UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, Pennsylvania 19103-2852

DATE: June 12, 2023

SUBJECT: EPA comments on the District of Columbia's Proposed Rulemaking - Amending 20 DCMR Chapter 6 - Revisions to Air Quality Opacity Requirements in response to the Startup, Shutdown, and Malfunction SIP Call ("SSM SIP Call")

FROM: Sean Silverman

Planning and Implementation Branch
US EPA Region 3

TO: Joseph Jakuta
Branch Chief
Air Quality Planning Branch
Department of Energy & Environment
Government of the District of Columbia
Washington, DC 20002
Via email to joseph.jakuta@dc.gov

EPA is providing feedback regarding the District of Columbia Department of Energy and Environment's (DOEE or Department) proposed rule issued in response to the United States Environmental Protection Agency's (EPA) rulemaking "Findings of Failure to Submit State Implementation Plan Revisions in Response to the 2015 Findings of Substantial Inadequacy and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown, and Malfunction" ("2015 SSM SIP call" or "FFS") (January 12, 2022, 87 Fed. Reg. 1680). DC provided a pre-publication draft to EPA Region 3 on December 12, 2021, and a revised draft on September 7, 2022. EPA provided early engagement comments to DOEE on November 29, 2022 which were developed in collaboration with headquarters staff and our Office of Regional Counsel. The comments below pertain to the "Notice of Comment Period for Proposed Rulemaking - Amending 20 DCMR Chapter 6 - Revisions to Air Quality Opacity Requirements," published Friday May 12, 2023. Because DOEE was unable to respond to all of EPA's previous comments prior to the May 12th proposal, some prior comments are being resubmitted during the public comment period along with additional comments on the proposal. EPA has tried to identify all issues that the proposed regulatory change may raise. However, EPA may have failed to identify some issues, which other commenters might raise via their comments.

Comments

1. 107.3 CONTROL DEVICES OR PRACTICES (Directors Discretion Issue/Enforcement Issue)
   Comment: EPA appreciates that the revised provision attempts to address the director's discretion concerns in 107.3 by repealing section 107 (Control Devices or Practices), moving much of what used to be in section 107 to section 102, and adding the new text in 102.4

specifying that the continued operation may only occur after "The Department determines that operation of the source will not result in the violation of any federally enforceable emissions limitation or requirement." However, it is not clear how that determination will be made. In the previous regulation, there were requirements in 107.2 (c) to quantify the "quantity of air pollutants likely to occur." It would appear that this language was moved to 102.3, but this subsection does not appear to be included in the current SIP revision proposed on May 12. It is likely that sections 102.2 and 102.3 need to be added to the SIP revision to make these clauses operate properly and be federally enforceable. Additionally, the language in 107 previously specified that the continued operation applied to "shutdown of air pollution control equipment for **periodic maintenance**." Section 102.4 could be read as broadening the period in which continued operation can occur, since the proposed language in 102.4(c) potentially allows continued operation for "maintenance or repair." "Periodic maintenance" is likely to be a type of regularly needed maintenance requiring a known duration of shutdown for such maintenance, while "repair" can suggest an unusual breakdown of the control equipment for which the period of shutdown is open-ended or unknown.

In addition, the 2013 SIP call proposal noted the Petitioner's claim that the original exemption in 107.3 "allows the Mayor to make a unilateral decision that the excess emissions were not a violation and thus purports to bar enforcement for the excess emissions by the EPA and citizens." (78 FR 12460 at 12496). As EPA stated in the proposal, "[t]he Mayor's grant of permission to continue to operate during the period of malfunction or maintenance could be interpreted to excuse excess emissions from that time period, and it could thus be read to preclude enforcement by the EPA or through a citizen suit in the event that the Mayor elects not to treat the event as a violation." Id. The new language in section 102.4(d) states that "The department may …permit the continued operation of the source… provided that…operation of the source will not result in the violation of any federally enforceable emissions limitation or requirement." While this language seems to ban continued operation of a source if there is a potential for violation of a federally-enforceable emissions limitation or requirement, potentially resolving the "excuse excess emission" element of the Director's discretion issue, the Department's finding that no violation will occur could potentially be interpreted to preclude enforcement by EPA or citizens if a violation does occur. The DOEE should be prepared to explain, in response to this and other potential comments, why the Department's finding that no violation of a federally-enforceable limit or requirement will occur during continued operation of the source does not bar EPA and citizen enforcement.

2. 606.1 VISIBLE EMISSIONS

Opacity Limits

This new section sets VE limits for stationary sources and nonroad engines and appears to be a replacement for the prior section 606. EPA has identified several concerns with 606.1.

First, it appears that the zero percent opacity limit set by the prior section 606 for stationary sources with COMS that went into operation after January 1, 1977 has been inadvertently omitted from the new 606.1(a). Section 606.1(a) does not set any opacity standard for these sources. Instead, it merely states that a stationary source beginning operation after January 1, 1977 and equipped with a COMS shall not "[e]xceed a five percent (5%) variability factor." This lack of an opacity standard does not appear to be corrected by Sections 606.1(b) or (c). Section 606.1(b) seems to allow for no VE at all (0% opacity) from stationary sources and nonroad engines placed into operation after January 1, 1977 that do NOT have COMS, while 606.1(c) seems to say that stationary sources and nonroad engines placed into service before January 1, 1977 may never exceed 10% opacity. The first sentence of 606.1 ("Except as otherwise provided in these air

quality regulations…") suggests that other regulations may set a zero percent opacity standard for post- January 1977 sources equipped with COMS. If so, please identify the opacity standard(s) that apply to the sources in 606.1(a) by providing citations to the regulations and also verify that all sources with COMS that began operation after January 1, 1977 are covered by these limits. Second, DOEE's public notice states that there is a 10% variability factor for COMS that is being replaced with a 5% variability factor in 606.1(a), but the notice does not identify where in the District's regulations this 10% variability factor is found. Please identify where the 10% variability factor previously or currently resides, and whether that variability factor is approved into the District's SIP. If the District is removing the 10% variability factor from its regulations and/or the SIP, please indicate as much.

Finally, EPA would note that the variability factor that is being changed was not identified as a deficiency in the District's SIP by the 2015 SSM SIP call, and therefore, unless it must be changed to harmonize with other changes required by the SIP call, the District may not need to amend this to address the 2015 SSM SIP call.

3. 606.1 606.2 VISIBLE EMISSIONS
   Alternative Emissions Limit (AEL) criteria 1: *The revision is limited to specific, narrowly defined source categories using specific control strategies*
   Comment: EPA appreciates that taking the very broadly defined stationary source category in 606.1 and replacing it with 7 new source categories and a catch all category, each with a 2-minute AEL, is more in line with criteria 1. However, EPA is concerned that the categories may still not be defined narrowly enough. Specifically, the category of "fuel burning equipment when burning natural gas" could range from large industrial process equipment to a smaller heater for a building. DOEE should explain why this potentially large universe of sources in this category are best regulated under the same AEL. DOEE should also explain in more detail how it arrived at these 2-minute alternative limits for each of these categories in its response to the public comments. There is no explanation as to why the 2-minute time frame for the AEL was chosen, or why two minutes of emissions is unlikely to affect any NAAQS.

4. 606.1 and 606.2 VISIBLE EMISSIONS
   AEL Criteria 2: *Use of the control strategy for this source category is technically infeasible during startup or shutdown periods*
   Comment: The combustion of natural gas may be the primary source of PM10 in the District, however, criteria 2 should also be addressed for other potentially significant fuel-burning sources in the district subject to the visible emissions regulation in this submission. Specifically, equipment using fuels with the potential to produce SO_2, such as boilers burning fuel oil or coal.

5. 606.1 and 606.2 VISIBLE EMISSIONS
   AEL Criteria 3: *The alternative emission limitation requires that the frequency and duration of operation in startup or shutdown mode are minimized to the greatest extent practicable*
   Comment: Thank you for being more specific about when the AEL can apply. We also note you have limited the AEL to 2 minutes for these source categories during start-up, cleaning, adjustment of combustion controls and regeneration of emissions control equipment, which is an important improvement. EPA believes that additional explanation as to why DOEE selected the two-minute limit for the AEL is needed. In addition, there is little to no explanation as to how the frequency and duration in these modes will be minimized to the greatest extent practicable. There

does not seem to be a limit on the number of times in any time period that the elevated VE limit under the AEL can occur.

Additionally, the 2013 proposal states that "The EPA believes that emission limitations in SIPs should generally be developed in the first instance to account for the types of normal operation outlined in D.C. Mun. Regs. tit. 20 § 606.1, such as cleaning, soot blowing, and adjustment of combustion controls" (78 FR 12497). As such, limits for operating in these modes of normal operation should not have an AEL associated with them. Further explanation is needed as to why AELs should be issued for what would otherwise be considered normal modes of operation. For example, does DOEE expect that adopting a single limit which accounts for short periods of "cleaning, soot blowing and adjustment of controls" would lead to a higher emission limit that would result in overall greater amounts of pollutants to be released?

6. 606.1 and 606.2 VISIBLE EMISSIONS
AEL Criteria 4: *As part of its justification of the SIP revision, the state analyzes the potential worst-case emissions that could occur during startup and shutdown based on the applicable alternative emission limitation*
Comment: In its proposed rulemaking, DOEE has indicated that criteria 4 is not applicable as the District of Columbia is in attainment for the PM2.5 NAAQS and § 606 was originally adopted to regulate Total Suspended Particulates (TSP), which was removed as an indicator species for PM in 1987. DOEE points out that there is "no correlation" established by EPA or the research community between PM and visible emissions, therefore it cannot be determined if the changes to the visibility limits set by the AEL could potentially harm public health or cause anti-backsliding issues. Additional explanation and support should be provided to justify this claim. In particular, DOEE should identify the research it is relying upon to show there is no correlation between PM and visible emissions, including PM10. If DOEE cannot demonstrate that a higher, short-term visible emissions limit granted as an AEL will not result in more PM or other emissions, then additional evidence that the NAAQS are nonetheless still protected should be presented to support this change. This may require an analysis of some sort to show that no backsliding occurs in accordance with section 110(l).

The district should explain why increased visible emissions for two minutes at the levels allowed for these sources are not likely to impact any NAAQS standards, including PM10. If there is no direct correlation between observed visible emissions levels and the corresponding levels of PM10 emissions, other indicators of why this might not be a problem could include the following (if applicable):

- Monitored PM10 levels are so low that a very large increase for an extended period of time would be needed to impact attainment;
- The AEL is only for 2 minutes, and so quantifying the total PM10 produced from the universe of sources in DC could be demonstrated to be relatively small;
- Any other evidence suggesting that the District is so far below the PM10 standard that the increased emissions resulting from the two-minute AEL would be very unlikely to lead to an exceedance of the NAAQS.

7. 606.1 and 606.2 VISIBLE EMISSIONS
AEL Criteria 5, 6 and 7: No comments.

8. 606.3 VISIBLE EMISSIONS
Cross References and SIP Call
The new section 606.3 allows for an exemption of up to 10% opacity to the VE limits in section 606.2 if certain criteria are met. EPA would first note that the reference to 606.2 does not make sense because all of the proposed VE limits in section 606.2 are greater than 10%, so no exemption would be needed. This may be an incorrect cross reference in the draft regulations which escaped notice.

Second, it appears that 606.3 was adopted into the District's regulations in 2012 but not previously submitted as a SIP revision. It is intended to be submitted with the current revisions to § 606 for inclusion in the District's SIP. However, it is not clear that this revision was necessary to correct the deficiencies identified in EPA's 2015 SSM SIP call. EPA would appreciate knowing whether DOEE believes that the changes in 606.3 are needed to correct the SIP call deficiencies.

Additionally, DOEE states in the current proposal that "the current ten percent (10%) flexibility is more than is necessary for a COMS" and states that it is revising to a 5% variability factor in the pre-amble. However, the regulatory text included with the proposal still states in 606.3 "visible emissions not to exceed ten percent (10%) opacity" as an exemption to the limits in 606.2, which are all higher than 10% opacity. The higher limits in 606.2 are limited to two minutes during startup, cleaning, adjustment of combustion or operational control, or regeneration of emission control equipment. What is the visible emissions limit these sources are subject to at all other times? Also, why is the 10% opacity limit in 606.1(c) limited to equipment placed into operation before January 1, 1977. What opacity limit(s) apply to equipment beginning operation after that date?

9. Opacity Standards Applicable to Non-road Engines

DOEE's public notice states as follows:

> The Department is not preempted from regulating opacity standards on non-road sources under Clean Air Act § 209(a). EPA has determined that regulating non-road opacity does not constitute a new emissions standard. For example, EPA approved the California Air Resource Board (CARB) opacity standards for Cargo Handling Equipment. In EPA's notice of decision, EPA stated that "CARB states that the smoke opacity test is a quick and inexpensive way to detect if an engine is emitting excessive emissions" and "based on the record, EPA cannot find that CARB's testing procedures are inconsistent with section 202(a) and cannot deny CARB's request based on this criterion" (80 Fed. Reg. 26254, May 7, 2015).

EPA believes that this is neither a correct statement of the CAA statutory requirements regarding nonroad sources nor a correct interpretation of what EPA determined in the action regarding California's standards for Cargo Handling Equipment. CAA section 209(e)(1) prohibits states from adopting standards to control emissions from certain new non-road engines or non-road vehicles. DOEE has not explained whether its opacity limit would apply to any of these new non-road engines or nonroad vehicles. In addition, EPA has interpreted and implemented section 209 as preempting state regulation of both new and **non-new** non-road engines. Except for engines covered by section 209(e)(1), section 209(e)(2)(B) does allow states other than California with SIP provisions under Part D of subchapter 1 of the CAA (i.e., Plan Requirements for Nonattainment Areas) to regulate certain non-road vehicles or engines ***if*** certain conditions are met as set forth in section 209(e)(2)(B) (emphasis added). EPA has adopted regulations at 40 CFR 1074.110 to explain how other states can show they meet the criteria in section 209(e)(2)(B). DOEE has not explained whether they are eligible under the requirements in section

209(e)(2)(B) to adopt such regulations and whether their opacity regulations meet the criteria in EPA's regulations.

Regarding EPA's action approving CARB's opacity standards for Cargo Handling Equipment, EPA determined in that matter only that there was no evidence in the record to find that CARB's testing procedures were inconsistent with section 202(a), and therefore could not deny CARB's request on those grounds. That finding cannot be interpreted as meaning that there are no other CAA statutory obstacles to D.C. adopting opacity standards on non-road sources. As stated in the same notice, "EPA granted California a full waiver for those parts of the CHE regulation establishing emission standards for new on-road motor vehicles and full authorization for standards and other requirements related to the control of emissions affecting new and in-use nonroad engines." 80 FR 26249, citing 77 FR 9916 (February 21, 2012). Thus, California had been previously granted a waiver from the prohibition in CAA Section 209 against states establishing emission standards for nonroad engines. The California action cited by DOEE elsewhere states that "states generally are preempted from adopting and enforcing standards and other requirements relating to the control of emissions, except that section 209(e)(2)(A) of the Act requires EPA, after notice and opportunity for public hearing, to authorize California to adopt and enforce such regulations unless EPA makes one of three enumerated findings." 80 FR 26249 at 26250. As noted above, DOEE must explain when and how it was granted authorization to adopt standards, including VE standards, related to non-road engines.

Finally, EPA notes that the lack of VE limits on non-road engines was not one of the deficiencies identified in the District's SIP by the 2015 SSM SIP call. Thus, the District may not be required to address this issue in order to respond to the 2015 SSM SIP call.

10. 606.5 VISIBLE EMISSIONS (606.4 cited in SIP call, was moved to 606.5 November 9, 2012 [59 DCR 12890])
606.4 and 606.5: No Comments. It appears that all affirmative defense language was removed from §§ 606.4 and 606.5.

Final Comments

Regions 3 appreciates DOEE's engaging with EPA on this proposal.
If DOEE has any questions or would like to meet, Region 3 encourages the state to contact EPA.

Sincerely,

Sean Silverman
Air and Radiation Division