

NIOSH/NPPTL Standard Testing Procedures (STP) Seminar

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Workplace
Safety and Health

TM

NIOSH

NPPTL *Research to Practice
through Partnerships*

Standard Test Procedures

- NPPTL has over 150 STPs
- NPPTL will update all STPs over the next four years
- NPPTL will now review all STPs on a cycle of not more than four years

3 areas include

- Supplied-Air Respirators (SAR)
- Air-Purifying Respirators (APR)
- Chemical Biological Radiological and Nuclear (CBRN)

Standard Test Procedures

What Changes?

- Projected update schedule
- Updates and Additions
 - Clarification of existing STPs
 - Details and Policies not addressed in 42 CFR Part 84
- ISO 17025 compliance

Standard Test Procedures

- **First to Be Addressed**
Air Purifying Respirators
Older Gas / Vapor Tests



Standard Test Procedures

- **Projected Update Schedule**
 - 1 – Organic Vapor
 - 2 – Ammonia
 - 3 – Hydrogen Sulfide
 - 4 – Nitrogen Dioxide
 - 5 – Leakage of Drinking Tube
 - 6 – “P” Filter DOP Tests
 - 7 – Inhalation Resistance
 - 8 – Exhalation Resistance
 - 9 – Sound Level Tests
 - 10 – Airflow for PAPRs

Standard Test Procedures

- Separate Gas / Vapor STPs into Separate Documents

A = Cartridge

B = Canister

C = PAPR Cartridge

D = PAPR Canister

- Not all STPs have all 4

Standard Test Procedures

- Specify clearly the performance requirements for each type of respirator
- Add tolerance ranges for every parameter
- For example: 85% equilibration –
85 + 0/-5%

Standard Test Procedures

- Clearly Explains requirements, including PAPR requirements added by policy
- Removes extraneous and confusing language from STPs, such as publication date and unnecessary and obsolete sections of 42 CFR 84 e.g. paint spray and lead fume tests

Standard Test Procedures

- Update safety and personal protection information
- Although specific for NIOSH, this information should prove useful to manufacturers

Standard Test Procedures

- Correct omissions and errors

Examples:

- Vacuum level in drinking tube test
- Missing analytical wavelength for OV test

Standard Test Procedures

- Update descriptions of all test equipment used

Examples:

- New Analyzers for NH_3 , HCN, CK, PH_3 , CO, SO_2 , H_2S , NO, NO_2 also used for industrial tests
- Mass Flow Controllers

Standard Test Procedures

- More accurate descriptions of currently used test chambers and fixtures
- PAPR testing
- Captures changes resulting from relocation from Morgantown to Pittsburgh and new equipment used for CBRN testing program

STP for Visual Inspection During Initial Review

- A STP will be developed for Visual Inspection on equipment during Initial Review
- Denials may be issued if discrepancies are apparent and measurable or if poor workmanship is evident

Standard Test Procedures

ISO 17025 Compliance

- NIOSH is working towards compliance with ISO 9001 and ISO 17025
- Rewriting STPs for completeness and accuracy
- Performing Precision & Accuracy tests for all STPs as they are being rewritten
- Work Instructions and Document Control procedures are being created

Standard Test Procedures

ISO 17025 Compliance

- Precision and Accuracy testing for all revised STPs
- Representative cartridges used
 - 18 samples for initial investigation
 - 6 as received
 - 6 equilibrated at 25%
 - 6 equilibrated at 85%

Standard Test Procedures

ISO 17025 Compliance

- Document Management Specialist has been added to staff to maintain all signed copies
- STPs are available on NPPTL website and are “Official Documents”.

Work Instructions

- Work Instructions (WI) will be written for internal use at NPPTL
- WIs will cover some aspects of equipment setup, calibration of detection devices, reporting procedures, etc.
- These are specific for NIOSH – NPPTL

STP Location and Details

http://www.cdc.gov/niosh/npptl/stps/respirator_testing.htm

Questions and Comments?