



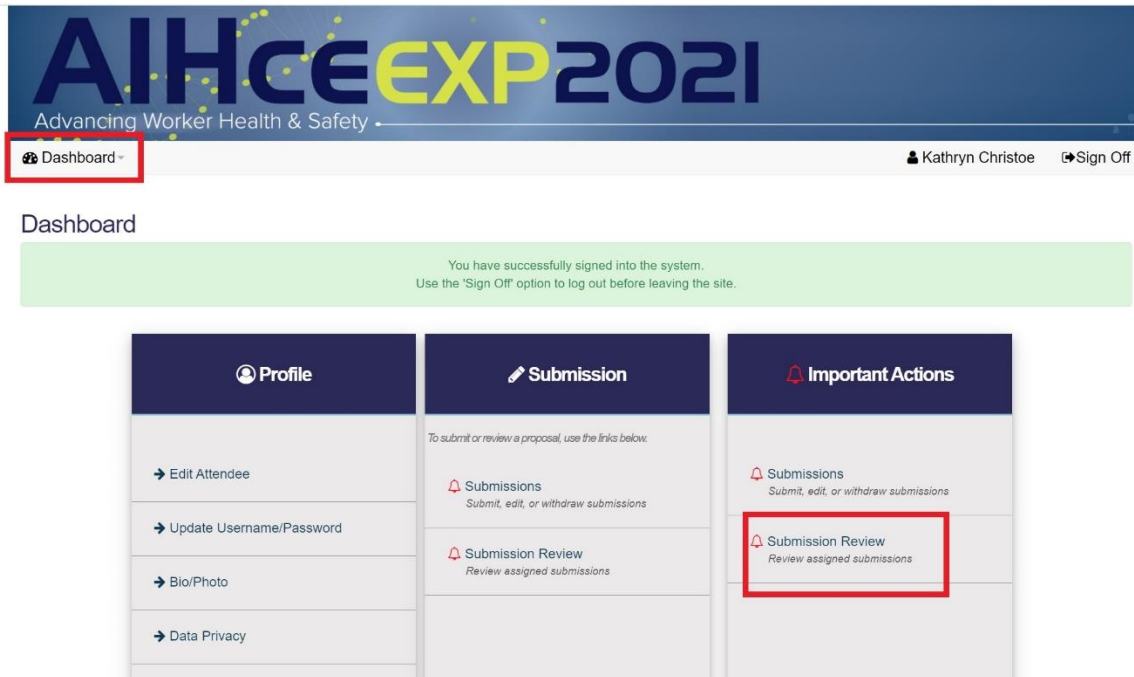
Thank you for volunteering to be an Education Program Technical Reviewer! Your assessment and feedback are valuable, as you are the expert in your topic area(s). The Conference Program Committee (CPC) relies on your expertise and scores to decide which sessions will be offered at AIHce EXP 2021.

It is important that you review **each** proposal assigned to you. Along with the numerical scoring, the comments you provide are *very valuable*. All reviews are due **Sunday, October 11th (11:59 Eastern Time)**.

This document outlines step-by-step how to review your assigned proposals within our online system.

First you will [log in](#) to the online system. We've sent your login information to you straight from the system, but in case you've forgotten, please click "[Get it Now!](#)" on the bottom left-hand side of the login page to have your login details emailed to you. Your username should be your first initial, last name (*i.e. jdoe*) and your default password is AIHce21. Please note this login is different from your regular AIHA website login/ member login.

Once logged in, click the "Dashboard" option at the top of the screen, then "Submission Review", under Important Actions.



After clicking 'submission review,' you will see a list of all your assigned proposals, organized by topic, including the number of proposals in each topic area. Scroll down to "Reviews to Complete" to complete all abstracts assigned to you (this may include case study or scientific research presentations, education sessions, and/or professional posters). Under each submission assigned to you, you will see a link to the "Education Technical Review Questions." Simply click on that link to open the submission proof to read and review.

Sampling and Analysis (14) : - Review Now
Sensor Technology (8) : - Review Now
Standards, Regulations and Legal Issues (5) : - Review Now
Total Exposure Health/Total Worker Health® (11) : - Review Now

 Print All

Reviews To Complete

Category: Aerosols & Airborne Particulates

1014 - Monitoring of Respirable Dust in Taconite Mining using Ultrasonic Personal Aerosol Sampler and NIOSH NMAM 0600

Abstract Type: Scientific Research Presentation

Education Technical Review Questions *

Incomplete

 Print

1042 - A Comparison of Airborne Respirable Crystalline Silica and Particulate Exposures for Workers Performing Duties both Inside and Outside Operator Enclosures in Mining and Construction

Abstract Type: Professional Poster

Education Technical Review Questions *

Incomplete

 Print

1180 - Simulating Filter Quality of Nanofiber Filter: Effects of Slip-flow and Implications for Filter Design

Abstract Type: Scientific Research Presentation

Education Technical Review Questions *

Incomplete

 Print

Once open you will be able to see the full submission details at the top of the screen:



1014 - Monitoring of Respirable Dust in Taconite Mining using Ultrasonic Personal Aerosol Sampler and NIOSH NMAM 0600

Abstract Type: Scientific Research Presentation

Description: Inhalation of respirable dust (particles sampled according to the respirable convention with a 50% sampling efficiency at an aerodynamic diameter of 4 µm) leads to a range of cardiovascular and respiratory health issues. The gold-standard for sampling RD from the breathing zone of a worker has been characterized by the National Institute of Occupational Safety and Health (NIOSH) Manual of Analytical Methods (NMAM) 0600 that involves use of a 4-L/min mechanical pump with need of pre- and post-calibration that connects to a cyclone via tubing to sample the RD during the work shift. In this study, we introduce an alternative way of performing the personal sampling using an ultrasonic personal aerosol sampler (UPAS) that is challenged in an occupational setting (a Taconite mine), for the first time.

Objective: We investigate the feasibility of using an ultrasonic personal aerosol sampler (UPAS) to replace NIOSH Method 0600 for occupational exposure assessment of the respirable dust in an intensely polluted site of a taconite mine.

Methods: The UPAS is a time-integrated monitor that features a novel piezoelectric micropump to drive the air flow at a rate of 2±0.05 L/min and runs silent during operation. In total, we recruited 39 workers from various departments (i.e., crushing, pelleting, milling, and maintenance) of a taconite in the Northern Minnesota. Each worker wore two personal RD samplers: an aluminum cyclone specified in NIOSH method for RD personal sampling on the right-side of the worker's collar and a UPAS clipped to the left-side of the worker's collar. The collocated RD samplers then used for sampling for the entire work shift of 8 hr. Both samplers used 37-mm PTFE filters that were pre- and post-weighed to obtain the integrated RD concentration. Additionally, two area sampling sites per department were used to measure real-time mass concentration of RD using DustTrak (Model 8534, TSI Inc., St. Paul, MN, USA) aerosol monitors. Regression analysis to correlate the measurements obtained using the UPAS and NIOSH NMAM methods was conducted and accuracy of using UPAS as potentially a substitute for NMAM 0600 was investigated using a Bland-Altman plot. Comparisons between the average mass concentrations of RD using both types of personal monitors and nephelometric real-time RD monitors in the area stations are also conducted. Regression analysis for statistical comparison was conducted and the NIOSH criteria for potentially replacement of the NIOSH 0600 with use of the UPAS was investigated.

Results / Conclusions: The average RD concentrations based on personal sampling using the UPAS and NIOSH NMAM 0600 were quite similar: 178 and 177 µg/m³. Statistical analysis of the gravimetric analysis of the data obtained from 39 workers indicated a strong linear correlation between RD concentration measured by the UPAS respect to RD concentration measured by the NIOSH NMAM 0600: NIOSH Method 0600 = 1.06 (UPAS) - 9.22 µg/m³, r² of 0.72. Pearson correlation factor of 0.854. None of the workers was exposed to a respirable dust concentration above the OSHA PEL of 5 mg/m³. A Bland-Altman analysis revealed that 72% of the valid UPAS samples agreed within +/-25% of the traditional method mean. In the studied mine site, the impact of job category on correlation of the methods was not statistically significant.

As you scroll to the bottom of the page, you will see the review questions. First you will be asked if you have a conflict of interest. If you select 'yes,' please provide a reason and submit. This will opt you out of reviewing that proposal. If you do not have a conflict of interest, by selecting 'no,' all the review questions will then appear. Please complete all questions and press "submit" to complete the evaluation of the submission. Anything with a red asterisk is required.

Education Technical Review Questions

* - indicates a required item.

* Do you have a conflict of interest that would prevent you from evaluating this proposal fairly?

Yes No

* If yes, please leave a comment below:

Remaining: 500

* This presentation will be of interest to the AIHce audience.

* The content of this presentation is current and relevant to OEHS professionals.

* This proposal is clear, well-organized, and well-written.

* The session does not contain a sales pitch and does not promote a specific vendor or service.

* Recommendation: What is your overall recommendation for this proposal?

Please provide any feedback for the Conference Program Committee that you feel would be helpful when making final decisions on submissions.

Note, we have two comment boxes, one for feedback to the Conference Program Committee and one with feedback directly to the submitter. Comments back to the submitter are required and comments to the CPC are optional. You are highly encouraged to provide feedback to both groups. Comments back to the CPC will not be seen by the submitter but will help the CPC make final decisions.

* Recommendation: What is your overall recommendation for this proposal?

Please provide any feedback for the Conference Program Committee that you feel would be helpful when making final decisions on submissions.

Remaining: 500

* Comments:

Feedback for Submitters. These comments will be visible to submitters when decisions are entered into the system. Please provide constructive feedback.

Remaining: 500

Rating Score: 0



Submit



If you prefer to print the review documents for each assigned abstract, you can do so by clicking the “print” button, on the main review screen. **Note, that you MUST still enter the answers to the review online.** They cannot be submitted using the printed document(s).

Reviews To Complete

Category: Aerosols & Airborne Particulates

1014 - Monitoring of Respirable Dust in Taconite Mining using Ultrasonic Personal Aerosol Sampler and NIOSH NMAM 0600 Abstract Type: Scientific Research Presentation Education Technical Review Questions 	Incomplete	 Print
1042 - A Comparison of Airborne Respirable Crystalline Silica and Particulate Exposures for Workers Performing Duties both Inside and Outside Operator Enclosures in Mining and Construction Abstract Type: Professional Poster Education Technical Review Questions 	Incomplete	 Print
1180 - Simulating Filter Quality of Nanofiber Filter: Effects of Slip-flow and Implications for Filter Design Abstract Type: Scientific Research Presentation Education Technical Review Questions 	Incomplete	 Print
1195 - Development of an Ultraviolet Fluorescence-Based Method for Whole-Body Evaluation of Dermal Aerosol Exposures Abstract Type: Scientific Research Presentation Education Technical Review Questions 	Incomplete	 Print
1264 - WTC after 20-years - Exposures to particulate matter during rescue and recovery operations Abstract Type: Professional Poster Education Technical Review Questions 	Incomplete	 Print

As you complete the submissions that are assigned to you, you will notice on the reviewer homepage that their status will change from “incomplete” to “completed” and the top of the screen will then update as well.

Reviews are due **October 11th at 11:59pm Eastern.** Thank you again for volunteering and happy reviewing!

If at any time you need assistance with the education technical review process, please contact Kathryn Christoe, Program Manager, Education, kchristoe@aiha.org, or call +1-703-846-0753.