

Questions and Answers

RFP: Emissions Measurements at Wisconsin Power Plants

Three types of questions were received:

Facility Questions - will need to be answered by the facility (still awaiting information from all three power companies)

Scope Questions - related to the objectives of the measurement study

Method Questions - related to the testing methods and strategies

The specific questions received to date and partial answers are provided below.

Please note that we hope to conduct our stack testing at the same time that the facilities will be testing. This will require further discussion and coordination with each power company. It is expected that this will happen pursuant to Task 1 (planning).

Questions on RFP

1. How many units are to be tested at each of the three facilities?

Facility Question - Need to know the number of sources (boilers) burning biomass at each facility to answer this question - still awaiting information from all three power companies.

2. Is information available regarding the units to be tested (e.g., number of ports, port platform height, drawing of stack configurations, etc.)? Is stack information available: access (elevators?), electrical power up top, height, internal stack diameter, ports: how many, size & length, platform size, annulus, shelter on stack?

Facility Questions – Some information may be available from previous stack tests at these facilities - still awaiting information from all three power companies

3. What are the safety training requirements and length of on-site specific training

Facility Question - still awaiting information from all three power companies

4. How many data points are desired from each unit? Typically, three runs of each method are completed for compliance testing, but for broad use emission factor development, additional runs may be desired for better data accuracy. Will the tests be conducted at multiple boiler load levels?

Scope Question – Further discussion with the power companies is needed to verify if there will be one set of tests (three runs) or if there will be multiple test conditions/events at each source. Multiple conditions could result from different loads, control device settings, fuel mixtures, process conditions, or multiple testing events spread over calendar time.

5. Will control device performance (inlet/outlet tests) be measured?

Scope Question – The focus of this study is to collect emissions data for the purpose of developing emission factors. Control device performance is not a priority for this study.

6. Should a pre-test site survey of the power plants be included in the proposal schedule and cost?

Scope Question - Assuming these sources have already been tested in the past, some of the testing firms may have already tested at these locations and may not need to do an additional survey. Other firms may be new to the source and would be well served to do a survey before preparing to come on site to do testing. If the source and test location is new or being significantly modified or if the testing firm has no prior experience at the source, then a pre-test site survey should be included as part of the bid.

7. Can ERT serve as the electronic database referred to in Task 4?

Scope Question – Although we do want the stack test to be submitted to EPA's Electronic Reporting Tool, our first priority is to provide sufficient data to the group developing the emission factors. Further discussion with that group is needed to determine the content and format of the database.

8. What type of control technology do the units have? i.e.. baghouse, ESP, scrubber, etc. This will help to determine particulate run time.

Method Question - Still awaiting information from all three power companies. If the control technology is very good, run times may need to be extended to collect enough sample to quantify a concentration. One hour runs are typical at many sources, but two and four hour runs frequently occur where necessary to obtain lower detection limits. Control device information and previous stack test day may help with this. It would be advisable to specify the minimum run times for each test method., although this could take some effort to determine.

9. The last sentence in the first paragraph of the scope of work says that if PM2.5 emissions contain significant organic carbon, then dilution sampling may be undertaken. Task 3 includes only EPA Method 5. Should PM2.5 emissions testing using CTM-039 (dilution sampling) or OTM 27/28 be included in Task 3 along with or instead of Method 5? Is LADCO also interested in PM10 emissions?

Method Question - There are several particulate methods that are commonly used:

- Method 5 is the method for total filterable particulate.
- OTM-27 is the new method which will eventually replace method 201a for PM2.5/PM10 sampling.
- OTM-28 is the new method which will eventually replace method 202 for back half condensable material. This method is used in combination with method 5, 201a, or OTM-27.

- CTM-039 is not commonly used in Wisconsin. A quick scan of the method indicates that while it may be appropriate, it may have been suggested because of the reference to dilution sampling.

There are pros and cons with these methods. We believe that OTM 27/28 is best for providing PM2.5 and PM10 fractions, along with organic and inorganic condensable fractions. If total particulate is also desired, however, then OTM 27/28 may not be sufficient and a separate Method 5/OTM28 train will need to be run.

10. Will the test contractor be responsible for fuel sampling and analysis?

Method Question - Yes. Because emission rates in terms of lb/MMBTU are desired, fuel sampling will need to be conducted. The proposals should include fuel sampling costs for collection and analysis. Further discussion with the power companies is needed to determine if they may already be doing this.

11. Can Method 26A be substituted for Method 26?

Method Question - Method 26a is the isokinetic version of method 26. Use of method 26a is acceptable, unless there are cost concerns or other reasoning for using method 26. Method 26 may be less expensive, but method 26a is a more rigorous method which compensates for situations where there may be particulate moisture or stratification of the stack gas. If there is a wet scrubber used to control emissions or other reasons to suspect particulate moisture in the gas stream, then method 26a should be used.