

TABLE 1—PROPOSED EMISSION LIMITATIONS FOR NEW EGUS

Subcategory	Filterable particulate matter	Hydrogen chloride	Mercury
New—Unit not designed for low rank virgin coal	9.0E–2 lb/MWh	1.0E–2 lb/MWh ^a	3.0E–3 lb/GWh.
New—Unit designed for low rank virgin coal	9.0E–2 lb/MWh	1.0E–2 lb/MWh ^a	NR.
New—IGCC	7.0E–2 lb/MWh ^b	2.0E–3 lb/MWh ^d	3.0E–3 lb/GWh. ^e
	9.0E–2 lb/MWh ^c		
New—Solid oil-derived	3.0E–2 lb/MWh	NR	NR.
New—Liquid oil—continental	4.0E–1 lb/MWh	NR	NR.

Note: lb/MWh = pounds pollutant per megawatt-hour electric output (gross).
 lb/GWh = pounds pollutant per gigawatt-hour electric output (gross).
 NR = limit not revised.
^a Beyond-the-floor value.
^b Duct burners on syngas; based on permit levels in comments received.
^c Duct burners on natural gas; based on permit levels in comments received.
^d Based on best-performing similar source.
^e Based on permit levels in comments received.

TABLE 2—PROPOSED REVISED ALTERNATE EMISSION LIMITATIONS FOR NEW EGUS

Subcategory/pollutant	Coal-fired EGUs	IGCC ^a	Solid oil-derived
SO ₂	1.0 lb/MWh	4.0E–1 lb/MWh ^b	1.0 lb/MWh.
Total non-mercury metals	NR	4.0E–1 lb/GWh	NR.
Antimony, Sb	NR	2.0E–2 lb/GWh	NR.
Arsenic, As	NR	2.0E–2 lb/GWh	NR.
Beryllium, Be	NR	1.0E–3 lb/GWh	NR.
Cadmium, Cd	NR	2.0E–3 lb/GWh	NR.
Chromium, Cr	NR	4.0E–2 lb/GWh	NR.
Cobalt, Co	NR	4.0E–3 lb/GWh	NR.
Lead, Pb	3.0E–2 lb/GWh	9.0E–3 lb/GWh	NR.
Mercury, Hg	NA	NA	NR.
Manganese, Mn	NR	2.0E–2 lb/GWh	NR.
Nickel, Ni	NR	7.0E–2 lb/GWh	NR.
Selenium, Se	5.0E–2 lb/GWh	3.0E–1 lb/GWh	NR.

NA = not applicable.
 NR = limit not revised.
^a Based on best-performing similar source unless otherwise noted.
^b Based on DOE information.

7. Control Technologies To Meet Proposed New Source Emission Limits

We have evaluated the levels of control that would generally be needed to meet the proposed emission limits for new sources and have compared those to the levels of control needed to meet the new source emission limits in the final MATS rule. We compared the level of control needed by analyzing requirements for a new hypothetical 500 MW facility. The comparison led us to conclude that new EGUs would need to be designed to use the same types of emission control technologies to meet the proposed new source limits as would have been needed to meet the final MATS new source limits. More detailed discussion of this evaluation may be found in the memo “MATS Reconsideration: Control Technology Needed to Meet New Source Limits” contained in rulemaking docket EPA–HQ–OAR–2009–0234.

Nothing in the statute requires the EPA to demonstrate that an existing source is able to meet all of the new source limits. Nevertheless, we note that based on our review of the data EPA

collected as part of the 2010 ICR process, at least eight existing non-low rank virgin coal-fired EGUs and one low rank virgin coal-fired EGU have reported short-term stack test data that demonstrate that these EGUs have in practice achieved the new source limits proposed in this notice (considering all of their submitted data). Furthermore, for HCl (as well as the SO₂ surrogate) and filterable PM, the new source limits proposed in this notice are consistent with those in several permits for EGUs that have not yet commenced construction. For Hg, the new source limits proposed in this notice are consistent with the levels that a number of control vendors have suggested in their petitions for reconsideration are achievable and capable of being measured with an appropriate level of accuracy.

8. Filterable PM Monitoring

We provided several monitoring options for the filterable PM standard in the final rule, including quarterly stack testing, PM CEMS, and PM continuous parameter monitoring system (PM

CPMS) with annual testing. For many reasons, including continued use of already-installed instruments on some EGUs, direct (as opposed to parametric) measurement of the pollutant of concern, and continuous feedback for process control, we believe that many EGU owners or operators will choose to use PM CEMS to monitor the proposed filterable PM limit.

We solicit comment on whether to retain the quarterly stack testing compliance option, as this option may not be necessary because continuous, direct measurement of filterable PM or a correlated parameter is available and likely to be used by most sources to monitor compliance with the revised standard.

With respect to the PM CPMS compliance option for new EGUs, we considered three approaches to establish an operating limit based on emissions testing. The first approach would allow an EGU owner or operator to use the highest parameter value obtained during an individual emissions test when the result of that individual test was below the limit as the operating limit. The

second approach would allow an EGU owner or operator to use the average parameter value obtained from all runs pertaining to an individual emissions test as the operating limit. The third approach would allow an EGU owner or operator whose PM emissions as demonstrated during performance testing do not exceed 75 percent of the PM emissions limit to set his PM CPMS operating limit by linearly scaling the average operating value obtained during all the runs to be equivalent to the value at 75 percent of the limit; an EGU owner or operator whose PM emissions as demonstrated during performance testing exceed 75 percent of the PM emissions limit would establish his operating limit as a 30-day rolling average equal to the average PM CPMS values recorded during performance testing. Such an approach would prevent unnecessary retests for EGUs with low PM emissions. See “75 Percent CPMS Operating Limit Approach—MATS Reconsideration” in rulemaking docket EPA-HQ-OAR-2009-0234.

Even though this rule proposes the first approach, we solicit comments on the appropriateness of any of the three approaches to establish a PM CPMS operating limit for new EGUs.

In addition, this rule proposes to require emissions testing after each exceedance of the operating limit for new sources. This rule proposes a number of consequences if the PM monitoring parameter is exceeded. First, the EGU owner or operator will have 48 hours to conduct an inspection of the control device(s) and to take action to restore the controls to proper operation, if necessary, and 45 days to conduct a Method 5 compliance test under the same operating conditions to verify ongoing compliance with the filterable PM limit. Within 60 days, the EGU owner or operator will have to complete the emissions sampling, sample analyses, and verification that the EGU is in compliance with its emissions limit, as well as having to determine an operating limit based on the PM CPMS data collected during the performance test. The EGU owner or operator would then compare the recalculated operating limit with the existing operating limit and, as appropriate, adjust the numerical operating limit to reflect compliance performance. Adjustments could include applying the most recently established value or combining the data collected over multiple performance tests to establish a more representative value. The EGU owner or operator would then apply the reverified or adjusted operating limit value from that time forward.

Second, this rule proposes to limit the number of exceedances of the site-specific CPMS limit leading to follow-up performance tests in any 12 month process operating period and that an excess of this number be considered a violation of the standard. This presumption of violation could be rebutted by the EGU owner or operator, but would require more than a Method 5 test as a basis for the rebuttal (e.g., results of physical inspections would also need to be included). This additional information is necessary since a Method 5 test could not be conducted during or immediately following the discovery of exceedances and would not necessarily represent conditions identical to those when the exceedances occurred. The basis for this part of the proposal is that the site-specific CPMS operating limit reflects a 30-day average that should represent an actual emissions level lower than the three test run numerical emissions limit since variability is mitigated over time. Consequently, we believe that there should be few, if any, exceedances from the 30-day parametric limit and there is a reasonable basis for presuming that exceedances that lead to multiple performance tests to represent poor control device performance and to be a violation of the standard. Therefore, this rule proposes that PM CPMS exceedances leading to more than four required performance tests in a 12-month process operating period is presumed to be a violation of this standard, subject to an EGU owner or operator's ability to rebut that presumption about process and control device operations in addition to the Method 5 performance test results. We solicit comment on this proposed revised approach.

B. Eligibility To Be a New Source

The CAA section 112(a)(4) defines a new source as a stationary source “the construction or reconstruction of which is commenced after the Administrator first proposes regulations under this section establishing an emissions standard applicable to such source.” The EPA views the new source trigger date (the date EPA “first proposes regulations”) to be the date EPA first proposes standards under a particular rulemaking record. (74 FR 21158). In this case, EPA first proposed standards for EGUs on May 3, 2011, and although we are proposing revisions to certain new source standards, the rulemaking record remains the same. As such, we are not proposing to revise the trigger date for determining whether a source is a new source. Any source which commenced construction or

reconstruction after May 3, 2011 is subject to the new source standards.⁷

Furthermore, it is the EPA's technical judgment that new sources would need to adopt the same or similar emissions control strategies under the amended standards as they would have under the promulgated standards. The revised standards remain stringent and can be met, in our view, using the same or similar control strategies as would have been required to meet the standards in the final rule.

C. Startup and Shutdown Provisions

The EPA received petitions asserting that the public lacked an opportunity to comment on the startup and shutdown provisions in the final MATS. Petitioners also assert that the definitions of “startup” and “shutdown” in the final MATS and the provisions for work practice standards did not adequately address applicability to certain types of units, fuels considered “clean,” and operational limitations for certain EGU types and/or pollution control devices.

We proposed numerical standards for startup and shutdown periods, and in response to comments on the proposed rule we changed those standards in the final MATS to work practice standards. Among other things, the work practice standards required sources to combust clean fuels during startup and shutdown periods and required sources to engage APCDs when coal or oil was fired in the EGU. (See 77 FR 9380–83). We also revised the definitions of “startup” and “shutdown” after considering comments we received. Although we revised these provisions in response to comments, we are granting reconsideration on this issue to provide an opportunity for comment on the final startup and shutdown standards and those we have revised and propose today. For further discussion of petitioners' concerns and these proposed revisions, please refer to the memo “Startup and shutdown provisions” in rulemaking docket EPA-HQ-OAR-2009-0234. Below we summarize the startup and shutdown revisions proposed today.

1. Definitions

We are proposing to revise the definitions of startup and shutdown in this reconsideration notice as set forth in 40 CFR 63.10042. Petitioners asserted that the final rule's definitions of startup and shutdown were not sufficiently clear, should accommodate operation of

⁷ We are unaware of any new source that has commenced construction or reconstruction since May 3, 2011.

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As indicated above, the EPA is further proposing to use PM CEMS technology for continuous parametric monitoring of the proposed PM standards. The EPA has developed requirements for continuously monitoring operating parameters in instances where compliance is based on non-continuous measurements, as would now be the case for PM. This implements section 114(a)(3) of the CAA which requires major sources to use enhanced monitoring for compliance certifications. The EPA's historic approach has been to require monitoring of a control device operating condition (e.g., electrical power, water flow rate, pH) the limit of which is based on a periodic compliance test with the compliance test method. The use of a continuous parametric monitoring system (CPMS) based on PM CEMS technology (PM CPMS) is a significant step closer to direct measurement of emissions in units of the emissions limit and an improvement over less direct monitoring of a process control device conditions. Specifically, this proposal recognizes the value of PM monitoring technology sensitive to changes in PM emissions concentrations and use of such a tool to assure continued good operation of PM control equipment. This approach avoids the PM CEMS calibration (i.e., PS 11 correlation) issues that can be exacerbated for Portland cement installations. PM CEMS technology can be effective in monitoring control device performance (see, e.g., 77 FR 9371 (February 16, 2012)) where the EPA established PM CPMS parametric operating limits for electricity generating units). As a result, this proposed rule would require the installation and operation of a PM CPMS for parametric monitoring associated with the proposed PM standard. The source owner would not have to meet PS 11 requirements but would have to prepare and submit for approval, if requested by a permitting authority, a site-specific monitoring plan to apply sound practices for installing, calibrating and operating the PM CPMS.

Current PM CPMS have an operating principle based on in-stack or extractive light scatter, light scintillation or beta attenuation. The source owner or operator would need to examine the fuel and process conditions of his stack as well as the capabilities of these devices before selecting a particular CPMS technology. The reportable measurement output from the PM CPMS may be expressed as milliamps, stack concentration or other raw data signal. For the purposes of this proposed rule, the source owner would establish an operating limit based on the highest PM CPMS hourly value collected during the most recent PM compliance test (or other stack tests accepted as a legitimate basis for compliance, as explained below). The source would collect PM CPMS data continuously and calculate a 30 operating day rolling average PM CPMS output value from the hourly PM CPMS data collected during process operating hours and compare that average to the site specific operating limit. For these reasons (i.e., 30 days to mitigate the effects of measurement and emissions variability and using the highest hourly average from the stack testing), the EPA believes that use of the PM CPMS for parametric monitoring should not pose the same technical issues as those underlying the proposed decision to base compliance on PM CEMS measurements. We are proposing a number of consequences if the kiln PM monitoring parameter is exceeded. First, the source owner will have 48 hours to conduct an inspection of the control device and to take action to restore the controls if necessary and 45 days to conduct a new PM Method 5 compliance test to verify ongoing compliance with the PM limit. Within 60 days complete the emissions sampling, sample analyses and verification that the source is in

compliance with the emissions limit in accordance with the test procedures in either section 60.64 or 63.1349(b)(1). Also, determine an operating limit based on the PM CPMS data collected during the performance test. Compare the recalculated operating limit with the existing operating limit and, as appropriate, adjust the numerical operating limit to reflect compliance performance. Adjustments may include applying the most recently established highest of the three test run hourly averages or combining the data collected over multiple performance tests to establish a more representative value. Apply the reverified or adjusted operating limit value from that time forward.

Second, the EPA is proposing that this proposed rule limit the number of deviations of the site-specific CPMS limit leading to follow up performance tests in any 12-month process operating period and an excess of this number be considered to be a violation of the standard. This presumption could be rebutted by the source, but would require more than a Method 5 test to do so (e.g., results of physical inspections). This additional information is necessary since a Method 5 test could not be conducted following the discovery of deviations and would not necessarily represent conditions identical to those when the deviations occurred. The basis for this part of the proposal is that the site-specific CPMS limit could represent an emissions level higher than the proposed numerical emissions limit since the PM CPMS operating limit corresponds to the highest of the three runs collected during the Method 5 performance test.

Second, the PM CPMS operating limit reflects a 30-day average that should represent an actual emissions level lower than the three test run numerical emissions limit since variability is mitigated over time. See 75 FR 54988 (September 9, 2010); 54975-76. Consequently, we believe that there should be few if any deviations from the 30-day parametric limit and there is a reasonable basis for presuming that deviations that lead to multiple performance tests to represent poor control device performance and to be a violation of the standard. Therefore, the EPA is proposing that PM CPMS deviations leading to more than four required performance tests in a 12-month process operating period to be presumed a violation of this standard, subject to the source's ability to rebut that presumption with information about process and control device operations in addition to the Method 5 performance test results.