STATE OF MINNESOTA
MINNESOTA POLLUTION CONTROL AGENCY

Adoption of Rules Governing Mercury Air Emissions Reporting and Reduction, Minnesota Rules, Chapters 7005 Definitions and Abbreviations, 7007 Air Emission Permits, 7011 Standards for Stationary Sources, and 7019 Emission Inventory Requirements

ORDER ADOPTING RULES

OAH Docket No. 65-2200-31080
Revisor's ID: RD4149
Governor's Office Tracking No. AR 495

WHEREAS:

1. The Minnesota Pollution Control Agency (MPCA) has complied with all notice and procedural requirements in *Minnesota Statutes*, chapter 14, *Minnesota Rules*, chapter 1400, and other applicable law.

2. During the public comment period on the rule, the MPCA received three (3) requests for a public hearing. As identified in the Notice of Intent to Adopt Rules (Notice) published in the December 2, 2013, *State Register*, if 25 or more persons submit valid written requests for a public hearing on the rules, hearings will be held following the procedures in Minn. Stat. §§ 14.131 to 14.20. The MPCA did not hold a public hearing on the proposed rules because it received fewer than 25 requests. The MPCA received no requests for notice of submission to the Office of Administrative Hearings.

3. The MPCA received fourteen (14) comment letters on the proposed rules during the public comment period. The MPCA has made changes to the proposed rules as a result of comments received during the public comment period. The changes are presented in Findings below. The changes are also set forth in a revised version of the proposed rules as Attachment 1 to this Order Adopting Rules. The MPCA response to other comments received that did not result in rule changes are found in Attachment 2, Response to Comments. Attachment 2 is incorporated herein by reference.

4. The changes to the proposed rules are not substantially different from the proposed rule based on the criteria set forth in Minn. Stat. § 14.05, subd. 2.

   The issue of substantial difference is addressed in detail with regard to each change. In general, the Notice provided fair warning that these rule changes could result because it notified readers of the subject matter of the rule such that they could understand that their interests could be affected, the subject matter and issues in the Notice are the same as the subject matter and issues addressed in the changes and the effects of the changes are not greatly different from the rules as originally proposed. All the changes are clearly within the scope of "Subject of the Rules," and are related to the mercury reduction plans for affected facilities, incorporation of federal performance standards for mercury control, and mercury emission inventory requirements; all of which were announced in the Notice. The changes are a logical outgrowth of the Notice and the comments submitted in response to the Notice.

5. The MPCA finds that under the listed criteria of Minn. Stat. § 14.05, subd. 2, the rule with the changes set forth in this Order Adopting Rules is not substantially different from the rule as originally proposed.

7007.0502 MERCURY EMISSIONS REDUCTION PLANS.

Change to Part 7007.0502, subpart 2

6. Southern Minnesota Beet Sugar Cooperative (SMBSC) commented that the proposed rule was unclear as to which year to use to determine the applicability of the rule to industrial, commercial, and institutional (ICI) boilers to prepare a mercury reduction plan. The question of **initial** applicability is not unique to ICI boilers. Therefore, the MPCA will clarify the applicability requirements for a reduction plan for any source subject to this part.

7. Subpart 2 is revised by adding language to specify that for initial applicability and for the calendar year preceding the effective date of this part, mercury emissions are to be calculated following the methods in Minn. R. 7019.3030, the rule that applies to the calculation of emissions for annual emission inventory reporting purposes. Owners and operators will use the same operational data, fuel types and fuel amounts that they used to calculate their emission inventory submittal for the identified years. The MPCA finds that it is reasonable to use the same process and fuel data to calculate mercury emissions as is used to calculate the emissions of other pollutants.

8. The MPCA finds that as a result of making this revision, additional clarity to subpart 2 is needed. While a source's emissions must be below the threshold of three pounds per year or more for three consecutive years to be considered a mercury emission source, subpart 2 was not sufficiently clear as to *when* owners or operators may demonstrate that a facility is no longer a mercury emission source, nor was it clear when an owner or operator must return to the reduction plan requirements if mercury emissions increase above the threshold.

9. Subpart 2 is revised to clarify that the calculation to determine whether a facility is no longer a mercury emission source applies "after the effective date of this part." Because of the expected timing of the rules' effective date relative to reduction plan due dates, it is not logical to apply a three-year analysis for the initial applicability.

10. The MPCA finds that it must revise subpart 2 to add "and is not subject to the requirements of this part" to clarify that a source with emissions that decrease and consistently remain below the threshold no longer meets the applicability requirements of this part. This revision comes as a result of addressing the timing of applicability determinations as commented on by SMBSC. Adding this clause is reasonable because it clarifies what will occur if a source is no longer a mercury emission source.

Part 7007.0502, Subp. 2.

Subp. 2. ***Applicability.*** *The owners or operators of an existing mercury emission source must comply with this part. For the purposes of this part, "existing mercury emission source" means that the owners or operators have been issued an air emission permit by the agency as of the effective date of this part. For initial applicability, owners or operators must calculate emissions following methods in part 7019.3030 for the calendar year preceding the effective date of this part. If, after the effective date of this part, the actual mercury emissions from the existing mercury emission source are below the threshold of three pounds per year or more for three consecutive years, then the stationary source is no longer considered a mercury emission source, and is not subject to this part. The owner or operator must:*

Change to Part 7007.0502, subpart 2, item C

11. The rules as proposed state that if emissions increase over the threshold, a source again becomes subject to this part. In that case, a mercury reduction plan would once again be required. Subpart 2, item C is revised to make it clear that owners or operators with a facility that again meets the definition of a mercury emission source must re-submit a reduction plan that meets the requirements of subpart 3 within 12 months of returning to mercury emission source status. A facility in this situation would likely already have submitted a reduction plan. Therefore, updating and resubmitting a plan within 12 months is a reasonable time frame. The MPCA finds that the change is reasonable because it provides direction and clarity by specifying when reduction plan re-submittals are due, if applicable.

Part 7007.0502, Subp. 2C

Subp. 2. ***Applicability.***

C. immediately resume compliance with applicable requirements for mercury emission sources if a physical or operational change causes the stationary source to again become a mercury emission source. Owners or operators must resubmit a mercury emissions reduction plan under subpart 3 within 12 months of again becoming a mercury emission source.

12. The MPCA finds that the changes to part 7007.0502, subpart 2 and 2.C. do not make the rule substantially different because they are clarifications that commenters requested. The changes are squarely within the scope of "Mercury Reduction Plans" as announced in the Notice. These revisions are the MPCA's response to the comments received regarding the mercury reduction plans and the applicability of the plan requirements, and are a logical outgrowth of the Notice and comments submitted in response to the Notice. Finally, the Notice provided fair warning that the proposed rule could result in a rule with specified emission calculations methods and timing requirements, the rule is not greatly different from that originally proposed and the effects of the rule do not differ from the effects of the proposed rule because the Notice clearly identified that the requirement to develop a mercury emissions reduction plan applies to certain sources.

Change to Part 7007.0502, subpart 3, item C

13. Subpart 3 contains the requirement to prepare a mercury emissions reduction plan and identifies those mercury emission sources that are not subject to the plan requirement. Several commenters (SMBSC, Virginia Public Utilities, and Minnesota Power) expressed confusion related to the mercury reductions required at ICI boilers. The confusion results from language in subpart 3, item C which provides exemptions for ICI boilers. The MPCA's intent was for owners or operators of ICI boilers to follow the process in subpart 6, item C, which establishes the conditions for mercury reduction plans for ICI boilers, and requires owners or operators of ICI boilers to evaluate mercury reductions achieved under the federal rules that the MPCA adopted in Minn. R. 7011.7050 and 7011.7055. Emissions that result under the federal standard will be compared to the reductions in this rule to determine whether a unit may be exempt from the requirement to prepare a reduction plan. As explained in the Statement of Need and Reasonableness (SONAR) (page 13 and pages 23-25), the United States Environmental Protection Agency (USEPA) recently relaxed the mercury emission limits for ICI boilers. As a result, the MPCA cannot rely entirely on the federal standard to provide the necessary reductions in mercury to achieve the goals of the Statewide Mercury Total Maximum Daily Load (TMDL) study.

14. To address the confusion, subpart 3, item C will be revised to reference the requirements of subpart 6, item C, subitem (2). It is reasonable to revise subpart 3, item C to align with subpart 6, item C because doing so specifically addresses the commenters concerns.

15. Subpart 3, item C is also being revised to add "for electric generating units;" "for waste combustors or incinerators; and" "for boilers..." after each corresponding rule part. This change is reasonable because it identifies for the owner or operator the type of source each rule part represents.

Part 7007.0502, Subp. 3C

C. a mercury emission source subject to a performance standard for mercury in ~~parts~~ part 7011.0561~~,~~ for electric generating units; parts 7011.1201 to 7011.1285~~,~~ and 7011.1350 to 7011.1370~~,~~ for waste combustors or incinerators; and part 7011.7050~~,~~ or 7011.7055 for boilers, except that units subject to part 7011.7050 or 7011.7055 must also comply with subpart 6, item C, subitem (2);

16. The MPCA finds that these are not substantial changes because they are within the scope of "Mercury Reduction Plans" as announced in the Notice. The differences between the proposed rule and these revisions are a logical outgrowth of the Notice and comments submitted by the commenters in response to the Notice. The Notice provided fair warning that that this rule change could result because the commenters expressed the need for clarification on the point when they commented that the proposed rule relating to the mercury reductions required at ICI boilers was confusing. The effects of the rule revisions do not differ from the effects of the proposed rule because they do not change the meaning of subpart 3, item C or subpart 6, item C; but provide for consistency within the rules.

Change to Part 7007.0502, subpart 3, item E

17. Xcel Energy submitted comments suggesting a clarification to subpart 3, item E which contains exemptions for mercury emission sources. The MPCA agrees that a clarification would be helpful to this rule part. The intent of the proposed rule is that sources that already have enforceable conditions for mercury controls in place should not have to prepare a mercury reduction plan if the enforceable conditions for the source achieve the reductions identified in these rules. Enforceable conditions might include permit conditions or a schedule of compliance. Subpart 3, item E is revised by rearranging the proposed rule language to read more clearly.

Part 7007.0502, Subp. 3E

E. a mercury emission source that has an ~~air emission permit with a mercury emissions limit or an enforceable agreement that is in effect with the commissioner and contains an enforceable schedule of mercury reductions and~~ emissions limit or enforceable schedule of mercury reductions when the emissions limit or reductions are equal to or greater than ~~the reductions~~ those required in subpart 6. The emissions limit or enforceable schedule of mercury reductions may be in an air emission permit or an enforceable agreement that is in effect with the commissioner.

18. The MPCA finds that these revisions do not make the rule substantially different because the text is simply reorganized in an order that is easier to follow. The revisions are a result of the MPCA's response to the comments received regarding the mercury reduction plans and the sources required to prepare a plan and are a logical outgrowth of the notice and comment process. The Notice provided fair warning that this rule change could result because the commenter clearly understood that this rule would result; and in fact indicated that change should result when they suggested clarifying the proposed rule. This

revision does not change the applicability or stringency of the proposed rules, nor does it change the rule's meaning.

Change to Part 7007.0502, subpart 4B

19. United States Steel and the taconite facilities submitted comments that suggest it was premature to set a deadline of 2016 for submitting a mercury reduction plan from ferrous mining or processing facilities. Ferrous processing facilities are testing potential mercury control technologies and that work is still in-process. The commenters only suggest modifying the plan submittal date, not the final compliance date to achieve emission reductions by 2025.

20. The 2009 TMDL Implementation Plan envisioned that time would be required to evaluate or develop mercury control technology for this sector. The TMDL Implementation Plan interim goals for these facilities were that medium and long-term testing of air pollution control technology would be completed by 2013 and one full-scale installation would begin in 2014. The facilities have engaged in an evaluation of control technology for mercury air emissions, as described in the TMDL Implementation Plan. Initial research was conducted in 2010-2011 and the results were submitted to USEPA in December, 2012. In 2013, additional testing of activated carbon injection was conducted by individual facilities. Another new technology is likely to begin to be evaluated in 2014.

21. Evaluation of control options has continued beyond the projected timeframe in the TMDL Implementation Plan's interim goals for this sector. The MPCA acknowledges the continuing efforts by these facilities to work toward the goals in the TMDL Implementation Plan. The MPCA extends the deadline for ferrous mining or processing facilities to submit mercury reduction plans to account for time needed to evaluate 2013 testing results, and conduct additional research and assessment of other mercury control technologies in 2014. Subpart 4 is revised by changing the year when mercury reduction plans are due to 2018. The MPCA finds that the change is reasonable because it reflects the current status of work and ongoing efforts to evaluate and assess mercury control options for this sector. Even with a later date for the mercury reduction plan submittal, sufficient time will be available to achieve emission reductions by the final compliance date of 2025.

Part 7007.0502, Subp. 4B

B. The owners or operators of an existing mercury emission source that is a ferrous mining or processing facility must submit a mercury emissions reduction plan by December 30, ~~2016~~ 2018, for approval and inclusion in a permit or other enforceable document.

22. The MPCA finds that these revisions do not make the rule substantially different because they are within the scope of "Mercury Reduction Plans" as announced in the Notice. These revisions are a result of the MPCA's response to the comments received regarding the mercury reduction plans and the applicability of the plan requirements, and are a logical outgrowth of the Notice and comments submitted in response to the Notice. The Notice provided fair warning that this rule change could result because the commenter clearly understood that this rule would result; and in fact indicated that change should result when they suggested changing the proposed rule. Modifying this date does not change who is subject to the applicability requirements or what is expected in a reduction plan.

Change to Part 7007.0502, subpart 6, item A, subitems (1) and (2)

23. Mesabi Nugget and the taconite companies commented on the schedule and degree of reductions required by proposed part 7007.0502, subpart 6, item A, subitem (1) which contains the control and work practices for ferrous mining facilities. The commenters expressed concern about the selection of 2010 as the baseline year on the basis that the facilities were not operating at maximum capacity.

24. Mesabi Nugget commented that its Large Scale Demonstration Plant (LSDP) was at 12.5 percent capacity in 2010. Mesabi Nugget supports using their "potential to emit" for mercury as their baseline mass emissions rate from which the required reductions in this proposed rule are calculated. The taconite companies are concerned that in 2010 not all facilities were operating at their maximum capacity.

25. The commenters participated in the development of the mercury reduction plan for the ferrous industry, and selected the year 2010, which at the time was a future year, as the baseline for determining reductions. As a matter of practice when drafting the rule, the MPCA has worked to follow the ferrous industry strategy closely, including using 2010 as the baseline year. The MPCA was aware of lower production in 2010 and took it into account when determining the percent reduction needed to achieve the ferrous processing portion of the TMDL goal (see part 7007.0506, subpart 1). The MPCA used the production data from each facility, and also accounted for Mesabi Nugget (and Essar Steel) by assuming their emissions in 2010 were the same as originally planned for in the TMDL Implementation Plan strategy.

26. One potential interpretation of the proposed rule language could be that final design removal efficiencies needing to be higher than the 72 percent for those ferrous processing units that in 2010 were operating below normal capacity, an unintended outcome. Therefore, it is reasonable to revise the proposed rule. Subpart 6, item A is revised to add 2008 as a baseline year for determining pounds of mercury emitted which is to be used if emissions in 2008, a statewide mercury inventory year prior to the recession, are greater than the year 2010 mercury emissions. Subpart 6, item A is also be revised to add "at less than 75 percent of full capacity" to account for facilities that were not operating at full capacity.

27. The MPCA revises Subpart 6, item A, subitem (1) to remove references to the unit of measure of mercury. The MPCA did not propose how to manage rounding the number describing emissions that determines the percent reduction, an important aspect of controlling a pollutant where very small amounts are being tracked. The MPCA finds that the change is reasonable because this rulemaking causes ferrous processing facilities to report annual mercury emissions to the MPCA, and those emission reports are subject to calculating, rounding, and reporting requirements rules and guidance.

Part 7007.0502, Subp. 6A(1) and (2)

A. For ferrous mining or processing:

(1) the plan must address the indurating furnace or kiln of a taconite processing facility or the rotary hearth furnace of a direct-reduced iron facility and must demonstrate that by January 1, 2025, mercury emissions from the indurating furnace or kiln or rotary hearth furnace do not exceed 28 percent of the ~~number of pounds of~~ mercury emitted in 2008 or 2010, whichever is greater. The commissioner shall determine the ~~pounds of~~ mercury emitted in 2008 and 2010. If the facility held a Minnesota Pollution Control Agency construction permit but was ~~not~~ operating in 2010 at less than 75 percent of full capacity, the operating furnace must not exceed 28 percent of the mercury potential to emit included in the permit authorizing construction; and

(2) the plan may accomplish reductions as:

(a) 28 percent of 2008 or 2010 emissions for each furnace;

(b) 28 percent of 2008 or 2010 emissions across all furnaces at a single stationary source; or

(c) 28 percent of 2008 or 2010 emissions across furnaces at multiple stationary sources. Owners of the stationary sources must enter into an enforceable agreement as provided by Minnesota Statutes, section 115.071, subdivision 1, to reduce mercury emissions between the stationary sources. If this option is selected, the reduction plan must include the enforceable agreement. Execution of an enforceable agreement under this part does not relieve the owner or operator of the obligation to obtain a permit or permit amendment if otherwise required under this chapter.

28. The MPCA finds that these revisions do not make the rule substantially different than proposed because the revised rule addresses an aspect of the rule that would have made it difficult to implement upon adoption. These revisions are a result of the MPCA's response to the comments received regarding the mercury reduction plans and the sources required to prepare a plan and are a logical outgrowth of the notice and comment process. The Notice provided fair warning that this rule change could result because the commenter clearly understood that this rule would result; and in fact indicated that change should result when they suggested clarifying the proposed rule. This revision does not change the applicability of the proposed rules.

Change to Part 7007.0502, subpart 6, item C

29. Subpart 6 contains the minimum mercury control requirements for source categories listed in this subpart which includes ICI boilers. Minnesota Power requested that the rules define ICI boiler. The MPCA agrees such a definition would be useful and Subpart 6, item C is revised to add a new definition for ICI boiler. The new definition of ICI boiler references USEPA's definitions of boiler, industrial boiler, commercial boiler, and institutional boiler. This revision is reasonable because it clarifies for owners and operators what is considered an ICI boiler for regulatory purposes under this subpart.

30. SMBSC asked how emissions for the proposed baseline year of 2005 identified in Subpart 6, item C would be determined. Virginia Public Utilities requested that the baseline year be 2008 as operational changes occurred at that time which affected emissions.

The MPCA has addressed the initial applicability calculation to determine whether a facility meets the definition of a mercury emission source in Subpart 2. Subpart 6, item C will be revised by deleting year 2005; and deleting the proposed language in item C and item C, subitem (2) for determining mercury reductions. These revisions are reasonable because they will eliminate confusion by providing consistency with the subpart 2 revisions.

Part 7007.0502, Subp. 6C

C. *For the purposes of this item, "boiler," "industrial boiler," "commercial boiler," and "institutional boiler" have the meanings given under Code of Federal Regulations, title 40, sections 63.7575 or 63.11237, except that a waste heat boiler, process heater, electric generating unit as defined under part 7011.0561, subpart 2, and autoclave are excluded from the definition of boiler under this item. For industrial, commercial, and institutional (ICI) coal-fired boilers, the plan must demonstrate mercury emissions reductions of 70 percent from ~~2005 mercury~~ emissions calculated for initial applicability at ~~all~~ each ICI coal-fired ~~boilers that emit~~ boiler with actual mercury emissions of five pounds per year or more. ~~The commissioner shall determine the pounds of mercury emitted in 2005. For each ICI~~*

~~*coal-fired boiler, within one year of the effective date of this part, the owner or operator must determine whether the reduction of 70 percent is met and must retain records of the determination on site for five years from the date the determination was made.*~~ *Initial applicability is calculated using the method described in subpart 2.*

(2) If ~~*actual mercury emissions are five pounds per year or more and emission control is less than 70 percent,*~~ *the exemptions in subitem (1) are not met, the owner or operator must evaluate actual mercury emissions that will be achieved under the federal regulations incorporated under part 7011.7050 or 7011.7055 relative to the 70 percent reduction. If the emission limits, control equipment, or operating practices under the federal regulations do not achieve the 70 percent reduction, the owner or operator must ensure that by January 1, 2018, mercury emissions are reduced by at least 70 percent from* ~~*2005*~~ *the levels calculated for the initial applicability of this item.*

31. The MPCA finds that these revisions do not make the rules substantially different. These changes are within the scope of "Mercury Reduction Plans" as announced in the Notice; specifically reduction plan requirements for ICI boilers. Further, these changes are a logical outgrowth of the Notice and comments submitted in response to the Notice as summarized above. Finally, the Notice provided fair warning that this rule change could result because the commenters clearly understood, and in fact indicated that a change of this nature should result when they commented on the proposed rule. This rule is not greatly different than originally proposed; the revisions do not change who will be subject to the rule requirement or the applicability or stringency of the proposed rules.

Change to Part 7007.0502, subpart 6, item D

32. Virginia Public Utilities commented that it was confusing to determine whether their units were subject to the requirements in subpart 6, item C for ICI coal-fired boilers or subpart 6, item D for mercury emission sources not otherwise identified in this subpart. Subpart 6, item D is revised to add language to clarify that item D applies if sources are not otherwise identified in "items A through C of" the subpart. Item D is also revised to clarify that the "actual, annual amount of" mercury emitted is to be reduced by 70 percent. This revision is reasonable because it is consistent with the approach for determining mercury reductions used in the proposed rules for ferrous processing facilities and ICI boilers.

Part 7007.0502, Subp. 6D

D. For mercury emission sources with processes that individually emit three or more pounds of mercury per year and that are not otherwise identified in ~~*this subpart*~~ *items A to C, owners or operators must submit a plan to the commissioner that shows that air pollution control equipment, work practices, or the use of alternative fuels or raw materials has been optimized such that the actual, annual amount of mercury emitted is reduced by 70 percent or greater from the input of mercury to the process or processes emitting mercury.*

33. The MPCA finds that these revisions do not make the rule substantially different because they are within the scope of "Mercury Reduction Plans" as announced in the Notice; specifically, the changes relate to who is subject to the rule requirements and what is required in a reduction plan. The changes are a logical outgrowth of the Notice and comment process. Finally, the Notice provided fair warning that this rule change could result because the commenter asked for this clarification. The rule is not greatly different than originally proposed and the effects of the rule do not differ from the effects of the proposed rule because the Notice identified the requirement to develop a mercury emissions reduction plan as applied to certain sources.

Change to Part 7007.0502, subpart 8

34. United States Steel commented that the December 30 due date of annual progress reports precludes including a full year of data, and that annual progress reports should begin when mercury emissions reduction plans are approved rather than when submitted. The MPCA agrees and subpart 8 is revised to require that annual progress reports be submitted by April 1 for each preceding year, starting with the year following plan approval. This change is reasonable because the April 1 due date is consistent with the annual emission inventory submittal date, and it is not likely that facilities will start any projects before their plan is approved as there would be nothing to report.

Part 7007.0502, Subp. 8

*Subp. 8. **Mercury emissions reduction plan implementation.** The owner or operator must implement the mercury emissions reduction plan as approved by the commissioner. The owners or operators must submit annual progress reports to the commissioner by ~~December 30~~ April 1 of each year starting with the year following plan ~~submittal~~ approval until one full year after achievement of the reduction as described in the plan. The report must provide the status of facility modifications and actions taken in the preceding 12 months on each of the plan elements in subpart 5.*

35. The MPCA finds that these revisions do not make the rule substantially different because they are within the scope of "Mercury Reduction Plans" as announced in the Notice, and do not change who will be subject to the rule requirement or what is expected in a reduction plan. The changes are a logical outgrowth of the Notice and comment process. The Notice provided fair warning that this rule change could result because the commenter in fact asked for the change when they commented on the proposed rule. This rule is not greatly different than originally proposed and the effects of the rule do not differ from the effects of the proposed rule.

7011.0561 CONTROL OF MERCURY FROM ELECTRIC GENERATING UNITS.

Change to Part 7011.0561, subpart 3

36. Xcel Energy commented that subpart 3 should be clarified to explain when and/or how the exemption in the subpart would apply. The MPCA agrees that subpart 3 should be clarified and believes that the most useful clarification is to establish the date that the exemption should apply. The provision mirrors the same exemption in the federal Mercury and Air Toxics Standard (MATS) for utility boilers, for which compliance must be demonstrated by April 16, 2015. The MPCA revises the rule by adding language to ensure that the deadline for the state rule is after the federal rule so that changes made to comply with the federal rule will satisfy the requirements of the state rule. Elsewhere in this rule part at subpart 9, instructions were given for determining the amount of mercury emitted, as these electric generating units (EGUs) emitting five pounds or less are not intended to be subject to the requirements of this part. The MPCA revises the rule to clarify how the exemption would apply and adds the reference to subpart 9.

Part 7011.0561, Subp. 3

*Subp. 3. **Exemption.** Beginning one year after the effective date of this part, the owners or operators of a coal-fired EGU that does not emit five pounds per year or more as demonstrated in subpart 9 or combust coal for more than ten percent of the average annual heat input during any three consecutive*

calendar years or for more than 15 percent of the annual heat input during any calendar year is not subject to this part.

37. The MPCA finds that this is not a substantial change because coal-fired utility boilers already have made decisions on how to comply with MATS and this rule will not interfere with those decisions. The change is a logical outgrowth of the Notice and comments submitted on the rule. The Notice provided fair warning that this rule change could result because the commenter understood that this rule would result and in fact asked for the change should result when they commented on the proposed rule, and suggested specific changes. No new parties are affected by this rule change.

Change to Part 7011.0561, subpart 4, items A through C, subitem (1)

38. Subpart 4, performance standards for mercury emissions, identifies the percentage of mercury capture that owners or operators of certain coal-fired EGUs must achieve control mercury emissions. Xcel Energy commented that there is a lag between real-time stack emissions monitoring with continuous emissions monitoring (CEM) for mercury and the results of the laboratory analysis of the mercury content of fuel. Xcel Energy suggests removing reference to the fuel when combusted to eliminate the inference in the proposed rule that mercury content in fuel can be measured instantaneously when determining if the 90 percent reduction in mercury emissions has been achieved. This change is reasonable because it removes the inference that mercury content can be measured instantaneously with CEM, which is not the case. The MPCA agrees with the suggestion and revises subpart 4, items A through C, subitem (1), by deleting "when combusted" in subitem (1) of items A through C.

39. In addition, the MPCA adds language to clarify that the percent of capture efficiency is a minimum, not the exact amount that must be achieved.

Part 7011.0561, Subp. 4A(1), B(1), C(1)

A. By January 1, 2018, owners or operators of a coal-fired EGU with a nameplate electricity generation capacity greater than 100 MW must:

(1) control mercury such that at least 90 percent of the mercury present in the fuel ~~when combusted~~ is captured and not emitted; or

B. By January 1, 2025, owners or operators of a coal-fired EGU that is not a supplemental unit as defined in Minnesota Statutes, sections 216B.682 to 216B.688, and with a nameplate capacity less than or equal to 100 MW must:

(1) control mercury such that at least 70 percent of the mercury present in the fuel ~~when combusted~~ is captured and not emitted; or

C. By January 1, 2018, owners or operators of a coal-fired EGU that is a supplemental unit as defined in Minnesota Statutes, sections 216B.682 to 216B.688, must:

(1) control mercury such that at least 70 percent of the mercury present in the fuel ~~when combusted~~ is captured and not emitted; or

40. The MPCA finds that these revisions do not make the rule substantially different because they are within the scope of "Performance Standards" as announced in the Notice, and do not change the requirement that certain facilities must meet performance standards for mercury control. The changes are a logical outgrowth of the Notice and comments submitted on the rule. The Notice provided fair warning that this rule change could result because the commenter understood that this rule would result; and in fact asked for the change when they commented on the proposed rule and suggested specific changes. This

rule is not greatly different than originally proposed and the effects of the rule do not differ from the effects of the proposed rule.

Change to Part 7011.0561, subpart 5, item B, and subitem (1)

41. Ottertail Power Company and Xcel Energy provided comments on subpart 5, item B the mercury monitoring requirements for owners and operators of a coal-fired EGU. The commenters stated that it would be useful to provide an indication of when the *initial* performance test should be completed and second, they suggested that the proposed rule is not clear as to when a subsequent follow up test is necessary. The MPCA agrees that while the compliance deadlines in subpart 4 would suggest that performance testing should be completed in order to make the demonstration by the compliance deadline, making this clarification is reasonable because it clarifies for the owner or operator of an EGU when the initial testing must be conducted by. Subpart 5, item B is revised by adding "The initial test must be conducted no later than the applicable compliance deadline in subpart 4." The second clarification is necessary as the MPCA intends that a facility owner or operator resume annual testing if it appears that mercury capture has degraded from previous tests. This change is reasonable because the proposed rule does not state this and the owner or operator needs to know what is required if this situation occurs. Subpart 5, item B is revised to state the conditions under which the owner or operator must resume annual performance stack tests.

42. Ottertail Power Company also pointed out that existing Minn. R. 7017.2001 to 7017.2060 apply to the performance tests proposed in this part, and establish the general provisions that apply to the conduct of performance testing. The proposed rules specify that testing must be conducted at worst case conditions, which generally means at maximum capacity. EGUs subject to the proposed rule cannot operate for 30 days at maximum capacity, the length of time of the test. The MPCA did not intend for EGUs to operate for 30 days at worst case conditions, but rather at normal conditions for the facility. In order to avoid this rule being interpreted otherwise in the future, the MPCA agrees that the proposed rule should be changed. Subpart 5, item B, subitem (1) is revised by adding that the performance test be conducted "under all process operating conditions." This change is reasonable because it will align the performance test requirements of this part with existing Minn. R. 7017.2001 to 7017.2060.

Part 7011.0561, Subp. 5B(1)

B. If a coal-fired EGU with a generating capacity less than 250 MW does not use a CEMS or a sorbent trap monitoring system to monitor mercury, the owner or operator must conduct performance testing for mercury according to this item at least once every 12 months and must complete the test no more than 13 months after the previous test. The initial test must be conducted by the applicable compliance deadline in subpart 4. Owners or operators may conduct performance stack tests for mercury no less frequently than once every three years, but no longer than 37 months after the previous performance test, if the performance tests for at least the immediately preceding three consecutive years show mercury reduction is greater than or equal to 85 percent or mercury emissions are at or below 1.2 pounds of mercury per Tbtu of heat input and if there are no changes in the operation of the EGU or air pollution control equipment that could increase emissions. The owner or operator must resume annual performance stack tests if the test results show mercury reduction is less than 85 percent or mercury emissions are above 1.2 pounds of mercury per Tbtu of heat input. Subitems (1) to (3) apply to performance testing conducted under this item.

(1) Performance testing must be conducted using Code of Federal Regulations, title 40, part 60, Appendix A-8, Method 30B. The initial performance test must be conducted for 30 boiler operating

days under all process operating conditions. Sorbent traps must be used no longer than ten boiler operating days. Subsequent performance tests may be ten boiler operating days long.

43. The MPCA finds that these revisions do not make the rule substantially different because they are within the scope of "Performance Standards" as announced in the Notice and do not change the requirement that certain facilities must meet performance standards for mercury control. The changes are a logical outgrowth of the Notice and the comment process. The Notice provided fair warning that this rule change could result because the commenter in fact asked for the change when they commented on the proposed rule. This rule is not greatly different than originally proposed and these revisions do not change the applicability or stringency of the proposed rules.

Change to Part 7011.0561, subpart 6, item C, subitems (2) and (5)

44. Xcel Energy provided several comments on subpart 6, the proposed rules that govern the installation, calibration, and operation of continuous emission monitoring systems (CEMS) for mercury. Xcel Energy operates three such CEMS at its Sherco and King generating stations. Xcel Energy suggests modifying the proposed rule so that the grace period for conducting quality assurance/quality control tests aligns with the timing allowed for the same test in federal rules. Because both state rules and federal regulations require the same test, and there is no reason that the state test must be conducted on a different schedule, it is reasonable to make the suggested changes to the rule.

45. Subpart 6, item C, subitem (2) is revised to delete the reference to the number of operating hours, and to add "seven consecutive operating days" to clarify when single-level system integrity checks must be conducted. Item C, subitem (5) is revised to delete the word "continuous" and to add "operating" to identify the grace period allowed for relative accuracy test audits.

Part 7011.0561, Subp. 6C(2) and (5)

C. Owners or operators must conduct routine quality assurance and control tests on a frequency as follows:

(2) single-level system integrity checks must be conducted weekly, meaning once every ~~168 operating hours~~ seven consecutive operating days for systems with mercury converters. This test is not required if daily calibrations are done with a National Institute of Standards and Technology-traceable source of oxidized mercury;

(5) a 720 ~~continuous~~ operating-hour grace period is allowed for relative accuracy test audits.

46. The MPCA finds that the revisions do not make the rule substantially different. The revisions are within the scope of the subject matter "Performance Standards" as announced in the Notice. The changes are a logical outgrowth of the comment process and the Notice provided fair warning that the outcome of this rulemaking could be the rule in question.

Change to Part 7011.0561, subpart 7, items D and E

47. Xcel Energy commented that some continuous monitoring provisions listed in subpart 7 should not apply to the sorbent trap mercury monitoring technology and recommended deleting most of the subpart. The MPCA agrees that subpart 7, items D and E should not apply to the monitoring technology; however, the remaining requirements are necessary to obtain accurate information needed to calculate annual mercury emissions. Therefore, subpart 7 is revised by deleting items D and E only. It is

reasonable to delete monitoring provisions that do not apply to the specific type of mercury monitoring technology used by EGUs.

Part 7011.0561, Subp. 7D and E

D. ~~Owners or operators must conduct routine quality assurance and control tests on a frequency as follows:~~

~~(1) relative accuracy test audits are required annually, meaning once every four quality-assured operating quarters. This deadline may be extended for non-quality-assured operating quarters up to a maximum of eight quarters from the quarter of the previous test; and~~

~~(2) a 720 continuous-hour grace period is allowed for relative accuracy test audits.~~

E. ~~Measurement or adjustment of continuous monitor mercury data for bias is not required.~~

48. The MPCA finds that these revisions do not make the rules substantially different because they are within the scope of "Performance Standards" as announced in the Notice. The changes are a logical outgrowth of the Notice and the comments submitted on the rule. The Notice provided fair warning that this rule change could result because the commenter in fact asked for the change when they commented on the proposed rule. This rule is not greatly different than originally proposed and deleting rule language that does not apply to EGUs does not change the applicability or stringency of the proposed rules.

Change to Part 7011.0561, subpart 8

49. Xcel Energy commented that the procedures in the proposed rule for sampling and analysis of fuel are burdensome, very prescriptive, and do not provide for alternatives. Xcel Energy requested that this part be modified to allow for alternatives that might generate "statistically valid data". . We address first comments related to fuel sample collection and handling, and second, the analysis of the resulting sample.

50. The MPCA is well aware of the rigorousness of the fuel sampling and sample compositing provisions of the American Society of Testing Methods (ASTM) proposed in this part. The introduction in ASTM D2234/D2234M provides a useful perspective and is reproduced here:

> Data obtained from coal samples are used in establishing price, controlling mine and cleaning plant operations, allocating production costs, and determining plan or component efficiency. The task of obtaining a sample of reasonable weight to represent an entire lot presents a number of problems and *emphasizes the necessity for using standard sampling procedures*. (Emphasis added).

51. The ASTM method clearly recognizes the difficulties in sampling coal. However, by following ASTM procedures the MPCA is confident that the result of using ASTM procedures is statistically valid analyses of material that is very difficult to sample. That said; the user still must create a plan for sampling because the method does not create a specific procedure, but rather establishes the parameters for developing a sampling plan. The ASTM method states: "Proper sampling involves an understanding and proper consideration of the minimum number and weight of increments, the size consist[ency] of the coal, the condition of preparation of the coal, the variability of constituent sought and the degree of precision required" (section 7.2).

52. The MPCA believes it is important to continue to require using ASTM methods to collect coal samples. To address the concern for providing flexibility for fuel sampling, the MPCA revises subpart 8 by adding language that requires the owner or operator initially prepare a fuel sampling and analysis plan that plans on fuel sampling as a compliance method, and requires the plan be submitted to the commissioner prior to collecting the initial fuel sample.

53. The MPCA finds that this change is reasonable because it allows owners and operators to create sampling procedures within the latitude provided by the ASTM methods, while taking into account site limitations, the amount of coal at the facility, the precision of the final result etc. Minnesota rules already require a facility to submit a test plan for the Commissioner's approval before conducting a test for demonstrating compliance. It is reasonable that the coal plan be submitted to the commissioner because the data from sampling and analyzing coal is used when demonstrating compliance with a mercury removal or reduction percentage. That data must be statistically valid.

Part 7011.0561, Subp. 8

Subp. 8. ***Procedures for determining mercury content of fuel.*** *The owner or operator shall prepare a fuel sampling and analysis plan and submit it to the commissioner 30 days prior to collecting the initial fuel sample. When the mercury content of fuel is needed to determine total mercury emission reductions, owners or operators of a coal-fired EGU must use the fuel sampling and measuring fuel content procedures in items A to E. The mercury content of fuel used for start-up, unit shutdown, or transient flame stability does not need to be measured. The owners or operators must:*

54. The MPCA finds that this revision does not make the rule substantially different because it is within the scope of "Performance Standards" as announced in the Notice. The changes are a logical outgrowth of the Notice and the comments submitted on the rule. The Notice provided fair warning that this rule change could result because the commenter understood that this rule would result and in fact asked for the change when they commented on the proposed rule. This rule is not greatly different than originally proposed as this revision provides the commenter the flexibility they requested without changing the applicability or stringency of the proposed rules.

Change to Part 7011.0561, subpart 9

55. Ottertail Power Company commented that without additional direction, the application of the requirements of subpart 9 is unclear. The MPCA agrees that without further direction provided in the proposed rule, the rule could be read as applying to any EGU, rather than to only those units without CEMS that will conduct performance testing to determine annual emissions.

56. The MPCA revises subpart 9 to add language stating that the requirements of this subpart apply only to coal-fired EGUs without a CEM for mercury. The MPCA finds that this change is reasonable because it clarifies that the requirements of this subpart are not applicable to every EGU.

57. Secondly, the applicability of the requirements for reductions is based on the mass of mercury emitted and not the concentration of mercury in the flue gas. The introduction in subpart 9 is revised to match the required calculations in proposed item E. No changes are being proposed in item E. The MPCA finds that it is reasonable for the rule to have internal logic and consistency.

58. The MPCA also revises subpart 9 to delete the requirement to use the performance test in the cited federal regulation. The MPCA finds that it is reasonable to delete this requirement because it is

referenced elsewhere, and duplicating information could be confusing. Lastly, the word "initial" is added to clarify that it is this first performance test that must be complete within of the effective date of this part.

59. Finally, Xcel Energy commented that a word was missing from item F of this subpart. The MPCA agrees and will add the word "heat" as identified in item F.

Part 7011.0561, Subp. 9

Subp. 9. ***Demonstrating applicability of mercury control requirements.*** *The owners or operators of a coal-fired EGU without a continuous monitor for mercury must conduct a 28 to 30 operating day performance test~~, using Code of Federal Regulations, title 40, part 60, Appendix A-8, Method 30B~~, to determine the mercury ~~concentration~~ mass emissions according to this subpart. The initial test must be completed within one year of the effective date of this part. The owner or operator must:*

F. calculate the average mercury concentration, in micrograms per cubic meter (µg/m3), for the 28- to 30-day performance test, as the arithmetic average of all sorbent trap results. The owner or operator must calculate the average CO2 or O2 concentration for the test period. The owner or operator must use the average mercury concentration and diluents gas values to express the performance test results in units of pounds of mercury per trillion British thermal units (lb/Tbtu) and actual pounds of mercury emitted per year, using the expected fuel heat input over a one-year period. Alternatively, the owner or operator must calculate pounds of mercury emitted per year using the average mercury concentration, average stack gas flow rate, average stack gas moisture, and maximum operating hours per year;

60. The MPCA finds that these revisions do not make the rule substantially different. They are within the scope of "Performance Standards" as announced in the Notice. The changes are a logical outgrowth of the Notice and the comments submitted on the rule. The Notice provided fair warning that this rule change could result because the commenter asked for the change when they commented on the proposed rule. This rule is not greatly different than originally proposed; these revisions provide the commenter additional direction for conducting the required performance test without changing the applicability or stringency of the proposed rules.

7011.1292 INCORPORATION BY REFERENCE OF NEW SOURCE PERFORMANCE STANDARD FOR NEW HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINERATORS.

Change to Part 7011.1292, subpart 1

61. USEPA commented that the title of the standard being incorporated by reference is not correct. The MPCA revises subpart 1 and corrects the title by deleting "for Which Construction is Commenced After June 20, 1996..." It is reasonable to make this change so that the federal regulation being incorporated is correctly referenced and the reader is not misled about which standard is being incorporated.

Part 7011.1292, Subp. 1

Subpart 1. ***Incorporation by reference.*** *Code of Federal Regulations, title 40, part 60, subpart Ec, as amended, entitled "Standards of Performance for Hospital/Medical/Infectious Waste Incinerators ~~for Which Construction is Commenced After June 20, 1996~~" is incorporated by reference, except that decisions made by the administrator under Code of Federal Regulations, title 40, section 60.50c (i), are not delegated to the commissioner and must be made by the administrator.*

62. The MPCA finds that this change does not make the rule substantially different; it is clearly within the scope of the "Performance Standards" as announced in the Notice. The change is a logical outgrowth of the Notice and comment process, and the Notice provided fair warning that this rule change could result because the commenter asked for the change when they commented on the rule.

7011.1340 EMISSION LIMITS EXCEEDANCE REQUIREMENTS.

Change to Part 7011.1340, subpart 1

63. USEPA commented that parts 7011.1291, 7011.1292, 7011.1293, and 7011.1294 all required emission facilities to comply with the requirements of 7011.1340; however, part 7011.1340 did not refer to these standards. Subpart 1 is revised by adding these rule parts in order to correctly reference standards to which this provision is intended to apply.

Part 7011.1340, Subp. 1

*Subpart 1. **Applicability.** The owners or operators of an emissions unit subject to parts 7011.1291, 7011.1292, 7011.1293, 7011.1294, 7011.1350, 7011.1355, 7011.1360, and 7011.1370 must comply with this part.*

64. The MPCA finds that this change does not make the rule substantially different. It is clearly within the scope of "Performance Standards" as announced in the Notice. The change is a logical outgrowth of the Notice and comment process, and the Notice provided fair warning that this rule change could result because the commenter asked for the change when they commented on the rule.

Change to Part 7011.1340, subpart 3, item C

65. Fibrominn LLC requested a change to part 7011.1340, subpart 3, item C so that repairs made to an incinerator in response to an exceedance of an emission limit with a 30-day rolling averaging period do not extend the exceedance due to the influence of past, now-fixed problem on the current measurement.

66. Rather than the change requested by Fibrominn LLC, the MPCA will revise subpart 3, item C to more closely reflect the requirement of Minn. Stat. § 116.85 subd. 2. Reference to the incinerator being returned to compliance will be deleted and language added that reflects the modification scenario. The statute states that the incinerator must close if the *modification* cannot be completed in 72 hours, rather than returning to compliance. The facility may continue operating after the modification is made, rather than whether compliance is demonstrated. This change is reasonable because it better aligns the proposed rule with state statute. The change also addresses Fibrominn's concern that a failure to return to compliance will require the unit to shut-down.

Part 7011.1340, Subp. 3C

*Subp. 3. **Exceedance of continuously monitored emission limits.** If, after normal start-up, accurate and valid data results collected from continuous emission monitors exceed emission limits established in part 7011.1350, item B; 7011.1355, subpart 2; 7011.1365; or 7011.1370, subpart 1, or in the permit for the incinerator, the incinerator owner or operator must:*

C. shut down the incinerator if the ~~incinerator~~ modification cannot be ~~returned to compliance~~ completed within 72 hours of the exceedance; and

67. The MPCA finds that this change does not make the rule substantially different. It is clearly within the scope of "Performance Standards" as announced in the Notice. The change is a logical outgrowth of the Notice and comment process. The Notice provided fair warning that this rule change could result because the commenter asked for the change when they commented on the proposed rule. This rule is not greatly different than originally proposed. These revisions align with state statute without changing the applicability or stringency of the proposed rules.

7011.1355 STANDARDS OF PERFORMANCE FOR EXISTING SEWAGE SLUDGE COMBUSTION FACILITIES; COMPLIANCE WITH CLEAN AIR ACT SECTION 129 STANDARDS.

Change to Part 7011.1355

68. USEPA requested that the title of part 7011.1355 be revised to use the same terms as the federal regulation being incorporated. The MPCA agrees and will revise the title by deleting the term "combustion facilities" and adding the term "incineration units." Making this change is reasonable because using terms consistent with federal rule language will allow USEPA to more quickly approve Minnesota's subsequent request for delegation of the standard (Clean Air Act Section 111(d)/129 delegation). The MPCA discussed the delegation of standards in the SONAR at pages 57-58.

Part 7011.1355

7011.1355 STANDARDS OF PERFORMANCE FOR EXISTING SEWAGE SLUDGE ~~COMBUSTION FACILITIES~~ INCINERATOR UNITS; COMPLIANCE WITH CLEAN AIR ACT SECTION 129 STANDARDS.

69. The MPCA finds that this change does not make the rule substantially different. It is clearly within the scope of "Performance Standards" as announced in the Notice. The change is a logical outgrowth of the Notice and comments process, and the Notice provided fair warning that this rule change could result because the commenter asked for the change when it commented on the rule.

Change to Part 7011.1355, subpart 2, item A, subitem (1), unit (b)

70. USEPA commented that the title of the federal regulation being incorporated by reference in part 7011.1355, subpart 2 is not correct. The MPCA revises subpart 2 and corrects the title by deleting "performance standards" and adding "emission guidelines and compliance times." It is reasonable to make this change so that the federal regulation being incorporated is correctly referenced and the reader is not misled.

71. Further, once the rules are adopted, the compliance deadline in the proposed rules at subpart 2A(1)(b) would be sometime in 2017, well after the March 21, 2016, deadline in the federal rule (see Code of Federal Regulations, title 40, part 60, subpart MMMM, as amended.). The MPCA revises Subpart 2A(1)(b) to delete "within three years after the effective date of this part" and to add March 21, 2016. Because USEPA must approve Minnesota's 111(d) plan to regulate existing sewage sludge incinerators, and the plan must be "equivalent" to the federal regulations, the MPCA makes these revisions to address USEPA's comments.

72. The MPCA will submit this rule to USEPA after promulgation to demonstrate that the state has a program equivalent to USEPA's, thus exempting facilities in Minnesota from being subject to a federal plan. It is reasonable to make the changes USEPA seeks in order to allow EPA to quickly approve the MPCA's demonstration.

Part 7011.1355, Subp. 2A(1)(b)

Subp. 2. **Incorporation by reference of federal ~~performance standards~~ emission guidelines and compliance times for existing sewage sludge incinerators.**

A. The following requirements from Code of Federal Regulations, title 40, part 60, subpart MMMM, Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units, are incorporated by reference, as amended:

(1) increments of progress: Code of Federal Regulations, title 40, sections 60.5085 to 60.5125. The deadlines for each increment of progress are found in Table 1 of Code of Federal Regulations, title 40, part 60, subpart MMMM, and are as follows:

(b) owners or operators of an affected unit must demonstrate compliance with the emission guidelines adopted under this part ~~within three years after the effective date of this part~~ by March 21, 2016;

73. The MPCA finds that these revisions do not make the rule substantially different and are within the scope of "Performance Standards" as announced in the Notice. The changes are a logical outgrowth of the Notice and comments process and the Notice provided fair warning that this rule change could result because the commenter asked for the change when it commented on the rule.

Change to Part 7011.1355, subpart 2, item A, subitem (3)

74. On April 18, 2014, the US Circuit Court of Appeals for the District of Columbia Circuit decided the case of *Natural Resources Defense Council v. Environmental Protection Agency, et al*, which affects these rules. The Natural Resources Defense Council (NRDC) sued USEPA over an affirmative defense that USEPA built into its rule regulating air emissions from Portland Cement facilities. The Court determined that inclusion of the affirmative defense exceeded USEPA's statutory authority and it vacated that portion of the rule.

75. On June 24, 2014, USEPA Region V advised the MPCA that this same, now vacated, affirmative defense provision exists in the emission guidelines for commercial, industrial and solid waste incinerators (CISWI) and sewage sludge incinerators (SSI), and recommended that the MPCA remove references to those provisions of the emission guidelines during its rulemaking process. In light of these developments, the MPCA finds that it is reasonable to revise subpart 2, item A, subitem (3) and remove the reference to 40 CFR 60.5181, the provision that provides the affirmative defense. All remaining federal rules under this subpart remain in place.

Part 7011.1355, Subp. 2A(3)

(3) emission limits, emission standards, and operating limits and requirements: Code of Federal Regulations, title 40, sections 60.5165 to ~~60.5181~~ 60.5180;

76. The MPCA finds that these revisions do not make the rule substantially different and are within the scope of "Performance Standards" as announced in the Notice. The changes are a logical outgrowth of

the Notice and comments process and the Notice provided fair warning that this rule change could result because the commenter asked for the change when it commented on the rule.

7011.1360 EXISTING COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATORS COMPLIANCE REQUREMENTS.

Change to Part 7011.1360, subpart 1

77. USEPA and Fibrominn LLC both provided comments on this proposed rule which incorporates federal rules for commercial and industrial solid waste incinerators (CISWI) that exist at the time of federal rule promulgation.

78. USEPA's comments relate to the degree of similarity between the federal emissions guidelines for CISWI and this proposed rule. The MPCA will submit this rule to USEPA after promulgation to demonstrate that the state has a program regulating air emissions from CISWI equivalent to USEPA's, thus exempting facilities in Minnesota from being subject to a federal plan. It is reasonable to make the changes USEPA seeks in order to allow USEPA to quickly approve the MPCA's equivalency demonstration. The revisions in subpart 1 and items A, F, G, H, where new rule language is added, and the addition of new items I, J, and K are all rule revisions to mirror federal requirements of the existing emission guidelines.

79. Fibrominn LLC comments relate to where the authority lies in determining whether a facility is exempt from complying with the standard under certain circumstances. Subpart 1, item D, subitem (3) will be revised by deleting "commissioner" and adding "administrator" to correctly identify the USEPA administrator as the authorizing authority when a potential CISWI might be exempt from the standard due to it being classified as a small power production facility. The same change is made in subpart 1, item E, subitem (3) if a facility is a cogeneration facility. This change is reasonable because USEPA did not provide states with the authority to make these determinations. Such determinations must be made by the USEPA Administrator. Additionally, the requirements in federal rule for this exemption have associated recordkeeping and those requirements are added in items D and E.

80. Lastly, subpart 1, item B is revised by deleting the word "medical" and adding the word "municipal" to the term "waste incinerators" in this item. This change is needed to correctly identify the type of waste incinerator the federal regulations cited in this item apply to.

Part 7011.1360, Subp. 1 A-K

Subpart 1. ***Applicability.*** *Except as provided in items A to H, the owners or operators of a commercial or industrial solid waste incineration unit as defined in Code of Federal Regulations, title 40, section 60.2875, that commenced construction on or before June 4, 2010, or modification or reconstruction on or before August 7, 2013, must comply with this part and part 7011.1365. The following units are not commercial and industrial solid waste incineration units:*

A. pathological waste units, provided that the owner or operator complies with the notification and record keeping requirements of Code of Federal Regulations, title 40, section 60.2555;

B. units subject to Code of Federal Regulations, title 40, part 60, subparts Ea, Eb, Cb, AAAA, and BBBB, standards of performance for existing or new municipal waste combustors or a federal plan for ~~medical~~ municipal waste incinerators;

D. small power production units, if:

(3) the ~~commissioner~~ administrator approves a determination that the qualifying small power production facility is combusting homogeneous wastes, as defined in Code of Federal Regulations,

title 40, section 60.2875. The owner or operator must maintain the records required under Code of Federal Regulations, title 40, section 60.2740(v). The request for a determination must include sufficient information to document that the unit meets the criteria of a qualifying small power production facility and that the waste material the unit is proposing to burn is homogeneous;

E. cogeneration facility units, if:

(3) the ~~commissioner~~ administrator approves a determination that the qualifying cogeneration facility is combusting homogeneous waste, as defined in Code of Federal Regulations, title 40, section 60.2875. The owner or operator must maintain the records required under Code of Federal Regulations, title 40, section 60.2740(v). The request for a determination must include sufficient information to document that the unit meets the criteria of a qualifying cogeneration facility and that the waste material the unit is proposing to burn is homogeneous;

F. hazardous waste incineration units that are required to obtain a permit under section 3005 of the Solid Waste Disposal Act, United States Code, title 42, section 6925;

G. material recovery units that combust waste for the primary purpose of recovering metals, such as primary and secondary smelters; ~~and~~

H. air curtain incinerators, as defined under Code of Federal Regulations, title 40, section 60.2875, provided that the incinerators meet the requirements of Code of Federal Regulations, title 40, sections 60.2810 to 60.2870, and burn only 100 percent wood waste, 100 percent clean lumber, or 100 percent mixture of clean lumber, wood waste, or yard waste~~.~~;

I. sewage treatment plants with incinerators subject to Code of Federal Regulations, title 40, Part 61, subpart O;

J. sewage sludge incinerators subject to Code of Federal Regulations, title 40, part 60, subpart LLLL or subpart MMMM; and

K. other solid waste incinerators subject to Code of Federal Regulations, title 40, part 60, subpart EEEE or subpart FFFF.

81. The MPCA finds that these revisions do not make the rule substantially different and are clearly within the scope of "Performance Standards" as announced in the Notice. The changes are a logical outgrowth of the Notice and comments process and the Notice provided fair warning that this rule change could result because the commenters asked for the change when they commented on the rule. This rule is not greatly different than originally proposed. These revisions align with federal regulations without changing the applicability or stringency of the proposed rules.

Change to Part 7011.1360, subpart 3

82. USEPA's comments again relate to the degree of similarity between the federal emissions guidelines for CISWI and this proposed rule. USEPA noted that the date for making changes in the federal emission guidelines is June 4, 2010; therefore, subpart 3 is revised by deleting September 21, 2011, and adding the June 4, 2010, date. The MPCA will submit this rule to USEPA after promulgation to demonstrate that the state has a program equivalent to USEPA's, thus exempting facilities in Minnesota from being subject to a federal plan. It is reasonable to make the changes USEPA seeks in order to allow USEPA to quickly approve the MPCA's demonstration.

Part 7011.1355, Subp. 3

*Subp. 3. **Modifications.** If the owners or operators of a commercial or industrial solid waste incineration unit make changes after ~~September 21, 2011~~ June 4, 2010, that meet the definition of modification in Code of Federal Regulations, title 40, section 60.2875:*

83. The MPCA finds that these revisions do not make the rule substantially different and are clearly within the scope of "Performance Standards" as announced in the Notice. The changes are a logical outgrowth of the Notice and comments process, and the Notice provided fair warning that this rule change could result because the commenter asked for the change when it commented on the rule.

Change to Part 7011.1360, subpart 4

84. USEPA commented that the federal date of August 7, 2013, for reconstruction or modification of a CISWI unit needs to be added to subpart 4. During the period of time that this proposed rule was being prepared, USEPA completed the process of revising the emission guidelines and performance standards for CISWI (see *Commercial and Industrial Solid Waste Incineration Units: Reconsideration and Final Amendments; Non-Hazardous Secondary Materials That Are Solid Waste,* 78 Fed. Reg. 9112 (2013)). USEPA established threshold dates after which modifications to existing CISWI units to be redefined as a new unit and subject to the standards of performance for new units (incorporated by reference in part 7011.1370). Subpart 4 is revised by adding the August 7, 2013, date. It is reasonable to make the changes USEPA seeks so that USEPA can quickly approve the MPCA's demonstration that the state regulatory program is equivalent to the federal program, thus exempting facilities in Minnesota from being subject to a federal plan.

Part 7011.1355, Subp. 4

*Subp. 4. **Physical or operational changes.** Physical or operational changes made by owners or operators to a commercial or industrial solid waste incineration unit for which construction commenced on or before June 4, 2010 or reconstruction or modification commenced on or before August 7, 2013, to comply with this part:*

85. The MPCA finds that these revisions do not make the rule substantially different and are clearly within the scope of "Performance Standards" as announced in the Notice. The changes are a logical outgrowth of the Notice and comments process and the Notice provided fair warning that this rule change could result because the commenter asked for the change when it commented on the rule.

7011.1365 INCORPORATION BY REFERENCE OF STANDARDS OF PERFORMANCE FOR EXISTING COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATORS.

Change to Part 7011.1365

86. USEPA requested that the title of part 7011.1365 be modified to use the same terms as the federal regulation being incorporated. The MPCA agrees and revises the title by deleting "standards of performance" and adding "emission guidelines and compliance times." Making this change is reasonable because using terms consistent with federal rule language will allow for USEPA to more quickly approve Minnesota's subsequent request for delegation of the standard.

Part 7011.1365

7011.1365 INCORPORATION BY REFERENCE OF ~~STANDARDS OF PERFORMANCE~~ EMISSION GUIDELINES AND COMPLIANCE TIMES FOR EXISTING COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATORS.

87. The MPCA finds that this change does not make the rule substantially different it is clearly within the scope of "Performance Standards" as announced in the Notice. The change is a logical outgrowth of the Notice and comments process and the Notice provided fair warning that this rule change could result because the commenter asked for the change when it commented on the rule. This rule is not greatly different than originally proposed. This revision aligns with federal regulations without changing the applicability or stringency of the proposed rules.

Change to Part 7011.1365, item A

88. USEPA commented that the title of the rule being referenced must be the same as the federal regulation being incorporated by reference. The MPCA revises item A and corrects the title by deleting "That Commenced Construction On or Before November 30, 1999..." It is reasonable to make this change so that the federal regulation being incorporated is correctly referenced and the reader is not misled about which regulation is being incorporated.

Part 7011.1355, Item A

A. The following requirements from Code of Federal Regulations, title 40, subpart DDDD, sections 60.2575 to 60.2875, as amended, entitled "Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units ~~That Commenced Construction On or Before November 30, 1999~~" are incorporated by reference, as amended:

89. The MPCA finds that this revision does not make the rule substantially different and is clearly within the scope of "Performance Standards" as announced in the Notice. The changes are a logical outgrowth of the Notice and comments process and the Notice provided fair warning that this rule change could result because the commenter asked for the change when it commented on the rule. This rule is not greatly different than originally proposed; these revisions align with federal regulations without changing the applicability or stringency of the proposed rules.

Change to Part 7011.1365, item A, subitem (4)

90. On April 18, 2014, the Circuit Court of Appeals for the District of Columbia Circuit decided the case of *Natural Resources Defense Council v. Environmental Protection Agency, et al*, which affects these rules. The Natural Resources Defense Council (NRDC) sued USEPA over an affirmative defense that USEPA built into its rule regulating air emissions from Portland Cement facilities. The Court determined that inclusion of the affirmative defense exceeded USEPA's statutory authority and it vacated that portion of the rule.

91. On June 24, 2014, USEPA Region V advised the MPCA that this same, now vacated affirmative defense provision exists in the emission guidelines for commercial, industrial and solid waste incinerators (CISWI) and sewage sludge incinerators (SSI), and recommended that the MPCA remove references to those provisions of the emission guidelines during its rulemaking process. In light of these developments, the MPCA finds that it is reasonable to revise item A, subitem (4) and remove the reference to 40 CFR 60.2685, the provision that provides the affirmative defense. All remaining federal rules under this item remain in place.

Part 7011.1365, Item A(4)

(4) emission limitations and operating limits: Code of Federal Regulations, title 40, sections 60.2670 to ~~60.2685~~ 60.2680;

92. The MPCA finds that these revisions do not make the rule substantially different and are within the scope of "Performance Standards" as announced in the Notice. The changes are a logical outgrowth of the Notice and comments process and the Notice provided fair warning that this rule change could result because the commenter asked for the change when it commented on the rule.

7019.3000 EMISSION INVENTORY.

Changes to Part 7019.3000, subpart 3

93. United States Steel requested clarification on the timeframe the first annual emission inventory report will cover. Subpart 3 is revised to clarify that the first inventory report will cover the first full calendar year after the effective date of this rule. It is reasonable to make this change so owners or operators know what period of time the first mercury emission inventory report should cover.

Part 7019.3000, Subp. 3

*Subp. 3. **Mercury emission sources.** Owners or operators of a mercury emission source as defined in part 7005.0100, subpart 23b, must submit an annual emission inventory report of the mercury emissions to the commissioner in a format specified by the commissioner. The report must be submitted on or before April 1 of the year following the year being reported. The initial report must cover the first full calendar year following the effective date of this part. Owners or operators of stationary sources that have air emissions of mercury but that are not mercury emission sources must report every three years.*

94. The MPCA finds that this revision does not make the rule substantially different and is clearly within the scope of "Mercury Emission Inventory" as announced in the Notice. The changes are a logical outgrowth of the Notice and comments process and the Notice provided fair warning that this rule change could result because the commenter asked for the change when it commented on the rule. This revision does not change who will be subject to the rule, nor does it change the applicability or stringency of the proposed rules.

7019.3030 METHOD OF CALCULATION.

Changes to Part 7019.3030, item A, subitem (3)

95. SMBSC commented that it is unclear when part 7019.3065 would be available for a facility to use to demonstrate compliance. The MPCA agrees and clarifies part 7019.3030 to address this concern. Part 7019.3030, item A, subitem (3) is revised by adding the reference to part 7019.3065 to specifically list mercury along with the material balances for of other pollutants. It is reasonable to make the change because the change will clarify the place of a mercury material balance in the hierarchy of calculation methods for the emission inventory. Additionally, it provides consistency for the mercury material balance calculation with similar methods for other pollutants.

Part 7019.3030, Item A(3)

A. The owner or operator of an emission reporting facility, except one issued an option C or D registration permit under part 7007.1125 or 7007.1130 or a capped permit under parts 7007.1140 to 7007.1148, shall calculate the facility's actual emissions using the methods listed in subitems (1) to (4). The methods are listed in a hierarchy of the most preferred method to the least preferred method. The most preferred method available shall be used. Where more than one method is listed in the subitem, they are considered to be equal in the hierarchy and any can be used:

(1) part 7019.3040 (continuous emission monitor data);

(2) part 7019.3050, item B (performance test data);

(3) part 7019.3060 (VOC material balance), 7019.3065 (mercury material balance), 7019.3070 (SO_2 material balance), 7019.3080 (emission factor), or 7019.3090 (enforceable limitations), as applicable; or

(4) part 7019.3100 (facility proposal).

96. The MPCA finds that this revision does not make the rule substantially different, and is clearly within the scope of "Mercury Emission Inventory" as announced in the Notice. The changes are a logical outgrowth of the Notice and comments process and the Notice provided fair warning that this rule change could result because the commenter asked for the change when it commented on the rule. This revision does not change who will be subject to the rule, nor does it change the applicability or stringency of the proposed rules.

7019.3065 MERCURY MATERIAL BALANCE.

Changes to Part 7019.3065

97. Mesabi Nugget commented on part 7019.3065, requesting that the mercury material balance calculation should be available more broadly than provided in the proposed rule. The proposed rule used the descriptive terms "continuous monitoring" and "performance test" when describing when material balances may be chosen for calculating air emissions. Cliffs Natural Resources and the taconite companies also pointed to allowing flexibility for demonstrating compliance, but did not provide a specific example of problems or alternative language.

98. Part 7019.3065 is revised by deleting the descriptive narrative for measuring and calculating mercury air emissions, and adding reference to parts 7019.3040 and 7019.3050, the emission inventory requirements for CEM data and performance test data. Rule language is also added to clarify that the material balance method described in this part may be used with, or instead of, the methods in parts 7019.3080 and 7019.3090. It is reasonable to make these revisions because doing so will allow the use of current practices for calculating air emissions by referring to existing rules. These changes also make part 7019.3065 consistent with the language used for other pollutants in parts 7019.3060 and 7019.3070.

Part 7019.3065

~~If an owner or operator does not have either a continuous emission monitor to monitor the facility's mercury emissions or a physical location at which to conduct a mercury emissions performance test and if inputs and outputs of mercury are known,~~ If the methods in parts 7019.3040 and 7019.3050 are unavailable to an emission reporting facility, the owner or operator of a mercury emission source may calculate mercury air emissions using the material balance method described in this part. This method

may be used in conjunction with or instead of emission factors and enforceable limitations methods described in parts 7019.3080 and 7019.3090, where applicable. A person using material balance to calculate mercury emissions must determine the total mercury air emissions (E) as follows:

99. The MPCA finds that these revisions do not make the rule substantially different and are clearly within the scope of "Mercury Emission Inventory" as announced in the Notice. The changes are a logical outgrowth of the Notice and comments process and the Notice provided fair warning that this rule change could result because the commenters asked for the change when they commented on the rule. This rule is not greatly different than originally proposed; these revisions align with existing state emission inventory rules without changing the applicability or stringency of the proposed rules.

100. The MPCA finds that two corrections are needed in the SONAR Rule by Rule Analysis section at part 7011.0561 (see page 40). Each is discussed below. The new SONAR language is underlined and the deleted language is identified by strike-out.

101. First, the SONAR is missing subpart 7, item A which was excluded in error. The existing item A should be item B, and a new item A added to the SONAR as follows:

Item A. The sorbent trap sampling system is a variation of a continuous emissions monitor. In order to properly prepare a monitoring plan for sorbent trap monitors, it is reasonable for the MPCA and the owner of the monitor to have a common understanding of the components the MPCA views as necessary to the proper operation of a sorbent trap system.

Item B. Facilities already prepare monitoring plans under existing state rules to capture all monitoring requirements as they relate to a specific facility, giving the facility an opportunity to take into account site-specific conditions and to create a proposal for approval that meets the objectives of the rules. It is reasonable to establish these requirements so that the MPCA and the facility owner or operator can agree to the means of data collection, as the data is relied on to demonstrate compliance with emission standards. Sorbent trap monitors are relatively new, and so it is reasonable to agree to the procedures for installation and operation of the monitor, including the methods for data collection, verification, and calibration of the monitor.

102. Second, the SONAR also must be revised in item B, subitem (2) regarding tests that must be conducted after the completion of the certification test. The deletion and the added portion are as follows:

Subitem (2). This subitem ~~describes the federal regulation used to conduct each of the tests that must be conducted routinely after the completion of the certification test in subitem (1) to keep the monitor system generating accurate and precise data. It is reasonable to rely on existing promulgated federal standards to conduct these tests as the methods are already in place for the purpose of standardizing ongoing calibration tests of all types of emission monitors.~~ requires the owner or operator of the electric generating unit (EGU) to describe the methods to conduct relative accuracy test audits (RATA) of the sorbent trap system. RATA measures the reading of the monitor versus the reading of a reference stack sampling test, and are necessary to ensure that the sorbent tube system continues to report accurate mercury emission values. Because current federal rules applicable to EGUs describe the procedures for conducting a RATA, this subitem is proposed without specific conditions, allowing the facility to specify federal requirements for conducting the RATA.

103. Sorbent trap monitors have been recently developed as a continuous monitor. In the process of drafting the rules establishing the requirements for conducting quality assurance, MPCA expected to rely on

federal standards to govern these quality assurance procedures, and drafted a rule and SONAR with that in mind. When the MPCA learned that not all quality assurance tests are necessary for sorbent trap monitors, the rule was revised, but the SONAR was not. The proposed revision to the SONAR properly describes the need for and reasonableness of conducting a RATA for the sorbent trap monitor.

104. The MPCA finds that this revision of the SONAR does not affect the outcome of the rulemaking and is not a substantial change. Currently, no EGU relies on a sorbent trap system for continuously monitoring emissions and it is unlikely that one will be selected, as facilities required to install continuous monitors have already completed that task. It is important to make this revision so that if a sorbent trap monitor is proposed in the future, there is a record of the need for and reasonableness of this rule.

105. The MPCA concludes that it has complied with all notice and procedural requirements in *Minnesota Statutes*, chapter 14, *Minnesota Rules*, chapter 1400, and other applicable laws.

106. The MPCA concludes as required by *Minnesota Statutes*, chapter 14, and *Minnesota Rules*, chapter 1400, the Revisor of Statutes has approved the form of the rule by certificate, a copy of which is attached.

107. The MPCA concludes that the rules are needed and reasonable. The SONAR justifies the need for and reasonableness of adopting these proposed rules.

108. The MPCA submitted the rules on July 2, 2014, to the Office of Administrative Hearings for review and approval.

109. The MPCA submitted the signed Governor's Office final rule form approving these administrative rules to the Office of Administrative Hearings on July16, 2014. With the signed final rule form, the MPCA also submitted the Revised Response to Comments document dated July 14, 2014. The July 14, 2014, Revised Response to Comments document replaced the June 5, 2014, Response to Comments document.

110. The MPCA adopts the Office of Administrative Hearing approval letter dated July 30, 2014, from Judge O'Reilly. The MPCA has made four of the five rule revisions recommended by Judge O'Reilly in the Order on Review of Rules dated July 30, 2014. These four revisions are items B, C, D, and E in Part IX of the Judge's Order, "Recommendations to Rules for Purposes of Clarity."

ORDER

IT IS ORDERED that the above captioned rules, in the form published in the *State Register* on December 2, 2013, with the modifications as indicated in the Revisor of Statutes draft, file number RD 4149, dated August 1, 2014, are hereby adopted.

8/19/2014
Date

John Linc Stine, Commissioner
Minnesota Pollution Control Agency