



Society for Risk Analysis New England Chapter

2015-2016 Event Series

MEETING ANNOUNCEMENT

Wednesday, May 18, 2016

Refreshments: 5:30 pm – 6:00 pm

Presentations: 6:00 pm – 6:45 pm

Questions and Discussion: 6:45 – 7:00 pm

A LONG TIME COMING: OSHA'S NEW SILICA STANDARD

PRESENTATION 1

SUSAN WOSKIE, PHD, CIH

UNIVERSITY OF MASSACHUSETTS LOWELL

PRESENTATION 2

CHET FENTON

EASTERN RESEARCH GROUP

Location

Industrial Economics, Inc

2067 Massachusetts Avenue, Fourth Floor

Cambridge, MA

Please RSVP by Monday, May 16th to Heather Lynch (hlynch@gradientcorp.com).

Space is limited, so reserve your seat today. For more information on SRA-NE, please go to: sra.org/sra-ne



Society for Risk Analysis New England Chapter

PRESENTATION 1

OVERVIEW OF OSHA'S FINAL RULE TO PROTECT WORKERS FROM EXPOSURE TO RESPIRABLE CRYSTALLINE SILICA

In December 1974, OSHA published an Advance Notice of Proposed Rulemaking for crystalline silica; however, it was not until September 2013 that a draft standard was published in the Federal Register. After thousands of comments and numerous public hearings, on March 25, 2016, the final rule for Crystalline Silica in General Industry/Maritime and Construction was promulgated. Standards (one for construction and one for General Industry/Maritime) are set to go into effect on June 23, 2016.

This talk will outline the history of these standards and OSHA's basis for a new standard to protect workers from silicosis, lung cancer and other health effects. I will also describe and compare the components of the two standards. For example, the new standard for general industry/maritime contains typical components including an 8-hour permissible exposure limit (PEL) of $50 \mu\text{g}/\text{m}^3$, as well as requirements for medical surveillance and the use of a hierarchy of preferred exposure controls, while the new construction standard offers a different approach, called a "non-PEL option." The new construction standard instead focuses on the full and proper implementation of designated engineering controls, work practices, and respiratory protection for specific construction tasks.

ABOUT THE PRESENTER

Susan Woskie, PhD, CIH, is a professor in the Department of Work Environment and the MPH program at the University of Massachusetts Lowell. She is director of the Occupational and Environmental Hygiene Program, which is an ABET certified NIOSH Training Grant supported Masters and Doctoral program. Her research has focused on exposure assessment for epidemiologic studies, the use of biomarkers of exposure and disease, statistical modeling of exposure determinants and evaluations of exposure control interventions in a variety of industries and environments. In addition to her academic work, Dr. Woskie has served on a number of government advisory panels including the National Cancer Institute/United States Environmental Protection Agency (EPA) Agricultural Health Study, several National Academy of Sciences/Institute of Medicine Committees, an EPA Scientific Advisory Committee IRIS review, and several National Toxicology Program panels. Dr. Woskie has worked in Thailand since 2006 when she was a Fulbright Senior Scholar at Mahidol University. Since then she has returned to Thailand regularly and, in collaboration Marisol University, opened the Marisol/UMass Lowell Center for Work Environment Nutrition and Development (CWEND). In 2015, CWEND received funding from the NIH Fogarty International Center as one of seven worldwide GEOHealth Hubs (Global Environmental and Occupational Health Hubs). The CWEND GeoHealth Hub is currently focused on improving agricultural health in Southeast Asia, but also does work in the health care and informal work sectors.



Society for Risk Analysis New England Chapter

PRESENTATION 2

ESTIMATING BENEFITS FOR OSHA'S SILICA HEALTH RULE

OSHA recently published its final health rule for silica that mandates a new, lower, PEL of $50 \mu\text{g}/\text{m}^3$ for crystalline silica. This new PEL applies to a number of activities in construction settings as well to a range of processes in the manufacturing sector in which silica-containing dusts are generated. As part of its associated regulatory impact and benefit analyses, OSHA estimated that the new silica rule would ultimately prevent annually about 640 silica-related fatalities and 900 cases of silicosis morbidity. These annual benefits were valued at \$8.7 billion, while the annual costs of the rule were estimated at \$1.0 billion. Although technically OSHA is not required to do a cost-benefit analysis of its health rules, political considerations dictate that OSHA estimate benefits (as well as costs) for proposed rules. Benefits are estimated not only in terms of reductions in occupational-related mortality and morbidity, but also in terms of the monetary value to society of those reductions. OSHA's approach to benefits estimation is tied to the concept of the lifetime risk of excess mortality and morbidity associated with occupational exposures to hazardous substances. This risk is estimated assuming a 45-year working life with a given level of ongoing exposure each year over this period. My comments will focus on how this approach was used to estimate benefits projected from OSHA's new silica rule.

ABOUT THE PRESENTER

Chester Fenton is a senior economist at the Eastern Research Group (ERG), specializing in economic impact analysis of regulatory actions. He has over 30 years of experience in occupational safety and health-related studies. He has managed most of ERG's tasks performed for OSHA's Directorate of Standards and Guidance (DSG) and Office of Regulatory Analysis (OAR), including support for OSHA's silica, beryllium, infectious disease, and combustible dust rulemaking initiatives. He has directed ERG's work in developing detailed cost and economic impact models for these rules, covering industries in the General Industry, Maritime, and Construction sectors. Mr. Fenton also developed the lifetime risk models used to project the benefits resulting from lower levels of beryllium and silica exposures mandated by these standards. He has also supported OSHA by developing statistical job-exposure-matrix estimates for workers exposed to beryllium and diacetyl.

GETTING TO THE EVENT

Directions to Industrial Economics: <http://www.indecon.com/iecweb/FindUsDriving.aspx> and <http://www.indecon.com/iecweb/FindUsDirections.aspx>

From the MBTA Subway (on foot):

Take the Red Line train to Porter Square. Exit the T Station to the right and cross the street. Turn left and proceed northwest along Massachusetts Avenue, keeping the Porter Square Shopping Center to the right. Continue northwest approximately 0.2 miles to the Henderson Carriage Building, which is located at the corner of Massachusetts Avenue and Hadley Street. IEC is on the fourth floor.

By Bus:



Society for Risk Analysis New England Chapter

The 77 and 83 bus routes stop in front of the building. Other bus routes that stop nearby include the 88, 87, and 96.

Driving Directions:

From I-95/Route 128: Take Exit 29 for "Route 2 East - Cambridge." Follow Route 2 East approximately 6.4 miles to the first set of lights, located at the intersection of Route 2 and Routes 3 and 16. Bear left at the intersection onto Route 3 North/Route 16 East, following the signs for Arlington and Medford. Proceed approximately 0.3 miles to the next set of lights. Turn right onto Massachusetts Avenue/Route 2A and proceed southeast approximately 0.9 miles, to the intersection of Rindge Ave. and Massachusetts Ave. Continue on Massachusetts Ave. through the Rindge Ave. intersection, then take the first left onto Russell Street. The entrance to the Henderson Carriage Building parking lot is between the second and third private residences on the right, approximately 50 yards down Russell Street.

From Harvard Square: Follow Massachusetts Ave. north approximately 1.1 miles to the Porter Square T Station. Continue on Massachusetts Ave. another 0.2 miles to the Henderson Carriage Building, which is located at the corner of Massachusetts Avenue and Hadley Street. Turn right onto Hadley. The entrance to the Henderson Carriage Building parking lot is on the left, immediately behind the building.

Parking is available along Massachusetts Avenue (meter parking). There may also be spaces available in the lot behind the Henderson Carriage Building.