

How to Prepare for a Stack Test

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How to Prepare for a Stack Test?

- What is a stack test?
- Why?
- Who?
- Tips



What is a stack test?

- The process of taking a sample of the gas stream coming from the stack
- Stack Test equipment (3rd party)
- Examples of pollutants:
 - Gases and PM
- 3 Runs constitute a test (exceptions RATA)

Note: The AQD does not conduct the test, but observes the test to make sure it is done properly

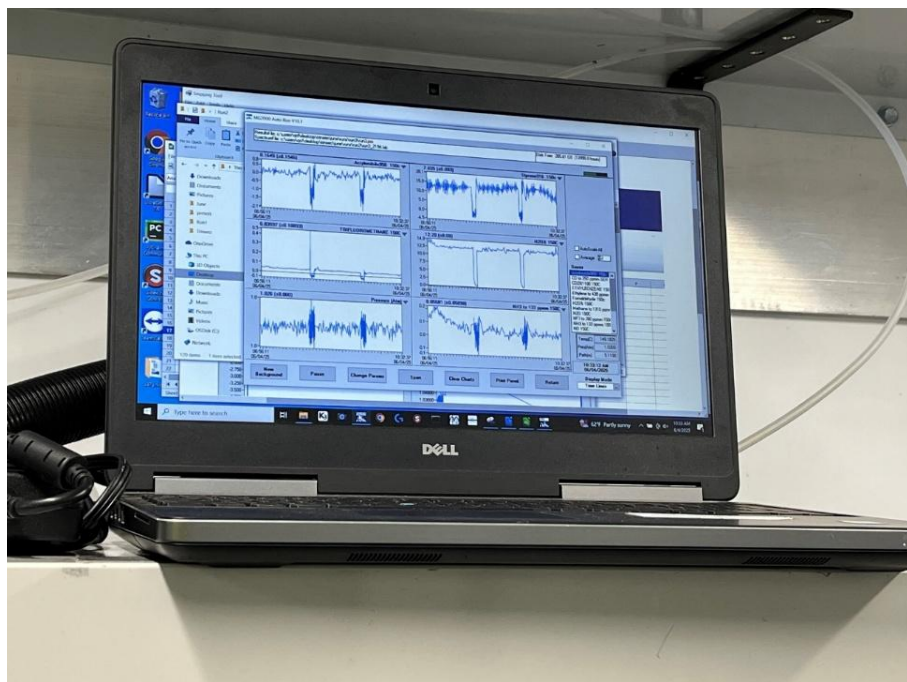


Stack Test Sample Process

- A sampling probe is placed in stack at ports.
- Various analyzers are used to test for pollutants via certain EPA methods.



Stack Test Equipment



Examples of pollutants

Gases

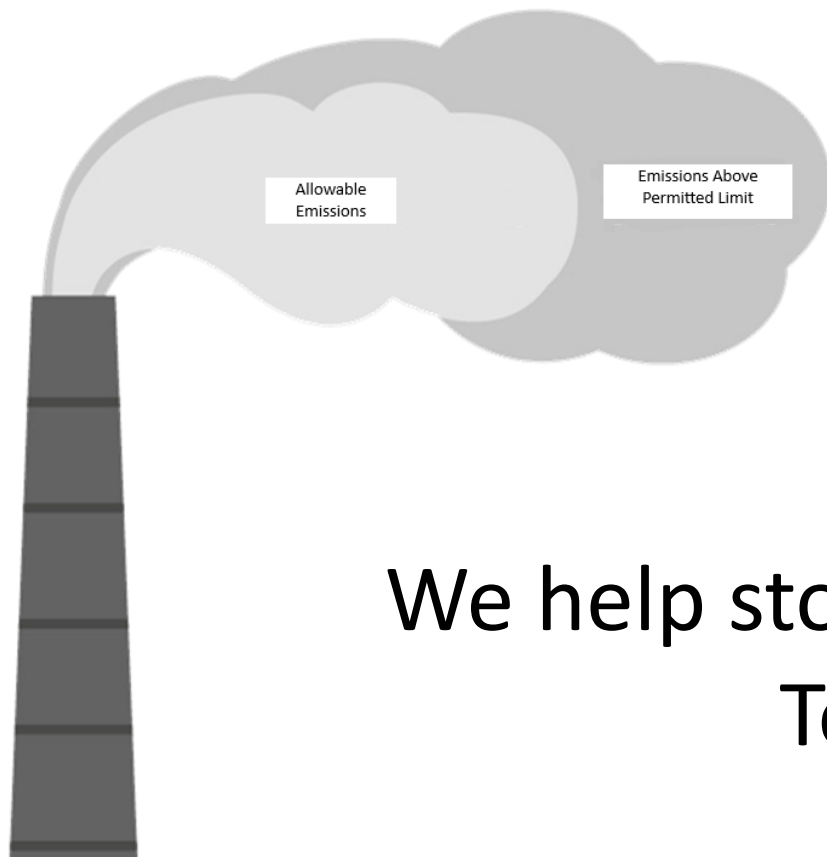
- NOX
- CO
- SO₂

Particulate Matter

- PM
- PM_{2.5}
- PM₁₀



Why?



We help stop polluting via Stack
Test QA/QC

Why?

- Michigan Rules (10)
- EPA Regulations
- Required by a permit
- National Stack Testing Guidance
- [EGLE Air Laws and Rules](#)



Michigan Rules

- [Part 10: Intermittent Testing and Sampling](#)
- September 10, 2025



EPA Regulations

- CFR : Title 40 of the CFR -- Protection of Environment
- EPA Promulgated Methods



Code of Federal Regulations

A point in time eCFR system



National Stack Testing Guidance

- CLEAN AIR ACT
- April 27, 2009
- [Clean Air Act National Stack Testing Guidance | US EPA](#)



Who?

- Technical Programs Unit (TPU)
- District Inspectors)



TPU Staff

- Jeremy Howe
 - Supervisor
- Diane Eisinger
 - Secretary

Field Staff

- Amanda Battershell
 - Amy Beaver
 - Clay DeRonne
 - Trevor Drost
 - Dylan Reich
 - Andrew Riley



Where?

North:

- Dylan Reich – Cadillac
- Amy Beaver – Bay City

West:

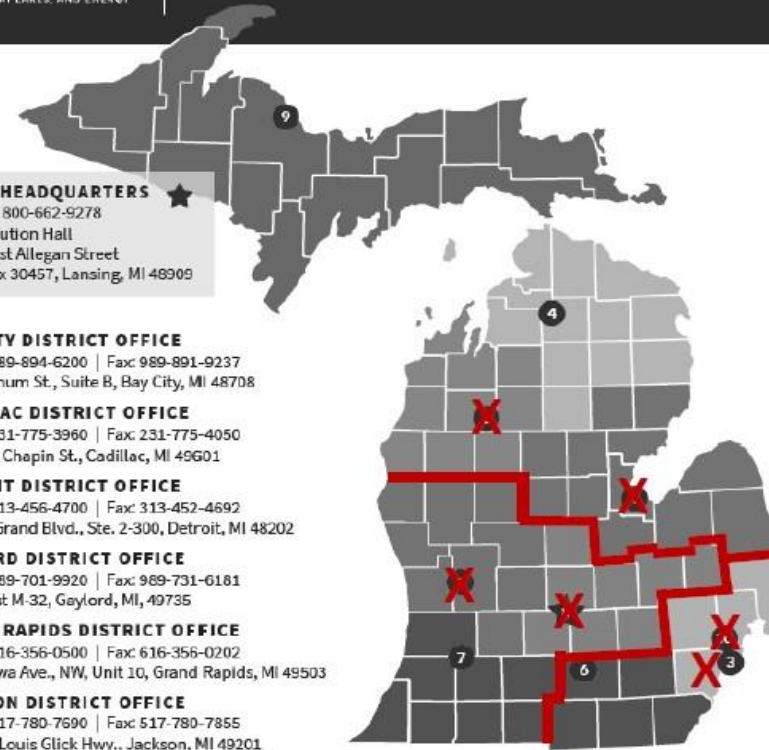
- Clay DeRonne- Grand Rapids
- Trevor Drost –Lansing

East:

- Andrew Riley – Warren
- Amanda Battershell – Detroit

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12/2022

Tips/Things to think about...

- Site specific safety training.
- Safe access to sampling location.
- Stack is ready and the sampling ports are correctly positioned and sized and meet test method requirements.
- Access to power.
- Facility contacts (operations, maintenance, etc.).



General Stack Test Safety

- Follow facility safety requirements
- Stay within marked areas
- Follow PPE requirements



Personal Protection Equipment (PPE)

- High Visual Vest
- Hard Hat
- Steel-toed Boots
- Safety Glasses
- Ear protection
- Gloves
- FR Gear



- Goggles
- Respirator
- Type 2 Hard hat

EGLE-AQD

- Create Approval Letter
- Observation
- Test Report



Stack Test Observation

- What to expect on test day?
- Who shows up?
- What are we looking for?



Stack Test Observation



Stack Test Observation

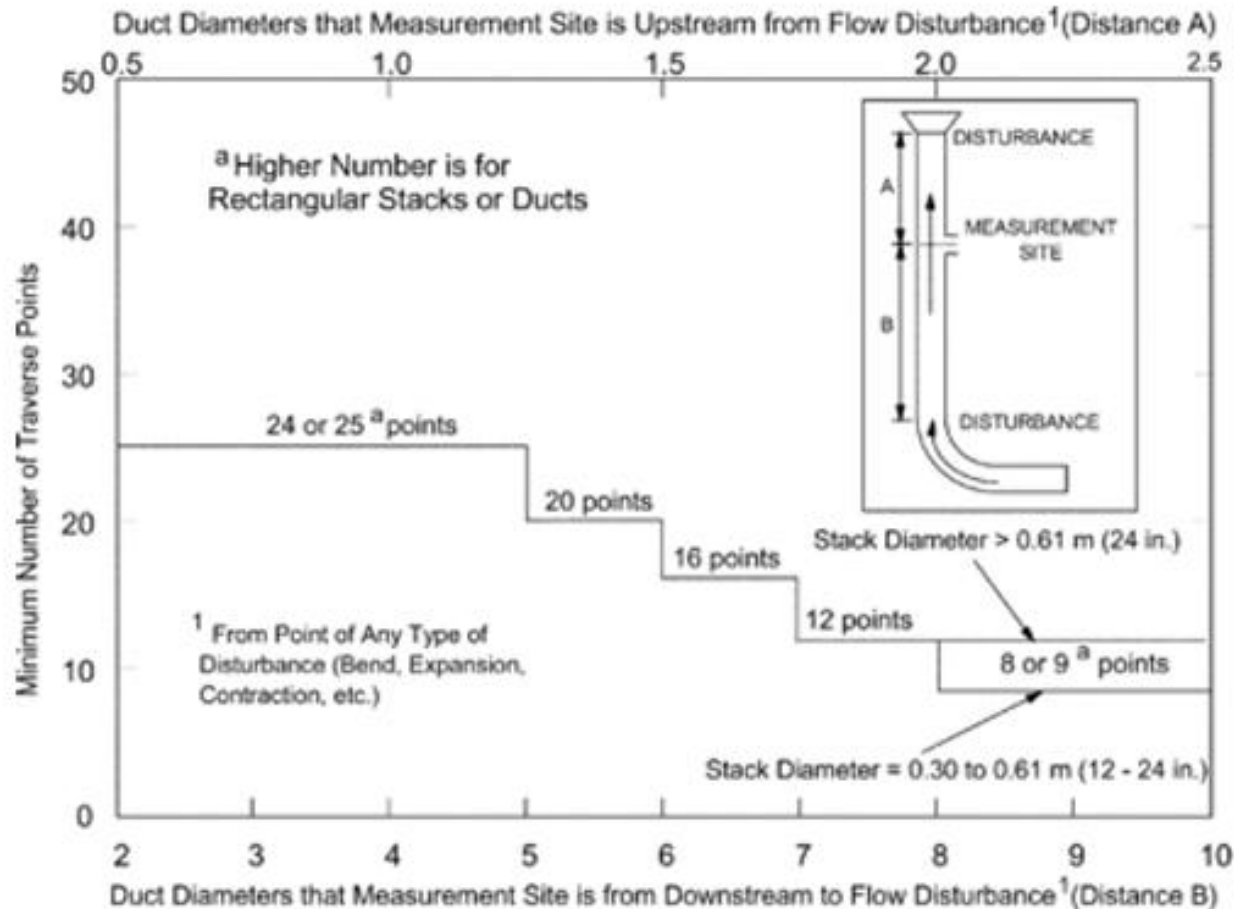


Stack Test Observation

- Leak Checks
- Gas Calibration
- EPA Method 1 data
- Data Entry
- Equipment

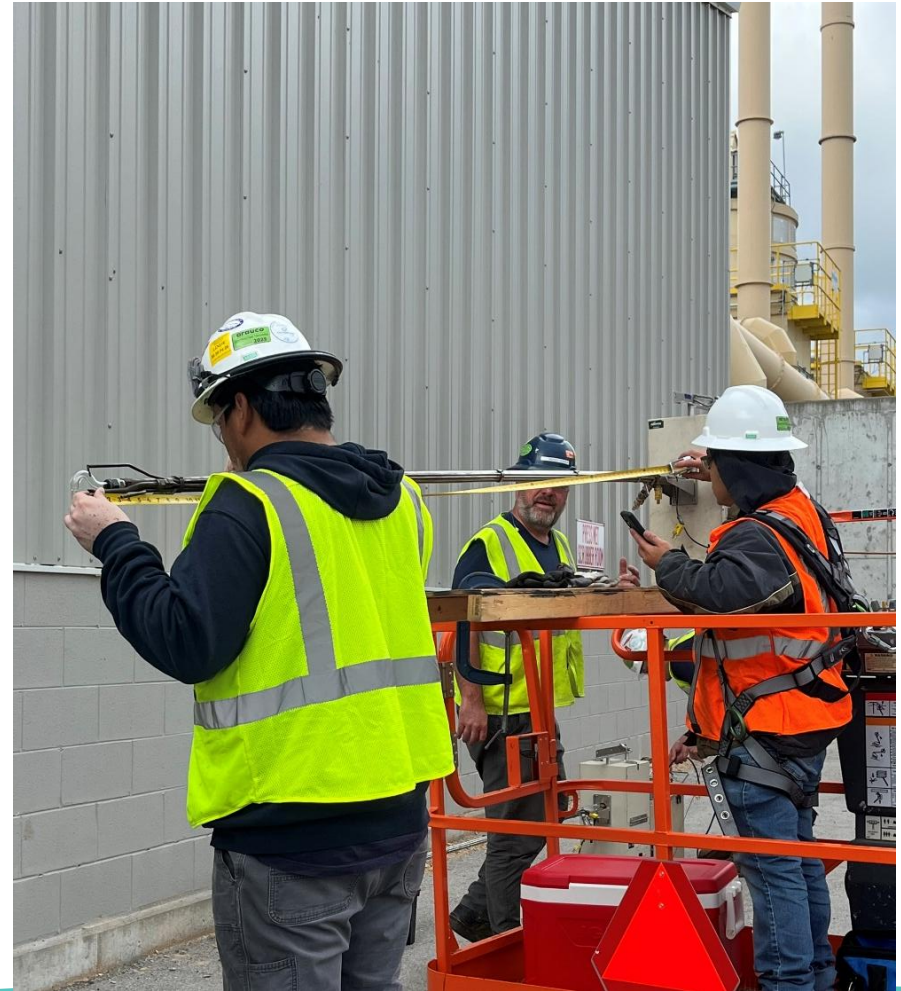
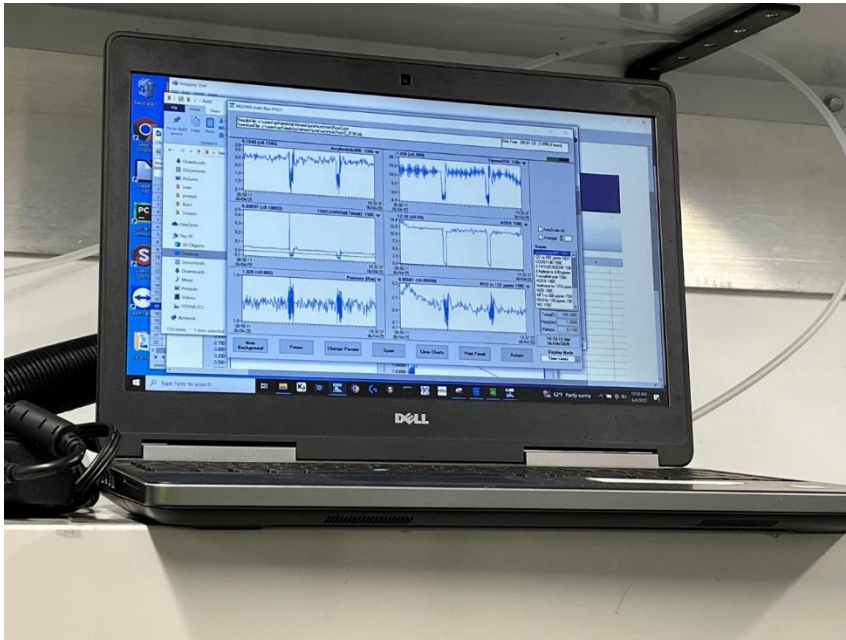


Stack Test Observation



Stack Test Observation

Stack Test Equipment



Stack Test Observation



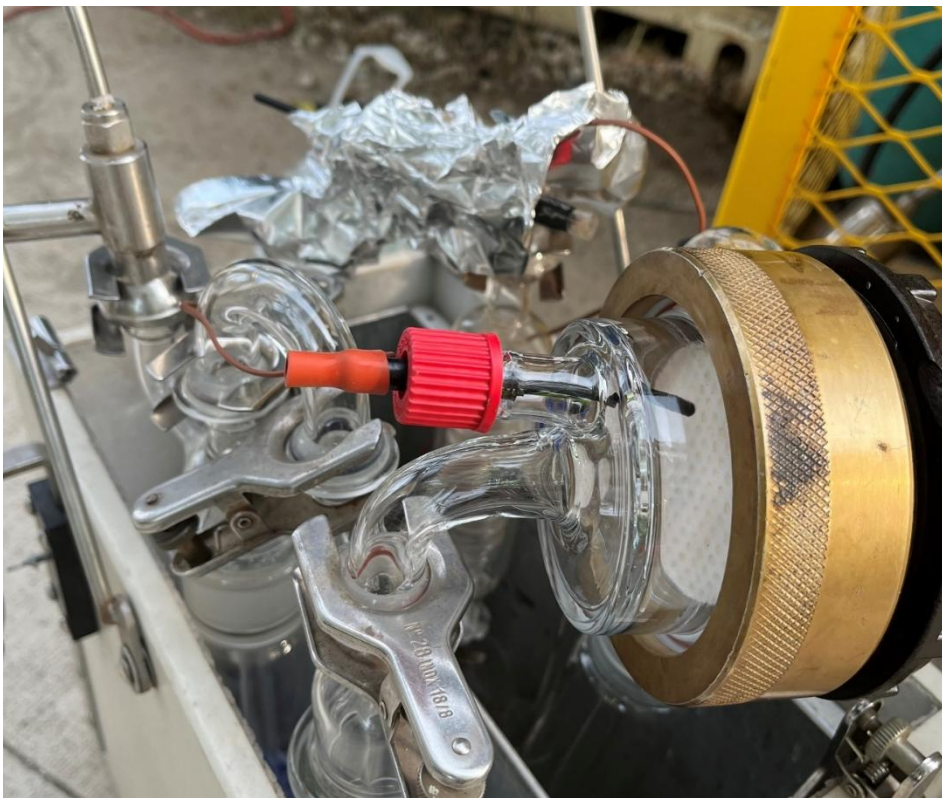
Stack Test Observation-Gas



Stack Test Equipment



Stack Test Equipment-PM



Helpful Links

- [Air Laws and Rules](#)
- [Clean Air Act National Stack Testing Guidance | US EPA](#)
- Michigan Rules (10) [2023-15 EQ](#)
<https://ars.apps.lara.state.mi.us/Transaction/RFRTransaction?TransactionID=1442>
- [eCFR :: Title 40 of the CFR -- Protection of Environment](#)
- [EMC Promulgated Test Methods | US EPA](#)



ARS - Administrative Rulemaking System
Department of Licensing and Regulatory Affairs



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