Boiler MACT, 40 CFR Part 63, Subpart DDDDD (5D)
Question and Answers
(Revised 1/14/16)

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GENERAL

Q1. Can a boiler that combusts both gas and oil average its emissions when firing gas with those when firing oil?

A. As stated in 63.7522, emission averaging is only allowed between units in the same subcategory. Averaging emissions of a dual fuel unit burning oil with the emissions of the same unit when burning gas is not permitted. Under 63.7520(c), the unit's compliance would be based on the emissions when firing oil.

Q2. Can a facility that is currently a major source of HAP become an area source before the first substantive date of the Major Source Boiler MACT (i.e., 2016), and comply with the Area Source Boiler MACT/GACT (NESHAP JJJJJJ) provisions? The EPA's memorandum that was published in 1995 specifically noted the first substantive compliance date of a MACT rule as the last day to switch to an area source, before Once In, Always In takes effect. Does this memorandum still represents EPA's policy?

A. The "Once In Always In" Policy does represent the Agency's policy. You are correct that a source must reduce their emissions below major source thresholds prior to the compliance date of the rule.

Q3. Can a facility that is a major source boiler become an area source boiler? If so, what is the latest date by which it may do so, and what has to happen by then?

A. A facility would need to become an area source before the first applicable compliance date, which would be January 31, 2016 for existing sources. The facility would need to show that their potential to emit HAP is less than 10/25 TPY, and a federally enforceable permit restriction would be one way to show emissions are below major source levels.

Q4. Can a facility that provided an initial notification as a major source later become an area source?

A. Yes, an existing facility has until January 31, 2016 to become an area source. However, the first applicable compliance date for new sources is January 31, 2013, or the date of startup, whichever is later.

Q5. For a new gas fired boiler installed in 2011, when do the tune-up and energy assessment need to be completed?

A. The amendments to the major source boiler rule published on January 31, 2013, establish the compliance dates for the tune-up and energy assessment. However, new units are not subject to the requirement to conduct an energy assessment, as indicated in item 4 of Table 3 in the January 31, 2013 amended rule.

As for the initial tune-up requirement for new units, the January 31, 2013 amendments establish the date for the initial tune-up for new units. Section 63.7510 was revised and paragraph 63.7510(g) states:

> (g) For new or reconstructed affected sources (as defined in § 63.7490), you must demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the applicable annual, biennial, or 5-year schedule as specified in § 63.7540(a) following the initial compliance date specified in § 63.7495(a). Thereafter, you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in § 63.7540(a).

This means a new gas-fired unit would need to conduct the initial tune-up by either January 31, 2014 (if required to conduct tune-up annually), January 31, 2015 (if required to conduct tune-up biennially), or January 31, 2018 (if required to conduct tune-up every 5 years).

Q6. Can the 48-hour limitation on use of alternative fuels in the definition of "units designed to burn gas 1" in §63.7575 be interpreted to mean 48 hours *of fuel use capacity*?

A. No, the 48 hours of testing allowed for periodic testing of liquid fuel, maintenance, or operator training under the definition of "units designed to burn gas 1 subcategory" in 63.7575 refers to operating hours not fuel capacity or amount of fuel burned. Therefore, a unit that burns liquid fuel for more than 48 hours during any calendar year, not including periods of gas curtailment, would be in the "units designed to burn liquid subcategory."

Q7. Is there a link to a website that gives guidance on conducting energy assessments?

A. Here is the link to the DOE website on energy assessment.
http://www1.eere.energy.gov/manufacturing/tech_deployment/energy_assessment.html

Q8. If a boiler is planned to be shutdown permanently/decommissioned before the compliance date of the rule, what are the requirements under the rule and would these boilers need to be included in the initial notification due May 31, 2013?

A. The unit must have an initial notification if it is in operation at the time of the deadline for notification. If the unit was decommissioned prior to the notification date, and is not intended to be restarted, it does not require an initial notification. An existing unit would need to demonstrate compliance by January 31, 2016, but if the unit is decommissioned prior to the compliance date, it would no longer be subject to any rule requirements. EPA recommends that the facility notify the state or EPA Region where the facility is located that the unit has been decommissioned and explain the steps that have been taken to render the unit inoperable, to ensure the unit will not be subject to future inspections. The facility should also contact the state in which they are located to ensure they comply with any state requirements for decommissioning and make sure the unit is removed from the state list of emission sources and any permits are closed out properly.

APPLICABILITY

Q9. Is a small hot water boiler (<1.6MMBtu/hr) subject to the major source boiler rule?

A. The definition of hot water heater in 63.7575 includes any water heater (not generating steam) that is no more than 120 U.S. gallons in capacity or has a heat input capacity of less than 1.6 MMBtu/hr. Those two thresholds are independent of each other, although both may apply in some cases.

Q10. Is a boiler that was constructed prior to 6/4/2010 but was not in use for several years and started operating again in June of 2012, considered a new source or an existing source?

A. If nothing has been done to the boiler that qualifies as reconstruction, then it would be an existing unit, based on the original date of construction.

Q11. Is a natural gas-fired boiler that burns oil for LESS than 48 hours during a calendar year considered to be in the "unit designed to burn liquid fuel" subcategory if any of that operation isn't for "periodic testing" as described in the definition of the "gas 1" term?

A. Yes. Under the definition of "Unit designed to burn gas 1 subcategory" in §63.7575, the 48 hours allowed in a calendar year, outside of periods of gas curtailment, is only for periodic testing of liquid fuel, maintenance, or operator training.

Q12. Does the Major Source Boiler Rule apply to offshore oil and gas operations?

A. The Major Source Boiler Rule applies to a boiler located at an offshore oil and gas facility if the boiler at the facility meets the definition of an affected source in the rule (see section 63.7485).

Q13. In the process heater definition, does the phrase "an enclosed device using controlled flame" mean all parts of the device are enclosed (the flame side and the other process material) or just the flame part?

A. The process heater definition phrase "an enclosed device using controlled flame" means just the flame part that is the fuel combustion chamber.

Q14. Does the exemption for "residential boilers" include dorms at universities having more than 4 families?

A. The Boiler MACT generally does cover boilers located in dormitories located on campuses. The inclusion of the "residential boilers" to the list of boilers not subject to the boiler rules applies to boilers in single family homes located at industrial, commercial (e.g., farms), or institutional (e.g., universities, military bases) facilities. For example, the boiler in the Dean's residence at a university is a residential boiler, rather than an institutional boiler, even though the residence is owned by the University. So, a boiler located in a dormitory that does not meet the definition of "residential boiler" would be subject to the Boiler MACT.

Q15. Under Boiler MACT, how would a secondary material be classified that received a non-solid waste determination under the NHSM rule?

A. Under the boilers rules, units are be classified based on the subcategory definitions. That is, if a unit is combusting a material that meets the definition of "biomass or bio-based solid fuel" under the boiler rules it would be considered to be a unit burning that fuel .

The boiler rules also require the source to document that no secondary materials that are solid waste are combusted and, if they burn non-solid waste secondary material, to document why the material was determined not to be a solid waste.

Q16. Are there any waste heat boilers/heat recovery units or duct burners subject to the Boiler MACT?

A. The Boiler MACT covers boilers as defined in the rule. The amended definition of "Boiler" states waste heat boilers are excluded from this definition. The definition of "Waste heat boiler" was also amended. So, a waste heat boiler, as defined, with or without duct burners is not subject to the Boiler MACT.

Q17. Is a unit combusting coke oven gas considered a Gas 1 unit for purposes of the boiler MACT?

A. A unit combusting coke oven gas can qualify if as a Gas 1 unit if the coke oven gas meets the Hg level criteria. Also, units combusting process gases that are regulated under another subpart of Part 63 or under certain other regulations are exempt from the definition of "gaseous fuel."

Q18. Does the regulation define and exclude hot water heaters?

A. Yes. A hot water heater with a capacity of 120 gallons or less or a hot water boiler (e.g. not generating steam) with heat input capacity of less than 1.6 MMBtu/hr burning oil, biomass, or gas, is not covered under the rule under the definition of hot water heater.

Q19. Is a boiler used for comfort heat located at an industrial facility covered under the rule if it meets the definition of a "hot water heater"?

A. No. If a unit meets the definition of a hot water heater, it is not subject to the requirements of the rule.

Q20. If a source has a contract with a gas supplier, and the under the terms of the contract the gas supply is curtailed, does this qualify as a period of natural gas curtailment?

A. Yes. A period of natural gas curtailment or supply interruption means a period of time during which the supply of natural gas is halted for reasons beyond the control of the facility. The act of entering into a contractual agreement does not constitute a reason that is under the control of the facility. However, an increase in the cost of fuel does not qualify as a period of natural gas curtailment. Onsite gaseous fuel system emergencies or equipment failures may qualify as periods of supply interruption if the emergency or failure is beyond the control of the facility.

Q21. Is there a limit on the number of hours a gas-fired boiler may burn oil during periods of natural gas curtailment or supply emergencies and still be gas-fired?

A. No. The 48-hour annual limit in the definition of "unit designed to burn gas 1" subcategory applies to combustion of liquid fuel for the purpose of testing of liquid fuel, maintenance, or operator training.

COMPLIANCE TESTING

Q22. For a natural gas-fired boiler using oil for cold startup and flame stabilization only that is in the "Unit designed to burn liquid" subcategory because the need for oil for transient flame stability is likely to exceed 48 hr/yr, how would the initial performance test be conducted?

A. For the described unit (a natural gas-fired boiler using oil for cold startup and flame stabilization only), to demonstrate compliance with the limits associated with the "unit designed to burn liquid" subcategory, the initial performance test would be conducted at high load firing natural gas. This is based on section 63.7510(a)(2)(i) which states "For purposes of this subpart, units that use a supplemental fuel only for startup, unit shutdown, and transient flame stability purposes still qualify as affected sources that burn a single type of fuel, and the supplemental fuel is not subject to the fuel analysis requirements under §63.7521 and Table 6 to this subpart." Therefore, if the oil is only burned for startup and flame stabilization purposes, the unit would be considered to burn a single fuel (i.e., natural gas) and under 63.7520(c) the initial performance test would be conducted on natural gas. Following each performance test and until the next performance test, you must comply with the appropriate operating limits specified in Table 4 to subpart DDDDD.

There is no requirement for the unit to test during times of burning oil, unless that would be considered representative performance of the unit. During startup and shutdown the numeric emission limits do not apply, since the unit is subject to work practice standards during those times, so the emissions during startup and shutdown should not be considered for purposes of performance testing.

Q23. For a duel fuel unit co-firing oil and natural gas, do the emissions limits apply to the overall lb/MMBtu for the two fuels, or just the lb/MMBtu for oil?

A. The emissions limits apply to the overall heat input (lb/MMBtu) for the two fuels.

Q24. For a boiler which is permitted to burn coal & wood but has only burned wood, does this boiler qualify for the exemption from the fuel analysis requirement as specified in Sec. 63.7510(a)(2)(i)?

A. Yes, if a single type of fuel is combusted in the boiler, regardless of what the unit is permitted to burn. However, if the boiler starts burning coal in combination with the wood, this would trigger the requirement to do a fuel analysis, unless the coal is used only as a supplemental fuel for transient flame stability purposes.

Q25. What are the required steps that need to be taken to propose equivalent methodology for coal mercury sampling to satisfy the requirements of the ICI Boiler MACT rule?

A. As stated in Table 6 of the Boiler MACT, an equivalent method can be used without prior approval. “Equivalent” analytical procedure is defined in 63.7575 as:

> (6) An equivalent pollutant (mercury, HCl) determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for the pollutant and the fuel matrix and has a published detection limit equal or lower than the methods listed in Table 6 to this subpart for the same purpose.

Otherwise, to use an alternative analytical method, as stated in 63.7521(b)(1), you must submit the fuel analysis plan to EPA for review and approval. Alternative test method request should go to Dr. Conniesue Oldham, here in RTP. The address is:

Mr. Stef Johnson, Leader
Measurement Technology Group
Air Quality Assessment Division
Mail Code E143-02
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711

Q26. When using fuels analysis and Equations 16, 17 & 18 to determine initial compliance with the HCl, mercury and TSM emission limits for a unit co-firing liquid fuels with natural gas and/or refinery gas, how is the Btu value for the fuel gases taken into account.

A. In determining compliance for a boiler co-firing natural gas, refinery gas and liquid fuel, §63.7510(a)(2)(ii) specifically states "When natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels, you are not required to conduct a fuel analysis on those fuels …" Furthermore, §63.7510(b) states that for boiler that demonstrate compliance through fuel analysis, "The fuels described in paragraph (a)(2)(ii) are exempt from these fuel analysis." The intent of equations 16, 17, and 18 in §63.7530(c)(2) is to deal with fuel mixtures, the worst case mixture for the pollutant of concern. Thus, the total Btu value of the mixture (natural gas/refinery gas and liquid fuel) would be used in the equations.

Q27. Is there any other PM monitoring required for a unit demonstrating compliance using no PM air pollution control device?

A. If no control device is used to demonstrate compliance with the PM limit, you must monitor operating load (see item 8 of Table 4 and item10 of Table 8) based on the operating limit set during the most recent PM performance test.

Q28. Can a source electing to comply with TSM limit instead of PM limit conduct fuel analysis, instead of a performance stack test, to demonstrate continuous compliance?

A. Yes, as indicated section 63.7510(b).

Q29. For a boiler that burns biomass and some natural gas, are there any fuel sampling requirements for natural gas for this unit?

A. No, §63.7510(a)(2)(ii) states "When natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels, you are not required to conduct a fuel analysis of those fuels according to §63.7521 and Table 6 to this subpart."

Q30. Table 8, item 8.d states "Calculate the HCI, mercury, and/or TSM emission rate from the boiler or process heater in units of lb/MMBtu using Equation 15 and Equations 17, 18, and/or 19 in § 63.7530." This listing of equations does not appear correct for demonstrating continuous compliance by fuel analysis. What are the correct equations with respect to demonstrating continuous compliance using fuel analysis?

A. This item in Table 8 contains an erroneous reference to the equations to be used to demonstrate continuous compliance by using fuel analysis. The correct equations are equations 7, 8, and 9, as specified in § 63.7530(b)(1) to (3). Equation 7, as specified in § 63.7530(b)(1), is the correct equation to use for HCl fuel analysis of fuel mixtures. Equation 8, as specified in § 63.7530(b)(2), is the correct equation for mercury fuel analysis of fuel mixtures. Equation 9, as specified in § 63.7530(b)(3), is correct equation for TSM fuel analysis of fuel mixtures. Equation 19 is for energy efficiency credits and is unrelated to do with fuel analysis. Equations 15, 17, and 18 are for demonstrating initial compliance, not for demonstrating continuous compliance. We intend to correct Table 8 in a future notice in the Federal Register.

Q31. Section 63.7521(c) requires that a composite fuel sample must be obtained during each performance test run. Section 63.7521(c)(1)(ii) states "Each composite sample will consist of a minimum of three samples collected at approximately equal one-hour intervals during the testing period for sampling during performance stack testing." This could be interpreted to be one-hour between individual grab samples that make up the run composite sample. If a facility is performing 1-hour test runs, this has the effect of extending the testing time to instead take a minimum of 2 hours to complete each of the composite samples per run. What is the appropriate time between each composite grab sample when test runs are 1 hour in length?

A. The intent of the language was to instruct facilities to spread the collection of the three grab fuel samples forming the composite sample at equal intervals during the test run. The intent was not to lengthen the test runs. We intend to correct §63.7521(c)(1)(ii) in a future notice in the Federal Register.

IMPLEMENTATION: TUNE-UPS

Q32. Does §63.7540 allows burner inspections to be delayed when confined space issues are encountered that prevent entry to conduct internal inspection of burners until both boilers are off-line in a situation of two boiler venting to a common stack?

A. You can delay the burner inspection until both boilers are shutdown, assuming that entry into the process equipment is required and the next planned entry is not until shutdown , as specified in 63.7540 (a)(10)(i). However, this provision only applies to the burner inspection. The remaining tune-up requirements must be met according to the applicable schedule (every 1, 2, or 5 years depending on the subcategory).

Q33. When must a new unit do its initial tune-up?

A. New boilers which commence construction after June 4, 2010 are not required to conduct an initial tune-up at startup, but are required to conduct the required biennial tune-up within 25 months of startup of the boiler. See §63.757510(g).

MONITORING

Q34. If an existing oil-fired boiler already has a CO CEMS for another requirement, may the facility petition for alternate monitoring and 30-day averaging period?

A. Because there is no alternative CO CEMS-based CO emission limit for existing liquid fuel-fired subcategories, the rule specifies that they comply with a stack test and demonstrate continuous compliance by maintaining the oxygen limit operating limit. See Table 2 to Subpart DDDDD. To comply based on CO CEMS data they would need to petition for alternative monitoring under §63.8(f).

Q35. Under the major source boiler MACT, is a source required to install both an CO/O_2 CEMS and an O2 analyzer system?

A. Boiler MACT (subpart DDDDD) has a CO emission limit and an alternative CO CEMS-based limit for most subcategories. A facility has the option to comply with either limit. However, as stated in §63.7525(a)(2), to demonstrate compliance with the alternative CO CEMS emission limit, the source must install a certified CO CEMS and comply with §63.7525(a)(1) through (a)(6). Also, as stated in §63.7525(a)(2), a source with a certified CO CEMS must comply with the alternative CO CEMS emission limit.

A source complying with the CO emission limit, not installing or having a certified CO CEMS, must install an oxygen analyzer, as indicated in §63.7525(a) and, our intent was that the O_2 analyzer system be installed, operated and maintained in accordance with §63.7525(d), not §63.7525(a)(7). The O_2 analyzer system required in §63.7525(a) does not required the installation of an oxygen trim system. §63.7525(a)(7) was intended to be applicable only to units with existing oxygen trim systems and we intend to revise the regulatory text accordingly in an upcoming notice in the Federal Register.

As defined in §63.7575, an "Oxygen analyzer system" means equipment to monitor oxygen levels.

Q36. In Sec. 63.7525(a)(7), the O_2 level in the trim system must be set no lower than the lowest hourly average O_2 measured during the most recent CO performance testing. If the facility is not required to conduct a performance test, what should they follow to set the O_2 level in the trim system?

A. All existing sources are required to conduct an initial tune-up in which they are required to optimize CO to manufacturer's specification, under 63.7540 (a)(10)(iv). This optimization could be used to set the O2 level. New sources would optimize CO to manufacturer's specifications during installation, which could then be used to set the O2 level.

Q37. Does the Boiler MACT allow a source to vary the O_2 levels in a trim system if the combustion conditions inside the boiler change?

A. Yes, this flexibility is allowed. The rule only requires that a minimum O2 level be maintained, see §63.7525(a)(7).

Q38. Are O2 trim systems required or an option for monitoring?

A. Compliance with the CO emission limits is demonstrated by a performance test and maintaining the operating limit (oxygen level) OR, as an alternative, by a certified CO CEMS complying with the alternative CO CEMS emission standard.

Paragraph 63.7525(a)(7) refers to units complying by performance tests and with the operating limit (oxygen) in which oxygen is monitored to demonstrate continuous compliance.

Q39. Is a No. 6 oil / natural gas-fired boiler with a CO limit required to install an O2 analyzer if it doesn't have an O2 trim system?

A. Yes, an O2 analyzer is required in order to show continuous compliance with the CO limit (See item 9 of table 4 and item 9 of table 8).

Q40. How is continuous compliance demonstrated for PM?

A. By maintaining the appropriate operating limit which depends on control technology used to demonstrate compliance, see Table 4 of subpart DDDDD, and by monitoring operating load (item 8 of Table 4 of subpart DDDDD) and by maintaining fuel records (§63.7555(d)(1).

Q41. Can a facility install a CO CEMS on a boiler in the liquid fuel subcategory to demonstrate compliance with the CO stack-based limit or would need to petition for an alternate method of compliance using a CO CEMS in lieu of an annual stack test?

A. Because there is no alternative CO CEMS-based CO emission limit for existing liquid fuel-fired subcategories, the rule specifies that they comply with a stack test and demonstrate continuous compliance by maintaining the oxygen limit operating limit. See Table 2 to Subpart DDDDD. To comply based on CO CEMS data they would need to petition for alternative monitoring under §63.8(f).

Q42. If the unit has dry controls and the stack test shows compliance with the HCl limit at max biomass, is there just fuel use monitoring for HCl going forward?

A. Yes, assuming that the dry control is not a dry scrubber or does not include any sorbent injection. Otherwise, item 5 of Table 4 of subpart DDDDD would apply.

Q43. If the unit has a WESP or a wet scrubber, what are the monitoring requirements?

A. For a wet scrubber, you would need to monitor flow and pH if tested for HCl after the scrubber, as indicated in item 2 of Table 4 of subpart DDDDD. For a WESP, you would need to monitor secondary power input as indicated in item 4(b) of Table 4 if tested for HCl after the WESP.

Q44. What are the monitoring requirements for HCl for biomass boilers that demonstrate compliance by an annual stack test and use only dry controls other than a dry scrubber or sorbent injection?

A. There are no monitoring requirements except for operating load as indicated in item 8 of Table 4. However, it is likely that the source will be monitoring the parameters of any control devices required to comply with other emission limits.

Q45. Would the monitoring requirements for demonstrating continuous compliance for mercury be the same as for PM if there is no ACI?

A. Yes

Q46. Can we use this single CO CEMs for compliance with the CO limit when two or more boilers in the same subcategory are operating at the same time and venting to a common stack?

A. A single CO CEMs is allowed to demonstrate compliance with the CO CEMS-based limit when two or more boilers in the same subcategories are vented through a common stack providing the common stack does not receive emissions from units in other subcategories or categories, as indicated in §63.7522(i).

Q47. Section 63.7540(a)(9) says "The owner or operator of a boiler or process heater using a PM CPMS or a PM CEMS to meet requirements of this subpart shall install, certify, operate, and maintain the PM CPMS or PM CEMS in accordance with your site-specific monitoring plan as required in §63.7505(d)." Does "certify" applies only to PM CEMS, not PM CPMS, as indicated in the November 20, 2015 reconsideration?

A. In § 63.7505(d), "certify" is intended to apply only to PM CEMS, not PM CPMS, In the November 20, 2015 reconsideration, the word "certify" was removed from § 63.7525(b) and (b)(1) because PM CPMS do not have a performance specification. We inadvertently failed to revise § 63.7505(d) to be consistent with the removal of "certify" from § 63.7525(b) and (b)(1). We intend to correct § 63.7505(d) in a future notice in the Federal Register.

Q48. Regarding continuous monitoring, § 63.7525(d)(1) requires that the CMS must complete a minimum of one cycle of operation every 15-minutes and a minimum of four successive cycles of operation, one representing each of the four 15-minute periods in an hour, to have a valid hour of data. What constitutes a monitoring hour? That is, does the first monitoring hour start when startup ends or does the first monitoring hour begin at the top of the next hour? Is a "valid hour" a "clock hour"? If a "valid hour" is a "clock hour," how should partial hours be reported?

A. In consideration of the General Provisions (GP) and Boiler MACT language, monitoring data should be averaged on the basis of "clock hour". This is based on (1) the GP language points toward use of clock hours, and (2) nothing in the Boiler MACT overrides the GP language.

Regarding treatment of partial hours, for most types of monitoring in the rule you must have at least 4 data points per hour (unless QA/maintenance is being conducted). Based on language in § 63.7525, any partial hour would not constitute a valid hour for monitoring data and, therefore, partial hours would constitute a deviation.

REPORTING AND RECORDKEEPING

Q49. Can previously collected test data be used to satisfy initial compliance in DDDDD.

A. Any previous test data can satisfy the initial compliance requirement in DDDDD, as long as the operating conditions are the same and that the test met all the rule requirements.

Q50. Would a record be considered "on-site" as long as it's kept anywhere on the facility, or accessed through the network at some computer somewhere on the facility?

A. Yes, anywhere on the facility would be considered "on-site" as long as an inspector would be able to have access to the record in the event of an inspection.

Q51. When do recordkeeping requirements start?

A. The recordkeeping requirements start whenever the record is created, so for example if the requirement is to retain a copy of a notification, you would retain it from when the notification is submitted until the appropriate amount of time required by the rule has elapsed. If the requirement is to track fuel usage for a calendar year, you would keep records starting at the beginning of the calendar year (i.e. January 1) and retain them for the required amount of time.

Q52. Does a facility need to resubmit their initial notification if they submitted a notification for 5D back in 2005 before the rule was stayed?

A. Assuming nothing substantive has changed in the information already submitted the earlier notification is sufficient. If any information has changed, then a new notification must be submitted.

Q53. Normal operation of oxygen trim systems is with the controller in Cascade or Automatic mode set to the oxygen level specified in §63.7525(a). However, there are inherent operating situations which require the oxygen trim control and possibly the air and fuel controls to be put in Manual mode in order to stabilize operation or protect personnel. Examples of those situations where oxygen trim systems may not be in normal operating mode include:

- **Startup and shutdown.**
- **Oxygen analyzer calibration.**
- **Sootblowing.**
- **Manual Ash removal.**
- **Stoker boiler ash bed manipulation.**
- **Fluidized bed boiler abnormal bed or furnace conditions.**
- **Furnace lancing.**
- **Furnace condition inspection.**
- **Transitioning between alternative fuels or starting/stopping individual fuels.**

- **Combustion control system adjustments during tune-ups or other times as needed.**
- **Fuel quality problems that require additional excess air than available under ideal conditions.**
- **Low load operation, below O2 trim system's capability to safely manage air to fuel ration.**

How are operating periods when oxygen trim systems are not in normal Cascade/Automatic control mode to be handled relative to reporting and recordkeeping?

A. EPA realizes that operation of boilers and process heaters routinely requires oxygen trim systems to be taken out of Cascade/Automatic control due to situations such as noted above. It is also recognized that such times are of limited duration and a fairly low percent of total operating time in cases where oxygen trim systems are employed because economical operation depends on use of the trim systems. The site specific monitoring plan should address the normal mode of operation of an automatic oxygen trim system and identify situations such as those listed above as times that the system may be placed into manual mode for safety or operational stability reasons. Instances when oxygen trim systems are taken out of Cascade/Automatic control for operational and safety reasons are not reportable as deviations in compliance reports.

START-UP AND SHUTDOWN

Q54. Is the date of initial startup for a new boiler considered the date of the first startup by the contractor who started-up the boiler for testing to ensure it works, or is the official date of startup the date that the owner starts the boiler to use it in regular operations for heating or electricity supply?

A. Startup is defined in §63.7575 of subpart DDDDD as commencing when fuel is first fired in a boiler for the purpose of supplying steam or heat for heating, producing electricity, or any other purpose. We are aware that there are "pre-startup" activities that are done as part of installing a new boiler. Therefore, if the heat or steam generated by the boiler as part of a "pre-startup" or installation procedure is not supplied for any purpose (i.e., vented to the atmosphere), the boiler would not be considered to have started up. So, the official date of initial startup of a new boiler would be the date that fuel is first fired in the boiler to supply steam or heat for its intended purpose.

Q55. Does startup commence once hot water leaves the boiler or once steam provides heat to a building?

A. No, as stated in the definition of "Startup" in §63.7575, startup commences at the firing of fuel in the boiler or process heater and the startup period ends when any of the steam or heat from the boiler is supplied for heating.

Q56. **If a facility vents steam during startup of a boiler, would the period the time when steam is vented and not used in the process for heating or electrical generation be considered part of the startup period?**

A. Venting steam is not supplying steam; thus, venting steam does not trigger the end of startup.

Q57. **Does the obligation to utilize clean fuels during the Startup period require that only clean fuels be utilized throughout this period? Can solid fuels be utilized during the startup process as long as the pollution control devices are in operation?**

A. Yes. Non-clean fuels (e.g., solid fuels) can be fired during startup, but the source must engage the applicable control devices, except for those devices listed in item 5 of Table 3 of the rule.

Q58. Under the startup work practice, is it allowable to lay a bed or coal or biomass in a boiler prior to startup.

A. The list of clean startup fuels is an all inclusive list. However, our intent of the work practice requirement is to allow sources to lay a bed of coal or biomass in a boiler prior to startup if the bed would be ignited using a listed clean fuel.

The second part of that work practice is "If you start firing coal/solid fossil fuel, biomass/bio-based solids, heavy liquid fuel, or gas 2 (other) gases, you must vent emissions to the main stack(s) and engage all of the applicable control devices except …". In this section, our intended meaning of "firing" is the feeding of fuel into the boiler once startup has been initiated, not ignition of a preexisting bed. We intend to clarify this in an upcoming notice in the Federal Register.

IMPLEMENTATION: ENERGY ASSESSMENT

Q59: How is heat input capacity calculated for <u>each affected boiler</u>?

A. Heat input capacity for each boiler is calculated based on 8760 hours per year, as indicated in the definition of "Annual capacity factor" in §63.7575 of subpart DDDDD.

Q60: How is the combined heat input capacity for <u>facilities with affected boilers</u> calculated for the purpose of determining which heat input capacity thresholds and associated

maximum on-site technical labor hours in the definition of “Energy assessment” apply to the facility’s energy assessment?

A. A facility’s combined heat input capacity is calculated by adding together the heat input capacity for each boiler subject to the energy assessment requirement, as indicated in the definition of “Energy assessment” in §63.7575 of subpart DDDDD which states “with affected boilers and process heaters with a combined heat input capacity of …”.

Q61. For a boiler system supplying energy to multiple energy use system, which energy use systems are required to be included in the energy assessments?

A. The phrase “and any on-site energy use system(s)” is intended to mean any individual energy use system, not combination of energy use systems, accounting for the specified amount of the affected boiler energy, as indicated in paragraph (4) of the definition of “Energy assessment” in §63.7575 of subpart DDDDD which states that the energy use systems may be segmented by production area or energy use area.

Q62. How is the value of the term "combined heat input" as used in the Area and Major HAP source boiler MACTs calculated?

A. Heat input capacity for each affected boiler is calculated based on 8760 hours per year. For the purpose of determining which heat input capacity thresholds and associated maximum on-site technical labor hours in the definition of “Energy assessment” apply to the facility’s energy assessment, "combined heat input" is calculated by adding together the heat input capacity for each boiler subject to the energy assessment requirement. That calculation differs for the Major Source Boilers Rule and the Area Source Boilers Rule. Specifically, under the Major Source Boilers Rule, all existing boilers are subject to the energy assessment requirement so heat input capacity for all existing boilers at a major source facility would be included in the "combined heat input" calculation. Under the Area Source Boilers Rule, only existing boilers with heat input capacity equal to and greater than 10 MMBtu/hr are subject to the energy assessment requirement so heat input capacity for only those specific existing boilers at an area source facility would be included in the "combined heat input" calculation.

RESOURCES FOR MORE INFORMATION

Q63. Where can I get additional information?

A. Additional information on the proposed and final rules, implementation and compliance information and forms is available from the following EPA websites:

EPA Area source boiler webpage, www.epa.gov/boilercompliance
Combustion Portal, http://www.envcap.org/boiler/

EPA combustion webpage, www.epa.gov/airquality/combustion/actions.html
EPA boiler webpage, www.epa.gov/ttn/atw/boiler/boilerpg.html