

Air Pollution Emission Stack Test "Reporting" (aka - Performance Test, Source Test)



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1. **Test Plan** (Prior to Testing)
2. **Test Report** (Post Testing)

Regulatory Agency

Test Company

Facility



What are the Requirements Driving the Stack Test ?



Federal Regulations:
e.g., NSPS, NESHAP, MACT







State or Local Regulations:
e.g., WAC 173-491, NWCAA Section 580



Permit Requirement
e.g., Title V, Synthetic Minor, Minor and
Major NSR, AMP





What are All or the Applicable Requirements Pertaining to the Test.

EXAMPLE 1 – Refinery FCCU Initial MACT

-  Driver: MACT requires one-time initial compliance testing
-  Limit: lb PM-10/ton petroleum coke burn-off (FCCU)
-  Procedure: 40 CFR 60 Appendix A, Method 5
-  Reporting: NWCAA Section 367 and 40 CFR 63 subpart A

What are All of the Applicable Requirements Pertaining to the Test.

EXAMPLE 2 – Annual NO_x Testing of Boiler with SCR

-  Driver: NSR Permit Requires BACT with annual testing to demonstrate compliance
-  Limit: NO_x and NH₄ lb/hour limits with concurrent SCR Parameter Monitoring (catalyst temperature, pressure drop, fuel heat input, ammonia injection rate)
-  Procedure: Method 7E of NO_x, BAAQD for Ammonia
-  Reporting: NWCAA Section 367 and AOP Term 4.3

“Only” Two Required Submittals

Test Plan (SSTP)

Anticipated test date

Methods to be used (19 v. flow measure)

Diagrams

EMC – GD-042

Test Report

Actual Test Date

Results of Testing

Deviations from Original Plan



What about RATAs?

Initial certification and annual accuracy test

Q – Does a SSTP need written agency approval?

Q – Should we write out the test method in SSTP?

Due Dates

40 CFR 60 Subpart A (NSPS General Provisions)
40 CFR 63 Subpart A (MACT General Provisions)

Test Plan

30 Days in advance

Test Report

NSPS - 60/180 days of startup

MACT – 60/180 days +45 days

Other more stringent due dates?

What about RATAs?

30 days after CEM certification



Example of ALL Applicable Requirements



Title V



NWCAA 367



NWCAA Appendix A

Elements of a Good Stack Test Report

- Introduction -



- Why conduct the test (references to applicable regulations and permit terms)
- Test dates / Unit startup date and its relation to the 60/180 day federal timeline
- Description of emission unit (EU) and control device (including EU capacities and stack parameters)
- Contact information (test company and facility)

Elements of a Good Stack Test Report

- Summary of Results -

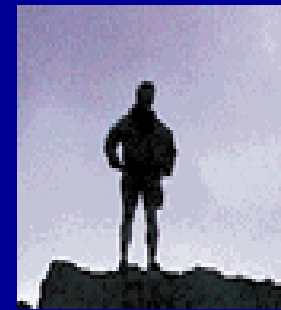
- Test Results per run and averaged over all runs
(e. g. raw and corrected concentrations, velocities, flow)
- Emission Unit operating parameters
(e.g., MMBtu, MW, lbs steam)
- Control Device operating parameters
(e.g. wet scrubber: pH, gal/min flow)



Elements of a Good Stack Test Report

- Data and Calculations -

- All raw data used in the emissions calculations
- Laboratory Data (tare wts, blanks, results)
- Instrument Data: Make & Model, Calibrations
- Strip Charts or other continuous data acquisition printouts
- Calculations (velocity, flow, O₂ correction)
- Chain of Custody
- Visual Emission Observations (Method 9)



Elements of a Good Stack Test Report

- Other Items -

- Complications, challenges that occurred
- Recommendations to consider during future testing
- Next required, or next recommended test date
- Resumes of personnel overseeing testing



Stack Test Reporting - Goals

- Complete Record of Testing
- Reasons for Testing
- Test Results as compared to Required Limits
- Test Methods Used (and deviations)
- Operational Parameters Documented
- Raw Data and Calculations Disclosed



[NWCAA Test Summary Sheet](#)

Q – What if test it is not required? Should I report results?
(if passed, if failed, if screening method with no QA)

Stack Test - Reporting



Comments?

Questions?

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