

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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National Emission Standards for)	
Hazardous Air Pollutants:)	
Standards for Hazardous Waste Combustors)	Docket ID No.
(Reconsideration); Proposed Rule)	OAR-2004-0022
)	
72 Fed. Reg. 54875)	
(September 27, 2007))	
)	

COMMENTS OF EARTHJUSTICE

A. PM Standards.

1. PM Standards For HWI, CK, LWAK, And Solid Fuel Boilers.

Sierra Club confirms what previous D.C. Circuit decisions already made abundantly clear: the best performing sources are “those with the lowest emission levels.” 479 F.3d at 880. Here, it is undisputed that EPA excluded many sources that had superior emission levels from its floor analysis solely because they were not using the control technology EPA preferred. Indeed, the record plainly shows many of the excluded sources achieving emission levels considerably better than those EPA labeled best. III TSD at App. F (APCD-INC-PM).

EPA argues that it is still free to exclude these better-performing sources from its floor analysis because, in the agency’s view, it is “likely” that they perform worse over time. 72 Fed. Reg. at 54878-54879. Yet the agency also admits that it does not know what the long term performance of the sources it excluded is: “Performance of other units over time cannot be estimated as reliably (the long-term variability cannot be quantified at all).” *Id.* at 54789/2.

It is EPA’s obligation to demonstrate — “with substantial evidence, not mere assertions,” *Cement Kiln Recycling Coalition*, 255 F.3d at 866 — that its floor approach yields accurate estimates of the relevant best sources’ emission levels. The question here then, is whether EPA may exclude from its floor analysis sources with undisputedly better test results merely because it thinks their long term performance is “likely” to be worse. The obvious answer is no. If EPA wants to exclude these sources, it must show that they are not among the relevant best performers, not just speculate that it is likely they are not.

Nor do any of EPA’s specific arguments in attempt to support its position have any merit. First, EPA states repeatedly that it does not know the long term variability of these sources. It is up to EPA to show that its floors do reflect the best sources’ emission levels; merely stating that it doesn’t know about the sources it chooses to exclude is not good enough. Moreover, it is up to EPA to get the data it needs to set floors. If the

agency does not like the data it has for these sources, it has ample authority to gather more. Indeed, while the public has waited for years for HWC standards that do not flagrantly violate the Clean Air Act, EPA has had ample opportunity to gather such data. Further, assuming *arguendo* that the data EPA has for the facilities it excluded are not adequate for floor purposes, then EPA does not have emissions information for these sources within the meaning of § 112(d)(3). 42 U.S.C. § 7412(d)(3) (EPA must base floors on the performance of the best sources for which it has emissions information). Thus, if EPA could exclude all sources except FF-equipped sources from its floor analysis because it did not have adequate data for them, it would also have to exclude such sources from the total number on which the top 12% is based and look to the top 12% of FF-equipped sources only.

EPA also argues that variability in the sources that don't use FFs "both exists and is appreciable." 72 Fed. Reg. at 54879/1. That argument is irrelevant. If EPA can show that because of variability the actual performance of such sources does not place them among the top 12%, it may exclude them. Otherwise, excluding them is unlawful and arbitrary. Merely stating that variability "exists" and "is appreciable" does not suffice to meet EPA's burden to issue a lawful and non-arbitrary rule.

Moreover, even if such argument were relevant, EPA's alleged analysis showing that variability exists and is appreciable is, itself, nothing more than irrelevant speculation. EPA claims that "ostensibly lowest emitting non-FF equipped" were unable to duplicate their own performance test results. 72 Fed. Reg. at 54879/1. That is just another way of saying that their test results varied — something that is true of other sources as well.

EPA also claims that non-FF-equipped sources have test results that are worse than their best test results adjusted for run-to-run variability. Again, that is just a way to say that the sources EPA excluded — like other sources — have some variation in test results from test to test. It does not show that the performance of those sources is worse over time than the performance of the sources EPA included in its floor analysis.

EPA claims that the sources with the best emission test results could not meet floors based on the "lowest single emitters' performance." *Id.* Because floors for existing sources do not have to match the lowest single emitters' performance, that argument is irrelevant.

Similarly, EPA argues that the sources with the best emission test results could not match the level "sources would design to in order to comply with the rule." Again, that is not the relevant test under the Clean Air Act.

EPA claims that it evaluated whether the variation in emission test results by non-FF-equipped sources resulted from legitimate operating variability rather than differing ash feed rates and, in the single "instance where direct comparison was possible, determined that it did not." *Id.* The causes of the variation in test results is irrelevant. The test results of sources equipped with FF vary, and so do the test results of other

sources. EPA's job is to determine the best performers. The agency does not fulfill that job by just picking the sources that happen to use the control technology it prefers and excluding all others on the pretext that their variability makes it likely that their performance will be worse over time than the performance of FF-equipped sources.

EPA argues that it has more reliable data for FF-equipped sources. 72 Fed. Reg. at 54879/2. EPA also states that the performance test data for the non-FF-equipped sources understates their emissions over time. Finally, EPA states that emissions from the lower emitting non-FF-equipped sources are higher in some instances than the emissions from some of the very best performing FF-equipped sources. None of those arguments are relevant. The Clean Air Act does not require EPA to set floors based on the emission levels achieved by the sources for which it has emissions data that it regards as most reliable; it requires EPA to set floors based on the emission levels achieved by the sources with the lowest emission levels for which it has emissions data. EPA itself has claimed that the test data for sources with and without FFs understate their emissions over time, and the agency used its variability analysis allegedly to address this issue. Thus, the agency's claim that non-FF-equipped sources' test data understates their performance over time is not a rational basis for excluding them from its floor analysis. Finally, it makes no difference whether some individual test results for non-FF-equipped are or aren't worse than FF-equipped sources'. It is EPA's job to identify the sources with the lowest emission levels. That pool may ultimately include some sources that use FFs and some that do not. But EPA may not exclude sources from its floor analysis without showing that their actual emission levels are not among the relevant best performers', and EPA's speculations about why that is "likely" to be the case fall far short of that requirement. Indeed, it is entirely possible that some of the non-FF-equipped sources do perform better over time than FF-equipped sources because they use very efficient models of the non-FF technology they have chosen, because they feed lower levels of ash or metals, or because they operate or maintain their sources and control equipment well. Conversely, it's possible that some FF-equipped sources feed higher levels of ash or metals, use inferior FFs or do not operate and maintain their sources and FFs well and that their performance lags behind that of non-FF-equipped sources' as a result.

With respect to EPA's exclusion of sources that allegedly have no pollution control equipment, 72 Fed. Reg. at 54879/, the agency has not demonstrated that these sources have no pollution control equipment at all. It is entirely possible, for example, that these sources have control equipment for other pollutants that also results in PM reductions. Assuming that these sources have not control equipment at all, however, EPA's arguments for excluding them are still without merit.

First, EPA argues that the difference in performance between these three sources and the FF-equipped sources on which EPA would like to base floors is relatively small and that the former are only better than one FF-equipped source. EPA does not claim that the differences are *de minimis*, however, nor are they. Indeed, EPA admits that the one FF-equipped source that would get bounced out of the top 12% emits about twice as much PM as the non-FF-equipped source that would get bounced in.

Second, EPA speculates that the performance of the allegedly uncontrolled sources “could well exceed” FF-equipped sources over time. Again, such speculation is irrelevant. If EPA can show that these sources’ actual performance is worse than FF-equipped sources it should do so. If it needs more emissions data to evaluate that performance, it should get that data. If the emissions data for those sources are worthless such that EPA does not actually have emissions data for them EPA must, as pointed out above, exclude them from the floor analysis altogether to ensure that its floors reflect the emission levels achieved only by the top 12% of the sources for which it has emissions information.

Third, EPA argues that emissions from uncontrolled sources are likely to be more variable because it is more directly affected by ash feed rates. But EPA does not know or even claim that these excluded sources are not achieving consistently better PM emission rates by consistently feeding less ash and metals.

EPA argues that “it believes it reasonable that the most efficiently controlled sources can be viewed as ‘best performing’ and ‘best controlled’ under appropriate circumstances.” *Sierra Club* confirms that argument is unlawful and, indeed, a major point of the *Sierra Club* holding is that the best performers are those with the lowest emissions, not those using the control methods EPA regards as most efficient. For EPA to advance again an argument that the Court already has rejected is frivolous and contemptuous.

EPA states that it is proposing to “revise the record.” The agency lacks authority to change the record, the contents of which are governed by Clean Air Act § 307(d). If EPA wants to change its rule rationale, it must first propose those changes and take comments on them, not merely advert to old record documents that it would now like to “revise” retroactively.

Finally, EPA’s reliance on variability factors are unlawful and arbitrary for the reasons given in previous comments and in *Sierra Club*’s petition for reconsideration, which is hereby fully incorporated by reference into these comments. As that petition specifically points out:

First, worst case data fully accounts for all variability and then some. As EPA itself has made clear these data reflect artificially bad conditions that do not reflect any source’s actual performance. They do not even reflect sources’ “worst foreseeable” actual performance. EPA has never shown that any source’s actual performance is ever as bad its worst case test data during operations that are not startup, shutdown or malfunction. Without demonstrating that its worst case data reflect sources’ “actual” performance — and not some artificially bad level that is not within their range of actual performance — the agency cannot rationally assert that these data reflect “normal operations.” EPA also ignores its own previous findings that other aspects of its worst case data further compensate for

variability. In particular, EPA ignores its own findings that the amount of data it has — multiple test conditions for many sources and multiple test runs within test conditions — accounts for variability. For these reasons alone, the agency’s claim that worst case data reflect only the “controllable variability occurring in normal operations” is arbitrary and capricious.

Second, even if worst case data did not already overcompensate for all variability, the agency’s adjustment for the allegedly “uncontrollable” variability is irrational. Specifically, although EPA seeks to distinguish between “controllable” and “uncontrollable variability” the EPA’s adjustments for variability do not so distinguish. EPA simply adds a variability factor to its worst case data. That variability factor is based on the number of data points EPA has for a given source and the variation between those data points. The fewer the data points and the bigger the gap between them, the bigger the variability factor EPA adds. EPA admits, however, that much variability is controllable and that worst case data account for controllable variability. Thus, the agency necessarily must acknowledge that adding a variability factor to account for controllable variability makes no sense; the worst case data already account for it. Because EPA’s adjustment of the worst case data does not distinguish between “controllable” and “uncontrollable” variability, the agency essentially is treating all variability in its data as “uncontrollable” by using all such variability in determining the size of the variability factor that it adds to each source’s worst case data. Because EPA knows that not all variability is “uncontrollable,” the agency’s approach to variability rests on an assumption that the agency knows to be invalid. For this reason, EPA’s approach to variability is unlawful — in that it yields floors that do not reflect the relevant best sources’ actual performance — and arbitrary and capricious.

Third, EPA has in some instances mixed worst case data with normal data. 70 Fed. Reg. at 49424. In these instances, however, EPA indicates that it did not use the normal data to determine sources’ actual performance, but only to determine their range of variability. EPA then appears to indicate that it applied a variability factor based on the variation between the worst case and normal data to the worst case data only. *Id.* This approach artificially inflates the variability factor that EPA adds to worst case data. Having chosen to base floors only on worst case data, EPA cannot use other data it is not considering in the floor calculations to create a bigger variability factor. Further, the variation from worst case data to normal data is only positive — i.e., only toward better emission levels. EPA’s approach, however, irrationally applies that variation to make worst case data appear even worse. EPA’s manipulation of the data is unlawful and arbitrary and capricious.

Fourth, EPA's new arguments for adding another variability factor to account for inter-source variability are without merit. The Clean Air Act makes clear how the agency must account for inter-source variability: by taking the "average" of the emission levels achieved by the relevant best performing sources. 42 U.S.C. § 7412(d)(3). The agency admits that its approach "represents the average of the best performing sources' emission levels plus the pooled within-test condition variance of the best performing sources." 70 Fed. Reg. at 59439. Further, EPA's new claim that its addition of yet another variability factor constitutes a means of "identifying the average performance" of the best sources is without merit. Even if EPA has some discretion in determining an average, the agency's "99th percentile modified upper prediction limit" is not an average or anything like an average. To the contrary, it is designed to yield numbers at the worst end of the range of any performance by any of the best performing sources. Indeed, this statistical approach can yield numbers that are worse than any performance by any of the best performing sources. Accordingly, EPA's approach does not constitute averaging and the results it yielded are not averages. For this reason as well, EPA's standards are unlawful and arbitrary and capricious.

2. PM Standards For Liquid Fuel Boilers.

EPA states that its initial decision is not to defend its PM standard for liquid fuel boilers. Commenters support that decision.

EPA also "notes," however, that "the difference in emission levels between controlled and uncontrolled sources suggests that subcategorization may be appropriate." 72 Fed. Reg. at 54880/2. Controlled and uncontrolled liquid fuel boilers are not separate subcategories, and the notion that EPA may label them as such to avoid requiring emission reductions from currently uncontrolled boilers is unlawful and directly contrary to the fundamental purpose of the Clean Air Act toxics provisions — reducing toxic emissions. Nor does EPA have authority under § 112(d)(1) to separate standards for controlled and uncontrolled boilers. Uncontrolled boilers are not a different "class[], type[], or size[]" of boiler nor does EPA even claim that they are.

B. Standards For SVM And LVM.

1. SRE Feed Methodology.

EPA requested and obtained additional delay in judicial review of its unlawful rules by representing to the D.C. Circuit and the parties that it would "fully review the HWC Rule in light of the Brick MACT decision and determine whether any changes are needed." Instead, the agency has used the extra time to misrepresent the record and misrepresent its own rationale for the rule at the time it was proposed and issued.

At proposal, EPA did not even claim that its "system removal efficiency/hazardous waste feed control" ("SRE Feed") floor methodology identified the

actual best performing sources or the average emission level achieved by such sources. To the contrary, EPA relied on a legal argument that the D.C. Circuit already had rejected as unlawful, that it could identify as the best performers sources other than those with the best emission levels. 69 Fed. Reg. 21198, 21223-21224 (April 20, 2004). In its final rule, EPA candidly stated that it used the SRE Feed approach to avoid setting standards that, in its view, would not be achievable for all sources. 70 Fed. Reg. 59402, 59441-59442 (October 12, 2005). That argument also had been rejected repeatedly by the D.C. Circuit. After EPA issued its final rule, the D.C. Circuit confirmed again in *Sierra Club* that those arguments are unlawful. Indeed, the Court found it necessary to repeatedly admonish EPA to stop trying to invent new ways to circumvent its rulings.

Now, EPA argues that the SRE Feed approach identifies the best performers over time better than another approach that EPA labeled the “Straight Emissions” approach. 72 Fed. Reg. at 54880.

As a preliminary matter, it is well established that it is up to EPA to devise a floor approach that yields floors that accurately reflect the average emission level achieved by the relevant best performing sources. Thus, EPA’s alleged reasons for rejecting other floor approaches are irrelevant. By attempting to support its unlawful floor approach with arguments about why it is allegedly better than some other floor approach, EPA wastes its own time and resources as well as the time and resources of commenters and time and resources of the court that eventually will need to review yet another unlawful EPA floor approach. The only relevant question is whether the floor approach EPA does choose satisfies the statute. If it does not, it is unlawful. If EPA believes that it is impossible to design a floor approach that complies with the statute, it must go to Congress.

EPA claims that it selected the SRE Feed methodology over the Straight Emissions methodology “because the SRE Feed methodology better identifies who the lowest emitters will be over time, and better assesses their performance (*i.e.*, how much SVM or LVM they will emit as they operate).” For that claim, EPA cites 70 Fed. Reg. at 59441-59442 and III TSD at 17-1. But in the preamble to the final rule, as noted above, EPA claimed that the “best performing” sources were “those with the best combination of hazardous waste feedrate and system removal efficiency as determined by our ranking system.” 70 Fed. Reg. at 59441/2. Those sources never purported to be the ones with the best emission levels — either in the short term or over time. To the contrary, EPA had made clear its view that it could pick sources other than those with the lowest emissions because it viewed them as better — an argument that was flatly unlawful at the time and that the Court has subsequently confirmed to be unlawful. Because these sources are not the statutorily relevant sources, even a system that reasonably estimated these sources’ performance would be unlawful.

EPA also claims that “SRE Feed best performers are those that best control ... controllable parameters and therefore are less variable (*i.e.*, are more efficient at controlling SVM and LVM emissions) and therefore likely to emit less SVM and LVM over time.” 72 Fed. Reg. at 54880/3. But apart from the wholly conclusory opinion that

it is “likely” that the sources it chose are the best performers over time, EPA offers nothing to show that they actually are the best performers over time. Such unsupported assertions fall far short of meeting EPA’s burden of proving that its floor approach satisfies the Clean Air Act — especially here, where EPA previously has stated that it chose those sources for a completely different reason, to assure that its floors would be achievable for other sources. 70 Fed. Reg. at 59442.

EPA claims that its SRE Feed approach “best evaluates the two things sources can do to control SVM and LVM emissions” and therefore identifies sources likely to emit less over time. 72 Fed. Reg. at 54880-54881. EPA’s job is to design a floor approach that satisfies the Clean Air Act, not to offer a selection of floors that fail to satisfy the Act then label one the “best.” Further, EPA has previously admitted that other sources — including those that feed the least SVM and LVM and best removal efficiencies — have lower emissions. 70 Fed. Reg. at 59442/1-2. For EPA to exclude those sources from its floor analysis, the agency must do more than simply assert that because its preferred approach evaluates both hazardous waste feedrate and removal efficiency, it identifies sources “likely” to be the best performers over time. In reality, EPA’s approach “evaluates” feedrate and removal efficiency in a way that excludes the sources with the lowest emissions — a result EPA already has admitted to engineering to satisfy its own policy view that floors should satisfy the agency’s notion about what is achievable for all sources.

EPA asserts that the “lowest emitters in single tests (i.e., performers identified as best under the Straight Emissions methodology) can and do emit more SVM and LVM than the sources EPA identified as best performers using the SRE Feed methodology.” 72 Fed. Reg. at 54881/1. Although EPA cites the TSD for that claim, the TSD shows no such thing, and EPA does not even attempt to explain how it might. Further, even if that were true, it would merely indicate that EPA’s Straight Emissions approach might not necessarily identify the relevant best sources, not that EPA’s SRE Feed approach does identify them.

EPA claims that some sources that were the best performing based on single tests were not necessarily the best performing when all their tests were considered. 72 Fed. Reg. at 54881/1. This is unsurprising, but it does nothing to show that EPA’s SRE Feed approach identifies the relevant best performers.

EPA claims that 5 of 15 of the sources with the lowest test results “were projected” to emit more than SVM or LVM than would be allowed under the SRE Feed floor under certain assumed conditions. But EPA has not shown those assumed conditions have ever happened or would happen in the future, and the notion that sources would operate under worse conditions than those already reflected in worst case compliance tests is at odds with the record. Moreover, EPA’s argument merely underscores that the agency cannot even “project” that 10 out of the 15 lowest emitters would ever exceed its SRE Feed floor, a significant concession given that the top 12 % generally comprises less than ten sources in the categories at issue. *See* III TSD at 17-3.

EPA claims that 8 or 13 of the sources identified as best performers under its Straight Emissions approach would not be best performers if EPA assumed that they had worse system removal efficiencies at the same time they had the feed rate they used during the test identifying them as best performers. But EPA does not show why that would be the case and, in any event, if EPA believes that the data it used in its own Straight Emissions test are not adequate, it is up to the agency to gather more data or design a different approach that does yield an accurate picture of the relevant best sources' performance. EPA may not use the alleged inadequacy of its data to default to a floor approach that does not purport to identify the actual best performers and was not even designed to do so.

One of the more glaring flaws in EPA's SRE Feed approach — which the agency now deigns to acknowledge — is that it ignored the input of toxic metals from non-hazardous wastes. Rather than acknowledging that this requires new floors, however, EPA argues that the defect does not matter because “all SVM and LVM is controlled by virtue of the PM standard.” 72 Fed. Reg. at 54881/3. EPA also argues that the defect doesn't matter because its LVM and SVM floors are “capped” by the interim standards. *Id.*

The Clean Air Act does not allow it, however, to insert a new rationale into the record for a rule that already has been issued. 42 U.S.C. § 7607(d). Thus, EPA may not now assert that its PM standards suffice as a floor for SVM and LVM even if though EPA now admits that its floor approach for SVM and LVM failed to account for a factor that undisputedly affects SVM and LVM emissions. Likewise, EPA may not now assert that its interim standards serve that purpose.

In any event, EPA's SVM and LVM floors are not saved by either the PM standards or the interim standards.

Regardless of whether EPA believes that SVM and LVM emissions are “controlled by virtue of the PM standard,” 72 Fed. Reg. at 54881/3, the Clean Air Act requires standards for each HAP that a category emits and it requires each standards to reflect, at a minimum, the average emission level achieved by the relevant best performing sources. EPA does not dispute, nor can it, that because its SRE Feed approach fails to account for the effect on emissions of non-hazardous waste inputs (*e.g.* mercury and chlorine in cement kilns' raw materials), it neither identifies the actual best performing sources nor the average emission level those sources achieved. Accordingly, its floors for SVM and LVM are unlawful. The mere existence of PM standards does not change this result. The PM standards do not purport to fulfill the floor requirements for SVM and LVM.

Similarly, EPA's interim standards do not fulfill the Act's floor requirements for SVM and LVM. The interim standards do not purport to reflect the emission levels achieved by the best performing sources, but only the level that all sources have been required to meet since they took effect.

Next EPA argues that “there is a strong direct correlation” between the control of total PM and control of SVM and LVM and that, “emission limits reflecting best PM control will also similarly control the total SVM and LVM. 72 Fed. Reg. at 54881/3. The agency’s claims are wholly irrelevant to whether EPA’s SVM and LVM standards accurately reflect the relevant best sources’ emission levels. As shown above and in previous comments, they do not and they therefore contravene the Clean Air Act. EPA’s belief that PM standards will control emissions of SVM and LVM cannot save the agency’s SVM and LVM standards does not even speak to the statutory floor requirements.

EPA also appears to suggest that PM could be a surrogate for SVM and LVM. But EPA has never claimed — and nothing in the record even suggests — that PM is a surrogate for SVM and LVM in this rulemaking. EPA may not simply assert now that it is. Indeed, EPA already has determined that SVM and LVM standards are necessary in addition to PM standards.

Even assuming *arguendo* that EPA could correct defects in its rulemaking by just announcing that it was retroactively changing the rule rationale, PM is not a valid surrogate for the SVM and LVM emitted by HWC. To be a reasonable surrogate for a HAP metal, PM must be “the only means by which facilities achieve” reductions in that metal. *National Lime Ass’n v. EPA*, 233 F.3d 625, 639 (D.C. Cir. 2000). *See also Sierra Club v. EPA*, 353 F.3d 976, 984 (D.C. Cir. 2004) (same). Further the “achievement” of reductions need not be “the product of a specific intent.” *National Lime Ass’n*, 233 F.3d at 640. Here, the record makes entirely clear that controlling PM emissions is not the “only” means by which HWC achieve control of SVM and LVM. Further, SVM and LVM must be reduced by the amount that § 112’s stringency provisions expressly require. Thus, to meet § 112’s floor requirements the emissions of each HAP that HWC emit must be reduced not just to some level of EPA’s choosing but, at a minimum, to the average emission level that the relevant best sources are achieving with respect to that HAP. 42 U.S.C. § 7412(d)(3). EPA itself has tacitly acknowledged this point, refusing to set numerical emission standards for the nonenumerated metals based on the claim that such standards “would not adequately control nonmercury metal HAPs to levels achieved by the relevant best performing sources.” 70 Fed. Reg. at 59459/2. The test for surrogates takes into account that surrogate standards cannot be used to provide a lesser degree of reduction than the Clean Air Act requires by providing a three part test:

In *National Lime*, this court established a three-part analysis for determining whether the use of PM as a surrogate for HAPs is reasonable: PM is a reasonable surrogate for HAPs if (1) “HAP metals are invariably present in ... PM;” (2) “PM control technology indiscriminately captures HAP metals along with other particulates;” and (3) “PM control is the only means by which facilities ‘achieve’ reductions in HAP metal emissions.” If these criteria are satisfied and the PM emission standards reflect what the best sources achieve — complying with Section 7412(d)(3) — “EPA is under no obligation to achieve a particular numerical reduction in HAP metal emissions.”

Sierra Club, 353 F.3d at 984 (quoting *National Lime Ass’n*, 233 F.3d at 639) (emphasis added). Under this test, it is necessary but not sufficient that SVM and LVM be removed with the particulate matter. Thus, PM is not a valid surrogate here, where HWC’s metal HAP emissions are affected by feedrates and not “only” by PM emissions control.

EPA also claims that it determined that total SVM and LVM emissions from sources it identified as the best PM performers are “generally comparable” to the best SVM and LVM performers under EPA’s SRE Feed approach. 72 Fed. Reg. at 54881/3. From that, the agency claims that the existing SVM and LVM floors, in combination with the PM standards “provide control of SVM and LVM reflecting the average SVM and LVM emissions of the best performing sources.” *Id.* at 54881-54882. Neither the SVM and LVM standards nor the PM standards reflects the actual emission levels achieved by the best performers. As explained in previous comments and above, the SVM and LVM standards fail to do so because, *inter alia* they fail to account for the undisputed effect on emissions of nonhazardous waste feed. The PM standards do not even purport to reflect the SVM and LVM emission levels achieved by the relevant best performers. Therefore, EPA cannot cobble together lawful SVM and LVM floors just by adverting to its unlawful SVM and LVM standards and its unlawful PM standards and hoping that somehow together they will suffice.

EPA continues to press two arguments that it now characterizes as “severable” — evidently indicating that it knows them to be unlawful and wishes to “sever[.]” its rule from them on judicial review. The first is that its Straight Emissions approach would force some sources to reduce the amount of hazardous waste they burn and that this result would be at odds, in the agency’s view with RCRA’s goal of reducing land disposal. 72 Fed. Reg. at 54882/1. Again, EPA’s attack on its Straight Emissions approach straw man is irrelevant. Assuming that approach is defective for some reason, it is up to EPA to devise a different approach that satisfies the Clean Air Act. In no event, however, do the alleged defects in EPA’s Straight Emissions approach justify the agency’s use of another approach that fails to satisfy the Clean Air Act. In any event nothing in RCRA even purports to excuse EPA from setting standards that fully satisfy § 112(d)’s floor requirements and nothing in the § 112(d) even suggests that the agency may relax those floor requirements to pursue its RCRA policy goals. And in any event, EPA has nowhere shown that sources could not meet properly set floors by improving their controls rather than reducing the waste they burn or that if some sources did reduce the waste they burn that waste would be landfilled rather than sent to other cleaner sources.

EPA states disingenuously that its concern is not with achievability but with cross media contamination. That claim is belied by the agency’s statements in the final rule, where it squarely relied on the achievability argument. 70 Fed. Reg. at 59442. Ultimately, the agency is suggesting that the floor standards should be relaxed in light of what EPA perceives as RCRA’s policy goals. Not only is that argument flatly unlawful, it underscores what is already obvious anyway: EPA knows full well that its floors do not satisfy the Clean Air Act, and wants to meet a less protective standard.

EPA also argues that “as a legal matter, section 112(d)(3) does not specifically address the question of whether ‘best performing’ sources are those with the lowest net emissions, or those which control HAP emissions most efficiently.” 72 Fed. Reg. at 54882. *Sierra Club* squarely rejects that argument. 479 F.3d at 880. Thus, EPA’s argument is with the statute and with the Court:

If the Environmental Protection Agency disagrees with the Clean Air Act’s requirements for setting emissions standards, it should take its concerns to Congress. If EPA disagrees with this court’s interpretation of the Clean Air Act, it should seek rehearing en banc or file a petition for a writ of certiorari. In the meantime, it must obey the Clean Air Act as written by Congress and interpreted by this court.

479 F.3d at 884. For EPA to advance argument that the Court has expressly rejected is frivolous.

2. Alternatives To PM Standard For Incinerators, Liquid Fuel Boilers, And Solid Fuel Boilers.

EPA states that its alternative to the PM standard would not address all HAP emitted by a source and thus does not appear to be consistent with *Sierra Club*. 72 Fed. Reg. at 54882/3. In addition, its alternative to the PM standard does not reflect the emission levels achieved by the relevant best sources. For both reasons the alternative is unlawful and must be dropped.

3. Alternative Mercury, SVM, LVM, and Total Chlorine Standards For Cement Kilns And LWAKs.

EPA correctly admits that these alternatives are inappropriate. 72 Fed. Reg. at 54883/1. Accordingly, they must be dropped.

4. Alternative Mercury Standards For Cement Kilns and LWAKs Under The Interim Standards.

EPA correctly admits that these alternative standards are not permissible. 72 Fed. Reg. at 54883/1. Accordingly, they must be dropped.

C. Standards For Total Chlorine.

1. Incinerators.

EPA claims bizarrely that its September 6, 2006 proposal states how its decision to falsely assume that all incinerators emit chlorine at 20 ppmv is consistent with the 2007 *Sierra Club* decision. 72 Fed. Reg. at 54883/2. Because *Sierra Club* was not decided until 2007, and the agency’s 2006 proposal does not address that decision.

2. Cement Kilns.

EPA admits that its chlorine standards for cement kilns impermissibly reflect emission levels that the agency regards as achievable rather than the levels actually achieved. 72 Fed. Reg. at 54883/2. Accordingly, EPA must redo these standards and bring them into compliance with the Clean Air Act.

3. LWAKs.

EPA admits that both floor approaches it considered for LWAKs, its SRE Feed approach and its Straight Emissions approach yield floors that are worse than its interim standards — *i.e.* worse than the emission levels that all LWAKs already are required to achieve. 72 Fed. Reg. at 54883/3. This result confirms that neither approach even purports to yield an accurate picture of the emission level achieved by the relevant best performing sources and that both approaches are unlawful.

Remarkably, EPA continues to claim that the interim standard “remains the best measure of evaluating the best performing sources.” *Id.* EPA’s job, however, is not to pick an approach that it thinks is “best” from among the unlawful floor approaches it has chosen to create. Rather, its job is to set floors that accurately reflect the average emission level achieved by the relevant best performing sources, those with the lowest emissions. If EPA’s chosen approaches do not yield an accurate picture of that emission level, the agency must design a different floor approach.

EPA’s argument that there are only a few LWAKs and that it does not have much data for them is beside the point. It is EPA’s job to set a lawful floor for this subcategory. If the agency needs more data to do so, it must collect more data. Further, as EPA apparently recognizes, one reason that its floors are worse than the interim standard is that it used a variability factor that vastly overstates actual emissions, especially where the pool of data points is small. EPA should draw the logical conclusion from that fact and abandon its current variability analysis rather than throwing up its hands and choosing to unlawfully set floors at the level that all LWAKs already are meeting (the interim standards) rather than setting floors that reflect the best performing LWAKs’ actual performance.

4. Liquid Fuel Boilers.

a. Higher Heating Value Hazardous Wastes Subcategory.

EPA correctly admits that its TCI standards for the higher heating value hazardous wastes subcategory must be rewritten. 72 Fed. Reg. at 54883/3.

b. Lower Heating Value Hazardous Wastes Subcategory.

EPA claims that the only issue with respect to the lower heating value hazardous waste subcategory is how to account of the alleged “analytical” bias at levels below 20 ppmv, and contends that its “resolution of the issue” — to simply falsify all the test results below 20 ppmv by increasing them to 20 ppmv — is consistent with the Clean Air

Act. 72 Fed. Reg. at 54884/1. For the reasons given in Sierra Club's 2006 comments, EPA is wrong. EPA's floors must reflect the actual emission levels achieved by the relevant best performing sources. An emission level that EPA simply made up — 20 ppmv — does not satisfy that test.

5. Solid Fuel Boilers.

EPA argues that because both of its chosen floor methodologies yield the same floor levels, the choice between them is academic. *Id.* But neither of EPA's chosen floor methodologies yields floors that accurately reflect the emission levels actually achieved by the relevant best performing solid fuel boilers. Therefore, both are unlawful.

6. Hydrochloric Acid Production Furnaces.

After allegedly reviewing its HWC rule in light of the *Sierra Club* decision, EPA's primary attempt to defend its standards for HCl furnaces is to argue: "the statutory language requiring floors to be based on 'best controlled' (new)'/best performing' (existing) does not specify whether 'best' is to be measured on grounds of control efficiency or emission level." *Id.* That is precisely the argument that the *Sierra Club* Court rejected. Indeed, the Court expressly confirmed what was already clear from the text of the Act: the best performers are "those with the lowest emission levels." 479 F.3d at 880. It is well known even to first year law students that, in the American system of government, it is the courts that interpret the law. The D.C. Circuit has now interpreted § 112(d)(3) clearly and repeatedly, and it has clearly and repeatedly rejected EPA's attempts to circumvent this provision. EPA may ask Congress to change the Clean Air Act, but in the meantime, it must obey the law. *See Sierra Club*, 479 F.3d at 884. For the agency to continue to advance arguments that fly in the face of the Clean Air Act as interpreted by the D.C. Circuit is frivolous.

EPA attempts to rely on a statement in *Sierra Club v. EPA*, 167 F.3d 658, 661 (D.C. Cir. 1999) that the Clean Air Act does not say "how the performance of the best units must be calculated." 72 Fed. Reg. at 54884/1. But the Act makes clear what must be calculated: the "emission level actually achieved" by the sources "with the lowest emission levels." *Sierra Club*, 479 F.3d at 881. It is up to EPA to decide how to calculate those floors, but its floors must yield an accurate estimate of the best sources' emission levels. And EPA may not choose to base floors on other sources' emission levels — *e.g.* the ones it believes to have the best control efficiency — instead. If EPA does not like the law or the Court's interpretation of the Clean Air Act, the agency must ask Congress to change the law. 479 F.3d at 884. In the meantime, EPA must obey the law and its continued refusal to do so is contumacious.

Although EPA's requirements for HCl furnaces would be unlawful whether they were emission standards or not, it bears emphasis that EPA has previously conceded that percent reduction standards are not emission standards. The agency may not use its alleged re-examination of its standards in light of *Sierra Club* to change its rule rationale. Rather, if EPA wants to change its rule rationale the agency must obtain a remand and re-propose its standards under the procedures set forth in Clean Air Act § 307(d).

EPA attempts to rely on its policy arguments for setting standards that do not satisfy the Act, that it does not think sources should have to change or reduce the amount of product they make and that it does not think it should standards that are not, in its view, achievable. 72 Fed. Reg. at 54884/1-2. Those arguments already have been considered and rejected by the Court. EPA's continued reliance on them is contumacious.

EPA also attempts to argue that it doesn't matter whether it uses its System Removal Efficiency floor approach or its Straight Emissions approach, because both approaches identify the same sources as the best performers. As explained in earlier comments and above, both approaches are unlawful and the agency's continued insistence on presenting a false choice between these unlawful approaches is a waste of time. EPA's job is to design a floor approach that yields an accurate picture of "the emission level actually achieved by the best performers (those with the lowest emission levels)." *Sierra Club*, 479 F.3d at 880. It is well established that floors merely reflecting what HCl furnaces do on the back end and ignoring the effect on emission levels of the input of hazardous air pollutants in feed and fuel do not reflect the best sources' emission levels and thus fail this test.

EPA attempts to distinguish *Sierra Club* by arguing that it did not address standards based on control efficiency. 72 Fed. Reg. at 54884. That argument is frivolous. *Sierra Club* and repeated prior decisions by the D.C. Circuit make clear that floors must reflect the emission levels achieved by the sources with the best emission levels. These are clear holdings about what the Clean Air Act requires. Floors that fail to "the emission level actually achieved by the best performers (those with the lowest emission levels)" are unlawful. 479 F.3d at 880.

EPA argues that its TCI standard does account for emissions from all HAP inputs. 72 Fed. Reg. at 54884/3. Even if true that claim would be irrelevant. Because EPA's floors do not reflect "the emission level actually achieved by the best performers (those with the lowest emission levels)," they are unlawful. *Sierra Club*, 479 F.3d at 880.

EPA claims that its standards for HCl furnaces were not designed to produce a standard achievable by all sources. That claim is directly belied by EPA's previous characterizations of its rule and by the agency's articulation of its "policy reason" even in this most recent characterization, 72 Fed. Reg. at 54884/2. In any event, it is irrelevant. Because EPA's floors do not reflect "the emission level actually achieved by the best performers (those with the lowest emission levels)," they are unlawful. *Sierra Club*, 479 F.3d at 880.

EPA admits that its alternative 150 ppmv standard is unlawful. 72 Fed. Reg. at 54884/3. Accordingly, it must be withdrawn.

Finally, EPA again states that it is revising "key record documents." *Id.* The agency lacks authority to retroactively doctor the record for an existing rule. If EPA

wants to do so, it must seek a remand of the rule and propose its changes under the process spelled out in Clean Air Act § 307(d), 42 U.S.C. § 7607(d).

D. Standards For Dioxins/Furans.

1. Incinerators.

a. Dry Air Pollution Control Device Category.

EPA again asserts that, although it created different standards for incinerators with and without dry air pollution control devices, it did not subcategorize incinerators by control device but rather that “the presence or absence of a dry air pollution device relates to differences in dioxin formation mechanisms and consequent dioxin emission levels. 72 Fed. Reg. at 54885 n23.

At proposal, EPA argued that it was subcategorizing incinerators with and without dry air pollution control devices (APCDs) not because they use different APCDs but because they have different emission characteristics. 69 Fed. Reg. 21198, 21214 (April 20, 2004). In the final rule, EPA claimed that because incinerators with dry APCDs can have elevated dioxin emissions, they are a different “type[]” of incinerator. 70 Fed. Reg. 59402, 59467 (October 12, 2005). EPA also claimed that incinerators with and without dry APCDs are “designed” differently — i.e., that incinerators with dry APCD “are designed to effectively control metal and particulate matter through use of baghouses, electrostatic precipitators, etc.” and that incinerators with wet APCD are “generally designed to effectively reduce total chlorine emissions (with the use of wet scrubbers) and metals and particulate matter emissions.” 70 Fed. Reg. 59467. In addition, EPA argued that if it did not subcategorize between incinerators with dry and wet APCD, its floors would not be achievable for some sources unless those sources adopted “beyond-the-floor” technology. *Id.* at 59467-59468.

That incinerators with dry APCDs have higher dioxin emissions (or different “pollutant generation characteristics,” as EPA alternatively puts it) does not make them a different “type” of incinerator. It just means that they have different emissions. The Clean Air Act does not authorize EPA to subcategorize between incinerators based on their different emissions. *See* Comments of Sierra Club at 3.

EPA’s claim that incinerators with dry and wet APCDs are “designed” differently is also without merit. The agency has not identified any “design” difference. To the contrary, the only difference EPA has identified is the type of control device used. As EPA itself has recognized, the agency lacks authority to subcategorize based on the type of control devices that facilities use. *See* Comments of Sierra Club at 3 (quoting 69 Fed. Reg. at 21214).

Finally, EPA’s claim that if it did not subcategorize incinerators with and without dry APCDs, floors would not be achievable without the use of “beyond-the-floor” control technology is without merit. It is well established that floors do not have to satisfy EPA’s notions about what is achievable with any particular control technology. *Sierra Club*,

479 F.3d at 880; *Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855, 861 (D.C. Cir. 2001).

EPA next argues that its decision to simply set floors at the level of the interim standards is consistent with the Clean Air Act and the caselaw. 72 Fed. Reg. at 54885/2. As *Sierra Club* confirmed, floors must reflect “the emission level actually achieved by the best performers (those with the lowest emission levels).” 479 F.3d at 880. Floors set at the interim standard do not remotely meet this test; they reflect the emission level that all sources were required to meet, not the emission levels that the lowest emitters “actually achieved.”

b. Incinerators With Wet Air Pollution Control Systems Or No Air Pollution Control Systems.

EPA again argues that its decision to simply set floors at the level of the interim standards is consistent with the Clean Air Act and the caselaw. 72 Fed. Reg. at 54885/2-3. As *Sierra Club* confirmed, floors must reflect “the emission level actually achieved by the best performers (those with the lowest emission levels).” 479 F.3d at 880. Floors set at the interim standard do not remotely meet this test; they reflect the emission level that all sources were required to meet, not the emission levels that the lowest emitters “actually achieved.”

EPA further attempts to justify its decision by arguing that the data it had did not accurately represent sources’ performance over time. 72 Fed. Reg. at 54885/3. EPA’s failure to gather adequate data does not excuse it from setting floors that accurately reflect the relevant best sources’ performance. Rather, it is up to EPA to design a floor approach that produces floors that do reflect the best sources’ performance. If doing so, requires the agency to gather more data, EPA must gather more data. EPA has ample authority to gather all the data it needs and has had years to do so. Instead it has chosen not to gather data, and now uses its own recalcitrance as an excuse for setting floors at the interim standard, even though the interim standard does not even purport to reflect the emission level actually achieved by the best performers.

Finally, EPA asserts that it continues to believe that the interim standard is a reasonable estimate of best performance. The D.C. Circuit has held repeatedly EPA must demonstrate with substantial evidence, not mere assertions, that its floor approach yields accurate estimates of the relevant best sources’ emission levels. By falling back on bare assertions, EPA not only contravenes the Clean Air Act but demonstrates contempt of court.

2. Cement Kilns.

EPA again argues that its decision to simply set floors at the level of the interim standards is consistent with the Clean Air Act and the caselaw. 72 Fed. Reg. at 54885-54886. As *Sierra Club* confirmed, floors must reflect “the emission level actually achieved by the best performers (those with the lowest emission levels).” 479 F.3d at 880. Floors set at the interim standard do not remotely meet this test; they reflect the

emission level that all sources were required to meet, not the emission levels that the lowest emitters “actually achieved.”

EPA argues that the interim standards are more stringent than floors calculated under its Straight Emissions approach. That EPA’s Straight Emissions approach does not yield floors that are better than the level all kilns already are required to meet under the interim standards, merely underscores that it does not yield an accurate picture of the relevant best sources.

EPA also argues that considering variability, it believes some sources emitted dioxins at levels higher than the interim standard. Because floors must reflect the best performers’ emission levels, the possibility that some sources were in violation of the interim standards does not support using the interim standards as the floor.

3. LWAKs.

EPA again argues that its decision to simply set floors at the level of the interim standards is consistent with the Clean Air Act and the caselaw. 72 Fed. Reg. at 54886/1. As *Sierra Club* confirmed, floors must reflect “the emission level actually achieved by the best performers (those with the lowest emission levels).” 479 F.3d at 880. Floors set at the interim standard do not remotely meet this test; they reflect the emission level that all sources were required to meet, not the emission levels that the lowest emitters “actually achieved.”

EPA asserts that it continues to believe that the interim standards are “the best measure of evaluating the best sources and their level of performance.” 72 Fed. Reg. at 54886/1. The D.C. Circuit has held repeatedly EPA must demonstrate with substantial evidence, not mere assertions, that its floor approach yields accurate estimates of the relevant best sources’ emission levels. By falling back on bare assertions, EPA not only contravenes the Clean Air Act but demonstrates contempt of court.

4. Liquid Fuel Boilers.

a. Sources With Dry Air Pollution Control Devices.

EPA states that its basis for setting different dioxin standards for liquid fuel boilers that are equipped with dry air pollution control devices and those that are not is “the same as for incinerators.” 72 Fed. Reg. at 54886 n26. It is unlawful and arbitrary for the same reasons. Specifically, that incinerators or boilers with dry APCDs have higher dioxin emissions (or different “pollutant generation characteristics,” as EPA alternatively puts it) does not make them a different “type” of incinerator or boiler. It just means that they have different emissions. The Clean Air Act does not authorize EPA to subcategorize between sources based on their different emissions. *See* Comments of Sierra Club at 3.

EPA’s claim that incinerators with dry and wet APCDs are “designed” differently — a claim it also apparently applies to liquid fuel boilers, 72 Fed. Reg. at 54886 n26 —

is also without merit. The agency has not identified any “design” difference. To the contrary, the only difference EPA has identified is the type of control device used. As EPA itself has recognized, the agency lacks authority to subcategorize based on the type of control devices that facilities use. *See* Comments of Sierra Club at 3 (quoting 69 Fed. Reg. at 21214).

Finally, EPA’s claim that if it did not subcategorize incinerators with and without dry APCDs, floors would not be achievable without the use of “beyond-the-floor” control technology — a claim EPA also apparently applies to liquid fuel boilers, 72 Fed. Reg. at 54886 n26 — is without merit. It is well established that floors do not have to satisfy EPA’s notions about what is achievable with any particular control technology. *Sierra Club*, 479 F.3d at 880; *Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855, 861 (D.C. Cir. 2001).

The “extremely high” floor that EPA set for liquid fuel boilers equipped with a dry air pollution control device, 72 Fed. Reg. at 54886/1, is unlawful for the reasons given in previous comments. 2004 Comments of Sierra Club at 20-26. Nor do EPA’s beyond-the-floor standards render the unlawfulness of its floors irrelevant. The whole point of floor requirements is to ensure that no matter what EPA thinks the maximum achievable degree of reduction under § 112(d)(2) is, the agency’s standards are not less stringent than “the emission level actually achieved by the best performers (those with the lowest emission levels).” *Sierra Club*, 479 F.3d at 880. Thus, EPA cannot possibly render compliance with floor requirements unnecessary just by announcing that it is setting beyond the floor standards.

EPA’s alternative floor of controlling temperature to 400 F is not an emission standard at all. Moreover, it does not purport to reflect “the emission level actually achieved by the best performers (those with the lowest emission levels).” *Sierra Club*, 479 F.3d at 880. For both reasons it is unlawful and arbitrary and, despite EPA’s contention, directly at odds with the *Sierra Club* decision.

EPA correctly concedes that its standards for new liquid fuel boilers are unlawful. Because they do not comply with the Clean Air Act as interpreted by the D.C. Circuit, they must be remanded and corrected.

Finally, EPA again suggests that it can correct the flaws in its HWC rule by retroactively revising its rule rationale in “key support documents.” 72 Fed. Reg. at 54886/2. To the contrary, EPA may not revise the record retroactively. 42 U.S.C. § 7607(d). Further, EPA may not pick and choose among the elements of the rule rationale on which it now wishes to rely. The final rule must be judged on the rationale EPA already provided for it. If EPA wants to change its rule or its rule rationale, the agency must follow the Clean Air Act’s procedural requirements by publishing a new proposed rule and taking comments on it.

b. Sources With Wet Or Without Air Pollution Control Equipment.

EPA states that it does not intend to defend its floors for liquid fuel boilers with wet air pollution control equipment or without air pollution control equipment. 72 Fed. Reg. at 54886. Those floors are unlawful for reasons given in previous comments, and *Sierra Club* confirms this point. Accordingly, those floors must be revised to bring them into compliance with the Clean Air Act.

5. Solid Fuel Boilers.

EPA states that it does not intend to defend its floors for solid fuel boilers. 72 Fed. Reg. at 54886 n27. Those floors are unlawful for reasons given in previous comments, and *Sierra Club* confirms this point. Accordingly, those floors must be revised to bring them into compliance with the Clean Air Act.

E. Non-Dioxin Organic HAP.

Rather than making a good faith effort to re-evaluate its standards for non-dioxin organic HAPs, EPA uses its latest proposal to attempt to beef up its claims that CO and HC are valid surrogates for these HAPs and that its CO and HC floors are lawful. 72 Fed. Reg. at 54886-54887. Such attempts to retroactively change the rationale for a final rule contravene § 307(d). Further, the agency's arguments are irrelevant or without merit.

EPA argues irrelevantly that destruction of organics is the chief reason that there is a hazardous waste combustion industry and that RCRA standards are based on combustion technology. 72 Fed. Reg. at 54886/2-3. The reason EPA is engaged in a rulemaking now, however, is that its Clean Air Act standards were vacated as unlawful. The agency must set new regulations that satisfy the Clean Air Act and those regulations must include standards for each HAP that satisfy the Act's stringency requirements. Reciting that standards under RCRA are based on combustion and that the industry is focused on combustion does nothing to show compliance with the Clean Air Act.

EPA next advances the bare assertion that "good combustion, as measured by 100 ppmv CO or 10 ppmv HC, plus meeting 99.99 percent DRE is the best measure of performance over time of the best performers." 72 Fed. Reg. at 54886/3. But EPA does not say why that is the case. The D.C. Circuit has held repeatedly that although EPA may estimate the best sources' emission levels, it must demonstrate with substantial evidence, not mere assertions, that it has done so accurately. EPA flouts those decisions here by, once again, offering only assertions.

EPA states that HC and CO are indicative of good combustion conditions. That may be so, but the Clean Air Act requires standards for each HAP and mandates that such standards be no less stringent than "the emission level actually achieved by the best performers (those with the lowest emission levels)." *Sierra Club*, 479 F.3d at 880. Thus, although EPA may use surrogates where it is reasonable to do so, the D.C. Circuit has

made clear that the use of surrogates is not reasonable unless the following three conditions are met: (1) each of the target HAPs must invariably be present in the surrogate; (2) technology to control the surrogate must indiscriminate capture (or destroy) each of the target HAPs; and (3), the control measure for the surrogate must be “the only means by which facilities ‘achieve’ reductions” in the target HAPs. *Sierra Club v. EPA*, 353 F.3d 976, 984 (D.C. Cir. 2004); *National Lime Ass’n v. EPA*, 233 F.3d 625, 639 (D.C. Cir. 2000).

Here, EPA concedes that “the major source of HWC PCB emissions is thought to be from PCBs in the waste (that are not destroyed in the combustion zone).” III TSD at 3-9. A surrogate is only valid if controlling that surrogate is the “only” means by which reductions in the target pollutant are achieved. *Sierra Club*, 353 F.3d at 984. Because HWCs’ PCBs emissions are affected by the quantities of PCBs in the feed — and not just by controlling HC and CO levels — controlling HC and CO levels are not the “only” means by which facilities “achieve” reductions in PCBs. *Id.* See *National Lime Ass’n*, 233 F.3d at 640 (“The Clean Air Act requires EPA to set MACT floors based upon the ‘average emission level achieved,’ 42 U.S.C. § 7412(d)(3); it nowhere suggests that this achievement must be the product of a specific intent.”); *Sierra Club*, 479 F.3d at 883 (same). Thus, EPA’s admission that PCBs emission levels are directly affected by PCBs feedrates directly refutes the agency’s new contention that CO/HC are a valid surrogate for at least one highly toxic non-dioxin organic HAP, PCBs.

EPA’s contention that that CO/HC are “widely used and accepted indicators of combustion efficiency, and hence control organic HAP, which are destroyed by combustion,” 70 Fed. Reg. at 59464, is beside the point. The relevant issue is not whether controlling HC and CO levels controls non-dioxin organic HAP to some extent, but whether it controls these pollutants to the levels achieved by the relevant best sources. If that is not the case, pollutants — including highly toxic pollutants like PCBs — may be controlled less protectively than the Clean Air Act requires. It is for this reason that the *National Lime Ass’n* decision allows surrogates only if controlling the surrogate is the “only” means by which reductions in the target pollutant are achieved.

EPA’s argument that sources operating in compliance with its CO/HC and DRE standards “are operating under efficient combustion conditions, assuring non-dioxin organic HAP are being oxidized, thus limiting emissions to levels reflecting MACT,” 70 Fed. Reg. at 59464, is both conclusory and irrelevant. EPA’s contention that the resulting emission levels “reflect[] MACT” is just a conclusion based on what EPA thinks MACT is. The agency does not even purport to show that PCBs emission levels (for example) actually will be reduced to the PCBs emission levels that the relevant best sources are achieving. Indeed, EPA says nothing about how much “non-dioxin organic HAP are being oxidized,” and admits elsewhere that some PCBs are not oxidized. III TSD at 3-9. In any case, the test for validity of a surrogate is not whether EPA says that its HC/CO floors reflect MACT levels for the underlying pollutants. Rather it is EPA’s obligation to “demonstrate with substantial evidence” that its floor approach does reflect the levels that the best sources are achieving. *CKRC*, 255 F.3d at 866. EPA has not attempted to pass

this test and cannot possibly pass this test where — as here — it is undisputed that factors other than control of CO/HC affect the emissions of PCBs and other organic HAPs.

EPA's makes excuses that "[w]e are not capable of issuing emission standards for each organic HAP because of data limitations and because such emission standards may not be replicable by individual sources or duplicable by the other best performing sources because of the complex nature of combustion and post-combustion formation of products of incomplete combustion," 70 Fed. Reg. at 59464, and that it "lacked any data on individual organic HAP emissions from these devices and so had no choice but to use some type of surrogate to evaluate sources' performance," 72 Fed. Reg. at 54887/1, are both disingenuous and irrelevant. First, EPA did have a choice: it could have gathered more data if it had wished to do so. Second, a surrogate must be judged reasonable or unreasonable under the test that the D.C. Circuit already has set out; an unreasonable surrogate cannot become reasonable just because EPA failed to gather data for some or all of the target HAPs. Here, HC/CO does not pass the established test for being a valid surrogate for non-dioxin organic HAP and, in particular, for PCBs. Accordingly, the agency may not use it as a surrogate, regardless of what excuses the agency offers about the alleged difficulties of setting numerical emission standards. It is up to EPA to come up with valid surrogate standards or valid numerical standards for each HAP. If EPA needs more data to set valid numerical standards, the agency should gather the data it needs or come up with some other approach that will yield floors that accurately reflect the best sources' actual performance. The agency cannot use its own failure to gather information as an excuse for failing to set adequate floors or as an excuse for using an invalid surrogate. EPA's new argument creates a false choice between using CO/HC as a surrogate for all non-dioxin organic HAPs or setting individual numerical standards for each such HAP. The agency completely ignores that it has other choices such as finding more or better surrogates for non-dioxin organic HAPs, and showing that those surrogates are valid. Indeed, EPA itself has suggested that dioxins might be a surrogate for some non-dioxin organic HAPs, III TSD at 3-8 – 3-9, but it completely failed to consider actually using dioxins as a surrogate.

EPA's arguments for using either CO or HC as a surrogate (instead of both) also are without merit. EPA's argument that CO is a "conservative" surrogate because HC levels are "generally" below 10 ppm when CO levels are below 100 ppm lends no support to the agency's position. First, because EPA has not proved that HC alone is an adequate surrogate, the agency's attempt to link CO levels under 100 ppm to HC levels under 10 ppm cannot possibly show that CO is a valid surrogate. Second, the agency admits that HC levels are sometimes over 10 ppm, even when CO levels are below 100 ppm. The agency's conclusory assertion that these instances are "anomalies" does not help; unless EPA could show that sources' HC emissions never exceeded 10 ppm when CO emissions are below 100 ppm, a 100 ppm CO standard is no guarantee that that HC levels will stay below 10 ppm. Indeed, EPA admits elsewhere that "we cannot ensure that lower carbon monoxide or hydrocarbon levels would significantly reduce emissions of organic HAP." III TSD at 13-36. Thus, EPA is essentially admitting that CO/HC are not valid surrogates except at the agency's chosen floor levels — a hopelessly irrational limitation that predetermines floor levels. The agency's claim that it has addressed this

problem by requiring sources to comply with various operating parameters established during the CO test is also without merit. EPA does not even claim that these measures would ensure that sources kept their HC emissions below 10 ppm, only that in EPA's opinion it would provide adequate assurance. If EPA's assertion that a surrogate provided adequate assurance were enough, there would be no need for any legal standard. But EPA must demonstrate the validity of its assumptions with substantial evidence, not mere assertions. Nowhere has EPA provided any such demonstration with respect to its claim that — despite undisputed record evidence to the contrary — keeping CO emissions below 100 ppm assures that HC levels are below 10 ppm.

Even if HC/CO were a valid surrogate for non-dioxin HAPs, the agency would still have to set HC/CO standards that satisfied the Clean Air Act's floor requirements. EPA's latest attempt to bolster its rule rationale merely confirms that its HC/CO standards do not meet this requirement.

EPA states that “extremely low CO floors are unlikely to be met at all times by the best performers due to all the potential minor sources of variability.” 72 Fed. Reg. at 54887/2. But EPA's task is not to set CO floors that it regards as “extremely low,” it is to set floors that reflect “the emission level actually achieved by the best performers (those with the lowest emissions).” *Sierra Club*, 479 F.3d at 880. Neither EPA's 100 ppmv CO floor nor its 10 ppmv satisfies this test; they are just levels that EPA associates generally with good combustion conditions. Accordingly, they are unlawful.

EPA cites the TSD for the proposition that levels of CO lower than 100 ppmv could not be met at all times by the best performers. 72 Fed. Reg. at 54887/2. It is well established, however, that the best performers are those with the lowest emission levels. *Sierra Club*, 479 F.3d at 880. EPA does not even know which sources these are, and it does not purport to identify them. Thus, EPA has no basis for saying what emission level the relevant best performers can or cannot achieve. Indeed, the cited portions of the TSD confirm this point. EPA asserts there that it set the CO floor at 100 ppmv “because it is a currently enforceable Federal standard,” and admits without qualification that “the best performing sources are achieving carbon monoxide levels below 100 ppmv.” III TSD at 13-35. The record squarely confirms that EPA's CO and HC floors do not purport to reflect the best sources' emission levels.

EPA's claim that it did not set more stringent beyond-the-floor standards but concluded they might not be achievable, III TSD at 14-26, is beside the point. First, achievability is a relevant consideration under § 112(d)(2)'s beyond-the-floor requirements but not under § 112(d)(3)'s floor requirements. Second, EPA does not say what beyond-the-floor standards it thought may not be achievable and *a fortiori* did not conclude that properly set floors under 100 ppmv would be unachievable. Third, EPA's claim is conclusory, EPA neither explains it nor supports it with record evidence.

EPA argues that “lower levels of either CO or HC are no longer likely to be associated with increased organic destruction efficiency.” 72 Fed. Reg. at 54887/2. That argument misses the point. EPA chose CO or HC as surrogates. Assuming *arguendo*

that the agency can do that, it must ensure that its CO and HC standards meet the Clean Air Act's floor requirements. The agency's views about whether lower standards do or do not guarantee increased destruction efficiency are irrelevant to that statutory requirement. In any event, floors must reflect the best sources' emission levels, not merely the destruction efficiency EPA regards as adequate, and lower HC levels mean lower HC HAP emissions. Further, they may well reflect lower levels of HC HAPs (such as PCBs) being fed into the source. Moreover, as noted above, EPA has admitted that the best performers are achieving CO levels better than 100 ppmv, and that admission is squarely at odds with the notion that better CO levels do not necessarily reflect better emission levels. EPA's current claim is also belied by the record. What EPA actually stated in the portion of the preamble to the final rule that it now cites for support was that it does not know whether reducing CO below 100 ppmv or HC below 10 ppmv would result in further reductions of organic HAP emissions. 70 Fed. Reg. at 59462-59463. EPA's lack of knowledge on this subject hardly justifies the agency in departing the Clean Air Act's well and repeatedly established requirement that floors must reflect "the emission level actually achieved by the best performers (those with the lowest emissions)." *Sierra Club*, 479 F.3d at 880.

Finally, EPA again suggests that it can correct the flaws in its HWC rule by retroactively revising its rule rationale in "key support documents." 72 Fed. Reg. at 54887/3. To the contrary, EPA may not revise the record retroactively. 42 U.S.C. § 7607(d). Further, EPA may not pick and choose among the elements of the rule rationale on which it now wishes to rely. The final rule must be judged on the rationale EPA already provided for it. If EPA wants to change its rule or its rule rationale, the agency must follow the Clean Air Act's procedural requirements by publishing a new proposed rule and taking comments on it.

F. Mercury.

1. Incinerators.

EPA set the mercury floors for existing incinerators at the level of the interim standard, but claims this "does not raise issues vis-à-vis" *Sierra Club*. 72 Fed. Reg. at 54887/3. To the contrary, *Sierra Club* confirms what previous D.C. Circuit decisions, including the one striking down EPA's previous regulations for HWC, already made clear: floors must reflect "the emission level actually achieved by the best performers (those with the lowest emissions)." 479 F.3d at 880. The interim standards do not purport to reflect the emission level actually achieved by the best performers, they are just the level that all sources were required to meet. Accordingly, EPA's standards are unlawful.

EPA's reliance on *Mossville Environmental Action Now v. EPA*, 370 F.3d 1232, 1241-1242 (D.C. Cir. 2004) is misplaced. That case did not hold, as EPA appears to believe, that EPA may simply set floors at the regulatory level whenever it asserts that the best performers emit at a level close to that regulatory level. To the contrary, it confirmed that floors must reflect the best sources' emission levels and found on the facts before it there that a regulatory level met that test. Here, EPA merely asserts that the

interim standards are close to the emission levels of the best performers. It neither identifies the so-called best performers nor demonstrates that the interim standards accurately reflect those sources' emission levels. Indeed, the notion that any sources' emission levels are "close to" the interim standard merely reflects EPA's flatly unlawful method of calculating sources' emissions such that the agency's estimates of the emission levels of the alleged top performing 12% of sources for which the agency has emissions data is made to appear worse than the emission level that all sources in the subcategory are required to meet.

2. Cement Kilns.

EPA correctly concedes that its mercury standards for cement kilns are unlawful. 72 Fed. Reg. at 54887-54888.

3. LWAKs.

EPA argues that because its Straight Emissions approach yielded floors that were worse than the interim standards, its use of the interim standards as the floors "remains the best measure of best sources' performance given the available data." 72 Fed. Reg. at 54888/1. Once again, EPA seeks to set itself a different test than the one established in the Clean Air Act. As the D.C. Circuit has made clear, floors must reflect "the emission level actually achieved by the best performers (those with the lowest emissions)." *Sierra Club*, 479 F.3d at 880. The interim standards do not purport to reflect the emission level actually achieved by the best performers, they are just the level that all sources were required to meet. Further, that EPA's Straight Emissions approach yielded floors that are worse than the interim standards — *i.e.* worse than the emission level that all sources are required to achieve — merely underscores that EPA's Straight Emissions approach does not provide accurate estimates of the best sources' emission levels and is unlawful.

Because EPA has not demonstrated and cannot demonstrate that the interim standards provide a reasonable estimate of the best sources' emission levels, it does not matter whether EPA thinks they provide the "best measure ... given the available data." It is well established that it is EPA's job to devise a floor approach "capable of producing floors that satisfy the Clean Air Act." *Cement Kiln Recycling Coalition*, 255 F.3d at 865. Thus, if EPA needs more data, it must gather more data. Otherwise, it must devise a different floor approach that satisfies the Act. In no event does EPA's choice not to gather more data justify the agency in setting floors that fail to accurately reflect the emission levels actually achieved by the best performers.

EPA correctly concedes that because its alternative compliance mechanism "based solely upon mercury emissions attributable to hazardous waste" would not control all mercury emitted by LWAKs, it is unlawful. 72 Fed. Reg. at 54888/1.

4. Liquid Fuel Boilers.

a. Higher Heating Value Hazardous Wastes Subcategory.

EPA correctly concedes that its mercury floor for liquid fuel boilers in the so-called “higher heating value wastes subcategory” is unlawful. 72 Fed. Reg. at 54888/1-2.

b. Lower Heating Value Hazardous Wastes Subcategory.

EPA claims that because it used its Straight Emissions approach for liquid fuel boilers in the so-called “lower heating value hazardous wastes subcategory,” its floors do not “create any issues vis-à-vis” *Sierra Club*. 72 Fed. Reg. at 54888/2. As explained in *Sierra Club*’s earlier comments, none of the floor approaches EPA used in its replacement standards yields an accurate picture of the relevant best sources’ emission levels. Specifically, even assuming *arguendo* EPA’s approach correctly identified the best performers, its approach to variability significantly overstates the emission levels they actually achieved. Accordingly, these floors contravene the Clean Air Act as interpreted in *Sierra Club* and previous air toxics decisions.

5. Solid Fuel Boilers.

EPA claims that because both its SRE Feed approach and its Straight Emissions approach identified the same sources as best performers, its floors for solid fuel boilers do not “create any issues vis-à-vis” *Sierra Club*. 72 Fed. Reg. at 54888/2. As explained in *Sierra Club*’s earlier comments, none of the floor approaches EPA used in its replacement standards yields an accurate picture of the relevant best sources’ emission levels. Specifically, even assuming *arguendo* EPA’s approach correctly identified the best performers, its approach to variability significantly overstates the emission levels they actually achieved. Accordingly, these floors contravene the Clean Air Act as interpreted in *Sierra Club* and previous air toxics decisions.

G. Normalization.

EPA argues that it is reasonable to “normalize” standards “to allow meaningful comparison between performance of different sources.” 72 Fed. Reg. at 54888/2. What EPA means by “normalize” is unclear from its proposal, but the agency has chosen to express some standards in terms of percent reduction and some standards in terms of “thermal emissions.” Both of these approaches are unlawful for the reasons given in *Sierra Club*’s 2004 comments. Because *Sierra Club* confirms that EPA’s floors must reflect “the emission level actually achieved by the best performers (those with the lowest emissions),” 479 F.3d at 880, it confirms that percent reduction standards and “thermal emission” standards — neither of which reflects “the emission level actually achieved by the best performers” — are unlawful.