Frequently Asked Questions – Emissions Testing

Who do I contact with questions regarding stack testing?

Questions regarding stack testing should be directed to the Engineering Support Group of the Air Quality Assessment Division at (225) 219-3437.

What should be included in my test notification/test plan?

The test notification/test plan should include:

- Company name, agency interest number, permit number
- ID number of unit being tested
- Test date and company performing the testing
- Reason for conducting the test
- Pollutants being tested and the methods that will be used
- Operating parameters that will be recorded during the test

How must my equipment be operated during the performance test?

During performance testing, equipment must be operated at worst case condition which is normally the maximum rate of the emission source. A facility may elect to test below the maximum design rate of the equipment; however, the emission source may not operate above the rate which was achieved during the stack test unless a new performance test at the higher rate is conducted.

Where should I submit documents related to performance testing?

Documents related to performance testing should be sent to:

Jennifer Mouton, Engineering Support Manager
Louisiana Department of Environmental Quality
Air Quality Assessment Division/Engineering Support
P.O. Box 4314
Baton Rouge, LA 70821

Also, a copy of test notifications should be sent to the regional office where your facility is located.

Do I have to submit results of performance testing that I conduct for my own purposes?

Performance testing, such as engineering studies conducted for the facility's own purposes, does not need to be submitted to the department. However, if the facility wishes to use the results for future compliance or permitting purposes, the test must be performed using approved methods, an accredited tester, and the

results approved by the Engineering Support Group in the same manner as any required test.

What is the definition of a major engine overhaul?

An initial test is required after a major engine overhaul. "Major engine overhaul" means that the entire engine combustion section is dismantled, parts are replaced/reconditioned as needed, and the engine restarted. This includes the disassembly of cylinder heads; removal of intake and exhaust valve assemblies; removal of power piston bodies, pins, and connecting rods; disconnecting intake and exhaust manifolds; and disassembly of the fuel aspiration system such as carburetors and/or turbo chargers.

Can old test data be used to show compliance with new regulations or permit conditions that I become subject to?

Results from testing performed in the last five years may be accepted by the department on a case by case basis to show compliance with new regulations or testing requirements. The test must be performed using approved methods, an accredited tester, and the results approved by the Engineering Support Group in the same manor as any required test. Performance tests more than five years old may not be accepted.

Where can I find a list of LDEQ accredited stack testers and laboratories?

The LDEQ accredited stack testers and laboratories can be found at:

http://www.deq.louisiana.gov/laboratory/index.htm

Any questions concerning the accreditation of a tester should be directed to Laboratory Services at (225) 219-9800. Test results will not be accepted by the LDEQ if the test is not performed by an LDEQ accredited tester or laboratory. However, facility personnel may conduct their own performance testing or laboratory analysis without LDEQ accreditation.

What is acceptable alternative monitoring to a NOx CEMS for an NSPS Subpart Db boiler?

Industrial-commercial-institutional steam-generating units which are subject to NSPS Subpart Db, are required by 40CFR 60.48b(b) to continuously monitor NOx emissions. As provided in 40CFR 60.48b(g)(2) units with a capacity between 100 MM BTU/hr and 250 MM BTU/hr may use an alternate to an in-stack NOx CEM.

Described below is one option for alternate monitoring, which is commonly referred to as a "BACT box". It involves doing a test to establish an operating range, and then monitoring key parameters.

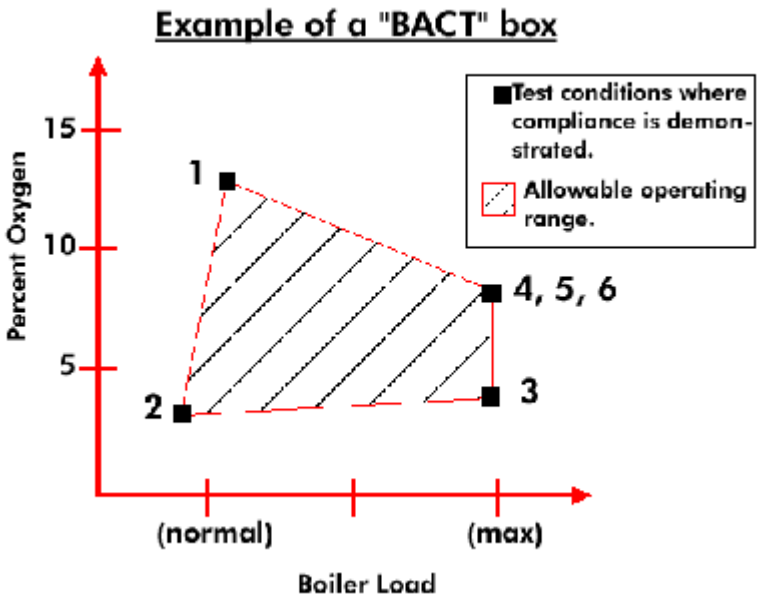
BACT Box Test

A continuous oxygen monitor is installed in the boiler flue, and certified according to 40 CFR Part 60, Appendix B, Performance Specification 3.

The emissions of nitrogen oxides (NOx) and carbon monoxide (CO) are determined in accordance with test methods and procedures set out in 40 CFR 60, Appendix A, Methods 7E and 10 respectively. A properly installed and calibrated continuous NOx monitor may be substituted for Method 7E.

The emission test is performed at four operating conditions:

1. Normal load with high oxygen
2. Normal load with low oxygen
3. Maximum load with low oxygen
4. Maximum load with high oxygen



If the emissions at the four corners of the box are in compliance, the area inside the box is established as an acceptable operating range. For a given boiler load, the flue gas oxygen content is maintained within the shaded region on the graph. Alarms are set to sound when flue gas oxygen levels are outside of this range.

Compliance Test

Three replicate 1-hour test runs at maximum operating conditions are normally required by the permit. Therefore, two additional one-hour test runs are done at the maximum conditions. A total of six one-hour runs are necessary for the BACT test and compliance test.

30 Day NOX Test

Actual NOx emissions are monitored at usual loading conditions for 30 days with a CEM, as required by the permit and 40 CFR 60.46b.

Follow-Up

Within 45 days of the completion of the tests, the oxygen CEM certification, 30-day NOx test, BACT box test, monitoring plan required by 40 CFR 60.49b(c), and compliance test are submitted to the DEQ Office of Environmental Assessment, Air Quality Assessment Division, Engineering Support (225) 219-3428, air engineers for review.

After the monitoring plan is approved by the Engineering Section, the facility applies for a permit modification to incorporate the allowable oxygen limits into the permit.

Records of oxygen concentration, boiler loading, and predicted NOx emissions are maintained as specified in the approved monitoring plan.

Should any combustion equipment modifications be made such as different type burners, combustion air relocation, fuel conversion, tube removal or addition, etc., emissions correlation as described above shall be conducted within 60 days of attaining full operation after such modification.