

The Avogadro Group, LLC

AWMA – PNWIS

Spring Specialty Conference
A Guide to Emissions Testing

Cost Management



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Cost Management

Proper Planning – a “global” perspective

What’s needed for the test program?

Acronym for the Day: 5 or 6 P's? (What to do for the test)

- PPPPP #1 Prior Planning Prevents Poor Performance
- PPPPP #2 Proper Planning Prevents Poor Presentation
- PPPPP #3 Proper Preparation Prevents Poor Performance
- PPPPP #4 NESHAP (MACT Standards) Subpart for Engine Test Cells/Standards
- PPPPPP #5 Proper Planning Prevents Piss Poor Performance (proper planning, Google #1)

ASSUME

(What not to do for the test)

- Ass

out of

- U

and

- Me



Testing Program Specifics

- Preparation for/with testing firm
 - Access
 - Platform
 - Electricity
 - Ports
 - Safety
 - Process review

Identify Incremental Cost Impacts

- Test program
- Regulatory
- Fuel
- Staff
- Widgets
- Problem test
- Failed test
- Time (\$)

Regulatory Requirements

- Testing details
 - Sampling approach
 - Detection limits
 - Federal, State and Local Regulations
- Reverse Engineering?
 - End use of data (risk assessment, etc.)

Process Condition

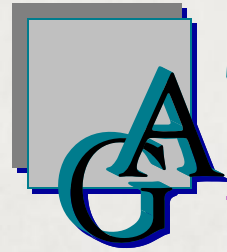
- Options for consideration
 - Engineering Studies
 - Tune ups
 - Maintenance

Capture All Information

- During Test Program
 - Process Records
 - Communication (all directions, all personnel)
- After Test Program
 - All documentation collected
 - Agreed upon delivery dates
 - Draft reviews

Devil is in the Details

- CEMS auto-calibrations during RATA testing
- Sampling time too short (cheaper, but not!)
- Process variations
- Testing under different than normal operating conditions



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Questions?

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