This proposal also does not have Tribal implications because it would not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes, as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

This proposed action also does not have Federalism implications because it would not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999). This action merely proposes to approve a State rule implementing a Federal standard. It does not alter the relationship or the distribution of power and responsibilities established in the CAA. This proposed rule also is not subject to Executive Order 13045 ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997), because it proposes to approve a State rule implementing a Federal standard.

Executive Order 12898, ''Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,'' requires Federal agencies to consider the impact of programs, policies, and activities on minority populations and low-income populations. EPA guidance [1] states that EPA is to assess whether minority or low-income populations face risk or a rate of exposure to hazards that is significant and that ''appreciably exceed[s] or is likely to appreciably exceed the risk or rate to the general population or to the appropriate comparison group.'' (EPA, 1998) Because this rule merely proposes to approve a state rule implementing the Federal standard established by CAMR, EPA lacks the discretionary authority to modify today's regulatory decision on the basis of environmental justice considerations. However, EPA has already considered the impact of CAMR, including this Federal standard, on minority and low-income populations. In the context of EPA's CAMR published in the **Federal Register** on May 18, 2005, in accordance with Executive Order 12898, the Agency has considered whether CAMR may have disproportionate negative impacts on minority or low income populations and determined it would not.

In reviewing State Plan submissions, EPA's role is to approve State choices, provided that they meet the criteria of the CAA. In this context, in the absence of a prior existing requirement for the State to use voluntary consensus standards (VCS), EPA has no authority to disapprove a State Plan for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a State Plan submission, to use VCS in place of a State Plan submission that otherwise satisfies the provisions of the CAA. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. This proposed rule would not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

List of Subjects in Part 62

Environmental protection, Air pollution control, Electric utilities, Intergovernmental relations, Mercury, Reporting and recordkeeping.

Dated: September 19, 2007.

John B. Askew,

Regional Administrator, Region 7.

[FR Doc. E7–19120 Filed 9–26–07; 8:45 am]

BILLING CODE 6560–50–P

[1] U.S. Environmental Protection Agency, 1998. Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses. Office of Federal Activities, Washington, DC, April, 1998.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA–HQ–OAR–2004–0022; FRL–8474–2]

RIN 2050–AG29

NESHAP: National Emission Standards for Hazardous Air Pollutants: Standards for Hazardous Waste Combustors

AGENCY: Environmental Protection Agency (EPA).

ACTION: Solicitation of comment on legal analysis.

SUMMARY: On October 12, 2005, pursuant to section 112(d) of the Clean Air Act, EPA issued national emission standards for hazardous air pollutants (NESHAP) emitted by various types of hazardous waste combusters. EPA subsequently granted reconsideration petitions relating to certain issues presented by the rules. 71 FR 14665, 52564, but has not yet issued a final determination on reconsideration. Following the close of the comment period on the proposed reconsideration rule, the United States Court of Appeals for the District of Columbia Circuit has issued several opinions construing section 112 (d) of the Clean Air Act, and one of those opinions has called into question the legality of some of the standards for hazardous waste combusters. This notice discusses the standards that EPA promulgated in October 2005, and specifically identifies which standards EPA believes are consistent with the Act and caselaw, and which standards are not and need to be reexamined through a subsequent rulemaking. With respect to those standards EPA intends to retain, this notice indicates the portions of the rationale upon which EPA intends to rely, and which portions EPA would no longer rely upon as a justification for the October 2005 standards. EPA is seeking public comment on this analysis. EPA has also placed edited versions of various support documents in the public docket, edited to remove portions of the rationale on which EPA no longer plans to rely, and seeks public comment on these edits.

DATES: Comments must be received on or before October 18, 2007.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2004–0022, by one of the following methods:

- *www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *E-mail: a-and-r-docket@epa.gov.*
- *Fax:* 202–566–1741.
- *Mail:* U.S. Postal Service, send comments to: Air and Radiation Docket (2822T), Docket ID No. EPA–HQ–OAR–2004–0022, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460. Please include a total of two copies.
- *Hand Delivery:* In person or by courier, deliver comments to: HQ EPA Docket Center, Public Reading Room, EPA West, Room 3334, 1301 Constitution Avenue, NW., Washington, DC 20004. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information. Please include a total of two copies.

Instructions: Direct your comments to Docket ID No. EPA–HQ–OAR–2004–0022. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information the disclosure of which is restricted by

statute. Do not submit information that you consider to be CBI or otherwise protected through *www.regulations.gov* or e-mail. The *www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *www.regulations.gov*, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm*.

Docket: All documents in the docket are listed in the *www.regulations.gov* index. Although listed in the index, some information is not publicly available, *e.g.*, CBI or other information the disclosure of which is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *www.regulations.gov* or in hard copy at the HQ EPA Docket Center, Public Reading Room, EPA West, Room 3334, 1301 Constitution Avenue, NW., Washington, DC 20004. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the HQ EPA Docket Center is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

FOR FURTHER INFORMATION CONTACT: For more information on this notice, contact Frank Behan at (703) 308–8476, or *behan.frank@epa.gov*, Office of Solid Waste (5302P), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

SUPPLEMENTARY INFORMATION: *Entities Potentially Affected by this Action.* Categories and entities potentially affected by this action include:

Category	NAICS code[a]	Potentially affected entities
Petroleum and coal products manufacturing	324	Any entity that combusts hazardous waste as defined in the final rule.
Chemical manufacturing	325	
Cement and concrete product manufacturing	3273	
Other nonmetallic mineral product manufacturing	3279	
Waste treatment and disposal	5622	
Remediation and other waste management services	5629	

[a] North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be impacted by this action. This table lists examples of the types of entities EPA is now aware could potentially be regulated by this action. Other types of entities not listed could also be affected. To determine whether your facility, company, business, organization, etc., is affected by this action, you should examine the applicability criteria in 40 CFR 63.1200.[1] If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

How Do I Obtain a Copy of this Document and Other Related Information? In addition to being available in the docket, an electronic copy of today's proposed rule will also be available on the World Wide Web (WWW). Following the Administrator's signature, a copy of this document may be posted on the WWW at *http://www.epa.gov/hwcmact*. This Web site also provides other information related to the NESHAP for hazardous waste combustors including the NESHAP issued on October 12, 2005 (70 FR 59402) and the two petition for reconsideration notices published on March 23, 2006 (71 FR 14665) and September 6, 2006 (71 FR 52624).

Preparation of Comments. Do not submit this information to EPA through www.regulations.gov or e-mail. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD–ROM that you mail to EPA, mark the outside of the disk or CD–ROM as CBI and then identify electronically within the disk or CD–ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. Send or deliver information identified as CBI to only the following address: Ms. LaShan Haynes, RCRA Document Control Officer, EPA (Mail Code 5305P), Attention Docket ID No. EPA–HQ–OAR–2004–0022, 1200 Pennsylvania Avenue, Washington DC, 20460. Clearly mark the part or all of the information that you claim to be CBI.

Tips for Preparing Your Comments. When submitting comments, remember to:

- Identify the rulemaking by docket number and other identifying information (subject heading, **Federal Register** date and page number).
- Follow directions—The agency may ask you to respond to specific questions or organize comments by referencing a Code of Federal Regulations (CFR) part or section number.
- Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.
- Describe any assumptions and provide any technical information and/or data that you used.
- If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow it to be reproduced.
- Provide specific examples to illustrate your concerns, and suggest alternatives.
- Explain your views as clearly as possible.
- Make sure to submit your comments by the comment period deadline identified.

Organization of this Document. The information presented in this notice is organized as follows:

[1] Unless otherwise noted, all regulatory references in this notice are to 40 CFR.

I. Background

The Hazardous Waste Combustor (HWC) Maximum Achievable Control Technology (MACT) rule, 70 FR 59402 (October 12, 2005), adopts separate standards for six source categories, the common link being that sources in each category burn hazardous waste. These sources are incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers, and hydrochloric acid production furnaces. Liquid fuel boilers are further subcategorized into those burning higher heating value hazardous wastes and lower heating value hazardous wastes. The following hazardous air pollutants (''HAP'') are regulated for each of these source categories: dioxins and furans (''D/F''); semivolatile metals (lead and cadmium) (''SVM''); low volatile metals (arsenic, beryllium and chromium) (''LVM''); mercury, particulate matter (''PM'') (as a surrogate for the remaining HAP metals (antimony, cobalt, manganese, nickel, and selenium), and also to control HAP metals in all inputs to the units which are not hazardous waste); hydrogen chloride/chlorine (measured as total chlorine) (''TCl''); carbon monoxide/total hydrocarbons (''CO/HC'') (as surrogates for non-dioxin organic HAP (and in a few cases, dioxin as well); and destruction removal efficiency (''DRE'') (an aspect of control of non-dioxin organic HAP, and in a few cases, dioxin).

On March 13, 2007, the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) issued its decision in *Sierra Club* v. *EPA,* 479 F.3d 875 (2007) (''*Brick MACT*''). EPA has reexamined the rule to determine if it is compliant with the statute with respect to the issues discussed in the Court's opinion, and specifically whether the MACT floors for each standard are compliant. For the most part, EPA believes that they are. The basic reason, for those standards EPA plans to retain, is that the rule identifies as best performers—the best performing 12 per cent or best performing five sources in smaller source categories for existing sources, and the best controlled single source for new sources—those sources which are likely to emit the least HAP over time, and reasonably estimates these sources' level of performance. Put another way, the rule identifies as best performers those emitting the least HAP considering variability (i.e., their performance over time), and accounts for that variability as much as possible in estimating these sources' level of performance. See 70 FR at 59346 (''best performers are those that perform best over time (i.e., day-in, day-out)'').

The statute does not address the question of whether, in assessing which sources perform best or are best controlled, emission levels should be evaluated over time, or in a single test result. Nor does *Brick MACT,* which states at 479 F.3d 880 that ''section [112(d)(3)] requires floors based on the emission level actually achieved by the best performers (those with the lowest emission levels)'', but does not refer to a time period for measurement. The following example shows why it is reasonable to determine which sources are the best performers by accounting in the first instance for what their emissions are over time. Assume that source A in a single test emitted 10 units of cadmium, and source B emitted 15 units. However, assume further that over time source A emits cadmium at a rate of 40 units and source B emits cadmium at a rate of 25 (the difference being that source B's performance is less variable). It is at the very least reasonable to view source B as the better performer; over time it emits less cadmium than source A. Indeed, given that the chief health risks of most HAP emitted by Hazardous Waste Combustors results from chronic rather than acute exposure (i.e., amount of repeated exposure over time as opposed to single exposure incidents), floor standards based on evaluation of sources' performance over time (i.e., standards which account for sources' variability) best address the sources' ultimate impacts on human health. See 70 FR at 59533–35 where EPA discusses human health benefits of the standards considering reductions in chronic exposure to HAP.

II. Consideration of Variability in Establishing MACT Floors

EPA may consider variability in identifying best performers and their level of performance. See 70 FR at 59436. See also *Brick MACT,* 479 F.3d at 881–82 (variability of best performing sources may be taken into account in establishing MACT floors).

EPA in this rule identified two types of variability, run-to-run variability and test-to-test variability. Run-to-run variability ''encompasses variability in individual runs comprising the compliance tests, and includes uncertainties in correlation of monitoring parameters and emissions, and imprecision of stack test methods and laboratory analyses.'' 70 FR at 59437. A shorthand description is that this is within-test variability. EPA quantified run-to-run variability using the statistical methodology set forth in Technical Support Document (''TSD'') Vol. III section 7.2; [2] see also 70 FR at 59437/1–2, 59438, and 59439 explaining the reasonableness of this statistical approach. The chief element of this quantification is simply the standard deviation in the performance test data (standard deviation being the usual statistical measure for assessing variation within a data set by comparing a single result with the average of the data comprising the data set). The result is an estimate of the value which the source would achieve in 99 of 100 future tests if it replicated the operating conditions of the compliance test. 70 FR at 59437; [3] see also 69 FR at 21232 and n. 69 (April 20, 2004).

[2] USEPA, ''Technical Support Document for HWC MACT Standards, Volume III: Selection of MACT Standards,'' (TSD Vol. III) September 2005. Unless otherwise specified, all TSD references in this notice are to this document, which is available in the docket to the rule. See docket items EPA–HQ–OAR–2004–0022–0453, 0457, 0459, and 0460.

[3] More precisely, this is a modified prediction limit that ensures at the 95% confidence level that the average of the best performing sources could

Continued

Existence of run-to-run variability is confirmed most evidently by the wide variations within different runs of the best performers' performance tests. Moreover, simply averaging these different run results would lead to standards which not even the best of the best performers would achieve over time. TSD Vol. III section 16.4. Comparative test results of best performing sources (i.e., tests of the same source at a different time) strongly suggest that run-to-run variability can be appreciable (although not the only measure of variability), since these sources have been shown consistently to emit more than the averaged emissions from the performance test identifying the source as best performing. See TSD Vol. III Tables 16–4, 16–5, 17–1, 17–3. Failure to consider run-to-run variability could seriously underestimate a source's emissions over time. See TSD Vol. III section 17.3.3, showing that even the lowest emitting Straight Emission sources could have emissions higher than floor levels under a methodology that considers run-to-run variability. EPA has comparative data from a number of lowest emitting incinerators for PM in single test results. In other tests, these same sources were typically unable to achieve the same level of performance, sometimes emitting up to seven times more PM. 69 FR at 21232 and n. 69 (April 20, 2004).

Test-to-test variability results from variability in pollution device control efficiencies over time (depending on multitudinous factors, including for fabric filters the point in the maintenance cycle at which the source is tested, and for electrostatic precipitators variations in combustion gas moisture and particle resistivity), as well as measurement variability resulting from different sampling crews under different meteorological conditions and different analytical laboratories. *Id.* and n. 63. A shorthand description is that this is long-term variability. EPA demonstrated generally that: (a) Test-to-test variability exists; (b) it is not encompassed in EPA's statistical quantification of run-to-run variability; (c) the amount of test-to-test variability can be significant such that failing to account for it in some manner means that the sources' performance over time can be seriously underestimated (i.e., since their long-term variability would be ignored); and (d) sources which are lowest emitting in single emission tests may not be the lowest emitters over time due to their test-to-test variability. 70 FR at 59437–438 and TSD Vol. III chapters 16 and 17; see also 70 FR at 59439 explaining why total variability is not accounted for by compliance test conditions.

EPA was able to provide a quantitative estimate of test-to-test variability in only one instance—where fabric filters are used to capture particulate matter. See discussion of PM standards in section III.A. below. In other instances, EPA accounted for test-to-test (i.e., long-term) variability in one of two ways: (a) Selecting as best performers those which minimized their long-term (i.e., test-to-test) variability by best controlling the aspects of performance (notably removal efficiency evaluated systemwide and hazardous waste HAP feedrate) within their control, or (b) using a surrogate for the HAP where EPA could assess the long-term variability associated with emissions of that surrogate, but could not otherwise assess long-term variability.

EPA also carefully assessed a floor methodology which simply assumed that the lowest emitters in individual performance tests were the best performers. The major problem with such a methodology is that it ignores the sources' performance over time, leading to situations where the sources' level of performance may be assessed improperly. See TSD Vol. III chapters 16 and 17; 70 FR at 59442–446 (explaining why lowest emitters in individual performance tests [4] are not always the best performers). EPA consequently used this methodology to identify best performers and their level of performance when it was not possible to assess sources' waste feedrate and systemwide removal efficiency.

III. Discussion of Individual Standards

A. Standards for Particulate Matter

1. Standards for Incinerator, Cement Kilns, Lightweight Aggregate Kilns, and Solid Fuel Boilers

EPA adopted standards for particulate matter (''PM'') for all of the hazardous waste combuster source categories except for hydrochloric acid production furnaces.[5] Particulate Matter is a surrogate for the HAP metals antimony, cobalt, manganese, nickel, and selenium, the HAP metals not covered by the standards for semi-volatile and low-volatile HAP metals (referred to as 'nonenumerated metals' in this rulemaking). See section III.B. below. In addition, as explained in section III.B., the PM standard also controls all non-mercury HAP metals (i.e., semi-volatile, low volatility, and nonenumerated HAP metals) in all nonhazardous waste inputs to HWCs. 70 FR at 59459. Since the PM standards are measured by total end-of-stack output, these standards account for all HAP metal input to hazardous waste combustion devices (other than mercury). *Id.*

EPA used the Air Pollution Control Device methodology to establish floors for PM. Under this methodology, EPA determined as a matter of engineering judgment which devices best control PM emissions, ranked these means of control, and selected as the best performers those with the lowest PM emissions using the best control device. See TSD Vol. III section 7.4; see also *id.* at 16–2 ranking PM control devices from best to worst for each source category. The floor for each source category was then established based on the average of these lowest emitting sources' PM emissions (or the lowest emitter of these sources for the new source floor).

In most instances, the lowest emitters in the performance test used for determining best performers were equipped with the best control device—some type of fabric filter (''FF''). Occasionally, a lower PM emitter in a single test was equipped with some other type of control device, or, in the case of three incinerators, no control device, but EPA ranked these sources as lower (i.e., worse) performing than FF-equipped sources. EPA reevaluated carefully whether the lower ranking of these sources, in some instances resulting in their omission from the pool of best performers, is consistent with the holding of *Brick MACT*, 479 F.3d at 882–83, as well as *Cement Kiln Recycling Coalition* v. *EPA*, 255 F.3d 855, 863–65 (D.C. Cir. 2001), that floors are not to be set only on performance of sources equipped with certain technology unless that is the only factor affecting emissions, and that EPA must consider all means of control when selecting best performers.

EPA of course accepts these holdings, and believes its approach here is consistent with the statute and applicable case law. EPA selected as best performers (or as the best controlled source) those sources it estimated to have the lowest PM emissions over time. EPA's selection process has a reasoned basis. Sources equipped with control devices other than FFs are likely to emit more over

achieve the emission level in 99 or 100 future test conditions based on a three-run average, assuming the best performers could initially replicate the compliance test conditions. TSD Vol. III at 7–7; 70 FR at 59437.

[4] The heading to this preamble section should have explicitly included the words ''in individual performance tests'' in the section title.

[5] The alternative metal standards, in lieu of PM standards, for incinerators, and liquid and solid fuel boilers are discussed in section III.B discussing standards using the SRE Feed floor methodology.

time than they do in individual test conditions, even after adjusting test results to account for run-to-run variability. (Put another way, these sources' performance in individual test conditions are likely not representative of what they will emit over time.) This is because test-to-test variability, that is, long-term variability, has not been taken into account. Since these other control devices are known to be more variable and less efficient than FFs, TSD Vol. III pp. 16–3 to 4 and 11, failure to consider long-term variability (i.e., looking exclusively at results of single performance tests) results in these sources' performance not being fully characterized. Long-term variability exists due to, among other things, variation over time in control device performance and varying ash feed rates.[6] EPA confirmed in a series of analyses of HWCs that this test-to-test variability for non-FF equipped devices both exists and is appreciable. See TSD Vol. III section 16.5 showing among other things that ostensibly lowest emitting, non-FF equipped sources in other tests (i.e., other occasions when the same source was tested) were unable to duplicate (i.e., achieve): (a) Their own level of performance (i.e., their performance in the other test), (b) their own performance adjusted to account for run-to-run variability, (c) floors based on the average of the lowest single test emitters' performance, (d) design level of the floor actually adopted in the rule (i.e., the level sources would design to in order to comply with the rule), and, in one case, (e) the floor level established in the rule (i.e., the floor reflecting application of the Air Pollution Control Device methodology). EPA further examined whether this difference in performance resulted from legitimate operating variability, rather than from differing ash feed rates, and in the instance where direct comparison was possible, determined that it did not. TSD Volume III pp. 16–15 through 17.

In contrast, EPA was able to quantify the long-term performance (i.e., performance accounting for both run-to-run and test-to-test variability) of HWC sources equipped with FFs. This is the only type of air pollution control device for HWCs, and the only pollutant, for which such a calculation is possible. The reason this quantification is possible is that FFs are less variable than other control devices, and perform relatively constantly regardless of input loadings. 70 FR at 59449. EPA thus developed a so-called Universal Variability Factor algorithm for fabric filters, which is derived from the quantified measure of the total variability (i.e., both run-to-run and long-term test-to-test variability) of the FF-equipped hazardous waste combusters identified as best performers based on the historical test conditions for those sources. See TSD Vol. III section 5.3.

As a result, for HWCs EPA has a considerably more reliable idea of what fabric filter-equipped sources' actual performance for PM is over time than for any other type of control device-equipped source (or for sources without air pollution control devices). Second, as just noted above, the record demonstrates that the performance data from sources that emitted less PM in individual performance tests but are not equipped with FFs significantly underestimates the amount of PM these sources emit over time (i.e., fails to account for their long-term variability). Third, over time, these emissions in some instances exceed (i.e., are higher than) the lowest emitting FF-equipped sources, even though emitting less in an individual performance test. 70 FR at 59448; TSD Vol. III section 16.5. Putting all this together, EPA selected the lowest emitting FF-equipped sources as the best performing. 70 FR at 59448.

This approach is consistent with the statute and applicable case law. EPA selected as best performers (or best controlled sources) those sources it reasonably estimated to have the lowest PM emissions over time. Performance of units equipped with fabric filters can be reliably estimated over time—i.e., all of the variability can be quantified. Performance of other units over time cannot be estimated as reliably (the long-term variability cannot be quantified at all), but is known to be less efficient and more variable. Short-term performance tests thus demonstrably and dramatically understate the amount of PM (and HAP metal) these sources emit, so that these units could (and demonstrably do in some instances) emit more PM (and therefore more HAP metal) than the lowest emitting FF-equipped sources notwithstanding lower PM emissions in individual tests. The D.C. Circuit has held repeatedly that EPA may use reasonable means to estimate the performance of best performing sources, and may account for sources' variability in doing so. *CKRC*, 255 F.3d at 865–66; *Mossville,* 370 F.3d at 1240, 1242; *National Lime Ass'n* v. *EPA*, 627 F. 2d 416, 431 n. 46, 443 (D.C. Cir. 1980); see also *Brick MACT,* 479 F.3d at 881–82 (estimates of variability are to be for the variability of the best performing sources). EPA's approach here is consistent with these requirements.

The D.C. Circuit has stressed in both *Brick MACT* and *CKRC* that factors such as low HAP feed that influence emissions cannot be ignored in assessing performance. 479 F.3d at 882–83; 255 F.3d at 864–65. EPA thus carefully reexamined those instances where low PM emitters in single tests were not equipped with any pollution control equipment so that their emission levels necessarily reflected low ash inputs. There are three incinerators that had lower PM emissions in single tests that were lower than the worst of the lowest-emitting FF-equipped incinerators on whose performance the floor standard is based. TSD Vol. III App. F at APCD–INC–PM. EPA continues to believe that it properly chose not to include these sources among the pool of best performers. First, even in single test conditions, these sources' emissions were not significantly lower (0.0018 to 0.0009 gr/dscf lower, that is, roughly a 7–14% difference) than the average of the best performing 12% of sources EPA identified as best performing using the Air Pollution Control methodology. *Id.* These sources also emit more PM than all but one of the best performing incinerators in EPA's pool of best performers, and the difference in performance between these uncontrolled sources and the last of the EPA pool is small, roughly a factor of 2. *Id.* Since these devices lack any pollution control equipment, their performance over time will be highly variable as ash feedrates vary and their emissions could[7] well exceed the emissions of the sources comprising EPA's pool of best performing incinerators. Second, and of at least equal importance, low ash feedrates are not a guarantee of low HAP metal emissions. Low PM emissions from uncontrolled sources could still reflect high metal HAP emissions since, if the ash has high metal content, all of it would be emitted. See 70 FR at 59449 (''ash feedrates are not reliable indicators of nonmercury metal HAP feed control levels and are therefore inappropriate parameters to assess in the MACT evaluation process. For example, a source could reduce its ash feed input by reducing the amount of silica in its feedstreams. This would not result in * * * emission reductions of metal HAP''). In contrast, ''particulate matter emissions from baghouses [e.g., FF-equipped units] are not significantly affected by inlet particulate matter

[6] Ash content is an indicator of the noncombustible matter (i.e., inorganic content, including metals) in the feed to the source.

[7] There are no comparative test data in the record for these sources.

loadings'', *id.,* so that PM (and hence HAP metal emissions) from these units will remain best controlled regardless of relative amounts fed to the device. See also TSD Vol. III section 17.7 documenting that PM emissions from FF-equipped sources are not affected appreciably by inlet loadings. EPA is thus giving preference as best performers to those incinerators we know are effectively controlling non-mercury metal HAP because they are the lowest emitting of the most efficiently controlled sources. Moreover, although a severable part of the rationale, EPA believes it reasonable that most efficiently controlled sources can be viewed as ''best performing'' and ''best controlled'' under appropriate circumstances. See discussion in section B.1 below.

EPA does, however, believe that certain parts of the justification for the PM standards in the final rule are not proper after *Brick MACT,* and EPA is no longer relying on them and will revise the record accordingly. The principal revisions are to discussions relating to how EPA considered raw material inputs in assessing which sources are best performers. See *Brick MACT,* 479 F. 3d at 882–83. The specific alterations EPA is contemplating (generally excising existing language) are found in red line/strike out versions of the Preamble, Technical Support Documents, and Response to Comment Document which EPA has placed in the docket for this rule.

2. Standards for Liquid Fuel Boilers

EPA's initial decision is not to defend the PM standard for liquid fuel boilers (LFBs), and we thus contemplate requesting the Court to remand the standard so that EPA can reexamine it. Most of the liquid fuel boilers with lowest PM emissions are uncontrolled units with extremely low ash feeds. TSD Vol. III App. F at APCD–LFB–PM. Unlike the situation with incinerators, the difference in PM emissions between these sources and those lowest-emitting LFBs equipped with FFs is great, ranging from a factor of 6 (comparing lowest emitting FF-equipped LFB with lowest emitting uncontrolled LFB) to over three orders magnitude (comparing worst of the lowest emitting FF-equipped LFB to lowest emitting uncontrolled LFB). *Id.* These uncontrolled sources' emissions are also roughly an order of magnitude lower than the promulgated floor based on performance of FF-equipped sources. *Id.* There are also ten uncontrolled LFBs in the data base with lower PM emissions than the lowest emitting FF-equipped LFB. *Id.* Under these circumstances, EPA is less certain that these LFBs could emit more PM over time than the FF-equipped sources EPA selected as best performers and therefore will reexamine the standard with a view to amending it. However, EPA notes further that this difference in emission levels between controlled and uncontrolled sources suggests that subcategorization may be appropriate. EPA intends to investigate that possibility in subsequent rulemaking.

B. Standards for Semivolatile Metals and Low Volatility Metals

1. Methodology To Establish Floor Levels

EPA used the so-called system removal efficiency/hazardous waste feed control (''SRE Feed'') methodology to establish floor levels for semivolatile metal HAP (''SVM''—lead and cadmium) and low volatile metal HAP (''LVM''—arsenic, beryllium, and chromium) for all source categories except hydrochloric acid production furnaces. Under this methodology, best performers are ranked by hazardous waste feed rate of metal HAP, and by system removal efficiency (the degree to which HAP are removed from stack emissions across the entire system, be it by an air pollution control device or by any other means). 70 FR at 59441. Best performers are those with the best combination of hazardous waste feed rate for the HAP at issue and system removal efficiency (i.e., lowest hazardous waste feed rate and best removal efficiency). EPA assessed SVM and LVM separately, so that there are separate pools of best performing sources for each of these HAP metal groups for each of the source categories.

Once best sources are identified by this methodology, EPA calculated the floor (accounting for run-to-run variability) based on the averaged emission levels of SVM or LVM from these best performing sources (or for new sources, the SVM or LVM emission level of the single best performer). For source categories where SVM and LVM standards are normalized by hazardous waste heat input (cement kilns, lightweight aggregate kilns, and the higher heating value hazardous wastes subcategory for liquid fuel boiler), see 70 FR at 59451–53, the standard is expressed exclusively in terms of SVM or LVM attributable to hazardous waste inputs. For all source categories, total SVM and LVM emissions are addressed and controlled by the PM standard.

The SRE Feed methodology does not always identify the lowest emitters of SVM or LVM in single tests as the best performers; it identifies the lowest emitters as the sources with the best combination of hazardous feed rate control and back end control (removal efficiency across the entire system). Some of these sources were also the lowest emitters in single test results, but were not in all cases. EPA selected this methodology, rather than the so-called Straight Emissions approach of simply identifying best performers as those with the lowest emissions after accounting for run-to-run variability, 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). 70 FR at 59441–442; TSD Vol. III at 17–1. SRE Feed best performers are likely to emit less of these metals over time than sources identified as best under the Straight Emissions methodology—averaged performance of lowest emitting sources in the most recent performance test accounting for run-to-run variability (see TSD Vol. III at section 7.2)—because the Straight Emissions methodology (even after accounting for run-to-run variability) ignores sources' long-term (test-to-test) variability, and so underestimates (indeed, ignores) their performance over time. The SRE Feed methodology accounts for test-to-test variability, albeit qualitatively. *Id.*[8] For the same reason, the SRE Feed methodology better estimates sources' performance over time since it accounts in some measure for their long-term variability instead of ignoring it. As discussed earlier, elements of long-term variability include such things as chlorine feed rates (since metals are more volatile in the chlorinated form), back-end control devices' controllable operating parameters (e.g. ESP power levels, pressure drop across baghouses, and other such operating parameters), the matrix in which the metal is fed (solid, liquid, pumpable) and the hazardous waste feedrate. TSD Vol. III at p. 17–5. SRE Feed best performers are those that best control these and other 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. *Id.* at p. 17–11. Put more broadly, the methodology best evaluates the two things sources can do to control SVM and LVM emissions: limit the feed rate of these HAP in hazardous waste (since hazardous waste feed rate is controlled under RCRA rules), and manage

[8] See TSD Vol. III at 17–1 to 4 explaining why long-term variability for SVM and LVM cannot be determined quantitatively, even for sources equipped with baghouses (FFs).

controllable parameters to limit emissions across the entire system (both through emission control device control and by any other means), the result being that these sources are likely to emit less SVM and LVM over time. 70 FR at 59441.

Data confirm that lowest emitters in single tests (i.e., performers identified as best under the Straight Emissions methodology) can and do emit more SVM and LVM over time than the sources EPA identified as best performers using the SRE Feed methodology. See TSD Vol. III sections 17.2 and 17.3.1 and 17.3.2. Looking at all the data in the record where there were multiple test results (i.e., tests conducted at different times) from sources with the lowest SVM or LVM emissions in single tests, EPA found that a) three of four of these sources emitted more SVM or LVM in historical tests than allowed under the Straight Emissions floor (i.e., average emissions (not considering run-to-run variability) of SVM or LVM were higher than the average of the best performers using the Straight Emissions methodology (which considers run-to-run variability)) (*id.* Table 17–1);[9] (b) 5 of 15 of these sources were projected to emit more SVM or LVM than allowed under the SRE Feed floor using the reasonable assumption that these sources fed the same amount of LVM and SVM in hazardous waste as they did in the performance test identifying them as a best performer (lowest emitter) under the straight emission approach, but had the system removal efficiency demonstrated in their other tests. *Id.* at Tables 17–2 and 17–3;[10] and (c) 8 of 13 straight emission best performers would exceed the SRE Feed floor if their system removal efficiency from all tests (i.e., whether the system removal efficiency was higher or lower than that demonstrated in the single performance test identifying it as a best performer under the straight emissions methodology) were pooled and applied to the hazardous waste federate for LVM or SVM used in the single performance test identifying it as a best performer under the straight emissions methodology. *Id.* at 17.3.2 and Tables 17–6 and 7. In addition, most of the straight emissions best performers emitted more SVM and LVM in previous performance tests than they did in the single performance test identifying them as a straight emission best performer (or were projected to do so under the same reasonable assumptions), and often exceeded their earlier performance by wide margins (failing routinely, for example, to achieve their own performance test results adjusted upward to account for run-to-run variability, the Straight Emissions approach floor level (which also accounts for run-to-run variability), and the design level of the SRE Feed floor level). See TSD Vol. III sections 17.2 and 17.3.1 and 17.3.2.

EPA's approach is consistent with the statute and with applicable caselaw. EPA may consider variability in assessing sources' performance, and it did so here for the evident reason that variability is an aspect of a source's performance. *CKRC*, 255 F.3d at 865–66; *Mossville*, 370 F.3d at 1242. Here, short-term and long-term variability (i.e., run-to-run and test-to-test) in SVM and LVM performance demonstrably exists. The SRE Feed methodology accounts for both types of variability. The Straight Emissions methodology demonstrably does not. The Straight Emissions methodology thus not only consistently underestimates sources' performance, but identifies as best performers those which may emit more SVM and LVM over time. For these reasons we believe the record of this rulemaking demonstrates that the SRE Feed methodology better accounts for variability, and hence performance, than does the Straight Emissions approach (even with consideration of run-to-run variability), and consequently, the SRE Feed methodology more accurately identifies the best performing sources and their level of performance.

It is also no answer to say that the Straight Emissions best performing sources could simply retrofit their devices to achieve over time what they were able to achieve in a single performance test. Section 112(d)(3) requires EPA to determine the best performers and their level of performance based on sources as they now exist, not how they might be retrofitted. Requiring even the pool of best performers (i.e., those whose performance was measured at below the average of the best performers) to retrofit to meet a floor level is a de facto beyond the floor standard and therefore impermissible unless costs and other factors under section (d)(2) factors are considered. 70 FR at 59445. Moreover, a source so retrofitted would not be an existing source as required by section 112(d)(3), but rather some hypothetical entity which does not even presently exist. See 71 FR 14665 (March 23, 2006).

As noted above, the SVM and LVM standards which are normalized by hazardous waste thermal input apply only to SVM and LVM contributed by the hazardous waste. MACT standards must address all HAP emitted by a source, not just some portion of the HAP. *Brick MACT*, 479 F.3d at 882–83 (raw material input contributions to HAP emissions must be addressed by MACT floor). Although most SVM and LVM emitted by these sources comes from the hazardous waste,[11] hazardous waste is not the sole input of these metals. However, all SVM and LVM emissions from these sources is controlled by virtue of the PM standard. In addition, although the SVM and LVM floor standards for cement kilns and lightweight aggregate kilns are normalized by hazardous waste thermal input, EPA also capped these standards by the interim standards for SVM and LVM, which are standards that control all SVM and LVM emissions emitted from the combustor, not just emissions of SVM and LVM from hazardous waste.[12] Moreover, there is strong direct correlation between the control of total PM and control of metal HAP (including SVM and LVM), so that emission limits reflecting best PM control will also similarly control the total SVM and LVM. *Sierra Club* v. *EPA (''Primary Copper MACT'')*, 353 F.3d 976, 984–85 (D.C. Cir. 2004) (PM proper surrogate for HAP metals ''even in light of the potential variability of impurities in copper ore''). Furthermore, as a cross-check, EPA determined that total SVM and LVM emissions from the sources EPA identified as the PM best performers from these source categories are generally comparable to (and often lower than) total SVM and LVM emissions from the sources identified as best performers under EPA's SRE Feed methodology.[13] Thus, on the facts here, the thermally normalized floors for SVM and LVM (i.e., the SVM and LVM standards for cement kilns, lightweight aggregate kilns, and the higher heating value hazardous wastes subcategory of liquid fuel boilers), in combination with the PM standards, provide control of

[9] It should be noted that source 3016 was feeding more LVM in this test than in its most recent performance test, although the source was operating within its permit limits, and so far as can be determined was also otherwise properly designed and operated in this test.

[10] EPA also showed that these sources were operating properly in the tests where they removed SVM and LVM less efficiently. TSD Vol. III at 17–14 to 15 and Tables 17–4 and 5.

[11] See Source Data for Hazardous Waste Combustors, Source Category Summary Sheets, at *http://www.epa.gov/epaoswer/hazwaste/combust/finalmact/source.htm*.

[12] See 70 FR at 59457–458, § 63.1220(a)(3)(ii), (a)(4)(ii), (b)(3)(ii), and (b)(4)(ii), and § 63.1221(a)(3)(ii), (a)(4)(ii), (b)(3)(ii), and (b)(4)(ii).

[13] See note from Bob Holloway, USEPA, to Docket ID No. EPA–HQ–OAR–2004–0022 entitled ''SVM/LVM Emissions from PM Best Performers Are Generally Comparable to SVM/LVM Emissions from SVM/LVM Best Performers,'' dated August 23, 2007.

SVM and LVM reflecting the average SVM and LVM emissions of the best performing sources.

EPA further justified its use of the SRE Feed methodology on two additional bases, both of which are severable from the analysis just presented. First, EPA appropriately utilized the SRE Feed methodology because the Straight Emissions approach would force some best-controlled commercial hazardous waste treatment units to stop burning hazardous waste (or to burn less waste), even though hazardous waste must be treated before it can be land disposed under sections 3004(d), (e), (g), and (m) of RCRA and combustion is the only means of successfully treating the hazardous waste. 70 FR at 59442; TSD Vol. III section 17.4. EPA noted further that the Clean Air Act requires that EPA take into account RCRA requirements when issuing MACT standards for hazardous waste combustion units.[14] CAA section 112(n)(7). Although a severable part of EPA's rationale, 70 FR at 59447/3, EPA continues to believe that use of the Straight Emissions methodology is unreasonable here because it could have significant adverse cross-media environmental impacts by reducing the amount of needed, and statutorily mandated hazardous waste treatment capacity. See *id.* at 59442 (''EPA doubts that a standard which precludes effective treatment mandated by a sister environmental statute must be viewed as a type of best performance under section 112(d)''). EPA's concern here is not that certain sources are unable to achieve a floor standard. See *Brick MACT,* 479 F.3d at 881–82. Rather, the concern is the adverse cross-media environmental impact resulting from undermining ''the heart of RCRA's hazardous waste management program'', the restrictions on land disposal of untreated hazardous waste. *Chemical Waste Management* v. *EPA,* 976 F.2d 2, 23 (D.C. Cir. 1992). Section 112(n)(7) of the Clean Air Act requires EPA to consider RCRA standards when adopting section 112(d) standards for RCRA sources, and EPA's consideration of the issue here reinforces the conclusion that the SRE Feed methodology is reasonable, and the proper means here of assessing which sources are best, and their level of performance, for SVM and LVM emissions.

Second, 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 the most efficiently. 70 FR at 59443. EPA posited the example of whether a source emitting 100 units of HAP and feeding 100 units of the HAP must be considered better performing than a source emitting 101 units of the HAP but feeding 10,000 units. *Id.* Indeed, floors for new sources are to be based on the performance of the ''best controlled'' similar source. Section 112(d)(3). In the example just given, a source with control efficiency of 99.9 per cent can naturally be viewed as better controlled than one with 0 per cent control efficiency. EPA's decision to incorporate control efficiency (*i.e.*, system removal efficiency) into the SRE Feed methodology as one of the two factors used to identify best performing/best controlled sources reasonably reflects that the statute allows performance to be evaluated in terms of control efficiency. See further discussion of this issue in the analysis of the total chlorine emission standard for hydrochloric acid production furnaces.

EPA does, however, realize that certain parts of the justification for the SVM and LVM standards in the final rule may not be consistent with *Brick MACT*, and EPA is no longer relying on them. These relate principally to how MACT standards reflect HAP metal inputs from variable raw materials. The specific alterations EPA is contemplating (generally excising existing language) are found in red line/strike out versions of the Preamble, Technical Support Documents, and Response to Comment Document which EPA has placed in the docket for this rule.

2. Alternatives to the Particulate Matter Standard for Incinerators, Liquid Fuel Boilers, and Solid Fuel Boilers

EPA promulgated alternatives to the PM standard for incinerators, liquid fuel boilers, and solid fuel boilers.[15] In the case of liquid fuel boilers, separate alternatives to the PM standard were finalized for each subcategory: those burning higher heating value hazardous wastes and those burning lower heating value hazardous wastes. The alternative to the PM standard allows sources to comply with standards limiting emissions of all SVM and LVM metals, including the five nonenumerated metal HAP not covered by the standards for SVM and LVM, in lieu of complying with the PM standard. Under these alternatives, the numerical emission limits for SVM and LVM HAP are identical to the promulgated standards. However, for SVM, the alternative standard applies not only to the combined emissions of lead and cadmium, but also includes selenium, a semivolatile nonenumerated metal HAP; for LVM, the standard applies to the combined emissions of arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel, the latter four being low volatile nonenumerated metal HAP.

As noted above, some SVM and LVM standards are normalized by hazardous waste thermal input and apply only to SVM and LVM contributed by the hazardous waste. For these standards, SVM and LVM emissions from nonhazardous waste inputs is controlled by the PM standard. However, if a source were to elect to comply with the alternative to the PM standard, then the nonhazardous waste inputs would not be controlled because, under the alternative, the source would not be required to comply with a PM standard. In such instances, the alternative to the PM standard would not address all HAP emitted by a source. This does not appear to be consistent with the holding of *Brick MACT* that the standard must apply to all HAP emitted. 479 F.3d at 882–83. Of the source categories for which EPA promulgated alternatives to the PM standard, the higher heating value hazardous wastes subcategory for liquid fuel boilers is the only category for which SVM and LVM standards normalized by hazardous waste thermal input were established. Therefore, EPA believes (subject to comment) that it must reassess the alternative to the PM standard for this subcategory (and intends to seek remand of this standard). See § 63.1217(e)(2)(ii) and (e)(3)(ii).

3. Alternative Mercury, Semivolatile Metals, Low Volatile Metals, and Total Chlorine Standards for Cement Kilns and Lightweight Aggregate Kilns

EPA promulgated provisions that allow cement kilns and lightweight aggregate kilns to petition the Administrator for alternative mercury, semivolatile metals, low volatile metals,

[14] EPA investigated the possibility of subcategorizing by commercial/non-commercial sources but found this undesirable because it would lead to anomalously high floors for some subcategories due to sparse available data. 70 FR at 59442 and n. 78.

[15] For incinerators, the alternative to the PM standard are promulgated §§ 63.1206(b)(14) and 63.1219(e). For the higher and lower heating value hazardous wastes subcategories for the liquid fuel boiler category, the alternatives are promulgated under § 63.1217(e)(2) and (e)(3). The alternative to the PM standard is under § 63.1216(e) for solid fuel boilers.

and total chlorine standards.[16] 64 FR at 52962–967 and 70 FR at 59503–504. Under these provisions, the alternative standard was not prescribed, and could take the form of an operating requirement, such as a hazardous waste feedrate limitation of metals and chlorine or an emission limitation, subject to approval by the Administrator. The rule discusses two sets of circumstances under which a source could petition for such an alternative standard. One reason is that the source cannot achieve the standard due to contributions of metals and chlorine HAP in the raw materials. The second reason is limited to mercury, and applies in situations where a source cannot comply with the mercury standard when mercury is not present in the raw materials at detectable levels (*e.g.*, the mercury emission standard could be exceeded by a source if it assumed mercury is present in the raw materials at the detection limit). These circumstances appear to be inappropriate bases for an alternative standard after *Brick MACT*. Accordingly, EPA currently intends to seek a remand of these alternative metals and total chlorine standards and remove these provisions in a subsequent rulemaking.

4. Alternative Mercury Standards for Cement Kilns and Lightweight Aggregate Kilns Under the Interim Standards

EPA promulgated an alternative to the interim standards for mercury for cement and lightweight aggregate kilns in 2002. Section 63.1206(b)(15) and 67 FR 6792 (February 13, 2002). Under this alternative, sources are allowed to comply with a hazardous waste maximum theoretical emissions concentration of mercury.[17] This alternative mercury standard does not address all mercury emitted by a source, and, therefore, is not permissible in light of the holding of *Brick MACT* that the standard must apply to all HAP emitted. 479 F.3d at 882–83. Accordingly, EPA currently intends to seek a remand of these alternative standard provisions and remove them in a subsequent rulemaking.

[16] The alternative standard provisions are promulgated under § 63.1206(b)(9) for lightweight aggregate kilns and § 63.1206(b)(10) for cement kilns.

[17] Maximum theoretical emissions concentration (MTEC) is a term to compare metals (and chlorine) feedrates across sources of different sizes. MTEC is defined as the metals (or chlorine) feedrate divided by the gas flow rate and is expressed in units of ug/dscm.

C. Standards for Total Chlorine

EPA established standards for total chlorine (TCl, which controls emissions of both hydrochloric acid and chlorine) for all of the source categories. For all of the source categories except HCl production furnaces, EPA established floors using the SRE Feed methodology described in the previous section. For HCl production furnaces, EPA selected sources with the best removal efficiency as the best performers. EPA believes that most of these standards are consistent with the statute and applicable caselaw, although certain of the standards probably are not.

1. Incinerators

For hazardous waste incinerators, all of the best performers using the SRE Feed methodology were also the lowest emitters using the Straight Emissions methodology. Thus, choice of floor methodology is not at issue here. However, EPA found that the analytic method used to gather these data is biased below 20 ppmv. 70 FR at 59427–428. EPA's determination of how to estimate these best performers' level of performance is explained in detail in 71 FR at 52628–30 (Sept. 6, 2006). As there stated, this determination is consistent with *Brick MACT* and all other applicable statutory and caselaw.

2. Cement Kilns

EPA used the SRE Feed methodology to establish floors for new and existing sources, but believed that the data did not fully reflect variability that best performing kilns experience due to fluctuating alkalinity levels within the kiln. Rather, the TCl emissions data reflect the alkalinity of the limestone raw material used at the time of performance tests. 70 FR at 59469–70, TSD Vol. III section 13.7.1. To account for this variability, EPA assumed a 90 per cent system removal efficiency for all cement kiln sources. The best performing sources then effectively become the lowest chlorine feeders. Although this assumed system removal efficiency has some factual basis, see Table 1 at 70 FR 59470 showing that the median of the best performing sources (Ash Grove) demonstrated removal efficiencies ranging from 85.1 to 98.8%, the standard reflects concerns relating to raw material variability, and also may reflect a level that is achievable (albeit by best performers) rather than actually achieved. Neither of these rationales is permissible after *Brick MACT,* 479 F.3d at 880–81, 882–83. Accordingly, subject to consideration of comments on this issue, EPA currently intends to seek a remand on this standard and reexamine it in a subsequent rulemaking. EPA notes further that the health-based compliance alternatives for total chlorine under § 63.1215 would not be affected by this reexamination and thus would provide an alternative means of demonstrating compliance.

3. Lightweight Aggregate Kilns

Choice of a floor methodology for TCl is essentially academic for existing lightweight aggregate kilns, since both the SRE/Feed and Straight Thermal Emission (and Straight Mass Emission) methodologies yield floor levels higher than the interim standard for these devices, in which case the floor level is capped by the level of the interim standard. 70 FR at 59457; see TSD Vol. III appendices C, D, and E for data and calculations. The reason for this seeming anomaly in all the methodologies is that EPA has little data from this source category (and there are only a few sources to begin with), so that differences in individual performance runs are magnified when the standard is calculated. In addition, all of the data in the record came from tests conducted before EPA adopted the interim standards. This is especially relevant for this standard because the interim standard is a beyond-the-floor standard. See generally TSD Vol. III chapter 19. The interim standard thus remains the best measure of evaluating best performing sources.

However, for new sources, EPA noted only that the new source floor calculated using the SRE Feed methodology would be less stringent than the interim standard but did not closely examine whether the methodology clearly identified the best controlled source. TSD Vol. III section 12.6.3. EPA therefore intends to reexamine this standard in a subsequent rulemaking, subject to consideration of comment (and to seek remand of the standard).

4. Liquid Fuel Boilers

a. *Higher Heating Value Hazardous Wastes Subcategory.* EPA believes (subject to comment) that it must reassess this standard (for both new and existing sources) since the standard applies only to TCl attributable to hazardous waste inputs, and currently intends to seek remand of the standard. See § 63.1217(a)(6)(ii). This is not permissible in light of the holding of *Brick MACT* that the standard must apply to all HAP emitted, notwithstanding variable HAP levels in raw materials. 479 F.3d at 881–82.

b. *Lower Heating Value Hazardous Wastes Subcategory.* The SRE Feed and Straight Emissions methodologies give

the same floor value for this subcategory, and the standard applies to all TCl emissions from the boiler, not just those attributable to hazardous waste. See § 63.1217(a)(6)(i). The issue is how to account for analytical bias at levels below 20 ppmv, and EPA's resolution of the issue is explained at 71 FR at 52628–630. EPA does not believe this approach raises issues under the statue, or under *Brick MACT* or other applicable caselaw.

5. Solid Fuel Boilers

The SRE Feed and Straight Emission methodologies give the same floor level for both existing and new solid fuel boilers, so the issue of appropriate floor methodology is academic. TSD Vol. III at App. E and C.

6. Hydrochloric Acid Production Furnaces

The TCl standard for this source category controls TCl emissions and also serves as a surrogate for all metal HAP. TSD Vol. III sections 15.2 and 15.3. EPA selected as best performers sources with the best TCl system removal efficiency (or, for new sources, the single source with the best TCl system removal efficiency). The standard is then expressed as a required degree of control: 99.923 percent for existing sources (the average efficiency of the five best controlled sources), 99.987 percent for new sources (the control efficiency of the single best controlled source). *Id.* section 15.3.

EPA continues to believe that this standard is consistent with the statute and applicable caselaw. First, 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. See *Sierra Club* v. *EPA,* 167 F.3d 658, 661 (''average emissions limitation achieved by the best performing 12 percent of units' * * * on its own says nothing about how the performance of the best units is to be calculated''). The requirement that the new source floor reflect ''emission control'' achieved in practice reinforces that the standard can be determined and expressed in terms of control efficiency. Existing floors determined and expressed in terms of control efficiency are likewise consistent with the requirement that the floor for existing sources reflect ''average emission limitation achieved'', since ''emission limitation'' includes standards which limit the ''rate'' of emissions on a continuous basis—exactly what the standards do here. CAA section 302(k). Moreover, where Congress wanted to express performance solely in terms of numerical limits, rather than performance efficiency, it said so explicitly. See CAA section 129(a)(4).

The policy reason for EPA's interpretation here is that a standard limiting volumetric TCl emissions means that less product is produced, since these sources recover hydrogen chloride to produce hydrochloric acid. TSD Vol. III at 15–6; 70 FR at 59450. EPA does not believe that the MACT floor provisions should compel an otherwise best performing source to limit the amount of product it produces. See 2 *Legislative History* at 3352 (House Report) (''MACT is not intended to * * * drive sources to the brink of shutdown'').

Moreover, all that is at issue here is how to express the performance of sources ranked as best performing under both EPA's methodology and under the Straight Emissions methodology. This is because, with one exception, the best performing sources are the same under EPA's methodology as those identified as best performing under the Straight Emissions methodology. TSD Vol. III App. C at E–HCLPF–CL and App. E at SO–HCLPF–CL. The one exception is where EPA chose a parallel test condition which exhibits more variability to characterize the source's performance (source 855 condition 11 rather than condition 13), and consequently resulted in this source not being selected as a best performer. Given this documented variability, this is a reasonable choice. Thus, EPA is selecting as best performers those with the lowest measured emissions of chlorine, but chose to express their performance in terms of system removal efficiency to avoid impacts on amount of product these best performing sources produce. EPA continues to regard this choice as reasonable.

EPA has carefully reexamined this standard in light of *Brick MACT.* The opinion does not address the issue directly, since no standard there was determined or expressed in terms of control efficiency. Moreover, as noted above, unlike section 129, section 112 contains no directive to express standards as numerical limits (see section 129(a)(4)), further supporting EPA's view that it could reasonably choose to express this standard in per cent reduction terms. See also section 112(i)(5)(A), which allows sources that achieve early reductions based on measured rates of removal efficiency a reprieve from MACT, a provision reasonably read to allow section 112(d) performance to be expressed in terms of rate of removal efficiency.

The opinion does hold, however, that different HAP levels in raw materials could not justify a conclusion that floor standards were unachievable, so that emissions attributable to raw material HAP had to be accounted for in the standard. 479 F.3d at 882–883. The TCl standard at issue here accounts for emissions from all HAP inputs, 70 FR at 59450, and so does not present this deficiency. Nor are the floor standards designed to be achieved by all sources with a specific emission control technology. 479 F.3d at 880–81. The removal efficiency standard is not based on performance of any particular technology, and simply is the averaged (or single best) efficiencies of the best performing sources (after accounting for run-to-run variability).

EPA, however, does not (subject to comment) believe that the alternative standard of 150 ppmv by volume for existing sources (section 63.1218 (a) (6) (i)) should be retained and EPA currently intends to seek remand of this alternative standard. The standard appears inconsistent with the SRE MACT standard, since it allows sources to operate with less efficient system removals.

EPA also recognizes that certain parts of the rationale for the standard, generally related to whether standards are to reflect varying raw material HAP inputs, do not appear to be consistent with *Brick MACT.* EPA is making appropriate revisions to the key record documents, which are available in red line strike out versions in the administrative record.

D. Standards for Dioxins/Furans

Polychlorinated dioxins and furans (D/F, or 'dioxins') are typically not present in any of the inputs to hazardous waste combustion devices. Rather, they are formed post-combustion (often from some type of chlorinated precursor, which precursor is itself typically a product of incomplete combustion). 70 FR at 59461. As combustion efficiency increases, complex organic molecules which can be D/F precursors are oxidized to form carbon dioxide or carbon monoxide, helping to minimize D/F formation and emission. *Id.* Different levels of chlorine in waste or other inputs do not appreciably influence D/F emission rates. TSD Vol. IV [18] section 3.3 (documenting that D/F formation and emission is ordinarily not dependent on feed levels of chlorinated

[18] USEPA, ''Technical Support Document for HWC MACT Standards, Volume IV: Compliance with the HWC MACT Standards'' (TSD Vol. IV), September 2005. See docket item EPA–HQ–OAR–2004–0022–0435.

materials); TSD Vol. III at 10–6. Nor does burning hazardous waste generally have an appreciable impact on CDD formation and emissions, so that it is technically appropriate in some instances to consider D/F emission levels from sources which do not burn hazardous waste in evaluating emission potential from those that do. TSD Vol. III at 11–4 and n. 72.

Precise formation and control mechanisms of D/Fs are thought to be fairly well understood for systems with dry air pollution control devices (or extensive ductwork containing particulates on surfaces, such as for certain lightweight aggregate kilns). For these systems, D/Fs are formed on particles entrained in the control device by surface-catalyzed reactions where entrained particulate matter provides the reaction surfaces.[19] D/F formation can increase exponentially as gas temperatures increase from 400 °F to 750 °F.[20] Formation mechanisms, or their degree, are less well understood for systems with wet air pollution control or no air pollution control systems, making it less certain how much D/F these sources may emit over time. TSD Vol. III pp. 10–5 to 6.

EPA used the Straight Emissions methodology rather than the SRE Feed methodology as the starting point for calculating floors for D/F because dioxins/furans do not come from inputs (but rather are formed post-combustion), so that it is not possible to calculate system removal efficiencies (which is calculated from inputs and outputs). However, for a number of the source categories where best performers do not have dry air pollution control devices, EPA's professional judgment was that this methodology did not give an accurate assessment of the best performing sources' performance over time (i.e., the best performers' variability). This is because there are myriad factors that can affect D/F emissions for these sources [21] and, unlike sources equipped with a dry emission control device where gas temperature at the inlet to the control device is generally the dominant factor affecting D/F emissions),[22] there is no generic, dominant factor affecting emissions. In these instances, EPA consequently selected as best performers those sources which best minimized the formation of dioxin precursors by maintaining the most efficient combustion conditions, as measured by carbon monoxide (CO) or total hydrocarbon emissions (HC), as well as by destruction/removal of hardest-to-burn hazardous waste constituents at an efficiency of 99.99 percent. The floor standards for these sources consequently is either meeting a CO standard of 100 ppmv or an HC standard of 10 ppmv, plus demonstrating a destruction/removal efficiency (DRE) of 99.99 percent on the hardest-to-combust hazardous constituents present in the hazardous waste. In instances where the interim standard applied to such sources, EPA used that standard as the measure of best performers' good combustion instead of quantified CO/HC and destruction/removal efficiency.

Our assessment of these standards, subject to comment, is:

1. Incinerators

a. *Dry Air Pollution Control Device Subcategory.*[23] EPA used the Straight Emissions approach to establish floor levels for existing and new sources for this subcategory. The existing source floor, calculated in this manner, was slightly higher than the interim standard, so the floor is capped at the level of the interim standard. TSD Vol. III p. 10–4. The standard for new sources is based on the performance of the single lowest emitting source. *Id.* at 10–11. EPA believes this standard to be consistent with the statute and all applicable caselaw.

b. *Incinerators with Wet Air Pollution Control Systems or No Air Pollution Control Systems.* For both new and existing sources, EPA selected the interim standard as the floor standard. *Id.* at 10–6 and 10–11. EPA considered basing the floor on the performance of lowest emitters in single tests, but these sources had strikingly varied results in other tests, with one 'best' performer (source 3016) having emissions over 1000 times greater than its previous test, and well in excess of the floor level established by EPA. TSD Vol. III at 10–6.[24] Under these circumstances, EPA was unable to conclude that single test results adequately represented the sources' performance over time (i.e., their long term variability). TSD Vol. III at 10–6 (lowest emitters in single tests would prove unable to duplicate their performance in other tests due to their variability). Without a means to assess long-term performance, EPA used the interim standard as the measure of best performers' performance over time. *Id.* EPA continues to believe that this is a reasonable estimate of best performance, and that the standards are consistent with the statute and applicable caselaw.

2. Cement Kilns

The calculated floor for existing cement kilns using the straight emissions approach was slightly higher (less stringent) than the low end of the interim standard (0.28 as opposed to 0.20 ng TEQ/dscm). However, available historical D/F emissions data for cement kiln best performers (other test conditions conducted at different times from cement kiln sources identified as best performing, which test conditions reflect temperature optimization) show that these sources performance considering run-to-run variability exceeded both the floor level calculated using the Straight Emissions methodology and the interim standard.[25] In light of this documented variability, EPA considered the interim standard the more stringent and consequently used the interim standard (0.20 ng TEQ/dscm or 0.40 ng TEQ/dscm and a temperature of 400 °F or less at the inlet of the dry air pollution control device) as the floor. The calculated floor for new cement kilns using the straight emissions approach was slightly higher (less stringent) than one part of the interim standard for new cement kilns (0.21 ng TEQ/dscm as opposed to 0.20 ng TEQ/dscm), and in addition, the lowest emitter in a single test condition (source 323B3) exhibited enormous variability in other

[19] USEPA, ''Draft Technical Support Document for HWC MACT Standards, Volume IV: Compliance with the HWC MACT Standards,'' March 2004, Section 3.0.

[20] To be clear, the dry air pollution control device does not control D/F emission (except insofar as some of the formed dioxins/furans adsorb to particulate which is collected). Rather, the inlet to these devices serves as an agent for the actual formation of the chemical, to the availability of a surface catalyzed reaction which occurs under these conditions.

[21] Factors that can affect D/F emissions from sources with a wet control device or no control device include: Soot buildup on boiler tubes and presence of metals in the feed that can catalyze D/F formation reactions. 70 FR at 59502.

[22] For sources with dry emission control devices, D/F emissions during the compliance tests EPA used to characterize emissions would generally be at the upper end of the range of normal operations. Because an operating limit is established on gas temperature at the inlet to the control device based on levels achieved during the compliance test, operators had the incentive to maximize gas temperatures while still complying with the D/F emission standard under part 266, subpart H (§ 266.104(e)).

[23] EPA explained a number of times that it did not subcategorize incinerators by control device. Rather, the presence or absence of a dry air pollution device relates to differences in dioxin formation mechanisms and consequent dioxin emission levels. See e.g. 70 FR at 59467.

[24] See also Note from Bob Holloway, USEPA, to Docket ID No. EPA–HQ–OAR–2004–0022 entitled ''Incinerators: Comparison of D/F Emissions Variability for Best Performers and Other Sources with Wet or No APCD,'' dated April 5, 2007.

[25] See data for test conditions 228C4, 403C4, and 404C3 in Note from Frank Behan, USEPA, to Docket ID No. EPA–HQ–OAR–2004–0022 entitled ''Comparative D/F Data for the Cement Kiln Best Performers,'' dated August 23, 2007.

performance tests (see test condition 323C1; the other lowest emitters likewise showed significant variability in other tests (*id.*)) so EPA adopted the level of the interim standard as the MACT floor for new sources. TSD Vol. III p. 11–7. EPA believes that these standards are consistent with the statute and applicable caselaw.

3. Lightweight Aggregate Kilns

The calculated floors for existing and new lightweight aggregate kilns using the Straight Emissions approach were higher (less stringent) than the interim standard, so EPA adopted the level of the interim standard as the MACT floor for both existing and new sources. TSD Vol. III pp. 12–4 and 12–6. EPA continues to believe that this approach uses the best measure of evaluating the best sources and their level of performance, and that these standards are consistent with the statute and applicable caselaw.

4. Liquid Fuel Boilers

a. *Sources with Dry Air Pollution Control Devices.* EPA used the Straight Emissions approach to establish a floor for existing liquid fuel boilers equipped with a dry air pollution control device, which yielded an extremely high standard of 3.3 ng TEQ/dscm.[26] TSD Vol. III p. 13–7. The floor standard also includes an alternative based on meeting temperature control of 400° F at the inlet to the dry air pollution control device. *Id.* EPA also adopted a beyond-the-floor standard for these sources which is (necessarily) more stringent than the level of the floor. *Id.* at 13–8. This beyond the floor standard would be ascertained identically whether or not the existing source floor included the temperature control alternative. EPA believes that this standard is consistent with section 112 (d) (2) of the statute, and that the floor is also consistent with the statute, but not of direct relevance given that the actual standard is beyond-the-floor.

For new sources, EPA adopted a floor standard of the lowest emitters' performance, or meeting temperature control of 400° F or less at the inlet to the dry air pollution control device. Subject to comment, EPA does not believe that this standard accounts for all the factors that could influence dioxin emissions from new sources, see *Brick* MACT, 479 F.3d at 881–82, and therefore intends to seek a remand of the standard and further examine it in a subsequent rulemaking.

EPA also recognizes that not all of the rationale adopted for these standards is consistent with *Brick MACT,* particularly discussions relating to whether sources other than those in the best performing half of the MACT pool of best performers could replicate best performers' level of performance. EPA has made appropriate edits to the key support documents which are available for comment in red line strikeout form in the administrative record.

b. *Sources with Wet or Without Air Pollution Control Equipment.* EPA has decided (subject to comment) not to defend most of the dioxin standards for sources with wet air pollution control equipment or without air pollution control equipment.[27] These include the standards for liquid fuel boilers with wet or no air pollution control systems and standards for hydrochloric acid production furnaces. EPA continues to adhere to its analysis that these sources experience enormous operating variability based on dioxin formation and control mechanisms which are uncertain and presently not quantifiable. However, based on the discussion at 70 FR 59202/2, EPA does not believe that it is certain that the promulgated standard based on quantified good combustion addresses all of the potential formation and control mechanisms for dioxins as required. See *Brick MACT,* 479 F.3d at 882–83; *CKRC,* 255 F.3d at 862–63. Moreover, the cited preamble discussion suggests that additional dioxin formation and control mechanisms can be quantified directionally, if not with exactitude. This again may not be consistent with *Brick MACT,* 479 F.3d at 883 (lack of data resulting in inability to quantify variability related to non-technology factors does not by itself justify by itself a less stringent floor standard). EPA intends to seek a remand (subject to consideration of public comment) and to investigate these issues further in subsequent rulemaking.

E. Non-Dioxin Organic HAP

Hazardous wastes contain non-dioxin organic HAP which are destroyed by effective combustion. Treatment of hazardous waste by destruction of organics is indeed the chief reason that there is a hazardous waste combustion industry. See 40 CFR 268.42. (RCRA treatment standards for organic hazardous wastes, reflecting application of Best Demonstrated Available Technology (see *Hazardous Waste Treatment Council* v. *EPA,* 886 F.2d 355, 363–64 (D.C. Cir. 1989)), are invariably based on performance of combustion technology.) EPA adopted standards quantifying good combustion conditions for non-dioxin organic HAP emitted by liquid fuel boilers, solid fuel boilers, and hydrochloric acid production furnaces. The floor standards for these sources is either meeting a CO standard of 100 ppmv or an HC standard of 10 ppmv, plus demonstrating a destruction/removal efficiency (DRE) of 99.99 percent on the hardest-to-combust hazardous constituents present in the hazardous waste. In the event a source chooses to comply with the 100 ppmv CO standard, it must also demonstrate that it is achieving 10 ppmv HC standard in a single performance test, and establish continuously monitored parameters reflecting the conditions of that performance test (including operating temperature, maximum feed rates, minimum combustion zone residence time, and operating requirements on the hazardous waste firing system that optimize liquid waste atomization efficiency). Sections 63.1216(a)(5), 63.1217(a)(5), and 63.1218(a)(5).

The basis for these standards is that good combustion, as measured by 100 ppmv CO or 10 ppmv HC, plus meeting 99.99 percent DRE, is the best measure of the performance over time of best performers. However, in contrast to dioxin, EPA has more knowledge of formation mechanisms and means of control over time. Non-dioxin organics (of which there are over 100 on the list of HAP) can be present in hazardous waste (or other inputs) or can be formed as products of incomplete combustion. Organics are destroyed when wastes are combusted, and best performers are those which destroy organics through the most efficient combustion. 70 FR at 59463; see also *Horsehead Resource Development* v. *Browner,* 16 F.3d 1246, 1265 (D.C. Cir. 1994) (''A kiln's utility as a means of destroying hazardous wastes turns on its ability to fully destroy them. In practice, destruction of hazardous wastes in the fuel is a function of the combustion efficiency of the kiln: Under poor conditions of efficiency, the principal organic hazardous constituents * * * of the toxic organic compounds contained in the hazardous waste fuel will be only partially broken down, thereby increasing the production of [products of incomplete combustion]'').

Furthermore, 100 ppmv CO or 10 ppmv HC are long-recognized levels representing good combustion conditions. 70 FR 59463–464 (explaining further that lower levels are unlikely to be associated with good combustion and so no longer serve as a

[26] The basis for subcategorizing in this way is the same as for incinerators.

[27] For the same reasons, we will not defend the dioxin standards for solid fuel boilers.

measure of organic destruction). EPA adopted these levels here as the best measure of the sources' long-term performance (and reiterates that finding here). *Id.* and TSD Vol. III at 13–35, 14–26, and 15–9. In addition to good combustion being the long-recognized metric for organic destruction and performance, EPA lacked any data on individual organic HAP emissions from these devices, so had no choice but to use some type of surrogate to evaluate sources' performance.

EPA views these standards as consistent with the statute and applicable caselaw. Regarding use of the quantified good combustion surrogate, the D.C. Circuit has held repeatedly that EPA may select a surrogate for control of HAP in adopting section 112(d) standards. See, e.g. *National Lime Ass'n* v. *EPA,* 233 F.3d 625, 639 (D.C. Cir. 2000); *Sierra Club* v. *EPA (''Primary Copper MACT'')*, 353 F.3d 976, 984–85 (D.C. Cir. 2004). EPA has shown here a valid basis for choosing good combustion as a surrogate: There is a strong correlation between optimized combustion conditions and minimized organic emissions in that oxidation of heavier, more complex organic molecules will be maximized when combustion conditions are optimized, thus minimizing emission of organics. 70 FR at 59463; see also *id.* at 59461–62; see also *National Lime,* 233 F.3d at 639 (upholding EPA's selection of PM as a surrogate for HAP metals where EPA demonstrated a correlation between removal of PM and metal HAP, and further holding both that EPA need not quantify the precise amount of metal HAP removed, and that the amount of HAP metal removed may vary); *Primary Copper MACT,* 353 F.3d at 984. EPA has further demonstrated the reasonableness of 100 ppmv CO or 10 ppmv HC as measures of good combustion.

National Lime further indicates (in dicta) that choice of a surrogate may not be valid if emissions of the HAP could increase by some mechanism for which the surrogate fails to account, specifically noting that if HAP metal feedrates decreased and PM emissions did not decrease proportionately, PM might not be a valid surrogate. 233 F.3d at 639. This discussion has no direct factual applicability here since organic emissions are not input dependent. See also *Primary Copper MACT,* 353 F.3d at 985 (rejecting argument that input variability made PM an arbitrary surrogate for metals). The situation here is similar to that in *Mossville,* where the court held that EPA could account for best performers' performance over time, and could estimate performance over time by some means other than emission levels. 370 F.3d at 1242. The difference here is that EPA is using a quantified surrogate to do so, but EPA believes this is a difference without legal significance given the reasonableness of the surrogate on the facts presented here. Indeed, EPA selected here an existing regulatory standard as a measure of best performers' performance over time (RCRA standards for CO/HC and DRE), just as in *Mossville* EPA selected the existing uniform vinyl chloride regulatory standard as that measure. 370 F.3d at 1240.[28]

One commenter maintained that CO/HC standards should be numerically lower to reflect lowest CO/HC emissions, and further maintained that CO and HC are not the sole measures of organic combustion efficiency, which, as EPA noted, can be influenced by such factors as inadequate time, temperature and turbulence within individual combustion zones, and, the argument goes, are therefore improper or inadequate surrogates. 70 FR at 59463/2; cf. *National Lime,* 233 F.3d at 639. EPA addressed these issues in the record. 70 FR at 59462–63. With respect to the level for CO/HC, extremely low CO floors are unlikely to be met at all times by best performers due to all the potential minor sources of variability. So the 100 ppmv standard—which must be met continuously (and is measured by a continuous emission monitor), is the best measure of best performers' variability and hence performance over time. TSD Vol. III at 13–35, 14–26 and 15–9 (best sources' inability to duplicate a lower level of performance at all times for these reasons); see also *Mossville,* 370 F.3d at 1242 (if floor standard must be met continuously, then the best performers' maximum variability must be reflected in that standard). Of equal importance, lower levels of either CO or HC are no longer likely to be associated with increased organic destruction efficiency. 70 FR at 59462–64 (CO itself is a conservative indicator of combustion efficiency because it is a thermally stable, refractory compound which is the final stage of the combustion process of an organic molecule, and levels lower than 100 ppmv are no longer reliably associated with levels of organic HAP). Finally, the factors mentioned by the commenter which can influence organic destruction are in fact encompassed within the CO and HC standards because, as EPA explained, sources must conduct a performance test for HC and DRE, and continuously monitored parameters, including minimum operating temperature, maximum feed rates, minimum combustion zone residence time, and operating requirements on hazardous waste firing systems (i.e., all of the factors mentioned by the commenter), are established based on the conditions established in that performance test. 70 FR at 59464/1. EPA consequently views all of these standards as consistent with *Brick MACT* and the statute.

Edited versions of the key support documents for this standard, edited to reflect changes necessary in light of *Brick MACT,* are available in red line strike out format for comment in the administrative record.

F. Mercury

1. Incinerators

For existing incinerators, both the SRE/Feed methodologies and straight emissions methodologies (even without calculation of run-to-run variability) produced floors which were higher than the interim standard. TSD Vol. III appendices C and E, tables E–INC–HG CT and SF–INC–HG, respectively. EPA's decision to use the interim standard as the level of the floor consequently does not raise issues vis-á-vis *Brick MACT.* See also *Mossville,* 370 F.3d at 1241–42 (selection of regulatory standard as floor is a legitimate means of assessing best performers' variability when these performers demonstrably emit at a level close to that regulatory level).

For new incinerators, EPA selected the emission level of the lowest emitting source since the same source was the lowest emitter under both the SRE methodology and the Straight Emissions methodology, TSD Vol. III appendices C and E, tables E–INC–HG CT and SF–INC–HG, respectively, again raising no issues vis-á-vis *Brick MACT.*

2. Cement Kilns

For both new and existing cement kilns, the mercury floor standard appears inconsistent with the *Brick MACT* opinion and the statute because it is based in whole or in substantial part on emissions attributable exclusively to hazardous waste control. The standard thus does not result in control of all mercury which could be

[28] *Brick MACT* holds that EPA may not select floor standards to assure that all sources in the category will be able to meet the standards. 479 F.3d at 880–81. EPA did not do so here. The CO/HC and DRE standards are EPA's best estimate of best performers' performance over time. As in *Mossville,* EPA selected an existing regulatory limit not because all sources were (by definition) meeting that regulatory limit, but because no other means of accurately assessing variability were available. 370 F.3d at 1240. Moreover, sources will establish parametric monitoring conditions, which will vary by source, as part of the process of meeting the 10 ppmv HC standard, so the standards in fact are not uniform across the source category.

emitted by cement kilns (mercury in raw materials being the notable example), and so appears to require revision. 479 F.3d at 882–83. Subject to comment, it is thus EPA's intent to amend this standard and to seek remand of the standard.

3. Lightweight Aggregate Kilns

The methodology for developing floor standards for mercury for lightweight aggregate kilns is essentially a Straight Emissions approach for mercury contributed by hazardous waste.[29] The floor calculated thereby produced existing and new source floors higher than the interim standard of 120 µg/dscm total mercury emissions (110 µg/dscm for new sources), which EPA therefore adopted as the floor standard. TSD Vol. III at 12–8 to 9, 12–12 and section 7.2.3.5. EPA continues to believe that the interim standard remains the best measure of best sources' performance given the available data. However, the interim standard contains a compliance option based solely upon mercury emissions attributable to hazardous waste. Section 63.1206(b)(15). Subject to comment, this alternative compliance mechanism appears to be inconsistent with *Brick MACT* since it would not control all mercury emitted by the kiln. 479 F.3d at 882–83; see also section III.B.3 above. Subject to consideration of public comment, EPA intends to seek a remand of this alternative standard and to consider this issue further in subsequent rulemaking.

4. Liquid Fuel Boilers

a. *Higher Heating Value Hazardous Wastes Subcategory.* The mercury floor standard for this subcategory for both existing and new sources accounts only for mercury emissions from hazardous waste. TSD Vol. III pp. 13–14 and 13–16. These standards thus appear to require revision, and EPA accordingly currently expects to seek remand of this standard. *Brick MACT,* 479 F.3d at 882–83.

b. *Lower Heating Value Hazardous Wastes Subcategory.* The mercury floor standard for this subcategory for both existing and new sources is based on the Straight Emissions methodology. TSD Vol. III at 13–16 and 13–18; see also 69 FR 21286–87 (because so many of the data measurements were non-detects, EPA was unable to calculate removal efficiencies, and so did not use the SRE Feed methodology). The standard also applies to all mercury emitted by the source, not just that attributable to hazardous waste. Section 63.1217(a)(2)(i). EPA does not believe that this approach creates any issues vis-á-vis *Brick MACT.*

5. Solid Fuel Boilers

EPA used the SRE Feed methodology to identify best sources and their level of performance for both new and existing solid fuel boilers. TSD Vol. III at 14–7, 14–9. The floor standards are identical to those using the Straight Emissions methodology because the best performing sources (and single best performing source) are the same under either methodology. TSD Vol. III at App. C (E–SFB–HG–CT) and E (SF–SFB–HG). EPA does not believe that these standards pose issues vis-á-vis *Brick MACT.*

G. Normalization

A number of the standards are ''normalized,'' that is expressed as a given amount of pollutant per amount of some production related parameter such as air flow or thermal inputs. See generally 70 FR at 59451. Most technology-based standards are expressed in terms of some type of normalizing parameter in order to allow meaningful comparison between performance of different sources. *Weyerhaeuser* v. *Costle,* 590 F.2d 1011, 1059 (D.C. Cir. 1978). As EPA pointed out, comparing unnormalized performance is like asking which baseball pitcher is the better performer, the one who has given up 6 earned runs or the one who has given up 20. Unless and until the figure is normalized over 9 innings pitched, the question is meaningless. 70 FR at 59451 n. 101.

EPA sees nothing in the statute which precludes use of normalization in determining who best performers are for purposes of MACT floor determinations. Section 112(d)(3) does not specifically address the issue (the terms ''best performing'' and ''best controlled'' being amenable to an interpretation allowing comparisons of normalized emissions to assess which source is ''better'' or ''best''). The issue of normalization was not presented in *Brick MACT,* so that EPA likewise does not view the opinion as precluding the approach.

H. Potential Implications to the Compliance Date Provisions if Standards Are Remanded to EPA

The compliance date of the final rule is October 14, 2008. As discussed above, we are contemplating requesting the Court to remand several standards so that we can reexamine them in a future rulemaking, a process that likely would be concluded well after the compliance date of the rule. It is not our intent to ask the Court to vacate any standards, including those standards that may have to be revised in a future rulemaking. As a result, sources would need to comply with the standards promulgated in October 2005 according to the compliance date provisions codified under § 63.1206(a). See *NRDC* v. *EPA,* 489 F.3d 1364, 1373–74 (D.C. Cir. 2007).

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Reporting and recordkeeping requirements.

Dated: September 21, 2007.

Stephen L. Johnson,

Administrator.

[FR Doc. E7–19097 Filed 9–26–07; 8:45 am]

BILLING CODE 6560–50–P

[29] EPA used the Straight Emissions approach here for data-specific reasons explained at section 7.5.3.2 of Volume III of the TSD.