Nanomaterials, Chemical Exposures and Control Banding: What Does It Mean for Workplace Safety?

presented in conjunction with the
2015 Northwest Occupational Health Conference
hosted by the Pacific Northwest Section – American Industrial Hygiene Association (PNS-AIHA)

Industrial hygienists and safety professionals are often challenged by how to measure and control worker exposures to nanomaterials and other hazardous chemicals.

Control banding focuses on primary prevention for controlling risks associated with occupational exposures. The purpose of this short course is to describe control banding approaches, tools, and models to generate new solutions for controlling exposures in the workplace. Recent application of control banding for nanomaterial and chemical exposures is changing the way that occupational health professionals view control banding, especially its value for risk communication in the workplace. Participants will learn how control banding complements traditional exposure quantitative assessments and is emerging as another effective tool for occupational health professionals.

Course Objectives
After attending this course, participants will be able to:
• List uses and discuss the toxicity of nanomaterials
• Identify the core principles of control banding and compare to traditional exposure assessment techniques
• Discuss the uses and limitations of control banding as an exposure assessment and management tool
• Consider applications of a NIOSH occupational exposure banding tool to assess exposures to nanomaterials

LOCATION
Kitsap Convention Center
at Bremerton Harborside
100 Washington Ave
Bremerton, WA 98337
360-377-3785
www.kitsapconferencecenter.com

ACCOMMODATIONS
Hampton Inn & Suites
150 Washington Ave
Bremerton, WA 98337
360-405-0200
Group Code: NWOHAC

ACCREDITATION
American Board of Industrial Hygiene Certification Maintenance (CM) can be obtained for this activity. Go to www.abih.org for CM credit criteria.

REGISTRATION
Register online at: http://pnsaiha.org.
call 206-525-9908, or email administrator@pnsaiha.org

INFORMATION
206-543-1069 or 800-326-7568
osha.washington.edu
ce@uw.edu
Faculty

Anne Bracker, MPH, CIH, *Occupational Hygienist, Connecticut OSHA*
An occupational hygienist with the Connecticut OSHA private sector consultation program, Ms. Bracker assists managers and workers to identify and control workplace hazards and prevent work-related injuries, illnesses, and fatalities. She has trained multiple joint labor and management teams on how to use control banding tools to identify potential solutions for controlling exposures in the workplace, and has served as a member of the AIHA Exposure and Control Banding Committee since 2005.

Terry Kavanagh, PhD, MS, *Professor, University of Washington Department of Environmental and Occupational Health Sciences (UW DEOHS)*
In addition to serving as Director of the UW Nanotoxicology Center, Adjunct Professor at the UW Pulmonary and Critical Care Medicine, and Deputy Director of the UW Center for Ecogenetics and Environmental Health, Dr. Kavanagh conducts research focused on glutathione metabolism, nanotoxicology, analytical cytology, *in vitro* toxicology, transgenic models, and toxicogenomics.

Thomas J. Lentz, PhD, MPH, *Chief of the Document Development Branch at the National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention (NIOSH/CDC)*
Dr. Lentz conducts research on evaluating occupational and environmental hazards, with projects and interests that include: investigation of small business industries and their hazards, assessment of safety hazards in construction trades, and evaluation of toxicology and epidemiology data on chemical and physical agents to determine health risks and appropriate prevention strategies.

Noah Seixas, PhD, MS, CIH, *Professor, UW DEOHS*
As a certified industrial hygienist, Dr. Seixas focuses his research on the quantification of exposure for occupational epidemiology. Additional interests include characterization of exposures and intervention strategies to control exposures to noise and welding fume, and evaluating the effectiveness of organizational interventions to improve safety and health performance. He serves as Chief Editor of the *Annals of Occupational Hygiene.*

Nancy Simcox, MS, *Director, Continuing Education Programs, UW DEOHS*
A research industrial hygienist with more than 20 years of experience in providing industrial hygiene assessment and interventions in workplaces, Ms. Simcox has experience in delivering high quality professional development courses, training programs, and educational materials to practitioners in the field of occupational and environmental health and safety.

Michael Yost, PhD, MS, *Professor and Chair, UW DEOHS; Director of Sustainable Technologies, UW Alternate Chemistry-Training and Education Center (STAC-TEC)*
With interests in exposure assessment and instrumentation, Dr. Yost focuses his research efforts on ambient air pollution exposure assessment and developing novel real time and optical measurement instruments. Working with the UW Nanotoxicology Center, he assisted in the development of an aerosol delivery system for characterizing nano-particle aerosol exposures.

Supported by
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Agenda

7:30 am  Registration & Continental Breakfast
8:00  Welcome and Introductions
   Nancy Simcox, MS
8:15  2015 Peter A. Breysse Memorial Lectureship presents:
   Engineered Nanomaterial—Department of Energy’s Regulatory Approach
   Bill McArthur, PhD, MSPH, CIH
9:00  Nanotechnology Overview—Uses and Toxicity of Nanomaterials
   Terry Kavanagh, PhD, MS
9:30  Exposure Assessment Methods: Case Study of Inflammatory Response among Workers Producing Calcium Carbonate Nanomaterials
   Michael Yost, PhD, MS
10:15 Break (Visit Exhibitors)
10:30  An Introduction to Control Banding
   Anne Bracker, MPH, CIH
11:15  Occupational Exposure Banding as an Approach for Nanomaterials
   Thomas J. Lentz, PhD, MPH
12:00 pm  Lunch (provided)
1:00  Do Control Bands Really Work: What do the Data Say?
   Noah Seixas, PhD, MS, CIH
1:30  Assigning Occupational Exposure Bands to Nanomaterials for Risk Management and Control
   Thomas J. Lentz, PhD, MPH
3:00 Break (Visit Exhibits)
3:15  Control Banding Resources for Small Employers
   Anne Bracker, MPH, CIH
4:45  Wrap-up & Evaluations
5:00  Adjourn

2015 Peter A. Breysse Memorial Lectureship presents:

Engineered Nanomaterial—Department of Energy’s Regulatory Approach
Bill R. McArthur, PhD, MSPH, CIH

Director, Office of Worker Safety and Health Policy, US Department of Energy

The Office of Worker Safety and Health Policy is responsible for policy in the areas of radiation safety, biosafety, nanotechnology, and integrated safety management. DOE has invested considerable resources building five Nano Centers, and recognizing the need for safe operating procedures to protect employees in these centers, has developed its own safety and health regulations used throughout the DOE complex. This presentation will look at how the DOE assessed the need for and developed Engineered Nanomaterials policy utilizing DOE established policy development process, available best practices, and knowledge from subject matter experts.
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