

Compilation of Fuel Sampling and Analysis questions and responses for the Boiler ICR – 3rd edition, July 1, 2009

Category	Question	Response
Fuel Sampling	Q: For fuel sampling, a sample is required during each run while testing. Is this for all runs or for the runs associated with Hg, chlorine, Fluorine, and metals?	A: Correct, fuel sampling is only required for those test runs that are testing for fuel-based HAP. Fuel sampling is not required during the test run for NOX, CO, THC, CH4, formaldehyde.
Fuel Sampling	Q: Can we use data provided by a fuel supplier in lieu of sampling?	A: Yes, if the fuel supplier data meets the requirements set forth in Sections 2.2 through 2.5 of Enclosure 1 of your Section 114 letter.
Fuel Sampling	Q: Is coal fuel testing required for antimony, cobalt, phosphorus, or selenium, as is required for multi-metals stack testing?	A: Yes. All solid and liquid fuels must be tested for the following: Antimony (Sb), arsenic (As), beryllium (Be), cadmium (Cd), chromium (Cr), cobalt (Co), lead (Pb), manganese (Mn), nickel (Ni), phosphorus (P), selenium (Se), Fluorine (F), Chlorine (Cl), mercury (Hg), moisture, and higher heating value.
Fuel Sampling	Q: We would like to conduct stop belt coal sampling on our coal bunker loading belt. This belt is operated for about one hour each morning every day. Would a composite of three belt samples be sufficient for all test runs conducted in that single day.	A: Yes, conducting 3 composite samples each day that you conduct a stack test would be sufficient.
Fuel Sampling	Q: If you can use fuel sampling for metals in lieu of stack sampling for metals for an oil fired unit, why would a gas-fired unit have to be stack tested for metals?	A: It is EPA's understanding that in order to conduct fuel analysis on a gaseous fuel you are in effect conducting a stack test on the gas. If there are alternatives for analyzing the gas, contact EPA and we can discuss alternatives.
Fuel Sampling	Q: Regarding the 30-day period for solid fuel sampling, can it begin before the stack testing?	A: Fuel sampling can occur before, during, and after the stack test as long as it includes the dates of the stack tests. In the case of outages in unit operations, it should reflect 30 consecutive operating days.
Fuel Sampling	Q: Can we use a fuel analysis for metals to replace stack sample if the unit does not have Control Devices and is burning N0. Fuel Oil.	A: If the unit is uncontrolled and it is firing fuel oil, it is acceptable to conduct fuel analysis in lieu of stack tests for metals. You will need to conduct stack tests for non-metal pollutants as listed in your Section 114 letter.
Fuel Sampling	Q: Fuel Sample frequency if you pump from a large fuel tank 100,000 gallons or greater and are not adding to the tank during 30 day period ?	A: If you are burning liquid from a tank and that tank has not been refilled within the 30 day fuel sampling period, sampling during the test runs only would be sufficient since there would assumed to be no variation in the constituents of the fuel within the tank.
Fuel Sampling	Q: If the 10 sample fuel analysis is not required yet a facility still feeds a solid fuel, do we have to conduct the fuel sampling and analysis during the test? If yes, would it only be to generate a thermal load (i.e., only analyze for HHV)?	A: If you are on the CISWI test list, no fuel analysis is required. If you are on the boiler and process heater test list fuel analysis is required for all units combusting a solid and/or liquid fuel during the stack test. You should analyze the fuel for all parameters listed in section 2.0 of Enclosure 1.
Fuel Sampling	Q: Enclosure 1 to the Section 114 letter indicates that fluorine only has to be analyzed in the fuel if it is coal. Is that correct?	Upon EPA review of ASTM methods and, no ASTM methods were identified for measuring fluorine in fuels other than coal. SW-846-9056 is an acceptable method for testing fluorine content of any solid or liquid fuel. If other ASTM methods are identified for analysis of fluorine content of fuel, they will be considered acceptable for this test plan.

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Fuel Sampling	<p>For fuel composites: please define what is a "sample", "composite sample", and "fuel sample" as used in Section 2.0 and Table 2.1 for belt sampling? Does the single "sample" during testing consist of three separate "composite sample", each of which is composited from three "fuel samples", for a total of nine "fuel samples" and three separate analyses of "composite samples"? What if there are multiple days of testing? Note: this is impossible to correlate with the coal supplied from bunkers during actual tests.</p>	<p>A "sample" is a single collection of fuel material. A "composite sample" is made of, at a minimum, three samples. A "fuel sample" is comprised of three composite samples. One composite sample need to be obtained per test run. The fuel samples only need to be obtained during the stack test runs for PM, mercury, metals, and HCl/HF.</p>
Fuel Sampling	<p>Can alternate fuel test methods be used which were approved by EPA for preparation of the fuel sampling plan prepared for the Boiler MACT HBCA submittal?</p>	<p>Yes, any fuel analysis methods previously approved for the Boiler MACT can be used.</p>
Fuel Sampling	<p>We want to confirm that tired derived fuel (TDF) would be considered a solid fuel and should follow the solid fuel testing requirements.</p>	<p>TDF is considered a solid fuel and, therefore, can follow the solid fuel testing requirements.</p>
Fuel Sampling	<p>We want to confirm that sample preparation was only specified for total select metal testing as found in Table 2.2 (i.e. no sample preparation was specified for chlorine, mercury, moisture, heating value, or fluorine).</p>	<p>Table 2.2 is incorrect. The methods listed in table 2.2 are also for preparing the samples for chlorine, mercury, moisture, heating value, and fluorine.</p>
Fuel Sampling	<p>We want to confirm that no moisture testing is required for oil samples since there is no method specified.</p>	<p>A. You do not need to report moisture content for liquid fuels.</p>
Fuel Sampling	<p>A unit is scheduled to perform the multiple stack tests within a 4-5 day period and will be conducting on average 2 stack tests per day. Based on the fuel sampling request, can the one fuel sample (comprised of 3 composites to be collected during each test run and individually analyzed) be collected during <u>any one</u> of 9 stack tests required? We want to confirm that 3 composites samples are not required for each of the 9 stack tests. The other nine composite samples will be collected evenly spaced during the same 30 day CEMS data collection period. Therefore a total of 12 samples will be analyzed.</p>	<p>Composite fuel samples should be collected, and analyzed, during each test run conducted for metals, PM, HCl/HF, and mercury.</p>