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## **(274g) Exposure to Nanomaterials: Lessons Learned From the Workplace**



- Conference: AIChE Annual Meeting
- Year: 2010
- Proceeding: [2010 AIChE Annual Meeting](#)
- Group: [Environmental Division](#)
- Session:

[Environmental Health and Safety \(EHS\) Concerns of Nanomaterials](#)

- Time:

Tuesday, November 9, 2010 - 2:18pm-2:36pm

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This presentation will discuss lessons learned regarding potential occupational exposure to nanomaterials from a series of site visits to industrial facilities. The National Institute for Occupational Safety and Health (NIOSH) created a nanotechnology field research team in 2006 to gain a better understanding of the risk management challenges associated with the research, manufacture and use of engineered nanomaterials. This team was also charged with using a variety of approaches to assess potential workplace emissions and exposures to engineered nanomaterials. A variety of workplaces were evaluated using an array of techniques including: portable, direct-reading instruments, such as condensation particle counters and optical particle size analyzers; filter-based sampling for elemental analysis; and filter-based air sampling for characterization of airborne particulate by Transmission Electron Microscopy. As of May, 2010, this approach has been in 26 investigations conducted at 19 separate facilities to assess workplace emissions of engineered nanomaterials, and potential worker exposures. Lessons learned from these investigations have been used as a primary resource or preparing the NIOSH guidance document, "Approaches to Safe Nanotechnology: Managing the Safety and Health Concerns Associated with Engineered Nanomaterials". This presentation will focus on key findings

from the NIOSH Nanotechnology Research Program and how they relate to findings from workplace investigations.