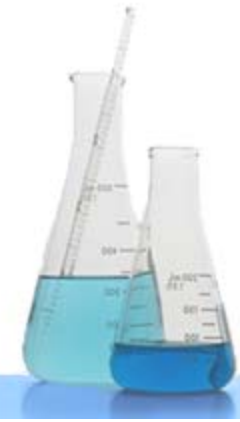
TNI Stationary Source Audit Sample (SSAS) Expert Committee

The NELAC Institute
Bellevue, WA
August 18, 2011

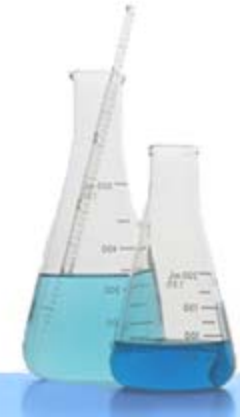
Welcome from Members

- Active Committee Members:
  - Friedman, Maria (Chair) - TestAmerica (Laboratory)
  - Hayes, Michael - Linde Group (Provider)
  - Klein, Michael - New Jersey DEP (Regulatory Agency)
  - Lowe, Theresa - CCI Environmental (Stationary Source Tester)
  - O'Neal, Gregg - North Carolina DAQ (Regulatory Agency)
  - Schapira, Michael - Enthalpy Analytical (Laboratory)
  - Serne, Jim - TRC (Stationary Source Tester)
  - Swartz, Richard (Vice-Chair) - Missouri, DNR (Regulatory Agency)
  - Tong, Stanley - EPA, R9 (Regulatory Agency)
- Active Associate Members:
  - Garber, Ty - Wibby Environmental (Provider)
  - Kassner, Shawn - ERA (Provider)
  - Miller, Michael - Independent consultant
  - Mills, William - Mills Consulting (NELAC Assessor)
- Program Administrator
  - Jackson, Ken - TNI

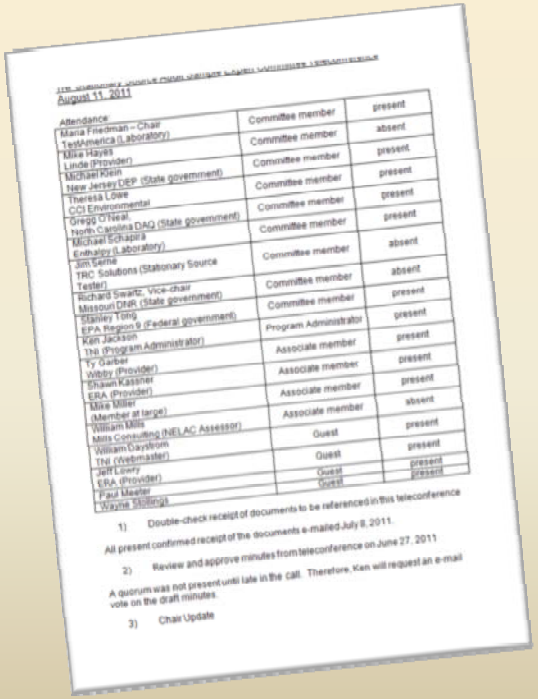


Today's Agenda

- Approval of minutes from 8-2-2011 teleconference
- SSAS Program update
- SSAS Table update
- Overview of Method 25 Audit Sample Collection Procedures



Approval of Minutes



August 11, 2011

Attendance		
Maria Friedman – Chair	Committee member	present
TestAmerica (Laboratory)	Committee member	absent
Mike Hayes		
Linde (Provider)	Committee member	present
Michael Klein	Committee member	present
New Jersey DEP (State government)	Committee member	present
Theresa Lowe	Committee member	present
CCI Environmental	Committee member	present
Gregg O'Neal		
North Carolina DAQ (State government)	Committee member	absent
Michael Schapira	Committee member	absent
Enthalpy (Laboratory)	Committee member	present
Jim Serne	Program Administrator	present
TRC Solutions (Stationary Source Tester)	Associate member	present
Richard Swartz, Vice-chair	Associate member	present
Missouri DNR (State government)	Associate member	present
Stanley Tong	Associate member	absent
EPA Region 9 (Federal government)	Guest	present
Ken Jackson	Guest	present
TNI (Program Administrator)	Guest	present
Ty Garber		
Wibby (Provider)		
Ehsaun Kassner		
ERA (Provider)		
Mike Miller		
(Member at large)		
William Mills		
Mills Consulting (NELAC Assessor)		
William Daystrom		
TNI (Webmaster)		
Jeff Lowry		
ERA (Provider)		
Paul Meeker		
Wayne Stolling		

1) Double-check receipt of documents to be referenced in this teleconference

All present confirmed receipt of the documents e-mailed July 8, 2011.

2) Review and approve minutes from teleconference on June 27, 2011

A quorum was not present until late in the call. Therefore, Ken will request an e-mail vote on the draft minutes.

3) Chair Update

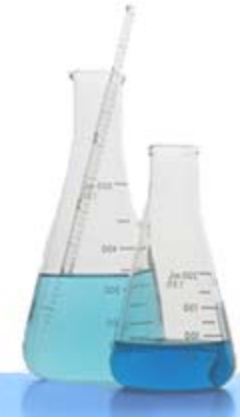
SSAS Program Update

Milestones

Date	Milestone
07-07-2008	SSAS Expert Committee 1st Meeting
12-18-2008	TNI SSAS Working Draft Standard Published
05-15-2009	TNI SSAS Voting Draft Standard Published
10-09-2009	**Final TNI SSAS Standard Adopted**
09-13-2010	**EPA Final Rule Published (75 FR 55636)**
05-18-2011	**EPA Approved TNI SSAS Program**

Current Status

- TNI SSAS Program approved by EPA
- Two Accreditors approved by TNI to accredit Providers
- At least two prospective Providers being evaluated by Accreditors; approval pending
- TNI SSAS Expert Committee completing review of SSAS Table (concentration ranges and acceptance limits)



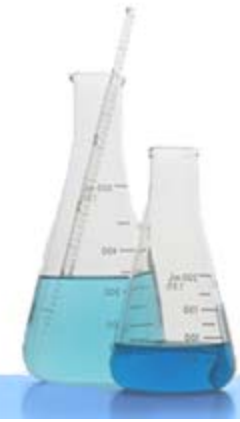
Next Steps

- TNI – Finish review of update to SSAS Table
- TNI – Finish audit sample concentration tool
- Accreditation of Providers
- Audit samples commercially available
  - 2 Providers (minimum)
  - Posted at www.epa.gov/ttn/emc at least 60 days before compliance test
- Inform Stationary Source Testers/Facilities of new requirements

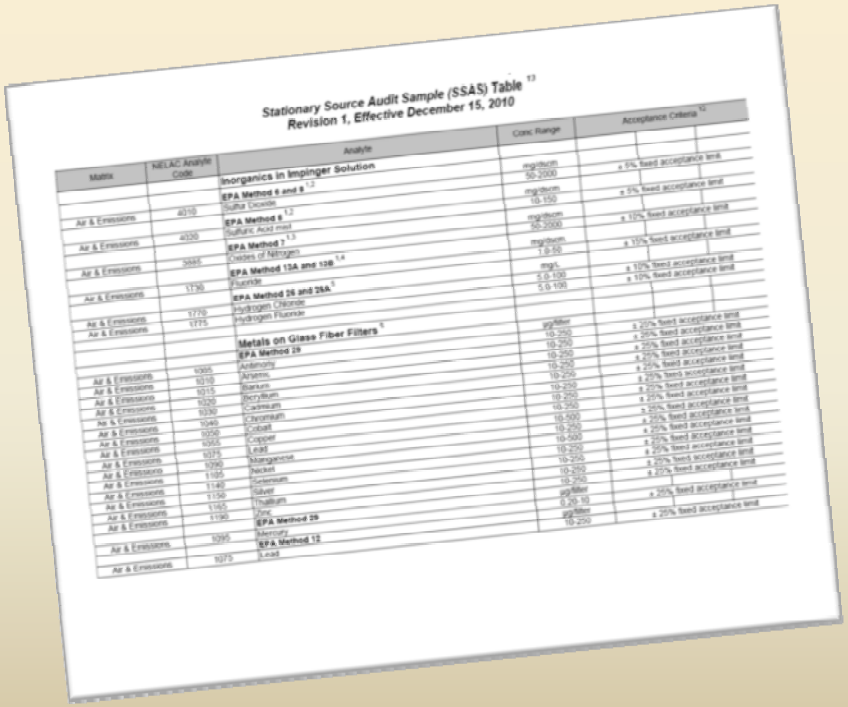
Next Steps (cont.)

- Regulators – Sign up to access TNI SSAS Central Database
  - Establish point of contact for Providers – 70+ Regulators already signed up
  - Use application forms available at Registration Desk or go online:

    nelac-institute.org/ssas/regaccount.php



SSAS Table Review

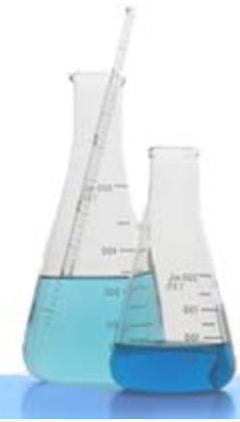


Stationary Source Audit Sample (SSAS) Table [13]
Revision 1, Effective December 15, 2010

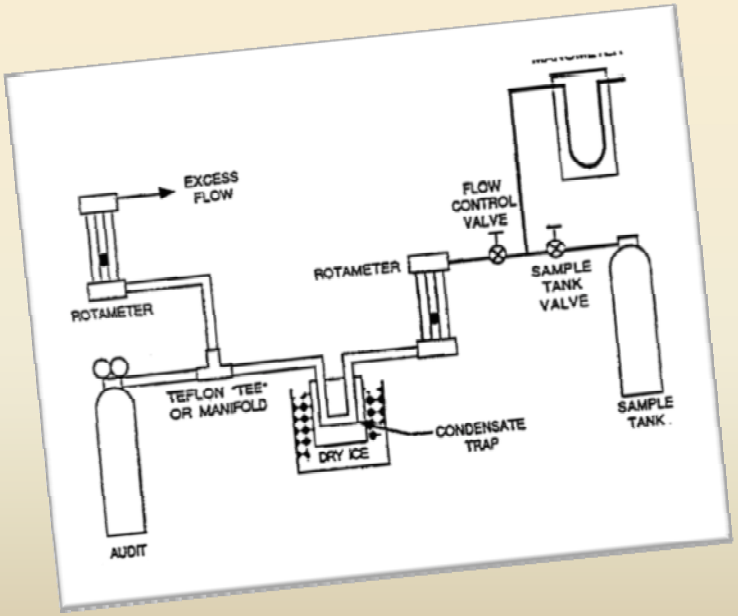
Matrix	NELAC Analyte Code	Analyte	Conc Range	Acceptance Criteria [12]
		Inorganics in Impinger Solution		
Air & Emissions	4010	**EPA Method 6 and 8** [12] Sulfur Dioxide	mg/dscm 50-2000	± 5% fixed acceptance limit
Air & Emissions	4020	**EPA Method 6** [12] Sulfuric Acid mist	mg/dscm 10-150	± 5% fixed acceptance limit
Air & Emissions	3565	**EPA Method 7** [13] Oxides of Nitrogen	mg/dscm 50-2000	± 10% fixed acceptance limit
Air & Emissions	1730	**EPA Method 13A and 13B** [14] Fluoride	mg/dscm 1.0-50	± 10% fixed acceptance limit
Air & Emissions	1770	**EPA Method 26 and 26A** [1] Hydrogen Chloride	mg/L 5.0-100	± 10% fixed acceptance limit
Air & Emissions	1775	Hydrogen Fluoride	5.0-100	± 10% fixed acceptance limit
		Metals on Glass Fiber Filters [1]		
		EPA Method 29	µg/filter	
Air & Emissions	9305	Antimony	10-250	± 20% fixed acceptance limit
Air & Emissions	9310	Arsenic	10-250	± 20% fixed acceptance limit
Air & Emissions	9315	Barium	10-250	± 20% fixed acceptance limit
Air & Emissions	9320	Beryllium	10-250	± 25% fixed acceptance limit
Air & Emissions	9330	Cadmium	10-250	± 25% fixed acceptance limit
Air & Emissions	1040	Chromium	10-350	± 25% fixed acceptance limit
Air & Emissions	9350	Cobalt	10-500	± 35% fixed acceptance limit
Air & Emissions	9355	Copper	10-250	± 25% fixed acceptance limit
Air & Emissions	9375	Lead	10-500	± 25% fixed acceptance limit
Air & Emissions	1090	Manganese	10-250	± 25% fixed acceptance limit
Air & Emissions	1105	Nickel	10-250	± 25% fixed acceptance limit
Air & Emissions	1140	Selenium	10-250	± 20% fixed acceptance limit
Air & Emissions	1150	Silver	10-250	
Air & Emissions	1165	Thallium	µg/filter 0.25-10	± 25% fixed acceptance limit
Air & Emissions	1190	Zinc	µg/filter 10-250	± 25% fixed acceptance limit
		EPA Method 29		
Air & Emissions	3295	Mercury		
		EPA Method 12		
Air & Emissions	9375	Lead		

SSAS Table Review

- No changes to Method 25 in next revision (Revision 2)
- Need to define implementation period for Revision 2

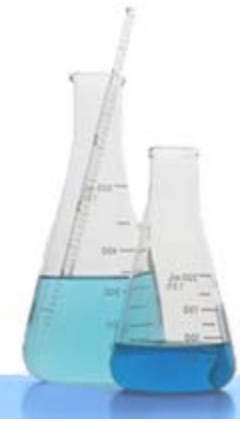


Method 25
Audit Collection Procedures



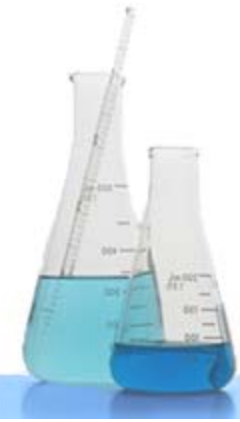
Method 25 Supplies

- Two audit cylinders of different concentrations (if two cylinders are not available then one can be used)
- Two-stage regulator (CGA 350) – subject to change (depending on Provider instructions)
- Glass manifold or Teflon tee connection
- Other Swagelok fittings



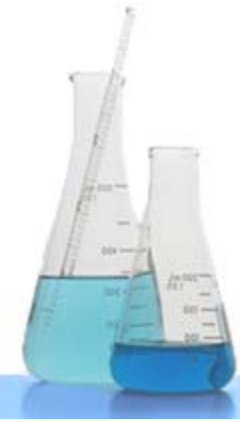
Method 25 Procedures

- A set of 2 audit samples is to be collected in the field from cylinders of different concentrations
- Collection should be conducted during the field compliance test activities
- Audit cylinder seal may not be broken until the regulatory representative is present and audit sample collection starts – some exceptions apply



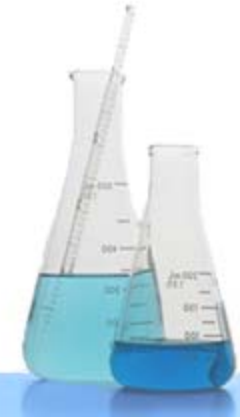
Method 25 Procedures (cont'd)

- Prior to sampling, the collection tank must be leak checked in accordance with section 8.1.2 of Method 25



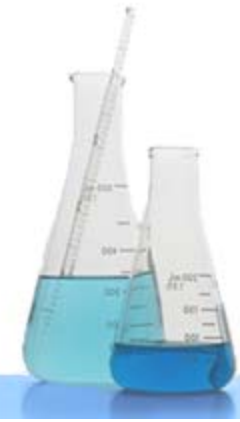
Method 25 Procedures (cont'd)

- Maximum of approx. 5 liters of audit gas shall be used for each audit sample collected
- Set up the Method 25 train and perform the leak check
- Attach cylinder & Method 25 probe to two of the manifold or tee connections
- Start cylinder gas flow into the manifold or tee with the sampling train flow turned off



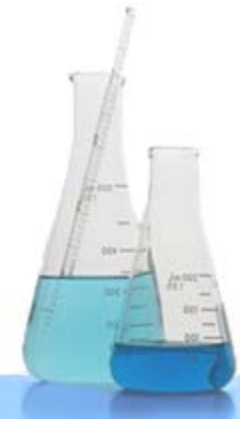
Method 25 Procedures (cont'd)

- Turn on the sampling train flow while adjusting the flow from the audit cylinder to ensure excess audit gas flow from the manifold or tee
- After proper sample flow rate has been obtained in the sampling train, adjust the cylinder flow so only a few cubic centimeters of gas is discharged from the manifold or tee

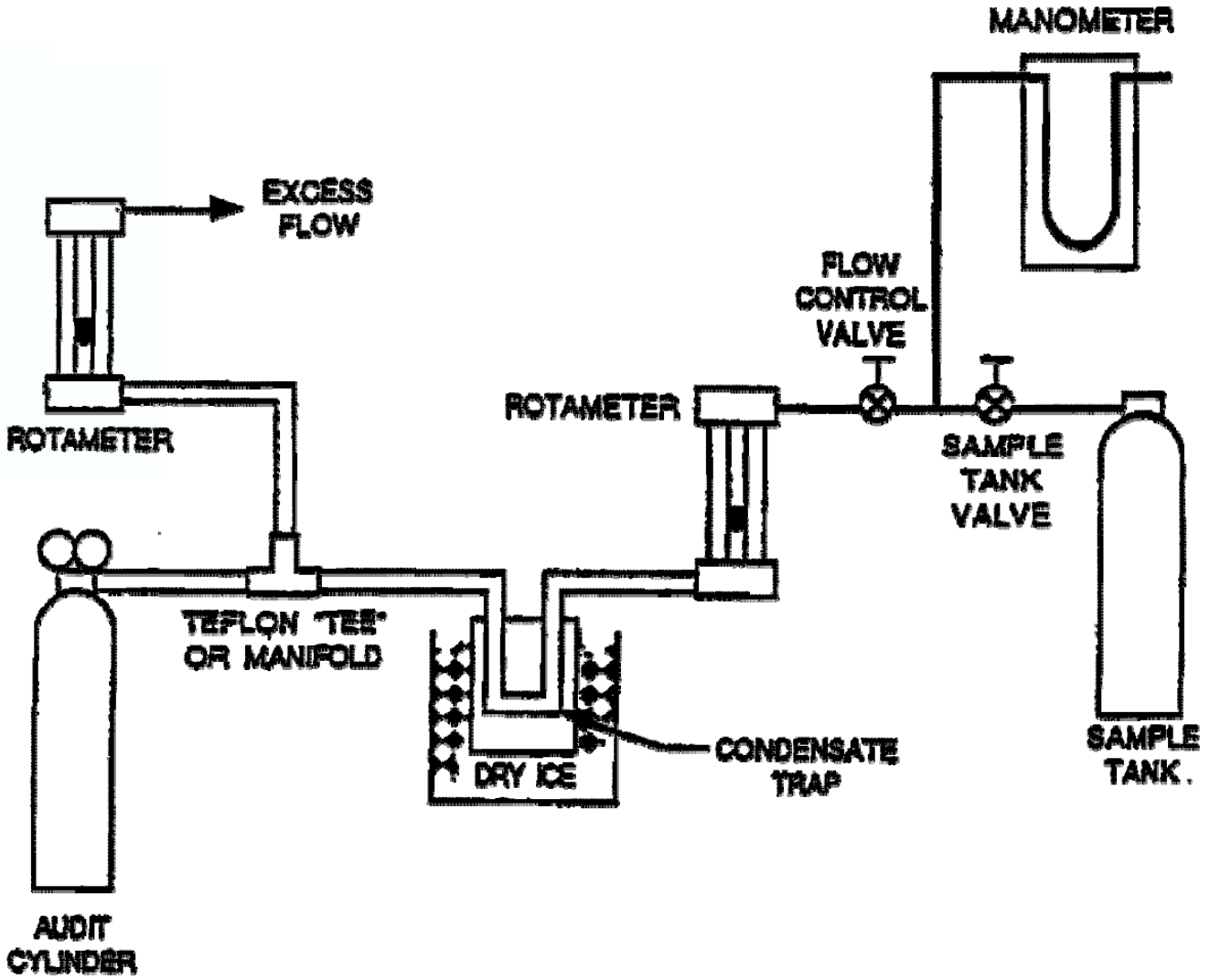


Method 25 Procedures (cont'd)

- Use the same sampling flow rate and same sample volume as the stack samples
- The audit should use the same number of collection tanks as required by the average run
- Re-seal the audit cylinders after audit sampling is complete to ensure no more audit gas is collected

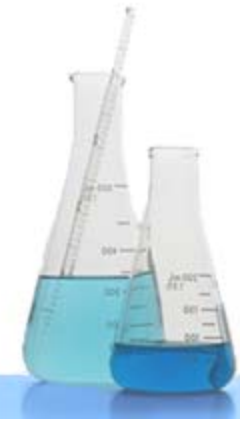


Method 25 Audit System



Method 25 Notes

- The audit cylinders should not be analyzed when the pressure drops below 200 psi
- The possibility of requiring a dedicated manifold for each cylinder was suggested



Questions

Thank you to all who participate and contribute to the TNI SSAS Program!