as defined in Regulation 6, Part B, Section V.

VI.B.2. Municipal Waste Combustor (MWC) - Any building, structure, facility, equipment, or installation used for reducing the volume of municipal solid waste by burning.

VI.B.3. Hazardous Waste - means any waste included by definition in Section 25-15-101 (9) of the Colorado Hazardous Waste Act.

VI.B.4. Solid waste - means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded materials, including solid, liquid, semi solid, or contained gaseous material resulting from private, public, community, industrial or commercial operations. Solid waste does not include any untreated solid; dissolved materials in domestic sewage; agricultural wastes; solid or dissolved materials in irrigation return flows; industrial discharges which are point sources subject to the provisions of the Colorado Water Quality Control Act, Section 25-8-101, et. seq. C.R.S., or materials handled at facilities licensed pursuant to the provisions of the Radiation Control Act, Section 25-11-101, et. seq., C.R.S. or materials defined as hazardous wastes.

VI.B.5. Refuse Derived Fuel (RDF) - means a fuel derived from Municipal Solid Waste prepared by mechanical shredding, followed by air classification, magnetic or other separation such as trammeling to reduce the non-combustible content of the Municipal Solid Waste, to allow the RDF to be injected into a combustion device such as a boiler for burning.

VI.C. Emission Limitations

On and after the date, which the required performance test has been completed, every affected facility subject to the provision of this section must comply with the following emission standards.

VI.C.1. For sources charging 40 tons per day or less excluding those covered in paragraph 2 of this section:

VI.C.1.a. Standard for particulate matter (PM): Emissions of particulate matter shall not exceed 0.1 grains per dry standard cubic foot, corrected to seven percent O_2. Condensable particulate matter shall not be included.

VI.C.1.b. Standard for hydrochloric acid (HCl): Emissions of HCl shall not exceed 50 ppmv, corrected to seven percent 0_2 on a dry basis; or, shall be reduced 50% by weight, whichever is less stringent.

VI.C.1.c. Standards for carbon monoxide (CO): Emissions of CO, as measured at a location upstream of the control device, shall not exceed 100 PPMV as a eight

hour running average. CO concentrations are to be corrected to seven percent O_2 on a dry basis.

VI.C.1.d. Standard for Visible Emissions: Visible emissions shall not be emitted in such a manner that the opacity of the emissions is equal to or greater than 10 percent.

VI.C.2. For sources charging less than 10 tons per day and located within and serving a municipality or county with a population less than 2500:

The unit must show compliance with the following standards during the yearly stack test:

VI.C.2.a. Standard for particulate matter (PM): Emissions of particulate matter shall not exceed 0.1 grains per dry standard cubic foot, corrected to seven percent O_2. Condensable particulate matter shall not be included.

VI.C.2.b. Standard for hydrochloric acid (HCl): Emissions of HCl shall not exceed 50 ppmv, corrected to seven percent O_2 on a dry basis; or, shall be reduced 50% by weight, whichever is less stringent.

VI.C.2.c. Standards for carbon monoxide (CO): Emissions of CO, as measured at a location upstream of the control device, shall not exceed 100 PPMV as a eight hour running average. CO concentrations are to be corrected to seven percent O_2 on a dry basis.

The unit must continuously comply with the following standard for visible emissions:

VI.C.2.d. Standard for Visible Emissions: Visible emissions shall not be emitted in such a manner that the opacity of the emissions is equal to or greater than 10 percent.

VI.D. Operating Requirements (Unless otherwise specified all municipal waste combustors subject to this Section VI shall be operated under the following conditions.)

VI.D.1. The combustor shall maintain the combustion gases at a temperature greater than 1800 degrees F for at least one-second residence time. The unit shall be equipped with automatically controlled auxiliary fuel burners to maintain the combustion gases at the aforementioned conditions under all waste firing conditions; and, to insure that the combustion chamber will reach 1800 degrees F prior to the introduction of Municipal Solid Waste.

VI.D.1.a. The Division shall determine the operating temperature and the gas residence time requirements on a case-by-case basis for any unit proposing advanced combustion technologies or burning specially prepared Municipal Solid Waste. The applicant must demonstrate that the combustion efficiencies and the emission rates of air contaminants are equivalent to those achieved by the operating requirements described in paragraph a. above.

VI.D.2. Combustion efficiency (C.E.): For all units the combustion efficiency shall be at least 99.9 percent as an 8 hour running average. For units burning less than 10 tons per day and located within and serving a municipality or county with a population less than 2500 the unit combustion efficiency shall be at least 99.9 percent as demonstrated during the yearly stack test. Combustion efficiency shall be computed as follows:

$$C.E. = \frac{[CO_2]}{[CO_2]+[CO]} \times 100$$

$[CO_2]$=Concentration of carbon dioxide

[CO]=Concentration of carbon monoxide

VI.D.3. The tipping area and Municipal Solid Waste storage area shall be totally enclosed and operated at a negative atmospheric pressure to prevent the escape of malodors. The air drawn from the tipping or storage areas shall be used as primary combustion air in the combustor.

VI.D.4. Ash shall be loaded in an enclosed area or handled wet in closed containers.

VI.D.5. The charging of waste to the combustor shall cease if:

VI.D.5.a. For all units:

VI.D.5.a.(i). The combustor temperature drops below 1600 degrees F for a 15-minute period, or

VI.D.5.a.(ii). Visible emissions exceed 20 percent opacity. This condition excludes the startup period.

VI.D.5.b. For units charging 10 tons or more per day:

The combustion efficiency drops below 99.5 percent for a l5-minute period,

VI.D.6. For units charging less than 10 tons per day and located within and serving a municipality or county with a population less than 2500, the unit's design rate shall be no more than 10 tons per day, or the unit shall have a physical constraint limiting the unit to no more than 10 tons per day as applied over a 24 hour period.

VI.E. Monitoring Requirements

The owner or operator of any Municipal Waste Combustor subject to the provisions of this Section must install, calibrate, operate, and maintain, in accordance with Appendix B, instruments for continuously monitoring and recording the following emission and operating parameters:

VI.E.1. For all sources:

Combustion Chamber Temperature - The temperature monitoring instrumentation shall be located to demonstrate compliance with Section D.1 of this regulation. The operator may monitor the temperature at an alternate location provided the one-second residence time requirements are met. Verification that the lower temperature at the alternate location corresponds to the required operating temperature of 1800 degrees F shall be demonstrated during source testing.

VI.E.2. For sources charging 10 tons per day or more:

Carbon Dioxide, Carbon Monoxide and Oxygen - The CO_2, CO and O_2 monitors shall be co-located upstream of the air pollution control devices.

VI.F. Test Requirements

VI.F.1. The owner or operator of any municipal waste combustor charging less than 40 tons per day, shall conduct a performance test under the provisions of Part A, Subpart A, Section 60.8 of this Regulation Number 6.

VI.F.1.a. Source tests shall be conducted for the following pollutants prior to final approval: (a) particulate matter; (b) hydrochloric acid; © carbon monoxide; (d) carbon dioxide.

VI.F.2. Sources subject to the requirements of Subpart Ea, Cb or Eb Part A of this regulation shall conduct tests for the following pollutants prior to final approval: (a) arsenic and compounds (expressed as arsenic); (b) cadmium and compounds (expressed as cadmium); (c) hexavalent chromium and compounds (expressed as chromium); (d) nickel and compounds (expressed as nickel); (e) lead and compounds (expressed as lead); (f) beryllium and compounds (expressed as beryllium); and (g) mercury and compounds (expressed as mercury).

After final approval, source tests for these pollutants shall be conducted every calendar year.

The tests shall be conducted as required under the provisions of Part A, Subpart A, Section 60.8 of this Regulation, and as provided under Subsections 1.c. and d. of this Section VI.

VI.G. General Application Requirements

VI.G.1. The permit application shall include estimates of the following constituents in the municipal waste and/or air contaminant emissions: (a) chlorine (as estimated in the waste) and HCl and PCDD and PCDF (expressed as 2,3,7,8 TCDD equivalents estimated potential and actual emissions); (b) sulfur (as estimated in the waste) and SO_2 (estimated as potential and actual emissions); (c) NOx (expressed as NO_2); (d) arsenic; (e) cadmium; (f) hexavalent chromium; (g) nickel; (h) lead; (I) beryllium; and (j) mercury and (k) carbon monoxide. The levels of metals and their compounds (expressed as the metals) are to be estimated as expected in the waste, and as potential and actual emissions.

VI.G.2. Permit applications for sources subject to the requirements of Subparts Ea, Eb or Cb of Part A of this regulation shall include estimates of the following constituents in the municipal waste and/or air contaminant emissions: (a) chlorine (as estimated in the waste); (b) sulfur (as estimated in the waste); (c) arsenic; (d) cadmium; (e) hexavalent chromium; (f) nickel; (g) lead; (h) beryllium; and (i) mercury. The levels of metals and their compounds (expressed as the metals) are to be estimated as expected in the waste, and as potential and actual emissions.

VI.H. Recordkeeping and Reporting Requirements

VI.H.1. The owner or operator of a Municipal Waste Combustor (MWC) subject to the provisions of this section shall maintain a monthly summary file of daily fuel firing rates and hours of operation. The summary shall be retained for at least two (2) years following the date of such records and summaries.

VI.H.2. The owner or operator of a MWC subject to the provisions of this section shall submit continuous emission/operating data gathered from the monitors to the Division on a quarterly basis, except that a MWC unit charging less than 10 tons per day and located within and serving county or municipality with a population less than 2500 shall not be

required to submit such data. The data shall be retained for at least two (2) years following the date of record and shall be made available to the Division during facility inspections.

VI.H.3. The owner or operator of a MWC subject to the provisions of this section shall notify the Division by telephone following any failure of process equipment, failure of any air pollution control equipment, failure of any monitoring equipment, or a process operational error which results in an increase in emissions above any allowable rate. Notification shall be made no later than two (2) hours after the start of the next working day, followed by written notice to the Division to include the measures undertaken to correct the problem(s).

VI.I. Special Provisions for units charging less than ten tons per day and located within and serving a county or municipality with a population less than 2,500

VI.I.1. Training

The operators of the MWC unit shall receive initial training and a minimum of once per year refresher courses in the proper operation of the MWC unit from a program approved by the Division.

VI.I.2. Waste Sorting

VI.I.2.a. A MWC unit charging less than 10 tons per day and located within and serving a county or municipality with a population less than 2,500 shall not burn:

VI.I.2.a.(i). Appliances, including refrigerators, ranges, freezers or other large non-combustible items

VI.I.2.a.(ii). Lead acid batteries of the type used in automobiles and motorcycles

VI.I.2.a.(iii). Tires, unless specifically prepared for use as a Refuse Derived Fuel and included in a permit issued by the Division.

VI.I.2.a.(iv). Alkaline, Nickel Cadmium, or mercury batteries

VI.I.2.a.(v). Any hard plastic items

VI.I.3. Siting

A MWC unit must be a minimum of 1 mile from the boundary of any class I wilderness area, and half a mile from any residence. The incinerator shall cease operation if a residence is constructed or occupied within a half mile of the MWC. No MWC unit may be sited in a non-attainment area.

VI.I.4. Opacity observations

A single opacity observation of the plume shall be taken by a certified observer at 15-minute intervals while the incinerator is in operation. The observer shall log all required opacity readings and the log shall be available for Division inspection upon request.

VI.I.5. Temperature recordings

Combustion chamber temperature readings shall be recorded and kept for Division inspection for all periods of operation of the incinerator, including start-up, shutdown and general operation.

VII. STANDARDS OF PERFORMANCE FOR INCINERATORS

In addition to the requirements of Subpart E, Part A, the following requirements apply:

VII.A. Applicability and Designation of Affected Facility

The provisions of this section are applicable to all incinerators constructed, reconstructed, or modified after January 30, 1979. Incinerators that are subject to Part A, Subpart E are also subject to this section. Incinerators that are subject to Part A, Subpart Ea, or Part B, Sections V or VI, are not subject to this section.

VII.B. Definitions

As used in this section, all terms shall have the meaning given to them in the Common Provisions Regulation and in Part A, Subpart A of this regulation.

VII.C. Standard for Particulate Matter

VII.C.1. On and after the date on which the required performance test is completed, no owner or operator of an incinerator of greater than 45 metric tons per day (50 tons per day) charging rate shall discharge, or cause to discharge into the atmosphere particulate matter which is in excess of 20% opacity AND 0.18 g/dscm (0.08 gr/dscf) corrected to 12 percent CO_2.

VII.C.2. On and after the date on which the required performance test is completed, no owner or operator of an incinerator of 50 tons per day and less charging rate shall discharge, or cause to be discharged into the atmosphere particulate matter which is in excess of 20% opacity and 0.229 g/dscm (0.10 gr/dscf) corrected to 12 percent CO_2.

VII.D. Monitoring of Operations

The owner or operator of any incinerator subject to the provisions of this section shall record the daily charging rates and hours of operation.

VII.E. Test Methods and Procedures

Sources subject to this section are subject to the testing requirements and procedures of Part A, Subpart A and Part A, Subpart E, Section 60.54 of this Regulation Number 6.

The Division may waive all or part of the testing requirements, on a case-by-case basis where sufficient information is available to warrant such waiver.

VIII. STANDARDS OF PERFORMANCE FOR COAL-FIRED ELECTRIC STEAM GENERATING UNITS

VIII.A. Applicability and Designation of Affected Facilities

This section applies to all facilities identified in 40 CFR Part 60, Section 60.49Da(a) (July 1, 2006).

VIII.B. Definitions

VIII.B.1. Alternative Emission Standard

VIII.B.2. An emission control standard and associated limitation based on the maximum degree of reductions in Hg taking into account energy, environmental, and economic impacts, and other costs, determined by the Division to be achievable and compatible with existing control technology installed at the Hg Budget Unit. In making this determination, the Division shall consider the availability of alternate methods, systems, and techniques for control of Hg, the feasibility and obstacles in achieving the emission standards under Section VIII.C.1., C.3.a, or C.4.a., and factors such as average and marginal Hg removal costs. Alternative Emission Standards shall be determined on a cases-by-case basis. An Alternative Emission Standard is available to existing units and modified units (as determined with reference to 40 CFR, Part 60, Section 60.14), and to new units and reconstructed units (as determined with reference to 40 CFR, Part 60, Section 60.15) as provided in Sections VIII.C.4.b. through d. Best Available Mercury Control Technology Standard

An emission limitation based on the maximum degree of reduction of Hg emitted from or which results from any unit subject to Section VIII.V.4. which the Division, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such unit through application of production processes and available methods, systems and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of Hg. In determining the Best Available Mercury Control Technology the Division shall consider and evaluate whether the affected unit can achieve an output-based emission standard for Hg of 0.00435 lb/GWh or a 95 percent capture of inlet Hg. The Division's duty to consider and evaluate the achievability of such emission standard or percent capture shall not be treated as a minimum emission limitation or a presumptive emission limitation in determining the Best Available Mercury Control Technology. In no event shall a determination of Best Available Mercury Control Technology result in a standard that is less stringent than the Hg output-based emission standard of 0.0087 lb/GWh or 90 percent capture of inlet Hg on a 12-month rolling average basis. This Best Available Mercury Control Technology Standard applies to new units and reconstructed units.

VIII.B.3. Control Period

The period beginning January 1 of a calendar year and ending on December 31 of the same year, inclusive.

VIII.B.4. Existing Unit

An Hg Budget Unit that commenced operation before January 1, 2001 and was not permanently retired before October 31, 2006.

VIII.B.5. Gigawatt-Hour (GWh)

A unit of energy expanded for one hour (one billion watts of energy for one hour) relating to electric generation and use. Herein, the gross GWh value shall be used in association with the permit limit.

VIII.B.6. Hg Budget Source

A source that includes one or more Hg Budget Units.

VIII.B.7. Hg Budget Unit

A unit serving at any time, since the start-up of the unit's combustion chamber, a generator with a nameplate capacity of more than 25 megawatt electrical (MWe) producing electricity for sale, or a co-generation unit serving at any time a generator with a nameplate capacity of more than 25 MWe and supplying in any calendar year more than on-third of the unit's potential electrical output capacity or 219,000 megawatt-hour (MWh), whichever is greater, to any utility power distribution system for sale.

VIII.B.8. Initial Compliance Date

For purposes of Section VIII.C.2., the initial compliance date is the date on which compliance with an emission standard created under Section VIII.C.1. shall first be determined.

For purposes of Section VIII.C.3. and VIII.C.4., the initial compliance date is the date, which is 12 months after the earlier of 60 days after achieving maximum production rate or 180 days after the unit first commences operation.

VIII.B.9. Inlet Hg

The average concentration of Hg in the coal burned at an Hg Budget Unit, as determined by ASTM methods, EPA approved methods, or alternative methods approved by the Division. Inlet Hg shall be determined prior to any Hg control related coal treatment.

VIII.B.10. Low Emitter

An Hg Budget Unit with actual Hg emissions of no more than 29 pounds per year, as determined by annual performance testing using Division-approved methodology if actual emissions are less than or equal to 14 pounds per year, or as determined by performance testing conducted every six months if actual emissions are greater than 14 pounds per year, but less than or equal to 29 pounds per year.

VIII.B.11. Megawatt-Hour (MWh)

A unit of energy expanded for one hour (one million watts of energy for one hour) relating to electric generation and use.

VIII.B.12. Megawatt-Electrical (MWe)

A unit of energy specific to electrical power generation that is equal to one million watts.

VIII.B.13. New Unit

An Hg Budget Unit that commences operation on or after January 1, 2001.

VIII.C. Mercury Emission Standards

VIII.C.1. Base Emission Standards

VIII.C.1.a. Pawnee Station Unit 1, 14940 County Road 2, Brush, Colorado 80723, and Rawhide Station Unit 101, 2700 East County Road 82, Wellington, Colorado 80549, shall comply beginning January 1, 2012 with either of the following standards on a 12-month rolling average basis and compliance therewith first determined on December 31, 2012.

VIII.C.1.a.(i). An Hg output-based emission standard of 0.0174 lb/GWh; or

VIII.C.1.a.(ii). A minimum of 80 percent capture of Inlet Hg.

VIII.C.1.b. Any existing Hg Budget Unit, which is not a Low Emitter as defined in Section VIII.B.10, above, and is not subject to Section VIII.C.1.a., above, shall have Hg controls installed and operating consistent with its most current Division-approved compliance plan, beginning January 1, 2014, and shall comply with either of the following standards:

VIII.C.1.b.(i). An Hg output-based emission standard of 0.0174 lb/GWh; or

VIII.C.1.b.(ii). A minimum 80 percent capture of Inlet Hg.

For the year 2014, the compliance period for such standards shall be on a six-month average basis, for the period July 1 through December 31, 2014, and compliance therewith first determined on December 31, 2014. For the years 2015 through 2017, compliance with these standards shall be on a 12-month rolling average basis, and compliance therewith first determined on June 30, 2015.

VIII.C.1.c. Any existing Hg Budget Unit, which is not a Low Emitter as defined in Section VIII.B.10., above, shall comply, beginning January 1, 2018, with either of the following standards on a 12-month rolling average basis, and compliance therewith first determined on December 31, 2018:

VIII.C.1.c.(i). An Hg output-based emission standard of 0.0087 lb/GWh; or

VIII.C.1.c.(ii). A minimum 90 percent capture of Inlet Hg.

VIII.C.1.d. In demonstrating compliance with the base emission standards set forth in Sections VIII.C.1.b and VIII.C.1.c., above, an Hg Budget Source may average the emissions or reductions from any Hg Budget Units at the Hg Budget Source that are subject to the provisions of VIII.C.1.b. and VIII.C.1.c. and that commenced operation prior to January 1, 2010, and that have chosen the same form of emission standard (i.e. lb/GWh or percent capture) with which to comply.

VIII.C.1.e. Comanche Station Unit 3, 2005 Lime Road, Pueblo, Colorado 81006, is subject to a mercury emission limitation under a state-issued permit, and Comanche Station Units 1-3 are subject to a December 2004 Settlement Agreement providing for, among other limitations and requirements, compliance with a plant-wide mercury emission limit that maximizes cost-effective mercury reductions on a plant-wide basis no later than two years after the initial startup of Comanche Station Unit 3. The requirements applicable to the Comanche Station include the installation of continuous emissions monitoring systems at Comanche Station Units 1-3.

The Hg emission-related requirements contained in this settlement agreement shall apply to Comanche Station Units 1-3 in lieu of the standards set forth in Sections VIII.C.1.b. and VIII.C.1.c., above. Lamar Station Unit 4, 100 North 2nd Street, Lamar, Colorado 81052, is subject to a permit issued pursuant to Section 169 of the Clean Air Act on February 6, 2006, which contains Hg emission limitation standards. The Hg emission standards determined by the permit shall apply to Lamar Station Unit 4 in lieu of the standards set forth in Sections VIII.C.1.b and VIII.C.1.c., above.

VIII.C.2. Alternative Emission Standard

VIII.C.2.a. An Hg Budget Unit shall be allowed to comply with the Alternative Emission Standard, instead of the base standards in Sections VIII.C.1.a., VIII.C.1.b., and VIII.C.1.c., above, if:

VIII.C.2.a.(i). Prior to the compliance date thereof, the Division determines, after consultation with the owner or operator of the Hg Budget Unit, which consultation shall include, among other relevant factors, an assessment of the feasibility of compliance with the base emission standard in the future, that the unit cannot meet the base emission standard; or

VIII.C.2.a.(ii). After installation of Hg controls designed to meet the base emission standard, if the Division determines the following conditions have been met:

VIII.C.2.a.(ii) (a). The owner or operator timely installed and operated Hg control technology, which the manufacturer thereof projected would meet or exceed the selected base emission standard;

VIII.C.2.a.(ii) (b). The owner or operator has maintained the unit, including any associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing Hg emissions, following all applicable manufacturers' recommendations;

VIII.C.2.a.(ii) (c). The control strategy has failed to result in Hg emissions meeting the base standards in Sections VIII.C.1.a., VIII.C.1.b., or VIII.C.1.c, above;

VIII.C.2.a.(ii) (d). The owner or operator notifies the Division of the failure to comply within 6 months from the Initial Compliance Date; and

VIII.C.2.a.(ii) (e). The owner or operator files a complete construction and/or operating permit application for a significant modification pursuant to Section VIII.D., below, containing an analysis and control strategy designed to achieve the Alternative Emission Standard, within 18 months from the Initial Compliance Date.

VIII.C.2.b. The Alternative Emission Standard shall consist of an emission limit in lbs/GWh or percent reduction rate.

VIII.C.3. Standards for Modified Units

VIII.C.3.a. Except as provided in Section VIII.C.3.f., below, any modified unit (as determined with reference to 40 CFR Part 60 Section 60.14) that is issued an Initial Approval for a construction permit pursuant to Regulation 3, Part C or D subsequent to the effective date of this rule, shall have Hg controls installed and operating consistent with its most current Division-approved compliance plan beginning with the date of re-commencement of operation following the modification and shall comply with the following standards based on a 12-month rolling average:

VIII.C.3.a.(i). An Hg output-based emission standard of 0.0174 lb/GWh or a minimum of 80 percent capture of Inlet Hg from the date of re-commencement of operation through December 31, 2014; and

VIII.C.3.a.(ii). An Hg output-based emission standard of 0.0087 lb/GWh or a minimum of 90 percent capture of Inlet Hg from January 1, 2015 forward.

VIII.C.3.b. If, after installation of Hg controls designed to meet the standards of Section VIII.C.3.a., the owner or operator of a modified unit does not achieve the emission limitation determined in accordance with Section VIII.C.3.a., above, that unit:

VIII.C.3.b.(i). shall be eligible for an Alternative Emission Standard pursuant to Section VIII.C.2.a(ii);

VIII.C.3.b.(ii). shall be considered to be in compliance with the emission limitation requirement of this section, if;

VIII.C.3.b.(ii) (a). The owner or operator timely installed and operated Hg control technology, which the manufacturer thereof projected would meet or exceed the selected base emission standard;

VIII.C.3.b.(ii) (b). The owner or operator has maintained the unit, including any associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing Hg emissions, following all applicable manufacturers' recommendations;

VIII.C.3.b.(ii) (c). The control strategy has failed to result in Hg emissions meeting the emission standards in Section VIII.C.3.a., above;

VIII.C.3.b.(ii) (d). The owner or operator notifies the Division of the failure to comply within 6 months from the Initial Compliance Date; and

VIII.C.3.b.(ii) (e). The owner or operator files a complete construction and/or operating permit application for a significant modification pursuant to Section VIII.D., below, containing an analysis and control strategy designed to achieve the Alternative Emission Standard, within 18 months from the Initial Compliance Date.

VIII.C.3.c. The Alternative Emission Standard shall consist of an emission limitation in lbs/GWh or percent reduction rate.

VIII.C.3.d. In demonstrating compliance with the Hg emission standards for modified units set forth in Section VIII.C.3.a. above, an Hg Budget Source may average the emissions or reductions from any Hg Budget Units at the Hg Budget Source that are subject to the provisions of Section VIII.C.3.a., that commenced operation prior to January 1, 2010, and that have chosen the same form of emission standard (i.e. lb/GWh or percent capture) with which to comply.

VIII.C.3.e. If a modified unit was originally subject to an Alternative Emission Standard instead of the base emission standard set forth in Section VIII.C.1., and subsequently the unit was modified and intends to make use of the plant-wide averaging provisions of Section VIII.C.1.d., the value identified in Section VIII.C.3.a. shall be used as the modified unit's applicable emission standard when determining the plant-wide average.

VIII.C.3.f. The following Hg Budget Units which have undergone a Modification as defined in 40 CFR 60, Section 60.2., shall be subject to the emission standards identified in 40 CFR Part 60, Section 60.45Da upon commencement of operation following the Modification, as defined in 40 CFR Part 60, Section 60.2, but shall not be required to comply with the state-only emission standards for modified units contained in Section VIII.C.3.a. above:

VIII.C.3.f.(i). Low Emitters as defined in Regulation 6, Part B, Section VIII.B.10.;

VIII.C.3.f.(ii). Hg Budget Units that have undergone a Modification solely because of the installation of air pollution control technology required by Colorado's Regional Haze SIP.

VIII.C.4. Best Available Mercury Control Technology Standards for New and Reconstructed Units

VIII.C.4.a. Any New Unit or reconstructed unit (as determined with reference to 40 CFR Section 60.15) that is issued an Initial Approval for a construction permit pursuant to Regulation 3, Part C or D, subsequent to the effective date of this rule shall have Hg controls installed and operating consistent with its most current Division-approved compliance plan beginning with the date of commencement of operation and shall comply with the Best Available Mercury Control Technology Standard.

VIII.C.4.b. If after installation and operation of Hg controls designed to meet the Best Available Mercury Control Technology Standard, the owner or operator of such unit does not achieve the emission limitation determined in accordance with Section VIII.B.2., above, that unit:

VIII.C.4.b.(i). shall be eligible for an Alternative Emission Standard pursuant to Section VIII.C.2.a.(ii);

VIII.C.4.b.(ii). shall be considered to be in compliance with the emission limitation requirement of this section, if;

VIII.C.4.b.(ii) (a). The owner or operator timely installed and operated Hg control technology, which the manufacturer thereof projected would meet or exceed the selected emission standard;

VIII.C.4.b.(ii) (b). The owner or operator has maintained the unit, including any associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing Hg emissions, following all applicable manufacturers' recommendations;

VIII.C.4.b.(ii) (c). The control strategy has failed to result in Hg emissions meeting the emission standards in Section VIII.C.4.a., above;

VIII.C.4.b.(ii) (d). The owner or operator notifies the Division of the failure to comply within 6 months from the Initial Compliance Date; and

VIII.C.4.b.(ii) (e). The owner or operator files a complete construction and/or operating permit application for a significant modification pursuant to Section VIII.D., below, containing an analysis and control strategy designed to achieve the Alternative Emission Standard, within 18 months from the Initial Compliance Date; and

VIII.C.4.b.(iii). The Division shall incorporate this Alternative Emission Standard into the unit's permit as an applicable standard in lieu of those standards specified in Section VIII.C.4.a.

VIII.C.4.c. The Alternative Emission Standard shall consist of an emission limit in lbs/GWh or percent reduction rate, and may be less stringent than the Hg output-based emission standard of 0.0087 lb/GWh or 90 percent capture of Inlet Hg, on a 12-month rolling average basis.

VIII.C.4.d. A New Unit or reconstructed unit that receives an Alternative Emission Standard pursuant to Section VIII.C.2.a.(ii) has a continuing duty to try to achieve its original Best Available Mercury Control Technology Standard as specified in Section VIII.B.2, up through the second operating permit renewal application submittal that occurs after the date the owner or operator notifies the Division that it cannot meet the Best Available Mercury Control Technology Standard. During this time, a New Unit or reconstructed unit shall re-evaluate its ability to comply with its Best Available Mercury Control Technology Standard with each operating permit renewal application. The re-evaluation shall primarily focus on whether the unit's existing, Division-approved control technology can either achieve the original Best Available Mercury Control Technology Standard or close the gap between the Alternative Emission Standard and the original Best Available Mercury Control Technology Standard. The scope of the re-evaluation shall include such considerations as alternative sorbents for activated carbon injection systems, and other changes that do not require major capital investment at the unit.

VIII.C.4.e. The Division shall review the re-evaluation of the unit required by Section VIII.C.4.d. above, and

VIII.C.4.e.(i). If the Division determines that the unit can achieve either the Best Available Mercury Control Technology Standard, or if not achieve that standard, can achieve a more stringent standard than the Alternative Emission Standard, the owner or operator of that unit shall submit a permit application pursuant to Section VIII.D., to modify the permit to incorporate the more stringent achievable standard as the applicable emission limitation for the unit in accordance with Section VIII.B.2, including public notice and opportunity for public comment.

VIII.C.4.e.(ii). If the Division determines that the unit cannot achieve either the Best Available Mercury Control Technology Standard or a more stringent standard than the Alternative Emission Standard, the owner or operator of that unit shall submit a permit application pursuant to Section VIII.D., to modify the permit to incorporate the Alternative Emission Standard as the applicable emission limitation for the unit in accordance with Section VIII.B.1, including public notice and opportunity for public comment.

VIII.C.4.f. A Best Available Mercury Control Technology analysis shall not be required for a New Unit or reconstructed unit with projected annual mercury emissions of no more than 29 pounds per Control Period prior to commencing construction, and by considering actual emissions the unit is later demonstrated to be a Low Emitter, as determined in accordance with the monitoring provisions of 40 CFR Part 75. If a New Unit's or reconstructed unit's projected annual mercury emissions were no more than 29 pounds per Control Period, but actual emissions were more than 29 pounds per control period, that unit shall not be considered to be in compliance with the emission limitation requirement of this section. In addition, the owner or operator shall be required to:

VIII.C.4.f.(i). Maintain the unit, including any associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing Hg emissions, following all applicable manufacturers' recommendations;

VIII.C.4.f.(ii). Comply with the most current Division-approved compliance plan until the Division issues a permit that incorporates the Best Available Mercury Control Technology Standard for that unit.

VIII.C.4.f.(iii). Notify the Division of the failure to comply within 30 days after the Initial Compliance Date; and

VIII.C.4.f.(iv). File a complete construction and/or operating permit application for a significant modification pursuant to Section VIII.D., below, containing an analysis and control strategy designed to achieve the Best Available Mercury Control Technology Standard, within 18 months from the Initial Compliance Date.

VIII.C.4.g. In demonstrating compliance with the Hg emission standards for New Units and reconstructed units set forth in Section VIII.C.4. above, except as provided for in Section VIII.C.1.e., an Hg Budget Source may not average the emissions or reductions from that unit with any other Hg Budget Unit.

VIII.D. Permitting Requirements

VIII.D.1. The emission standards (including any Alternative Emission Standard or Best Available Mercury Control Technology Standard), Low Emitter provisions, and permitting, monitoring, and enforceability requirements found in this Section VIII. are applicable requirements and shall be incorporated into the permit for each subject Hg Budget Unit.

VIII.D.2. The owner or operator of an existing Hg Budget Unit shall submit a complete permit application to the Division to incorporate the applicable requirements of this Section VIII. at least 18 months prior to commencement of construction of the control equipment, and, for Low Emitters by July 1, 2012. For purposes of Section VIII.C.1.a,

above, Rawhide Unit 101 and Pawnee Unit 1 shall submit their applications by January 1, 2009, and the Division shall issue a permit revision by January 1, 2010.

VIII.D.3. The owner or operator of a new, reconstructed or modified Hg Budget Unit shall submit a complete permit application to the Division to incorporate the applicable requirements of this Section VIII. and obtain necessary permit(s) prior to commencement of construction.

VIII.D.4. Such permit application and/or modification application shall include:

VIII.D.4.a. A statement indicating that Hg Budget Units in the State under the control of the owner or operator shall comply with the emission standards and other requirements of this Section VIII.;

VIII.D.4.b. A detailed compliance plan for each applicable emission standard, or schedule for achieving compliance with that standard, for each Hg Budget Unit under the control of the owner or operator, including monitoring and reporting; and

VIII.D.4.c. A description of the assumptions on which the plan is based.

VIII.D.5. The Division shall issue a permit modification pursuant to Section VIII.D.2. within 18 months from receiving a complete permit modification application. All permits issued pursuant to Section VIII.D.2. and 3. shall incorporate all applicable requirements, including:

VIII.D.5.a. Requirements to comply with the emission standards in Section VIII.C.; and

VIII.D.5.b. Requirements to comply with the permitting and monitoring requirements of Sections VIII.D. and VIII.E., hereof, and 40 CFR Part 75.

VIII.E. Monitoring, Recordkeeping and Reporting Requirements

VIII.E.1. This section VIII.E. applies to all Hg Budget Units in Colorado, with the following exceptions:

VIII.E.1.a. Hg Budget Units that have Hg permit limits and terms in place (Lamar Station Unit 4, Comanche Station Units 1, 2 and 3, 2005 Lime Road, Pueblo, Pueblo County, Colorado, and Craig Station Unit 3, 2101 South Ranney, Craig, Moffat County, Colorado) shall follow the Hg monitoring requirements of that permit and shall be exempt from the requirements of Section VIII.E.2.; and

VIII.E.1.b. Hg Budget Units proposed for retirement (Cameo Station Unit 2, Palisade, Mesa County, Colorado and Arapahoe Station Units 3 and 4, 2601 South Platte River Drive, Denver, Denver County, Colorado) shall be exempt from the requirements of Subsection VIII.E.1, provided that these units are retired prior to January 1, 2014.

VIII.E.2. The owner or operator of an Hg Budget Unit shall comply with the Hg monitoring and recordkeeping requirements as incorporated by reference into Part A of this Regulation Number 6, beginning January 1, 2009, except that Hg monitoring and recordkeeping provisions as incorporated by reference into Part A of this Regulation Number 6 addressing the activities listed in this Section VIII.E.2. shall not be required, unless otherwise specified:

VIII.E.2.a. Referenced Hg continuous emission monitoring systems (CEMS) data substitution and bias adjustment for lbs/GWh or percent Hg capture compliance monitoring.

VIII.E.2.b. Referenced Electronic Data Reporting (EDR).

VIII.E.2.c. Referenced NIST traceability requirements are not applicable until EPA finalizes its NIST Traceability Protocol and it has been incorporated into this Regulation Number 6.

VIII.E.2.d. Referenced CEMS QA/QC testing, reporting and recordkeeping of Hg related monitoring equipment (stack flow monitor, CO2 monitor, moisture monitor) that is already regulated under the Acid Rain Program.

VIII.E.3. In place of reporting requirements for Hg emissions as incorporated by reference into of Part A of this Regulation Number 6, the owner or operator shall submit written quarterly reports to the Division within 30 days of the end of each calendar quarter that include the information specified in this Section VIII.E.3. Part A specifies that Hg concentration monitoring and sorbent trap monitoring systems produce a continuous readout or pollutant emission rates or pollutant mass emissions (as applicable) in the appropriate units (e.g., lbs/hr, lbs/mmBtu, ounces/hr, tons/hr). Other appropriate units of measurement may include lbs/GWh, percent Hg capture, and lbs/TBtu, however the Hg emissions reporting specified in this Section VIII.E.3 shall be in units of the applicable standard. The quarterly reports required by this Section VIII.E.3. shall include:

VIII.E.3.a. Applicable Hg lbs/GWh, percent capture or lbs/yr emissions standard in Section VIII.C. used to demonstrate compliance;

VIII.E.3.b. For each Hg Budget Unit subject to the emission standards under Section VIII.C., above, the three rolling 12 month averages for each calendar month in that calendar quarter in lbs/GWh, percent capture or lbs/yr, depending on the standard used to demonstrate compliance with Section VIII.C.;

VIII.E.3.c. For each Hg Budget Unit that is a Low Emitter as defined in Section VIII.B.10., the lbs/yr emitted for each calendar quarter and within 30 days of the end of each calendar year, the pounds emitted for the prior calendar year;

VIII.E.3.d. Hg Budget Unit operating hours for that quarter; and

VIII.E.3.e. If a continuous Hg monitoring system is used to demonstrate compliance with the Hg monitoring and recordkeeping requirements of Part A of this Regulation Number 6, total and percentage of monitoring system downtime for that quarter.

VIII.E.4. Hg Budget Units demonstrating compliance with any of the percent capture emission standards set forth in this Section VIII., shall submit to the Division for approval a monitoring plan, including the information in Section VIII.E.4.a. or VIII.E.4.b., below.

VIII.E.4.a. For Hg Budget Units that choose to demonstrate compliance with a percent Hg capture emission standard, coal Inlet Hg monitoring and emission standard demonstration methodology including, but not limited to: coal sampling location, frequency, analysis method, results documentation and calculation for incorporation into the rolling 12-month total emission standard.

VIII.E.4.b. For Hg Budget Units that choose to demonstrate compliance with a pounds Hg per GWh emission standard, GWh monitoring and emission standard demonstration methodology including, but not limited to: GWh monitoring, frequency, results documentation and calculation for incorporation into the rolling 12-month total emission standard.

VIII.F. Enforceability

VIII.F.1. The emission standards, including Alternative Emission Standards and Best Available Mercury Control Technology Standards, permitting and monitoring requirements under Sections VIII.C., VIII.D., and VIII.E., above, are enforceable. Any violations of permit terms may be enforced by the Division pursuant to Section 25-7-115, C.R.S.

VIII.F.2. If an Hg Budget Unit demonstrates compliance with the compliance plan required by Sections VIII.D.4.b. and c., above, but did not comply with the applicable emission standards in Sections VIII.C.1.a. through d. or Sections VIII.C.2., VIII.C.3.a., and VIII.C.4.b., above, that unit shall be considered to be in compliance with such emission standards.

IX. STATEMENTS OF BASIS, SPECFIC STATUTORY AUTHORITY, AND PURPOSE (For Part B)

IX.A. Adopted: September 21, 1995 for Section VI

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Section 24-4-103, C.R.S. and the Colorado Air Pollution Prevention and Control Act, Section 25-7-110.5, C.R.S.

Regulation Number 6 prescribes emissions standards and testing, monitoring and record keeping requirements for municipal waste combustors. The revisions adopted provide a more technically feasible and economically reasonable method for assuring proper operation and determining emissions standard compliance for small municipal waste combustors (those charging less than ten tons per day).

The Colorado Air Pollution Prevention and Control Act provide the authority for the Colorado Air Quality Control Commission to adopt and modify Regulation Number 6. Section 25-7-106(6), C.R.S., grants the Commission the authority to prescribe testing, monitoring and record keeping requirements for sources of air pollution, including municipal waste combustors. The Commission's action is taken pursuant to authority granted and procedures set forth in Sections 25-7-105, 25-7-106, 25-7-110, 25-7-110.5 and 25-7-114, C.R.S. In adopting these revisions, the Commission is guided by Section 25-7-102, C.R.S., which mandates that the Commission use all available practical methods, which are technically feasible and economically reasonable to reduce, prevent and control air pollution.

These revisions to Regulation Number 6 are intended to allow operators of small municipal waste combustors to avoid the expense of installing and operating continuous emissions monitors as currently required by Regulation Number 6. The continuous emissions monitoring requirements were intended to provide both continuous performance indicators for the operator and information to demonstrate compliance with applicable emissions standards. The Commission acknowledges, however, the economic and practical burden the requirement for continuous emissions monitors places on small communities, particularly where the municipal waste combustor is operated only intermittently and at temperatures that may make effective use of some continuous emissions monitors, such as those that measure opacity, questionable. The Commission believes some flexibility in the regulations, therefore, is warranted for smaller municipal waste combustors to allow for operation without the use of continuous emission monitors. The Commission is limiting this flexibility to municipal waste combustors charging less than ten tons per day and located within and serving a municipality or county with a population of less

than 2,500, however, because of the uncertainties and potential risks to human health and the environment associated with incineration.

The Commission concludes that, with certain additional conditions to assure proper operation, an annual emissions test under normal operating conditions is sufficient to determine whether small municipal waste combustors are operating in accordance with applicable emissions standards. These revisions impose requirements for an annual emissions test, operator training, waste sorting, regular opacity observations, temperature recording and feed rate limitations (similar to auger feed) in order to provide substitute protections for public health and the environment from emissions related to municipal waste combustion. The Commission's intent is that the regular opacity observations will be made substantially in accordance with EPA Method 9, (40 CFR, Part 60, Appendix A (July, 1992)) with the exception that an observation shall consist of a single reading at fifteen-minute intervals rather than a series of twenty-four consecutive readings at fifteen-second intervals. In addition, the Commission imposes site and population service limitations on municipal waste combustors in order to protect both populations and sensitive natural areas from impacts associated with incineration.

Based upon economic impact analyses submitted and considered as required by Section 25-7-110.5, C.R.S., the Commission makes the following findings and determinations pursuant to Section 25-7-110.8, C.R.S.:

1. The Commission has considered, and has based its decision, on the reasonably available, validated, reviewed and sound scientific methodologies and information made available by interested parties.

2. Evidence in the record supports the conclusion that the operating limitations adopted will result in a demonstrable reduction in air pollution compared with the alternative of deleting the continuous monitoring requirement without imposing such operating limitations.

3. The alternative chosen is the most cost-effective method of providing both performance indicators for the operator and information to demonstrate compliance with applicable emissions standards while retaining some assurance that the most hazardous emissions from incineration are minimized. This alternative increases the flexibility available to the operators of small municipal waste combustors but will not result in an increase in air pollution compared to the previous requirements for continuous emissions monitoring.

4. The alternative selected maximizes the air quality benefits of the emissions standards applicable to small municipal waste combustors in the most cost-effective manner by reducing the cost of providing both performance indicators for the operator and information to demonstrate compliance with applicable emissions standards while retaining some assurance that the most hazardous emissions from incineration are minimized.

IX.B. Adopted: June 20, 1996 for Section VI (for sources burning more than 40 tons)

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Section 24-4-103, C.R.S. and the Colorado Air Quality Control Commission procedural rules.

Basis

Regulation Number 6 prescribes emissions standards and testing, monitoring and record keeping requirements for municipal waste combustors. The revisions adopted help keep the state rule consistent with the Federal New Source Performance Standard for municipal waste combustors.

Specific Statutory Authority

The Colorado Air Pollution Prevention and Control Act provide the authority for the Colorado Air Quality Control Commission to adopt and modify Regulation Number 6. Section 25-7-106(6), C.R.S., grants the Commission the authority to prescribe testing, monitoring and record keeping requirements for sources of air pollution, including municipal waste combustors. The Commission's action is taken pursuant to authority granted and procedures set forth in Sections 25-7-105, 25-7-106, 25-7-110, 25-7-110.5 and 25-7-114, C.R.S. These changes are not required by federal law and are not currently included in the State Implementation Plan.

Purpose

These revisions to Regulation Number 6 are simply intended to keep Regulation Number 6, Section VI (Standards of Performance for Municipal Waste Combustors) consistent with the Federal New Source Performance Standard as promulgated by the EPA on December 19, 1995.

The Commission finds and determines pursuant to Section 25-7-110.8, C.R.S. that these revisions are administrative in nature and are not intended to reduce air pollution.

IX.C. Adopted: December 23, 1996, for Section II.C.3.a and for revisions to Regulation Number 1, Section II.A.1, 4 and 10 (regarding opacity limitations and sulfur dioxide averaging provisions for coal-fired electric utility boilers during periods of startup, shutdown and upset.)

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Section 24-4-103, C.R.S. and the Colorado Air Pollution Prevention and Control Act, Sections 25-7-110 and 25-7-110.5, C.R.S.

Basis

Regulations 1 and 6 deal with opacity and sulfur dioxide emissions from various sources. This rule change addresses only coal-fired electric utility boilers. The Colorado Utilities Coalition ("CUC") requested that the Commission modify the existing regulations to provide additional flexibility in meeting the opacity requirements and sulfur dioxide averaging, for coal-fired electric utility boilers during periods of start-up, shutdown, upset, process modification and adjustment of control equipment.

Specific Statutory Authority

The Colorado Air Pollution Prevention and Control Act, Section 25-7-109(2), C.R.S., provides the authority for the Commission to adopt and modify emissions control regulations pertaining to visible pollutants, particulates and sulfur oxides. Section 25-7-109(5) authorizes the Commission to grant a rule change it feels is appropriate for periods of start-up, shutdown or malfunction or other conditions, which justify temporary relief from controls. Section 25-7-105(1) provides the authority for the Commission to make SIP revisions. Section 25-7-133(4)(a) provides the Commission with the flexibility to determine what are necessary elements for the SIP. The Commission's action is taken pursuant to authority granted and procedures set forth in Sections 25-7-105, 25-7-109, and 25-7-110, C.R.S.

Purpose

The revisions to Regulation Number 1 and Number 6 are intended to provide a specific amount of flexibility related to compliance with opacity limitations and sulfur dioxide averaging provisions for coal-fired electric utility boilers during periods of startup, shutdown and upset. These revisions replace what is believed to be a problematic standard for these specific sources. CUC has demonstrated that there are instances during which these sources cannot comply with the 30% opacity limit and the SO2 emissions limit during start-ups and shutdowns. Although these sources may exceed the opacity limit, CUC has presented the Commission with a study prepared by Radian Corporation, which concludes that removing the 30% opacity limit for these sources will not result in such an increase in emissions that Colorado will

likely violate the National Ambient Air Quality Standards or other federal requirements. CUC proposed replacement of the 30% limit with a standard that more closely mimics the federal standard, and which these sources will have more certainty complying with, particularly for Title V compliance certification requirements. CUC also provided an ambient air analysis related to SO2 emissions, which concluded that allowing a modification of SO2 limitations for the periods of startup, shutdown and malfunction would have no adverse impact on related federal requirements.

The Division agreed that some flexibility in complying with the 30% opacity limit was appropriate for these sources. The Division also proposed replacing the 30% opacity limit.

Action Taken

The Commission concludes that a rule change is appropriate for this category of sources and is removing the application of the 30% opacity limitation to these sources during periods of start-up, shutdown and upset. In addition, the Commission agrees that a rule change is merited from the current treatment of SO2 emissions during periods of start-up, shutdown and malfunction. The Commission also concludes that this rule can be made clearer and easier to implement through the changes adopted.

The Commission adopts language substantially similar to the federal New Source Performance Standard requirement that, during periods of startup, shutdown and malfunction, these sources, to the extent practicable, shall maintain and operate associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. In the Commission's view, incorporating this standard will provide an important balance to the removal of the 30% limit.

The federal New Source Performance Standard refers to “malfunctions,” while the Commission has adopted an “upset” provision. The Commission finds that these two terms are substantially similar, with the exception that an upset must be properly reported to the Division to be excused. In order to avoid confusion, the Commission decided to use the term upset consistent with the Common Provisions Regulation.

The Division expressed concern that the "good practices" standard is subjective and requires substantially more resources to enforce than a numerical limit. In addition, without the 30% limit, opacity from these facilities could be at very high levels for periods of time. The Commission concurs and in this regulation adopts the Division's proposed measures to limit the overall time during which a source may exceed the underlying 20% opacity restriction.

Good Air Pollution Control Practices

This regulation sets overall limits, by percentage of operating time, during which opacity may exceed 20% and SO2 emissions may exceed regulatory maximums. In the Commission's view, this will allow more flexibility for the utilities without leaving them free of reasonable restriction. The percentages were determined based on a percentile of the exceedance times for all such sources within the state. Exceedance times were calculated based on the excess emissions reports submitted by each of the utilities over the last several years. These times included the periods of excess emissions due to the events listed in Regulation Number 1, Section II.A.4 [fire building, cleaning of fire boxes, soot blowing, start-up, process modification and adjustment or occasional cleaning of control equipment], as well as shutdowns and upsets. Accordingly, the data upon which the Commission based its adoption of the percentages used to define good air pollution control practices included all times during which a source exceeded the applicable opacity limitation. In turn, the percentages adopted as the definition of good air pollution control practices include all times during which a source exceeds the 20% opacity limitation. Thus, all periods of start-up, shutdown, upset, fire building, process modification and adjustment or occasional cleaning of control equipment will be counted against the unit’s compliance with the percentages.

This general rule does not apply in two circumstances. First, start-ups following planned maintenance outages that require significant changes at the facility are treated separately, because the Commission concluded that these infrequent events posed particular difficulties for the utilities. It appears that the duration of these events cannot be reasonably predicted and they are not to be included in the calculation of the source's compliance percentages. However, in order to ensure accountability of these sources during planned outages, the Commission is imposing requirements for advance notice to the Division. Advance notice will ensure that these are, indeed, planned outages. The notice must include a plan for minimizing emissions and an estimate of the time during which controls will not be operable while the unit is in operation, both in order to prevent inordinate startups beyond reasonable limits. During start-ups, the source must still use good air pollution control practices. An additional definition of start-up is provided to add certainty for all concerned about the duration of these significant planned outage start-ups. In addition, the Commission restricts the application of the planned maintenance outage exception to events requiring significant changes at the facility, such as replacement of major facility components or installation of new processes (e.g., installation of low NOx burners). This exception addresses changes from which the resulting impact on plant operations cannot accurately be predicted. The exception is not intended to allow exclusion of excess emissions resulting from routine maintenance outages, such as annual replacement of standard equipment, from calculation of the exceedance percentage time allowance.

Second, opacity emissions that are not a result of the combustion of fuel in the steam-generating unit are excluded from the calculation of the compliance percentage. This approach is consistent with the federal New Source Performance Standard found at 40 CFR Part 60, Subpart Da. The Commission concludes that these emissions control measures are not intended to limit emissions from cleaning of fire boxes, soot blowing and other activities when a unit is off-line, i.e., when no fuel is being fed to the unit. In addition, there are technical concerns related to the ability of monitoring devices to operate accurately when the unit is off-line.

The Commission agrees that all of these sources can perform somewhat better and intends that the percentages will serve as an as an achievable measure of good air pollution control practices during these specific periods. This approach will also force poorer-performing facilities to improve their operations and maintenance practices and bring their exceedance levels down to one more consistent with that at other facilities. For baghouse-equipped boilers, a single percentage will suffice for the indefinite future. However, utility units using electrostatic precipitators to control particulate emissions present more complicated issues. Accordingly, the Commission elected to provide an interim period of approximately three years during which these units will have a higher allowance percentage.

The Commission does not impose at this time a requirement for electrostatic precipitator-equipped facilities to achieve the same exceedance percentage time allowance as baghouses. However, the Commission's ultimate goal is for ESP-equipped facilities to meet the same compliance standard as is today imposed on baghouses.

The Commission endorses the concept that the utilities conduct a study to evaluate operations and maintenance practices and equipment modifications at ESP-equipped facilities. The purpose for this study is to improve understanding of the operators, the Division and the Commission related to ESP operations and potential improvements. The results of this study are not intended for use as evidence that pre-study operations do not constitute good air pollution control practices.

The Commission did not agree with the CUC proposal for limitations on the duration of individual incidents of start-up and shutdown because this approach also is subjective and would require more resources to enforce. The Sierra Club proposal, although substantially similar to that presented by the Division, would require enforcement with exceedance allowances calculated for each ESP-equipped facility. The Commission is not convinced that the benefits of a more specific exceedance allowance justify the resources required to enforce these percentages.

The allowance percentages will give both sources and the Division a clear definition and reasonable limits to the concept of "good air pollution control practices." This definition limits sources from arguing that longer periods of exceedance are good practices. The definition is also intended to allow the Division to investigate the source's practices and determine whether, in light of their compliance history, process and control equipment and operations and maintenance procedures, the source is using good practices. This treatment of good practices will in no way prevent the Division from initiating an enforcement action if the Division determines that a source is not using "good air pollution control practices," regardless of the amount of time the source has been in violation of the 20% opacity standard. The Division may use any available information in order to evaluate whether the source is using good practices.

Federal and State Statutory, and State Implementation Plan, Issues

The Commission is cognizant that §193 of the federal Clean Air Act precludes revisions to the state implementation plan relating to nonattainment areas which do not provide equivalent or greater emissions reductions to the existing provisions of the plan. Even under this federal law, however, the Commission is entitled to modify its plan to make it more cost-effective and to improve overall compliance and implementation. The Commission concludes that the Division's proposal does not represent a relaxation of the existing rule. The regulatory change removing application of the 30% opacity limit appears on first impression to relax requirements for these units. However, by limiting the overall time during which the units may exceed the 20% opacity limit, the Commission believes this approach will result in at least the same levels of compliance with the opacity standard and will likely result in lower overall emissions.

The Commission is also aware that Section 110 of the federal Clean Air Act imposes additional limitations on revisions to the state implementation plan. CUC presented information relating to the impact of its proposal on ambient air concentrations. The Commission relied on this information, although it did not adopt the CUC proposal for defining and limiting "good air pollution practices." The Commission concludes that the changes made in this rulemaking will not lead to increased emissions in amounts substantial enough to interfere with the state's programs to attain and maintain the NAAQS or any other federal requirements.

The Commission also has evaluated the proposal adopted pursuant to the standards of Section 25-7-105.1, C.R.S. This rule change and the compliance levels adopted today for these limited periods for coal-fired electric utility boilers clarify the federal narrative standard adopted, providing both the utilities and the Division with greater levels of certainty. The levels also put a practical limit on excursions by these sources above the opacity and SO2 emissions limits and aid in ensuring that the NAAQS are attained or maintained and that no other applicable requirements are adversely affected.

The Commission has determined that continued enforcement of the Regulation Number 1 opacity provisions was relied on in development of the Denver PM10 element of the state implementation plan. The provisions deleted from Regulation Number 1 pertaining to electric power plants therefore must be replaced with substantially equivalent requirements. In the past, the Division's enforcement discretion has been exercised to effectively allow 5% noncompliance by these sources. Substantial regulatory ambiguity in the opacity limitations applicable to startup and other periods also led to uncertainty and lower compliance levels. These revisions are substantially equivalent or better in their impact on emissions to the results of current law and practice because that past practice led to lower compliance than the anticipated compliance levels, which will result from these changes. The Commission finds that these modifications are necessary as parts of the state implementation plan. The Commission also concludes that these revisions are not more stringent than federal requirements, considering the historical "5% policy" used by the Division and EPA. Accordingly, the Commission concludes that these changes should be forwarded to the General Assembly for review and then to EPA for inclusion in the State Implementation Plan.

Finally, the Commission adopts these rule changes subject to a delayed effective date insofar as the revisions apply to sources within the Denver PM10 nonattainment area. The Environmental Protection

Agency has expressed concerns about the potential effect of this rule change on the pending approval of the PM10 element of the state implementation plan for the Denver nonattainment area. In order to ensure that the proposed approval of the PM10 element for the Denver nonattainment area is not endangered, the Commission designates the effective date for these revisions as they apply to sources within this nonattainment area as the date on which EPA approves these changes as a revision to the state implementation plan.

The Commission has taken into consideration the items enumerated in Section 25-7-109(1)(b), C.R.S. The Commission also makes the following findings regarding the adoption of these rule changes:

1. The Commission has considered, and has based its decision, on the reasonably available, validated, reviewed and sound scientific methodologies and information made available by the parties.

2. Where these revisions are not administrative in nature, the record supports the conclusion that the provisions adopted will result in a demonstrable reduction in air pollution. This reduction is accomplished because the overall exceedance levels of the facilities will be lowered under the proposal adopted.

3. The revisions selected maximize the air quality benefits of the emissions standards that apply. The revisions selected are the most cost-effective based on the documents submitted by the parties under Section 25-7-110.5, and provide the regulated community with flexibility in meeting emissions limitations. Although the overall level of exceedances should be reduced under this rule change, operators of the units affected will have greater flexibility in start-up and shutdown of the facilities without incurring a violation. In addition, the greater levels of certainty provided by these changes will allow operators of affected facilities to more readily certify compliance with these applicable requirements under the Title V operating permit program.

IX.D. Adopted: February 21, 2002

Deletion of Section II.C.3.a., to be consistent with recent revisions to Regulation Number1.

Background

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Administrative Procedures Act, C.R.S. (2001), Sections 24-4-103(4) and (12.5) for adopted or modified regulations.

Basis

The rule deletes Section II.C.3.a., in Part B (and associated footnote) in order to conform the regulation to revisions made by the Commission to Regulation Number 1 on August 16, 2001.

Authority

Sections 25-7-105(1)(b) and 25-7-109, C.R.S. (2001) authorize the Commission to adopt emission control regulations, including emission control regulations relating to new stationary sources.

Purpose

The removal of the provision in Section II.C.3.a., of Part B (and associated footnote), concerning coal-fired electric utility boilers was made to conform the regulation to changes made to Commission Regulation Number 1 on August 16, 2001. The provision was added to Regulations Number 1 and 6 in 1996, but was never approved by the EPA. In April 2001, the Commission adopted an affirmative defense rule in the Common Provisions Regulation to address the technical concerns related to continuous

opacity monitors when boilers and process equipment at coal-fired electric utility plants are shut off. As a result, the Commission removed conflicting and confusing language from Regulation Number 1 in August 2001. Deletion of this provision conforms Part B to the action taken by the Commission in Regulation Number 1 and removes any potential confusion or conflict with respect to the regulated community.

IX.E. Adopted: October 18, 2007 (for Section VIII)

Adoption of changes that address June 9, 2006 revisions to the federal New Source Performance Standards for Coal-fired Power Plants, changes associated with reorganizing Regulation 6, and corrections to rule language.

Background

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Administrative Procedures Act, Section 24-4-103, C.R.S. and the Colorado Air Pollution Prevention and Control Act, Section 25-7-110.5, C.R.S.

Basis

On June 9, 2006, EPA revised the New Source Performance Standards for Coal-fired Power Plants specific to mercury and corrected the applicability thereof to include modified units. New Units, Modified Units and Reconstructed Units are all subject to the revised New Source Performance Standards for Coal-fired Power Plants.

These amendments to Regulation 6, Part B set more stringent state-only Hg standards for new, modified and reconstructed units than the federal New Source Performance Standards for Coal-fired Power Plants. Specifically for subject new, modified and reconstructed units, these amendments set more stringent mercury emissions limitations.

Additionally, the state-only provisions of regulation 6 adopted by the Commission on February 6, 2007 and that were initially placed in Regulation 6, Part A, Subpart HHHH were moved to Part B. This was done for consistency, as all other state-only New Source Performance Standards are located in Part B.

Authority

Sections 25-7-105(1)(b) and 25-7-109, C.R.S. authorize the Commission to adopt emission control regulations, including emission control regulations relating to new stationary sources.

Purpose

This regulation addresses changes in the federal New Source Performance Standards for Coal-fired Power Plants, including changes in applicability to include new, modified and reconstructed units, and changes in Hg emission standards.

In addition, the Commission has moved the state-only provisions of regulation 6 adopted by the Commission on February 6, 2007 and that were initially placed in Regulation 6, Part A, Subpart HHHH, to Part B. This was done for consistency; all other state-only New Source Performance Standards are located in Part B.

Further, these revisions will include any typographical and grammatical errors throughout the regulation.

Hg Emissions Limitations

This regulation establishes Hg emission standards for units that are new, modified or reconstructed, and may require mercury control technology installation. There are three separate types of Hg emissions standards addressed in this regulation: base emission standards, Alternative Emission Standards (AES), and Best Available Mercury Control Technology (BAMCT) Standards. Generally, Hg Budget Units are subject to the Hg emission limitations, and if the Division agrees that the unit cannot achieve compliance with that emission limitation, then the unit is conditionally able to establish an AES (i.e. they must notify the Division, comply with their compliance plan, submit permit modification applications, etc.).

February 2007 Rule Hg Emission Limitations (moved from Regulation 6, Part A, Subpart HHHH):

Hg Limits in Effect. The Comanche Power Station and the Lamar Power Station shall adhere to the Hg emission limits and requirements applicable to those coal-fired electric generating units under permits and agreements in effect.

Phase I Early Mercury Reduction Program in 2012. Beginning on January 1, 2012, Xcel Energy's Pawnee Power Station in Brush, and Platte River Power Authority's Rawhide power plant in Wellington, shall achieve either an 80% capture of inlet Hg or an Hg output-based emission limit of 0.0174 pounds of Hg per gigawatt hour (lbs/GWh). Compliance with such limits shall be demonstrated on December 31, 2012 and on an annual rolling average basis thereafter.

The Division and the owners and operators of Hg Budget Units recognize that achieving dates for compliance in 2012, 2014, and 2018 requires that the Division issue the relevant permits in the timeframes provided in Section IV.B. of the Rule. The Division will use its best efforts to meet the dates in the Rule for permit issuance. If a permit is not issued within the time set forth in the Rule, the parties will confer in an effort to minimize the resulting delays both in installation of Hg emissions controls and in the dates for required compliance with emissions standards.

Phase I Hg Emissions Reduction Requirements in 2014. Beginning on January 1, 2014, all existing coal-fired electric generating units in Colorado, excluding sources with limits in effect and low emitters, will be required to install and operate Hg emission controls designed as necessary to achieve either an 80% capture of inlet Hg or an Hg output-based emission limit of 0.0174 pounds of Hg per gigawatt hour (lbs/GWh). Beginning on July 1, 2014, such sources will need to achieve either an 80% capture of inlet Hg or an Hg output-based emission limit of 0.0174 pounds of Hg per gigawatt hour (lbs/GWh). Compliance with such limits shall be demonstrated on December 31, 2014 on the basis of 6 months of data generated beginning on July 1, 2014, and on an annual rolling average basis beginning June 30, 2015 and thereafter.

Phase II Hg Emission Limits in 2018. Beginning on January 1, 2018 all existing coal-fired electric generating units in Colorado, excluding sources with mercury limits in effect as of 2006 and low emitters, shall achieve either a 90% capture of inlet Hg or an Hg output-based emission limit of 0.0087 lbs/GWh. Compliance with such limits shall be demonstrated on December 31, 2018, and on an annual rolling average basis thereafter.

Low Emitters are coal-fired units emitting 29 pounds of Hg or less on an annual basis. Existing low emitter units shall be exempted from the technology-based emissions standards of the Colorado Utility Mercury Reduction Program. At the end of each calendar year, if the cumulative annual Hg mass emissions from an affected unit have exceeded 29 pounds, then the owner shall install, certify, operate, and maintain a Hg continuous emission monitoring system or a sorbent trap monitoring system no later than 180 days after the end of the calendar year in which the annual Hg mass emissions exceeded 29 pounds. For common stack and multiple stack configurations, installation and certification of a Hg concentration continuous emission monitoring system or sorbent trap monitoring system on each stack (except for bypass stacks) is likewise required within 180 days after the end of the calendar year. The Low Emitter shall also be subject to the enforceability provisions of this Rule. New units that qualify as Low Emitters are subject to the new unit monitoring requirements adopted into Regulation Number 6, Part A.

October 2007 Rule Hg Emission Standards

Modified Units. The Commission intends that modified units, as defined in the regulatory text, meet a 0.0174 lb/GWh or 80% removal through December of 2014 and a 0.0087 lb/GWh or 90% removal beginning in January of 2015.

New and Reconstructed Units. The Commission intends that new and reconstructed units, as defined in the regulatory text, will meet a BAMCT standard, which may not be less stringent than the Hg output-based emission standard of 0.0087 lb/GWh or 90 percent capture of Inlet Hg on a rolling 12-month basis and shall use 95 percent capture of Inlet Hg on a rolling 12-month basis as a non-binding guideline for the associated analysis. This guideline is not intended to restrict the Division from determining either a higher or lower standard as determined under the BACT criteria established by EPA and used for other criteria pollutants during a PSD permit action.

BAMCT Analysis Process and Factors

The Commission intends that a BAMCT Determination is a case-by-case decision. In Making BAMCT Determinations, the Commission expects the Division to follow a technology review that is similar to the work it undertakes in making Best Available Control Technology Determinations under the Prevention of Significant Deterioration Program. The factors to be considered in a BAMCT analysis are contained in Section VIII.B.2.

Alternative Emission Standard (AES)

Originally named the Best Available Mercury Control Technology Alternative Standard in the February 2007 rule, this standard was renamed with this rulemaking the Alternative Emission Standard for clarification, since conceptually this is an alternative standard and not reflective of a best available control technology standard.

Sources that demonstrate that they are unable to meet the Hg emission standards under the Colorado Utility Mercury Reduction Program can request that the Division set an alternative, unit-specific standard. This Alternative Emission Standard (AES) provides for an alternative compliance mechanism for sources that cannot achieve the underlying standard, before and/or after installation of controls, despite their best efforts to do so. The AES provides what is referred to as a “soft landing” in the event a unit is unable to achieve the subject Hg emission standards.

Generally the process to obtain such an AES is as follows: 1) the unit must submit a permit modification application requesting an AES, which shall include a compliance plan for achieving that alternative standard; 2) the Division will review requests for an AES and either approve or deny such request considering information provided by the applicant, the Division’s expertise and information, and after providing adequate opportunity for public input; 3) once the Division approves or disapproves the permit application, the approved AES and associated compliance plan (or the underlying base standard in the event of disapproval) shall become enforceable as to that unit. Note that the “safe harbor” or enforcement discretion provided by Section IV.D.2 is not intended to allow a unit to avoid liability by submitting multiple permit modifications.

The Commission intends that the compliance plan identify the applicable emission limitation, the process for demonstrating compliance with that emission limitation, the underlying assumptions made in determining an associated AES, and a list of activities and associated milestones in evaluating progress towards an original BAMCT standard with which the unit was not able to demonstrate compliance.

Existing units subject to this Part B’s base emission standards (see Section VIII.C.1.) may identify their inability to meet the base emission standard either before or after the installation of Hg emission controls, and either before or after the 2010-2017 and 2018 and beyond control periods. Modified units subject to

this Part B's New Source Performance Standards for coal-fired power plants (see Section VIII.C.3.a.) may identify their inability to meet the applicable Hg emission standard only after the installation of Hg emission controls designed to meet the applicable Hg emission standard. New and reconstructed units subject to this Part B's BAMCT Standard may identify their inability to meet the BAMCT Standard only after the installation of Hg emission controls designed to meet the applicable Hg emission standard. With respect to new and reconstructed units, the Commission does not intend for an AES to provide an unqualified, perpetual "soft landing" or a mechanism to avoid compliance with applicable standards. Specifically, if the new or reconstructed unit applies for an AES, progress towards compliance with the original BAMCT Standard must be re-evaluated with the next two operating permit renewals. The scope of the re-evaluation is described in the regulation; it is to include such considerations as alternative sorbents for activated carbon injection systems, and other changes that do not require major capital investment at the unit. The focus of the re-evaluation is to be on how to make the mercury control system in place operate at improved levels of performance as opposed to replacement of the system in place with another type of mercury control system. As a result of the re-evaluations, if the Division determines that the new or reconstructed unit can meet the original BAMCT standard without requiring a major capital investment at the unit, the owner or operator shall modify its permit to include the BAMCT standard. If the new or reconstructed unit cannot meet the original BAMCT standard without making a major capital investment at the unit, it shall either modify its permit to include the AES or a more stringent emissions limitation than the AES, if it can achieve a more stringent emissions limitation than the AES.

For clarification, a new or reconstructed unit whose BAMCT standard is greater than 90 percent capture of Inlet Hg, may establish an AES that is less than 90 percent capture of Inlet Hg, and that AES may become the applicable standard if the unit demonstrates to the Division's satisfaction after public notice and opportunity for comment that the unit cannot achieve compliance with the original BAMCT standard and cannot achieve compliance with an emissions limitation greater than the AES.

Initial Compliance Date

The Commission intends that unless otherwise stated, the initial compliance date be interpreted to mean 12-months after the ~~earlier~~ earliest of 60 unit operating days after achieving maximum production rate or 180 days after the unit first operates. This interpretation is consistent with 40 CFR Part 75. It is intended that New, Modified and Reconstructed Units subject to this rule and required to install continuous emission monitoring systems (CEMS), be allowed time to break in the associated equipment prior to having to utilize the CEMS data to demonstrate compliance.

Plant-Wide Averaging

The Commission intends that plant-wide averages be determined on a capacity-weighted basis. The following specifies how such plant-wide averages are to be determined.

Plant-wide Standard and Compliance Calculations:

Note – If a modified unit opts to comply with the AES and utilize the plant-wide averaging provisions of Section VIII.C.3.b., the numeric standard identified in Section VIII.C.3.a. shall be used to determine the plant-wide average. New or reconstructed units cannot make use of or be included in plant-wide averaging.

Key:

Hg Std. = Emissions Standard (%, lbs/GWh)

Alt. Std. = Alternative Emission Standard

PW Std. = Plant-wide Standard

#1,#2, #3, … = Unit ID

GMWr = Unit Rated Output (gross MW)

GMWt = Unit Output Total (gross MW) (12-month rolling actual)

Hg Rate = lbs/GWh (12-month rolling average)

PW Hg Rate = lbs/GWh (12-month rolling average)

<u>Plant-wide Standard determination:</u>

Case 1 – Emission standard applies to each unit:

PW Std. = Hg Std., unless different modification standard applies to one of the units, then;

PW Std. = ((#1Hg Std. x #1GMWr) + (#2Hg Std. x #2GMWr) + (#3Hg Std. x #3GMWr))

(#1GMWr + #2GMWr + #3GMWr)

Case 2 – Mix of Emission standard and Alternative Emission Standard units:

PW Std. = ((#1Hg Std. x #1GMWr) + (#2Alt.Std. x #2GMWr) + (#3Hg Std. x #3GMWr))

(#1GMWr + #2GMWr + #3GMWr)

Case 3 – Each unit has an alternate standard:

PW Std. = ((#1Alt.Std. x #1GMWr) + (#2Alt.Std. x #2GMWr) + (#3Alt.Std. x #3GMWr))

(#1GMWr + #2GMWr + #3GMWr)

Plant-wide compliance determination:

PW Hg Rate. =((#1Hg Rate. x #1GMWt) + (#2Hg Rate. x #2GMWt) + (#3Hg Rate x #3GMWt))

(#1GMWt + #2GMWt + #3GMWt)

Regulation 6, Part A, Subpart HHHH state-only Provisions' Incorporation

The state-only provisions of Regulation 6, Part A, Subpart HHHH were moved to this Regulation 6, Part B, with all other state-only New Source Performance Standards. Specifically, these provisions were incorporated into Regulation 6, Part B, Section VIII. and merged with this rule's state-only New Source Performance Standards for Coal-Fired Power Plants for new, modified and reconstructed units.

Corrections

Several corrections were made as a consequence to moving Regulation 6, Part A, Subpart HHHH:

changes in citations;

changes in Subsection Titles; and

changes in Definitions Titles.

Additional Considerations

The Commission provides the following additional statement, consistent with §§ 25-7-110.5(5)(a) and 110.8, C.R.S.

(I) Certain federal requirements are applicable. Colorado is required to submit a state plan for complying with the Hg new source performance standards, in accordance with Section 111(d) of the federal Clean Air Act.

(II) The federal NSPS is performance based, as it sets forth standards of performance for coal-fired power plants. The NSPS provides flexibility to states and sources regarding how to reduce Hg emissions and otherwise meet the performance standards.

(III) Data regarding Hg emissions and control technologies was presumably considered in the federal process leading up to the NSPS. However, accurate data regarding actual Hg emissions and the fate and transport of such emissions (both in Colorado and nationwide) is limited and contains many uncertainties. The Commission concluded that the adopted rule will provide reductions in Colorado Hg emissions in a more appropriate and timely manner than the NSPS.

(IV) The adopted rule will provide certainty to sources, by providing specified technology-based performance standards and clear timing requirements.

(V) The state and federal rules have similar time frames for implementation.

(VI) The adopted rule will assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth.

(VII) The adopted rule establishes reasonable equity for sources subject to the rule by providing the same standards for similarly situated sources.

(VIII) If the state rule were not adopted, public health and welfare and the environment could face increased costs associated with delays in installation of appropriate Hg controls.

(IX) There are some different monitoring requirements in the state rule provisions that are being transferred from Part A to Part B of this rule, which are necessary to demonstrate compliance with the state's technology-based performance standard.

(X) Demonstrated technology is available to control Hg emissions. The rule is based upon reasonably available, validated, reviewed, and sound scientific methodologies, and the Commission has considered all information submitted by interested parties.

(XI) The adopted rule will contribute to the prevention of pollution by reducing Hg emissions.

(XII) A no action alternative would not address the required standard. The Commission determined that the adopted proposal, which had consensus support amongst all parties to the rulemaking, was appropriate.

(XIII) After consideration of all the evidence in this rulemaking, the Commission determined that the rule will result in demonstrable reduction in Hg emissions and will concurrently bring about reduced risks to human health and the environment that justify the costs to implement and comply with the rule.

(XIV) Mere adoption of the federal NSPS may delay or avoid installation of appropriate Hg controls in Colorado, and lead to increased costs to public health and the environment.

(XV) The Commission determined that the selected regulatory alternative will maximize the air quality benefits of regulation, including reducing Hg emissions, in the most cost-effective manner.

IX.F. Adopted: November 20, 2008 (for Section VIII.)

Adoption of Clean Air Mercury Rule (CAMR) monitoring, recordkeeping and reporting requirements as state-only requirements into Colorado's Utility Mercury Reduction Rule (Colorado's Mercury Rule) in light of the D.C. Circuit Court of Appeals' decision to vacate CAMR.

Background

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Administrative Procedures Act, Section 24-4-103, C.R.S. and the Colorado Air Pollution Prevention and Control Act, Section 25-7-110.5, C.R.S.

Basis

In February 2008 the D.C. Circuit Court of Appeals vacated the CAMR. Colorado's mercury rule relied on EPA's CAMR for the monitoring, recordkeeping and reporting requirements. Because the CAMR has been vacated and monitoring would have started under CAMR on January 1, 2009, Colorado's Mercury Rule is incomplete. Further, if the CAMR vacature is upheld there will be incomplete monitoring, recordkeeping or reporting requirements associated with Colorado's Mercury Rule.

These amendments to Regulation Number 6 set state-only Hg monitoring, recordkeeping and reporting requirements for new, modified and reconstructed electric generating units. These state-only requirements may be considered more stringent than federal requirements.

The Commission intends to adopt CAMR's monitoring, recordkeeping and reporting requirements, largely verbatim, including the 2009 monitoring date, into Colorado's Mercury Rule in Regulation Number 6, Part B, Section VIII. with the following changes:

The Division would require submittal of quarterly and annual summary reports in place of the electronic reporting format. The Division does not have the capability to read the electronic Excess Emission Report (EER) data format and the Colorado regulation requires a percent reduction or lb/GWh standard not addressed by EPA's EERs.

The Division would not require sources to use data substitution routines. The Division would rather have the source monitor and report monitor downtime to better determine monitor availability and actual mercury emissions.

Also the Commission intends to move applicable definitions from Regulation Number 6, Part A, Subpart HHHH to Regulation Number 6, Part B, Section VIII. and remove the no longer applicable mercury trust provisions of Section VIII.

Authority

Sections 25-7-105(1)(b) and 25-7-109, C.R.S. authorize the Commission to adopt emission control regulations, including emission control regulations relating to new stationary sources.

Purpose

The Commission intends that the CAMR monitoring, recordkeeping and reporting requirements agreement reached by parties and approved by the Commission in 2007 remain in effect. This regulation addresses the D.C. Circuit Court of Appeals' decision to vacate CAMR and the associated impacts on

Colorado's Mercury Rule. If the CAMR vacature is upheld there will be incomplete monitoring, recordkeeping or reporting requirements associated with Colorado's Mercury Rule and thus monitoring, recordkeeping and reporting requirements intended to begin on January 1, 2009 could effectively be delayed.

The Commission is adopting these monitoring, recordkeeping and reporting ("MRR") provisions in Section VIII. of Regulation Number 6 because of the Court's vacature of CAMR, which included the supporting MRR provisions in 40 CFR Parts 60 and 75. It is anticipated that at some time in the future the EPA will adopt a set of complete Hg related MRR provisions to support a federal program as well as various states' Hg reduction programs. After EPA finalizes MRR provisions for Hg, the Commission intends to revisit these state-only MRR provisions, in order to consider whether they should be repealed or otherwise amended in order to avoid duplicative requirements.

This regulation also corrects typographical, grammatical and formatting errors.

Additional Considerations

The Commission provides the following additional statement, consistent with §§ 25-7-110.5(5)(a) and 110.8, C.R.S.

(I) Certain federal requirements are applicable under CAMR, however a vacature would void those requirements.

(II) CAMR's New Source Performance Standards (NSPS) are performance based, as they set forth standards of performance for coal-fired power plants. The NSPS provides flexibility to states and sources regarding how to reduce Hg emissions and otherwise meet the performance standards.

(III) Data regarding Hg emissions and control technologies was presumably considered in the federal process leading up to the NSPS. However, accurate data regarding actual Hg emissions and the fate and transport of such emissions (both in Colorado and nationwide) is limited and contains many uncertainties. The Commission concluded that the adopted rule will provide reductions in Colorado Hg emissions in a more appropriate and timely manner than the NSPS, and thus the monitoring, recordkeeping and reporting components are essential to demonstrate these reductions.

(IV) The adopted rule will provide certainty to sources, by providing necessary monitoring, recordkeeping and reporting mechanisms and clear timing requirements to ensure the achievability of the specified technology-based performance standards.

(V) The state and federal rules have similar time frames for implementation; however, this may change if the CAMR vacature is upheld.

(VI) The adopted rule will assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth.

(VII) The adopted rule establishes reasonable equity for sources subject to the rule by providing the same standards for similarly situated sources.

(VIII) If the state rule were not adopted, public health and welfare and the environment could face increased costs by not having the necessary Hg monitoring, recordkeeping and reporting requirements to ensure the achievability of the specified technology-based performance standards and may lead to selection of less effective Hg controls to comply with the Hg emission standards.

(IX) There are some different monitoring requirements in the state rule provisions compared to CAMR, including:

The Division would require submittal of quarterly and annual summary reports in place of the electronic reporting format. The Division does not have the capability to read the electronic Excess Emission Report (EER) data format and the Colorado regulation requires a percent reduction or lb/GWh standard not addressed by EPA's EERs.

The Division would not require sources to use data substitution routines. The Division would rather have the source monitor and report monitor downtime to better determine monitor availability and actual mercury emissions.

In addition, the state rule would differ substantially from the federal rule if the CAMR vacature were upheld.

(X) Demonstrated technology is available to control and monitor Hg emissions. The rule is based upon reasonably available, validated, reviewed, and sound scientific methodologies, and the Commission has considered all information submitted by interested parties.

(XI) The adopted rule will give assurance that the prevention of pollution efforts of the Colorado Mercury Rule Hg emission standards will be met by setting monitoring, recordkeeping and reporting requirements for Hg emissions.

(XII) A no action alternative would not address the required standard, and could essentially be a decision that monitoring requirements do not need to be in place beginning January 1, 2009. The Commission determined that monitoring, recordkeeping and reporting, consistent with the 2007 consensus agreement and the Commission's 2007 rulemaking, were appropriate.

(XIII) These amendments are largely administrative in nature, in that they reaffirm a previous Commission decision, and relate to monitoring and recordkeeping to demonstrate Hg emissions and compliance with emission standards. These amendments will provide assurance that the prevention of pollution efforts of Colorado's Mercury Rule Hg emission standards will be met by setting appropriate monitoring, recordkeeping and reporting requirements for Hg emissions.

(XIV) Mere adoption of the federal NSPS may delay or avoid installation of appropriate Hg controls in Colorado, and lead to increased costs to public health and the environment.

(XV) The Commission determined that the selected regulatory alternative would maximize the air quality benefits of regulation, including reducing Hg emissions, in the most cost-effective manner.

IX.G. Adopted: March 21, 2013, for Section I. (Internal Combustion Engine (ICE) Relocation to Colorado)

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Section 24-4-103, C.R.S. and the Colorado Air Quality Control Commission procedural rules.

Basis

Regulation Number 6, Part B prescribes emissions standards and testing, monitoring, and record keeping requirements for emission sources relocated to the State of Colorado which are subject to a federal New Source Performance Standard (NSPS) adopted in Regulation Number 6, Part A. The revisions adopted acknowledge the changing nature of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (NSPS IIII) and Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (NSPS JJJJ).

Specific Statutory Authority

The Colorado Air Pollution Prevention and Control Act provide the authority for the Colorado Air Quality Control Commission to adopt and modify Regulation Number 6. Section 25-7-106(6), C.R.S., grants the Commission the authority to prescribe testing, monitoring, and record keeping requirements for sources of air pollution. The Commission's action is taken pursuant to authority granted and procedures set forth in Sections 25-7-105, 25-7-106, 25-7-110, 25-7-110.5 and 25-7-114, C.R.S. These revisions are not required by federal law and are not currently included in the State Implementation Plan.

Purpose

The Commission has long held that emission sources moving into Colorado must comply with the most recent emission standards in the applicable NSPS adopted by the Commission. For many sources, compliance with this requirement can be achieved through the addition of aftermarket control devices. In contrast, compression ignition ICE subject to NSPS IIII and spark ignition ICE subject to NSPS JJJJ are manufactured to meet the most recent emission standards, which change by manufacturer year, and may not be able to utilize aftermarket control technologies. Aftermarket controls for ICE affect the way an ICE operates and may not be able to achieve significant emission reductions. In addition, while it might be technically possible to install an aftermarket control, installation is often not economically feasible, especially for smaller ICE. Thus, the result of Section I.B. on ICE is that even relatively new, lower emitting ICE that have not operated in Colorado are often not able to operate in Colorado because the ICE cannot meet the newer emission standards. This inability to employ newer ICE operating in another state can inadvertently promote the continued use of older, higher emitting ICE already operating in Colorado because such ICE are not required to comply with the newer emission standards.

To address this issue, the Commission revised Section I. to provide owners and operators more flexibility to operate ICE in Colorado that were operating in another state and that are either less than five years old or can demonstrate that they meet the current emission standard in the applicable NSPS. This ensures the ICE will meet at least the second most recent emission standards, if not the most current standards. The revisions did not change the requirements of NSPS IIII or NSPS JJJJ and continue to be a more stringent state-only requirement beyond the federal requirements.

Relocation to Colorado

The relocation of an ICE is determined by either the date the owner or operator submits an Air Pollution Emission Notice which identifies the ICE by serial number or the date the ICE is placed and secured at the location in Colorado where it is intended to operate. Once set, the relocation date for the ICE does not change regardless of whether the ICE is then subsequently moved within and without of Colorado.

500 Horsepower

ICE with manufacturer’s rated horsepower greater than 500 were not provided the five year flexibility that ICE with less than 500 horsepower were provided, because it is more likely to be technically and economically feasible to install aftermarket controls on ICE greater than 500 horsepower. In addition, greater emissions reductions in Colorado are obtained from the emission limitations on ICE greater than 500 horsepower than from smaller ICE.

Five Year Flexibility

ICE with less than 500 horsepower that are operating in another state may operate in Colorado if the relocation date is within five years of the manufacture date. Five years was selected due to the approximate correlation to the changing emission standards.