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EPA Tightens Air Regulations for Emissions During Shutdown, Startup and Malfunction

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Introduction

Of particular concern to electric utilities and other major sources operating under Title V permits, on February 12, 2013, the U.S. Environmental Protection Agency ("EPA") initiated steps under the Clean Air Act ("CAA") to eliminate exemptions in 36 State Implementation Plans ("SIPs") that excuse in various ways exceedances of emission limitations during periods of startup, shutdown and malfunction ("SSM"). In the proposed rule, EPA declared such exemptions are not permissible under the CAA and seeks to compel 36 different states to revise their air quality regulations to eliminate them. The action comes in response to a Petition from the Sierra Club, which argued the CAA requires all emission sources to comply with emission limits on a *continuous* basis and that regulations permitting sources to exceed emissions limits during periods of SSM violate the CAA. In demonstrating compliance with the CAA's air quality standards, most SIPs *presume* the quantitative (modeled) air quality benefits of continuous compliance. This presumption then becomes an integral part of the State's demonstration of its attainment and/or maintenance of federal ambient air quality standards. In addition, significant exceedances during periods of SSM by a major source may violate short term ambient standards. Sierra Club argued the aggregate air quality impact of emissions during periods of SSM is significant, but the Petition does not attempt to quantify them. EPA defends its inability to quantify the adverse effects of SSM-related emissions because sources generally do not record those emissions.

The Sierra Club requested that EPA institute a sweeping revision to its SSM policy and invalidate a host of SIP provisions relating to SSM events. EPA's proposed rule grants certain parts of Sierra Club's Petition but denies others. If the rule becomes final, the affected states will have 18 months to revise their SIPs. The elimination of exemptions from emission limitations during periods of SSM means such exceedances would become violations, exposing sources to increased liability to enforcement actions by EPA, States, and third-parties. While this proposed rule may adversely affect any emissions source, the rule most severely impacts peaking units and institutional, commercial, and industrial boilers and other sources that operate on an as-needed or intermittent rather than continual basis. The more a unit starts up and shuts down, the greater liability it could face under this proposed rule.

Background

The CAA requires the various States to set emissions limits to ensure each State's ambient air quality can comply with the National Ambient Air Quality Standards ("NAAQS").[1] The CAA further

[1] EPA has established NAAQS for various pollutants on a case-by-case basis that measures the amount of each pollutant in the air. If a state's ambient air quality meets the limit for a particular pollutant, the state is considered in "attainment" of

requires that these emissions limits apply on a "continuous" basis.[2] EPA acknowledges that even the most efficiently designed, maintained, and operated sources (including their related air pollution control technology) cannot meet emissions limitations during SSM-events; many of these sources can only meet their applicable emissions limits during regular operations. The exemptions and other protective provisions established in these SIPs recognize this. Thus, while the notion of "continuous" emission limits may make sense on paper, it ignores the practical limitations of even the most effective control technologies. In other words, much like a car, pollution controls need to "warm up" before they perform at their maximum capabilities. As many States have long understood, and indeed as even EPA recognized as recently as last month: "the need for stringent emissions limitations consistent with the CAA requirements . . . can . . . conflict with the reality that some sources may occasionally have difficulties in meeting those emission limitations during all phases of operations . . . ."[3] Historically, both EPA and States accounted for these inconsistencies by granting sources certain work-arounds. Some states have unilaterally exempted SSM-related emissions while others have provided for affirmative defenses against enforcement actions concerning SSM-related emissions.

The Proposed Rule

The Sierra Club argues that the CAA prohibits work-arounds of any nature with respect to exceedances during SSM events. In its Petition, the Sierra Club asked EPA to (1) invalidate any SIP provision that grants a blanket exemption to SSM-related exceedances, either through categorical exemptions or case-by-case exemptions granted by the agency director ("director discretion"), (2) invalidate any SIP provision that allows sources to assert affirmative defenses against enforcement actions arising from SSM exceedances, and (3) cease relying on interpretive letters issued by state agencies to clarify how SIP provisions actually apply. EPA granted the Petition in part and denied it in part.

For SIP-created exemptions, EPA agreed with the Sierra Club and found that, under the CAA, emissions above a SIP-specified limit are violations, and the SIP cannot redefine "violation" to exclude SSM-related exceedances. EPA did not, however, wholly accept the Sierra Club's proposal. EPA recognized its own "longstanding interpretation of the CAA . . . that SIPs may contain provisions concerning "enforcement discretion" by the air agency's own personnel . . . ."[4] In other words, States may not create exemptions that turn violations into non-violations, but they may exercise discretion and elect not to bring an enforcement action for a violation. EPA stressed, however, that this enforcement discretion may not foreclose either EPA's own enforcement authority or the ability of a third party to bring a citizen suit.[5]

For affirmative defenses and potential civil penalties, Sierra Club argued that the CAA does not allow affirmative defenses and that civil penalties should thus always be available. Sierra Club did not distinguish between malfunction events and startup/shutdown events. EPA, however, did. EPA observed that it has historically "interpreted the CAA to allow affirmative defense provisions in

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the NAAQS for that pollutant. The CAA requires far stricter emissions limits for states not yet in attainment. CAA section 171 *et seq*., 42 U.S.C. § 7501 *et seq*.

[2] CAA section 302(k), 42 U.S.C. § 7602(k).

[3] Memorandum to Docket EPA-HQ-OAR-2012-0322, Statutory, Regulatory, and Policy Context for this Rulemaking, February 4, 2013 at 7 ("EPA Support Memo").

[4] State Implementation Plan: Response for Rulemaking; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown, and Malfunction; Proposed Rule, 78 Fed. Reg. 12,460, 12,474 (Feb. 22, 2013).

[5] *Id.*

certain narrowly tailored circumstances."[6] EPA concluded that affirmative defenses are potentially appropriate in the case of excess emissions resulting from malfunction, but not in the case of startup and shutdown. EPA justified this dichotomy on the grounds that "it is permissible for an air agency to provide narrowly drawn affirmative defense provisions in SIPs that provide relief from monetary penalties for violations that occur due to circumstances beyond the control of the source."[7] Significantly, affirmative defenses to civil penalty liability do not shield a source from actions seeking injunctive relief to compel efforts to prevent future emission limits exceedances.[8]

However, startups and shutdowns are foreseeable and are often planned events. In EPA's view, affirmative defenses are not appropriate in such circumstances. Instead, States should address periods of start up and shutdown by establishing alternative emission limits in the SIP.[9] Finally, where they are allowed, these affirmative defenses must satisfy certain EPA criteria to ensure they are narrowly tailored and will likely require substantial proof from the source asserting the defense. EPA recommends the following ten criteria for affirmative defenses for malfunctions:

1. The excess emissions were caused by a sudden, unavoidable breakdown of technology, beyond the control of the owner or operator;
2. The excess emissions (a) did not stem from any activity or event that could have been foreseen and avoided, or planned for, and (b) could not have been avoided by better operation and maintenance practices;
3. To the maximum extent practicable the air pollution control equipment or processes were maintained and operated in a manner consistent with good practice for minimizing emissions;
4. Repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as practicable;
5. The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;
6. All possible steps were taken to minimize the impact of the excess emissions on ambient air quality;
7. All emission monitoring systems were kept in operation if at all possible;
8. The owner or operator's actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs, or other relevant evidence;
9. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and
10. The owner or operator properly and promptly notified the appropriate regulatory authority.[10]

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[6] *Id.* at 12,470.
[7] *Id.* at 12,472.
[8] *Id.* at 12,470.
[9] *Id.* at 12,471.
[10] EPA-HQ-OAR-2012-0322-0007, Memorandum from Steven A. Herman, Assistant Administrator for Enforcement and Compliance Assurance, and Robert Perciasepe, Assistant Administrator for Air and Radiation, to the Regional Administrators, Regions I-X on Sept. 20, 1999, at 3-4. Available in the docket for this Rulemaking.

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The Sierra Club also requested that EPA cease relying on state agency interpretive letters and instead demanded that each SIP be clear and unambiguous on its face. EPA denied this request, observing that "the use of interpretive letters to clarify perceived ambiguity in the provisions in a SIP submission is a permissible, and sometimes necessary, approach under the CAA."[11]

The Sierra Club Petition challenges SIPs from 39 states. EPA's proposed rule, however, only concerns SIPs from 36 states. EPA proposed no SIP call for the remaining three. Of the 36 affected states, EPA granted the petition in whole for 27 states but only partially granted the petition with respect to 9 SIPs, as set forth below.

State	EPA's Proposed Action on Petition
Alabama	Grant
Alaska	Grant
Arizona	Partially grant; partially deny
Arkansas	Grant
Colorado	Partially grant; partially deny
DC	Partially grant; partially deny
Delaware	Grant
Florida	Grant
Georgia	Grant
Illinois	Grant
Indiana	Grant
Iowa	Partially grant; partially deny
Kansas	Grant
Kentucky	Grant
Louisiana	Grant
Maine	Grant
Michigan	Grant
Minnesota	Grant
Mississippi	Grant
Missouri	Partially grant; partially deny
Montana	Grant
New Hampshire	Partially grant; partially deny
New Jersey	Partially grant; partially deny
New Mexico	Grant
North Carolina	Grant
North Dakota	Grant
Ohio	Partially grant; partially deny
Oklahoma	Grant
Rhode Island	Grant
South Carolina	Partially grant; partially deny
South Dakota	Grant
Tennessee	Grant
Virginia	Grant
Washington	Grant
West Virginia	Grant
Wyoming	Grant

[11] 78 Fed. Reg. at 12,475.

Conclusion

Although the actual aggregate effect of SSM exceedances on ambient air quality is not known, Sierra Club asserts it is significant. Regardless of the magnitude or impact of such excess emissions, EPA affirms in this rulemaking its position that the CAA requires continuous compliance with emission limitations established in SIPs, and categorical or discretionary exemptions are impermissible. EPA has identified specific exemptions set forth in 36 SIPs and proposes to compel affected States to eliminate them from their regulations. All stakeholders should carefully scrutinize the specific provisions identified by EPA to discern whether they, in fact, offend the CAA by impermissibly allowing emissions during SSM events above the otherwise applicable emission limitations.

For SIP provisions that States must ultimately revise, States will likely need to establish alternative emission limitations that apply during planned periods of startup and shutdown, particularly for sources designed to operate intermittently, including, for example, peak load power plants. In order to establish alternative emission limitations that EPA likely will accept, States may need to establish narrowly tailored alternatives for specific source categories. Affected sources should begin working with States to develop such alternatives. Interestingly, EPA asserts that any "alternative limitations must be developed in consultation with the EPA and must be approved by the EPA into the SIP."[12] While it is true that such alternative limitations must be incorporated into the SIP, EPA overstates its authority in requiring States to work "in consultation" with EPA to develop such alternative limitations. As the U.S. Court of Appeals for the Eleventh Circuit underscored just last week, such authority belongs to the States.[13]

In addition, States may need to establish or revise affirmative defense provisions in their SIPs to ensure they effectively address malfunctions and similar unanticipated events beyond the control of a source that result in an exceedance of an emission limitation. Such provisions are or will be essential to protect source operators from civil penalty liability in appropriate circumstances. In the absence of affirmative defenses and alternative emission limitations for periods of SSM, sources will be exposed to monetary penalties, injunctions, state enforcement actions, EPA enforcement actions, and third-party citizen suits.

In the case of a steady-state facility that operates for extended periods of time (months and in some cases years) without interruption and then experiences a brief interruption caused by an extraordinary or unanticipated event, the facility's exceedance emissions will almost certainly constitute a miniscule fraction of its overall permitted emissions (and, under the old rule those emissions could continue to be dealt with effectively as they have been historically). On the other hand, a given source may by design experience more frequent shut-downs and start-ups. For these sources, the State may best address those increased emissions through narrow, specific source category regulations instead of by completely eliminating that State agency's flexibility in dealing with SSM-related emissions. This protects the State's flexibility and shields sources from potential liability.

If the proposed rule becomes final in some form, sources are likely to face stricter emissions standards, with regard to startup and shutdown events. As the proposed rule currently reads,"[e]ach state will ultimately decide how to address any SIP inadequacies identified by the EPA once the EPA

[12] *Id.* at 12.495.

[13] *See Alabama Environmental Council, et al. v. Alabama Power Company, et al.,* --- F.3d ----, No. 08-16961, 2013 WL 810707 (11th Cir. March 6, 2013) (citing *Fla. Power & Light Co. v. Costle*, 650 F.2d 579, 581 (5th Cir. 1981) for the proposition that "[t]he state is 'at liberty' to devise the particular components of its pollution control plan so long as the plan is adequate to meet the standards mandated by [the] EPA.")

takes final action."[14] However, those State actions must necessarily fall within the bounds of the CAA. Under EPA's interpretation of the CAA, SIPs may not include an affirmative defense for startup or shutdown exceedances and only narrowly tailored affirmative defenses against civil penalties for unplanned events.

EPA has set a deadline for March 25, 2013, by which it must receive comments. Given the potentially broad liability that area sources may face under this proposed Rule, affected industries should strongly consider submitting comments to educate EPA about the realities of operations and the adverse impacts such a Rule would have.

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[14] *Id.* at 12,464.

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