



AIHA Accreditation and Proficiency Testing Programs for Beryllium

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AIHA Mission

AIHA promotes healthy and safe environments by advancing the science, principles, practice, and value of industrial and occupational hygiene.



What Our Members Do

- 11,000 professionals that...
 - Investigate and examine workplaces for hazards and potential dangers
 - Conduct scientific research
 - Advise government officials
 - Participate in the development of standards and regulations
 - Control potentially dangerous situations in the workplace and the community
 - Educate the community about job-related risks



LQAP Overview

- Since 1974, AIHA has operate Laboratory Quality Assurance Programs (LQAP) that include:
 - Accreditation Programs
 - Proficiency Testing Programs
 - Asbestos Registry



Accreditation Programs

- Industrial Hygiene (IHLAP)
Since 1974; 209 labs
- Environmental Lead (ELLAP)
Since 1989; 126 labs
- Environmental Microbiology (EMLAP)
Since 2001; 98 labs

Total of 329 labs in all 3 accreditation programs



Proficiency Testing

- PT programs – AIHA's PT program called Proficiency Analytical Testing (PAT) Programs
- Open to all laboratories
- Samples should analyzed in routine manner



Proficiency Analytical Testing Programs

- Industrial Hygiene (IHPAT)
 - Silica, Asbestos, Metals, Passive Monitors
- Environmental Lead (ELPAT)
 - Air, Dust, Soil, Paint
- Environmental Microbiology (EMPAT)
 - Fungi, Bacteria, Direct Exam
- Bulk Asbestos (BAPAT)
- Beryllium (BEPAT)
 - Beryllium acetate



Benefits of PAT Participation

- Programs conducted under international guidelines
 - ILAC Guide 13
- Allows a laboratory to compare its performance with other laboratories and identify areas in need of improvement



AIHA BePAT Program

- Initiated in 1999 in response to requests from DOE
- Program specifically designed for labs analyzing samples for DOE in accordance to Chronic Be Disease Prevention Program.
- Currently 44 participant laboratories.
- Samples prepared and shipped by Oak Ridge National Laboratory (BWTX Y-12)



AIHA BePAT Program

- Program participation required if Be is included as part of lab's scope.
- Three fields of testing offered:
 - AA Graphite Furnace
 - ICP
 - Fluorescence
- Limits are fixed at $\pm 25\%$ of the expected value
- Be acetate solution
- Three (3) rounds per year
- Four samples and blank



IHPAT/BePAT Proficiency

The laboratory shall receive a pass/fail score for each analyte class (e.g., organics, metals, asbestos, silica), as applicable, for each PT round.

The laboratory shall receive a passing round score if not more than twenty-five (25) percent of the reported results are outliers



IHPAT/BePAT Proficiency

A laboratory is rated proficient for the associated FoT/Method if the laboratory has a passing score for the applicable PT analyte class in at least two (2) of the last three (3) consecutive PT rounds.



Move Toward BeO

- Discussion with BHSC re: high-fired BeO samples
- Conducted informal poll of current labs about their ability to accept and analyze BeO samples
 - 70 percent responded
 - Most said they could accept samples



BePAT Program with BeO

- Y-12 will work with AIHA to make transition to BeO-based proficiency samples
- Voluntary pilot program or Round Robin to be offered to labs currently participating in BePAT (now projected for late 2008 or early 2009)
 - Offered upon AIHA approval
 - AIHA to confirm data required from Y-12, regarding the BeO-based samples, before Round-Robin is offered
- Timeline to be determined based on mutual agreement between AIHA and Y-12



BePAT Program with BeO (*cont'd*)

- AIHA needs to confirm that health and safety instructions are available.
- Will send a notice to BePAT participants with future PAT round to invite their voluntary participation in analyzing BeO
 - No extra cost for participation
 - Results will not influence current accreditation status
 - Lab need to be able to accept and handle up to 25 μg of BeO before agreeing to participate (statement of acceptance may be required before BeO is shipped)



Remaining Questions for AIHA

- What influence will the BeO SRM have on accreditation of labs for Be?
- How will BeO PAT be incorporated into the Be accreditation requirements?
- Will use of BeO SRM itself be required, or merely something traceable to the SRM?



Mobile Lab/Field Be Registry

- Also working with BeHSC on Registry for mobile labs and field operations
- Goal: “A program that allows an entity/individual to sample and analyze Be in the field to make decisions related to Be exposure”
- Registry attempts to address core issues of:
 - Qualifications of personnel
 - Quality Assurance
- Would not apply to activities such as in-situ testing by XRF or one-person laboratories
- At least five DOE sites have expressed interest in registry



Mobile Lab/Field Registry

One or more individuals (i.e., field analysts):

- Working under an laboratory with a quality system that oversees field operations
- OR
- Working under a technical manager who:
 - Meets ISO 17025 criteria, AND
 - Is responsible for quality system that oversees the field operations



Mobile Lab/Field Registry Issues

Requirements

- Technical manager must be a direct employee of the accredited laboratory
- Field analyst:
 - May or may not be a laboratory employee, but must be accountable to quality system and tech manager per ISO 17025
 - Meets *qualification* requirements for an analyst as outlined in Module 2A
 - Meets *education* requirements for a technician as outlined in Module 2B



Mobile Lab/Field Registry Issues

Issues

- Requirement for tech manager to be on site 50% of the time
- Requirement for quality control to be performed on site
- Applicability of specific QA requirements in 2A.5.9 will need to be addressed on a method-specific basis



Thank you!

For more information.....

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