



**Response to Comment(s)
On Rule in Development**

Rule number: 10 CSR 10-6.220

Rule Title: Restriction of Emission of Visible Air Contaminants

Type of rulemaking: Rule Amendment

Response to Comment(s) from a private citizen.

Comment: The proposed new paragraph 10 CSR 10-6.220(3)(E)2.

Owners and operators of emission units not required to install COMS shall conduct a visible emissions survey for all affected emission units subject to the opacity limits in (3)(A) of this rule...

is excessive for sources that allowed 20% or 40% opacity. EPA Method 22 is inappropriate for these situations. I suggest **monitoring** and **record keeping** below (this wording should be revised for rulemaking, what is provided has been used in Title V operating permits) since it follows the Region 7 Policy on Periodic Monitoring for Opacity, April 18, 1997. What I have provided is an actual procedure for the permittee to follow, not a reference.

Monitoring:

- 1) The permittee should note the visible emissions performance of the plant according to the schedule outlined in 2) below. Specifically, the source would first conduct a quick survey of the entire plant. The permittee must maintain a log noting whether any air emissions (except for water vapor) were visible from the plant, all emission points from which visible emissions occurred, and whether the visible emissions were normal for the process. If the permittee observes no visible or other significant emissions then no further observations would be required.

For those emission points with visible emissions perceived or believed to be above the normal opacity level, the permittee should record a formal Method 9 reading for the emission points of concern. Whether recording “qualitative” visible emission characteristics or taking Method 9 readings, the permittee should also document the total duration of any visible emission incident as part of the log.

Where the permittee opts to record “qualitative” visible emissions data, rather than record official Method 9 readings, it may be prudent for the source to bring in a certified Method 9 observer to periodically “quantify” visible emissions. These periodic Method 9 readings along with the survey results would give the responsible official some reasonable assurance that the source is meeting its opacity obligations.

In all cases, the permittee shall insure that all persons responsible for making visible emission observations acquire basic training in the general principles and practices of “reading” opacity. At a minimum, the observers should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water. EPA’s Reference Method 22, found at 40 CFR Part 60, Appendix A, suggests two references in Section 7 that may be helpful.

The permittee is only required to take readings when the emission unit is operating and when the weather conditions allow. If the permittee observes no visible or other significant emissions using these procedures, then no further observations are required at that time. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.

- 2) The permittee must maintain the following monitoring schedule
 - a) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance.
 - b) Should the permittee observe no violations of this regulation during this period then-
 - i) The permittee may observe once every two (2) weeks for a period of eight (8) weeks.
 - ii) If a violation is noted, monitoring reverts to weekly.
 - iii) Should no violation of this regulation be observed during this period then-
 - (1) The permittee may observe once per month.
 - (2) If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

The permittee shall maintain records of all observation results using Attachments B (Opacity Emission Observations, page 88) or C (Method 9 Opacity Emissions Observations, page 89) [or their approved equivalent], noting:

- 1) Whether any air emissions (except for water vapor) were visible from the emission units;
- 2) All emission units from which visible emissions occurred;
- 3) Whether the visible emissions were normal for the process;
- 4) The permittee shall maintain records of any equipment malfunctions, which may contribute to visible emissions; and,
- 5) The permittee shall maintain records of all USEPA Method 9 opacity tests performed.

Response: The department's Air Pollution Control Program is not suggesting the use of Method 22 as an appropriate test method for measuring the opacity of emissions from units regulated by 10 CSR 10-6.220. Our intention is to require the individual conducting the visible emissions survey to be trained in Method 22 to ensure that the individual is qualified to conduct the survey. The "actual" procedure suggested by the commenter contains nearly identical requirements to the proposed monitoring schedule, except when a Method 9 test is required. We used this language (which is similar to what has been used in Title V operating permits) as a starting point but made changes in order to be more specific in the rule. Qualitative terms like "normal" and "significant emissions" are difficult to define and including them in the rule could create compliance and enforcement issues. No changes are needed to the draft rule text.

Comment: In further support of my earlier comments regarding 10 CSR 10-6.220, below is title, purpose, scope and application statements from EPA's Method 22 (from 40 CFR 60 App. A-7, emphasis has been added). Please note that this regulation applies to fugitive emissions or flares. These are sources NOT covered by 10 CSR 10-6.220.

Response: As mentioned in the previous response, it is not the department's Air Pollution Control Program's intention to require a Method 22 test, but to require that the individual conducting the visible emissions survey described under subparagraph (3)(E)2.A. be trained in Method 22 to ensure they are qualified to conduct the survey. Therefore, no changes are needed to the draft rule text.

Response to Comment(s) from Boeing Company.

Comment: (1)(H) The draft rule exempts emission sources subject to the Boiler NESHAP for **major** HAP sources (Subpart DDDDD), which has more stringent particulate control requirements than the draft opacity rule. We recommend exempting (new) sources subject to the Boiler NESHAP for **Area** HAP sources (Subpart JJJJJ), for the same reason. The area source Boiler NESHAP sets numeric particulate matter limits on new boilers, and imposes an ongoing PM compliance requirement based on maximum 10% opacity, well below the opacity limits of the draft Missouri rule. Note that the area source Boiler NESHAP does not specifically set

numeric particulate or opacity limits on EXISTING boilers, so the backstop for existing area source boilers should be the Missouri opacity rule. Also, the area source Boiler NESHAP does not regulate gas-fired boilers (as defined in the NESHAP), but the draft gaseous fuel exemption at (1)(K) covers gas-fired boilers at area sources, unless they are equipped with liquid fuel backup for natural gas curtailments. Suggested language for an area source boiler NESHAP exemption (assuming that exemptions below it are renumbered) is provided:

“(1)(I) Emission sources regulated by 40 CFR 63 Subpart JJJJJ-National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, with the exception of boilers constructed or reconstructed prior to June 4, 2010.”

Response: The department’s Air Pollution Control Program agrees that this is an appropriate exemption to consider and will propose the following language:

“(1)(I) Emission units regulated by 40 CFR 63 Subpart JJJJJ-National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources that meet the following criteria:

1. Constructed or reconstructed after June 4, 2010;
2. In compliance with the 3.0E-02 pounds per million British thermal units filterable particulate matter emission limit described in Table 1 of 40 CFR 63 Subpart JJJJJ or maintaining opacity to less than or equal to 10 percent as described in Table 3 of 40 CFR 63 Subpart JJJJJ; and
3. Demonstrating compliance with a continuous monitoring system (CMS), including a continuous emission monitoring system (CEMS), a continuous opacity monitoring system (COMS), or a continuous parameter monitoring system (CPMS).”

The demonstration for this rulemaking will be updated to explain why adding this exemption will not adversely impact air quality.

Comment: (3)(E) The exemption from monitoring and recordkeeping for units “not subject to Title V permitting” is unclear, because the terminology is not the terminology used in the cited Missouri operating permit rule 10 CSR 10-6.065. In that rule, the three types of operating permits are called “Part 70, Intermediate, and Basic State Installations.” The first two types are authorized by Title V of the federal statute, while the third is a creation of Missouri law, but this may not be obvious to some readers. If the intent is to exempt Basic sources and those not required to obtain an operating permit from monitoring and recordkeeping (an intent with which we agree), suggested language is provided:

“(3)(E) Compliance Determination. Owners or operators of emission units, not subject to Part 70 or Intermediate operating permitting under 10 CSR 10-6.065 Operating Permits, with controlled.....”

Response: In the initial responses posted, the department’s Air Pollution Control Program agreed with this comment, but after further discussion, we’ve determined that this language could create inconsistencies across sources. Because a source’s operating permit could be triggered by multiple factors including emissions of other pollutants, in some situations larger permitted sources could be required to monitor PM₁₀ emission units that other permitted and unpermitted sources would not have to monitor. We are now removing the language that

exempts emission units from monitoring and record keeping on the basis that they are not subject to permitting. Instead, we're specifying that emission units with a potential controlled emissions rate for PM₁₀ less than one pound per hour will be exempt from these requirements as long as the control equipment is considered federally enforceable. In other words, the controlled emissions rate will be considered for the exemption as long as the installed control equipment is required by a state rule, federal rule, permit condition, state implementation plan (SIP), or a consent agreement approved in a SIP. Emission units with an uncontrolled potential to emit (PTE) less than one pound per hour of PM₁₀ will also be eligible for the exemption from monitoring and recordkeeping. Basing this exemption on a unit's PM₁₀ emissions rate rather than a source's need for an operating permit ensures consistency. Furthermore, the emission units, establishments, systems, equipment, activities, and operations described in paragraphs (3)(A)1.–(3)(A)2. and subsection (3)(B) of 10 CSR 10-6.061 Construction Permit Exemptions will also be excused from the monitoring and recordkeeping requirements of 10 CSR 10-6.220. This will prevent sources from having to measure PM₁₀ emission rates from emission units, establishments, systems, equipment, activities, and operations already determined to be insignificant.

Comment: (3)(E) The exemption from monitoring and recordkeeping for units “below the limit required to obtain a construction permit” is unclear. The words “the limit” imply that there is only one limit, but 10 CSR 10-6.061, Construction Permit Exemptions, has several limits that relate to particulate matter: 1.0 lb/hour PM₁₀ maximum design capacity, 876 lbs/year actual emissions of any criteria pollutant, or 150 lbs./day of any air contaminant from certain small combustion sources. In addition, the rule has numerous narrative exemptions that reflect a SIP-approved determination that the listed type of operation described poses minimal potential to emit air pollutants. The draft exemption is from monitoring and recordkeeping only, not from compliance with the opacity limits of the rule, so the following more inclusive language is suggested:

“(3)(E)...emissions of particulate matter, ten (10) microns in diameter or smaller, that are exempt from construction permitting according to 10 CSR 10-6.061, are exempt from the monitoring and recordkeeping requirements of this rule.”

Response: In the initial responses posted, the department's Air Pollution Control Program was going to incorporate this rule language as is. However, as discussed in the previous response, the proposed exemption from the monitoring and recordkeeping requirements will now be for emission units with an emission rate of one pound per hour of PM₁₀, controlled or uncontrolled. For controlled emission units that fall under this exemption the control equipment must be considered federally enforceable. Furthermore, the emission units, establishments, systems, equipment, activities, and operations described in paragraphs (3)(A)1.–(3)(A)2. and subsection (3)(B) of 10 CSR 10-6.061 Construction Permit Exemptions will also be excused from the monitoring and recordkeeping requirements of 10 CSR 10-6.220.

Comment: (3)(E)2.A. and (5)(A). We have recently become aware of an EPA-approved alternative to Method 9, called ALT-082. See Federal Register notice Feb. 15, 2012 (77 FR 8865). ALT Method 082 uses a digital camera to capture still images of stacks or other emission sources, which are then analyzed for percent opacity. This system removes a large amount of potential human errors and provides more accurate and consistent readings. ALT

Method 082 requires initial certification of the camera, similar to Method 9. However, this certification lasts much longer (3.5 years) and can be renewed electronically. The Arizona Department of Environmental Quality has indicated that they will be using the Digital Opacity Compliance System Second Generation (DOCSII) for ALT Method 082 in place of Method 9 observations during inspections in the future. Additional information is available at <http://www.virtuallc.com/> For installations that are routinely required to make Method 9 readings, this alternative method offers the possibility of increased accuracy and fewer trips to “smoke school” training, which is available infrequently and geographically distant for many Missouri sources. Unless the alternative method is cited in the Missouri opacity rule, or in 10 CSR 10-6.030 and referenced in the opacity rule, it would be available to installations (and DNR enforcement staff) only through the case-by-case approval method described in the draft rule section (5)(F). In the interest of accelerating adoption of this more accurate and less burdensome test method, we urge that it be included in this round of rulemaking.

Response: The department’s Air Pollution Control Program will add ALT-082 as a test method.

Response to Comment(s) from Kansas City Power & Light Company.

Comment: KCP&L commends MDNR’s proposed revisions acknowledging 40 CFR 63 Subparts DDDDD (Boiler MACT) & UUUUU (MATS) thorough and strict handling of electricity and utility boiler emissions. In those rules the indicator of particulate matter, opacity, is not measured in favor of the direct measurement of particulates. Updating the state regulation with the EPA requirements for these boilers allows Missouri to match the final MACT actions already having gone through notice and comment. These reviews and analyses, exhaustively performed over the course of years balanced cost and benefit to the public and industry and comparatively evaluated intricacies such as periodic testing and continuous monitoring.

On the point of periodic testing and continuous monitoring equivalence, the MATS preamble speaks directly at FR 77, 9372 column 2:

*G. What are the continuous compliance requirements? (2) Use of stack tests. If you demonstrate initial compliance on the basis of a stack test, you must **demonstrate continuous compliance by conducting periodic stack tests on a quarterly basis.***

According to EPA, MATS quarterly stack testing is “continuous compliance”. The wording of 10 CSR 10-6.220(1)(L) (exemptions) should be modified to:

(L) Emission sources regulated by 40 CFR 63 subpart UUUUU, Mercury and Air Toxics Standards, and ~~demonstrating compliance with a particulate matter continuous emission monitoring system;~~ and

Striking the “*and demonstrating compliance with a particulate matter continuous emission monitoring system*”. The stringency of the MACT limits also supports this request as exhibited in your Demonstration for this rulemaking.

Response: The department's Air Pollution Control Program intends to exempt emission units that are demonstrating compliance with the particulate matter emission limits of the Mercury and Air Toxics Standards (MATS), 40 CFR 63 subpart UUUUU. For the MATS rule, the monitoring/compliance method that has observations that are at least as frequent as those is 10 CSR 10-6.220 is the PM CEMS method. We crafted the language for the exemption in subsection (1)(L) based on EPA's input. Removing the PM CEMS portion would jeopardize EPA's approval of the rule amendment. Therefore, no changes will be made to the draft rule text as a result of this comment.

Response to Comment(s) from Metropolitan St. Louis Sewer District.

Comment: The draft rule, in 10 CSR 10-6.220(1)(K), states that "any unit burning only natural gas, landfill gas, propane, liquefied petroleum gas, or refinery gas and using proper combustion techniques" will be exempt. MSD requests that the Department revise the draft rule to include wastewater treatment facility (WWTF) anaerobic digester gas with this exemption.

WWTF anaerobic digester gas is similar in composition to landfill gas and natural gas. Landfill gas and WWTF anaerobic digester gas are both considered biogas and are comprised primarily of methane and carbon dioxide. Specifically, landfill gas contains approximately 50% methane and 50% carbon dioxide with less than one percent of non-methane organic compounds,¹ and WWTF anaerobic digester gas is typically 60 to 70% methane with the remainder primarily carbon dioxide.² Similarly, natural gas is mostly comprised of methane at around 82% on average.³

The combustion of methane results in carbon dioxide and water. WWTF anaerobic digester gas, landfill gas, and natural gas are comprised mostly of methane, so combustion of these gases should not produce significant amounts of visible emissions. Therefore, MSD believes that WWTF anaerobic digester gas should be added to the draft rule exemption since its composition and combustion emissions are very similar to that of landfill gas and natural gas.

¹ U.S. Environmental Protection Agency, Landfill Methane Outreach Program. *Project Development Handbook*. 6 Apr 2011. <<http://www.epa.gov/lmop/publications-tools/handbook.html>>.

² U.S. Environmental Protection Agency, Combined Heat and Power Partnership. *Opportunities for Combined Heat and Power at Wastewater Treatment Facilities: Market Analysis and Lessons from the Field*. Oct 2011. <http://www.epa.gov/chp/documents/wwtf_opportunities.pdf>.

³ Center for Energy Economics. *Composition of Natural Gas and LNG*. <http://www.beg.utexas.edu/energyecon/lng/LNG_introduction_07.php>.

Response: The department's Air Pollution Control Program has reviewed this request and determined that digester gas can be included in the list of gases exempt in subsection (1)(K). The demonstration for this rulemaking will be updated to explain why this amendment will not adversely impact air quality.

Response to Comment(s) from U.S. Environmental Protection Agency Region 7.

Comment: On page 5 of the technical support document (TSD), in the paragraph relating to the IC engines exemption, EPA suggests that MDNR include additional information on mobile source fleet turnover in the Kansas City and St. Louis areas, which demonstrates that there are newer vehicles which meet the more stringent federal standards referenced in the TSD. In

addition, EPA suggests that MDNR further justify the exemption by providing information on emissions from mobile sources to highlight that stricter federal standards correlate to a decrease in mobile source emissions.

Response: The department's Air Pollution Control Program has updated the TSD to reflect the suggested changes.

Comment: EPA suggests that MDNR explain why sources that were previously exempt, those regulated by 10 CSR 6.070 and 40 CFR part 60 (Section (1)(H) of the old rule), are no longer exempt from the rule.

Response: This exemption was inadvertently left struck out during the development of the draft rule text. The exemption for sources regulated by 10 CSR 6.070 and 40 CFR part 60 in subsection (1)(H) will not be removed from the rule.

Comment: EPA understands that MDNR is proposing to exempt from the rule sources that are regulated by 40 CFR 63 subpart DDDDD, and sources that are regulated by 40 CFR 63 subpart UUUUU and demonstrate compliance using particulate matter continuous emission monitoring systems. EPA is evaluating the inclusion of these provisions as they relate to the EPA's policy on SSM and affirmative defense provisions. EPA is reserving the right to provide further comment to MDNR on the inclusion of these NESHAPS and the demonstration supporting these changes to Missouri's rule

Response: We will continue to follow these developments and work closely with EPA to ensure that revisions to 10 CSR 10-6.220 are consistent with EPA's SSM policy.

For informational purposes, EPA is in the process of updating states' SSM provisions through a State Implementation Plan (SIP) Call proposed on February 22, 2013 (78 FR 12460). EPA also issued a supplemental notice of proposed rulemaking to address the affirmative defense provisions for SSM events in state SIPs on September 17, 2014 (79 FR 55920). EPA issued the supplemental notice in response to recent court opinions which found that affirmative defense provisions cannot be applicable to violations of the Clean Air Act. EPA's SIP Call is expected to be final in May 2015. Though the program coordinated with EPA early in the development of these new exemptions for 10 CSR 10-6.220, the supplemental notice highlighted some potential inconsistencies between EPA's regulations, particularly 40 CFR Part 63 UUUUU (MATS) and 40 CFR Part 63 DDDDD (Boiler MACT). EPA is evaluating these regulations and issued proposed corrections to the Boiler MACT on December 1, 2014 and MATS on December 19, 2014 (neither proposal has been published in FR yet).

Comment: In Section (1)(K) of the rule, which exempts gas fired units using proper combustion techniques, EPA suggests that MDNR consider whether there is an appropriate definition of "proper" and/or consider identifying in the TSD the regulations to which these units are subject that would contain the "proper" techniques and/or standard practices as identified in the rule.

Response: The department's Air Pollution Control Program will remove the statement "and using proper combustion techniques" from the proposed rulemaking text, and has included

information to support the exemption for the fuel types in the TSD based on AP-42 emission factors.

Comment: On pages 1-3 of the TSD, in the paragraphs relating to the 40 CFR 63 subpart UUUUU exemption, EPA suggests that MDNR provide additional information why the five units analyzed in the TSD for anti-backsliding purposes are the most representative units.

Response: The department's Air Pollution Control Program has updated the TSD to reflect the suggested changes made in this comment.

Comment: EPA supports the removal of directors discretion language found in the original subsection (3)(C) of the rule.

Response: The removal of the director's discretion language was in response to a State Implementation Plan (SIP) Call proposed on February 22, 2013 (78 FR 12460) that requires us to fix this deficiency in the rule within 18 months of the final SIP Call (expected May 22, 2015).

Comment: To improve the clarity of the rule, EPA suggests that MDNR consider separating the provisions found in subsection (3)(E), or provide additional clarifying language to assist regulated entities in understanding the provisions of this section.

Response: The department's Air Pollution Control Program has moved the exemption from the monitoring and recordkeeping requirements to parts (3)(E)2.C.(II)– (3)(E)2.C.(III) of the proposed rulemaking text.

Comment: On page 5 of the TSD, in the paragraph relating to the exemption of monitoring and recordkeeping for units below the insignificant emission levels for PM10, EPA suggests that MDNR add additional language that further explains and clarifies the terminology used in the correlating rule revision of subsection (3)(E).

Response: The department's Air Pollution Control Program has updated the TSD.

Comment: EPA notes that the TSD references "uncontrolled" emissions, while the section (3)(E) of the rule references "controlled" emissions. EPA suggests that MDNR confirm that the intent is for units with "controlled" emissions to be exempt from the rule. EPA also suggests that MDNR clarify in the TSD what "controlled" means and describe how those controls are permanent and enforceable.

Response: The department's Air Pollution Control Program intends to include both controlled and uncontrolled potential emissions in the exemption from the monitoring and recordkeeping requirements of 10 CSR 10-6.220. We will update the proposed rulemaking text and TSD to clarify that any installed control equipment used to meet this exemption must be federally enforceable. By "controlled" emissions, we mean the potential to emit with control device(s) installed. Control equipment is considered federally enforceable when it is required by a state or federal rule condition, permit requirement, state implementation plan (SIP), or a consent

agreement approved in a SIP. A more detailed definition of “federally enforceable” can be found in 10 CSR 10-6.020(2)(F)7.

Comment: In paragraph (3)(E)2., EPA suggests that if the intent of MDNR’s rule is that those units which are exempt from reporting and recordkeeping as identified in (3)(E), are also therefore not subject to the requirements of (3)(E)2., that MDNR should consider clarifying the rule language. In addition, EPA suggests that MDNR provide a similar clarification in subsection (4)(C).

Response: The department’s Air Pollution Control Program has moved the exemption from monitoring and recordkeeping requirements to parts (3)(E)2.C.(II)– (3)(E)2.C.(III) of the proposed rulemaking text and added clarifying language. No changes have been made to subsection (4)(C) due to this comment, because we believe the proposed rulemaking language is appropriate.

Comment: EPA suggests that MDNR review the test methods listed in section (5) of the rule and determine whether all of these are required to determine compliance of the rule. If MDNR intends for section (5) to contain a list of general test methods that are related, but not necessarily applicable to demonstrate compliance with the rule, then MDNR should consider adding that additional language explaining its intent for including these test methods.

Response: The department’s Air Pollution Control Program is removing current subsections (5)(B)–(5)(D) from the proposed rulemaking text, because those test methods (Methods 203, 203A, and 203B) are not used to demonstrate compliance with the rule.

Response to Comment(s) from Bayer CropScience.

Comment: While we can understand the benefits to the Department (Missouri Department of Natural Resources) implementing a one size fits all, self-monitoring schedule, we believe that, where appropriate, there should be provisions that allow the monitoring to be tailored to the unique characteristics of the source operations. There are many sources that emit low levels of particulate that cannot be either categorically exempted under section (1) or exempted from monitoring and recordkeeping under (3)(E), but could on a case-by-case basis either demonstrate that the opacity limits cannot be exceeded or demonstrate compliance with the limits through alternative monitoring methods. The draft rule does not allow for any flexibility in these cases. Additionally, some sources may be located in difficult to observe locations (e.g., roofs) that may require special measures to be taken to ensure the safety of the observer. Requiring a one size fits all monitoring approach places unnecessary burden on the owners and operators of small sources and potentially places employees at risk. A better solution would be to allow alternative monitoring methods within operating permits.

As an example, Bayer owns and operates a hazardous waste incinerator subject to the emission standards and requirements of 40 CFR 63, Subpart EEE – National Emission Standards for Hazardous Air Pollutants for Hazardous Waste Combustors (HWC NESHAP). This rule does not have an opacity standard for incinerators but does have a particulate matter emission standard. A

performance test is periodically conducted to demonstrate compliance with the emission standards, including particulate matter. From the test, operating parameter limits are established. These operating parameters include the amount of ash that can be fed to the unit, key aspects of the pollution control devices, and parameters that ensure good combustion. The facility then monitors these operating parameters on a continuous basis to ensure ongoing compliance with the emission standards.

The unit's most recent performance test was conducted in October 2014. Condition 1 of the test was completed under maximum ash loading and worst-case pollution control parameters. The resulting particulate matter emissions were found to be approximately 50% of the emission standard. Using the particulate matter emission results from the performance test along with applicable operating conditions during the test, a pound per MMBtu emission rate can be calculated and compared to the opacity correlations of coal fire boilers in a similar manner to which gaseous fuels were shown to meet the opacity limit in the Demonstration document (Figures 1-5). As shown in the table below, the overall estimated opacity is 4% with the highest value being 12% when test run 2 is compared to the Figure 2 correlation. One would further expect the opacity to be significantly less under normal feed and operating conditions rather than the worst-case conditions of the performance test. This demonstrates that Bayer's unit will always meet the opacity standard and as previously noted, parameters ensuring proper operation of the pollution control equipment as well as ensuring good combustion are continuously monitored. This demonstration is unique to Bayer's incinerator. It would not be appropriate to exempt all hazardous waste incinerators based on this demonstration and so under the current draft of the rule it appears the only option is to codify an exemption that is unique to this emission unit. This does not seem to be the best manner in which to address unique situations and would quickly become unwieldy if other organizations asked for emission unit specific exemptions.

Table 1

Parameter	Units	October 2014 CPT Condition #1		
		Run 1	Run 2	Run 3
Heat Input	mmBtu/hr	53.32	53.29	51.97
PM Emission	gr/dscf	0.00568	0.00666	0.00651
Stack gas flow rate	dscf/min	9,433	10,307	10,232
PM emission rate	gr/min	53.58	68.64	66.61
conversion factor	gr/lb	7,000	7,000	7,000
PM emission rate	lbs/mmBtu	0.0086	0.0110	0.0110
Opacity (from Figures 1-5 of Demonstration Document)				
Figure 1 Correlation		5.3%	5.8%	5.8%
Figure 2 Correlation		11.4%	12.0%	12.0%
Figure 3 Correlation		0.0%	0.0%	0.0%
Figure 4 Correlation		0.0%	0.0%	0.0%
Figure 5 Correlation		2.4%	2.6%	2.6%
Averages of the runs		3.8%	4.1%	4.1%
Overall average				4.0%

A second example pointing to the need for flexibility concerns emissions from certain chemical manufacturing operations. At Bayer the emissions from the chemical manufacturing operations

are normally vented to a control device. A small percent of the time these vent streams may be diverted to the atmosphere if, for example, the control device goes down due to a malfunction or there is an upset condition within the manufacturing plant. While the emissions from most of the chemical manufacturing emission units are entirely gaseous and not expected to be a source of visible emissions, there may be some emission units that could potentially emit visible emissions. These sources would be subject to the visible emissions rule and its monitoring and recordkeeping requirements. Because of the small percentage of operating time that these events occur and because the events are generally unpredictable and of varying duration, adhering to a rigid periodic monitoring schedule as proposed means that most survey observations would take place when, from an emissions standpoint, the emission unit is effectively not operating. This places unnecessary burden on the facility and provides little to no benefit to the environment. Again, a better approach would be to tailor the monitoring requirements to the unique characteristics of the source through the operating permit.

Response: The department's Air Pollution Control Program has been "gap-filling" the monitoring requirements for 10 CSR 10-6.220 through the permitting process. This practice has resulted in inconsistencies in permit language that has led to enforcement issues. We have added several exemptions for small emission units and emission units covered under other rules that are as strict as or stricter than 10 CSR 10-6.220. We realize there may be some unique situations when the proposed monitoring schedule may not be appropriate, and we plan to add language to allow the flexibility to establish alternative compliance methods and exemptions from monitoring and recordkeeping through the Title V permitting process.

Comment: (3)(E)(2) states in part, "Owners and operators of emission units not required to install COMS shall conduct a visible emission survey..." The "not required" language appears to preclude an owner or operator from using COMS to demonstrate compliance unless required to under the rule. An owner or operator should be allowed to use COMS to demonstrate compliance if they so choose. Alternative language for consideration: "Owners and operators of emission units not using a COMS to demonstrate compliance shall conduct a visible emission survey..."

Response: The department's Air Pollution Control Program has made this change to the proposed rulemaking text.

Comment: (3)(D) states that, unless otherwise specified in the rule, owners or operators can determine opacity using one of the four methods in section (5) of the rule. Paragraph (3)(E)2.A. states that if visible emissions are observed during the survey that, "a Method 9 observation must be conducted to determine compliance." As written, it does not appear that owners or operators not using a COMS are not allowed to use any method other than Method 9. Alternative language for consideration: "an observation using Method 9 or one of the other methods in section (5) must be conducted to determine compliance."

Response: The department's Air Pollution Control Program is updating section (5) and subsection (3)(D) to specify which test methods can be used to demonstrate compliance with 10 CSR 10-6.220.

Comment: (3)(E)2.A. states that, “The visible emissions survey *shall be performed during source operations...*” and (3)(E)2.B. states that “The visible emissions survey *shall be conducted...*” on a specified schedule (i.e., weekly, every two weeks, or monthly). For a source operation or emission unit that is not expected to be operating during the applicable schedule period, it is impossible to meet both the A. and B. requirements without operating the source for the sole purpose of conducting the survey. This would be unnecessary, burdensome, and result in additional particulate matter or other pollutants being emitted into the environment. Even for source operations that are operated during the applicable schedule period but only intermittently, trying to coordinate the survey with the source operation’s operating schedule could quickly become burdensome, especially if the facility has more than just a few intermittently operated sources. Alternative language for consideration for (3)(E)2.A.: “The visible emission survey shall be performed by an individual trained in EPA Method 22 during daylight hours when weather conditions allow. Readings are only required for emission units that are operating during the survey.”

Response: The department’s Air Pollution Control Program plans to add language to address intermittent source operations. This rulemaking will exempt insignificant sources from the monitoring and recordkeeping requirements of 10 CSR 10-6.220. All other sources subject to this rule should be monitoring to prove compliance. For unique cases in which the monitoring schedule could be considered burdensome, this rulemaking allows for alternative compliance methods to be established through Title V permitting.