

Submitted by Maryellen Doherty and Eric Jensen:

Combustible Dust Presentation Explodes!

On June 3, 2009, NEACHMM joined the American Society of Safety Engineers (ASSE) Boston Chapter to listen to Dr. Erdem Ural talk about "An Introduction to Combustible Dust Hazards and OSHA NEP at the Best Western in Waltham. Combustible dust hazards (fires and explosions) can lead to injuries, fatalities, property damage and business interruptions in facilities handling powders and bulk solids. Recently, OSHA initiated the Combustible Dust National Emphasis Program (NEP) to systematically inspect these facilities. Dr. Ural's presentation provided an overview of combustible dust hazards, OSHA NEP, and modern methods used for hazard identification and hazard mitigation. Actual photos of pre-planned dust explosion tests showed insight to the mechanics of destruction and the elements of explosion measurements. A review of pertinent terms and applicable regulations was discussed along with some of the discrepancies associated with the regulations. Test methods were discussed and photos of testing apparatus were viewed.

The key interest in this topic was the infancy of regulations regarding combustible dust. A recent article (May 2009) issued by OSHA, stated the following: OSHA is moving to address combustible dust. The agency has announced that it is issuing an Advanced Notice of Proposed Rulemaking and is planning to conduct stakeholder meetings. Through this process, OSHA will evaluate possible regulatory methods and request data and comments on issues related to combustible dust. Since 1980, more than 130 workers have been killed and more than 780 injured in combustible dust explosions. In 2006, the U.S. Chemical Safety Board (CSB) recommended that OSHA issue a combustible dust standard. OSHA received additional support for a combustible dust standard from the CSB during a congressional hearing in 2008 when the board said a new standard, combined with enforcement and education, could save workers' lives. "Over the years, combustible dust explosions have caused many deaths and devastating injuries that could have been prevented," said Secretary of Labor Hilda L. Solis. "OSHA is reinvigorating the regulatory process to ensure workers receive the protection they need while also ensuring that employers have the tools needed to make their workplaces safer."

NEACHMM was truly privileged to have a speaker such as Dr Ural to speak on this timely topic. His vast knowledge provided a fascinating and relevant discussion on the many aspects of Combustible Dust. Dr. Ural's background, as presented in the following, provides some further insight into the extent of his discussion. Dr. Erdem A. Ural is a well known combustible dust expert with over 25 years of experience. He has worked on research, litigation, insurance, protection, testing and regulation aspects of combustible dust problems. Dr. Ural is twice the recipient of the Bill Doyle Award for the best paper presentation at the Loss Prevention Symposium. Erdem published numerous papers in his field

and has been active on a number of national and international committees. He is the chairperson of ASTM subcommittee for Flammability and Ignitability of Chemicals, vice-chair of ASTM committee for Hazard Potential of Chemicals, and is an active member of the NFPA 68 - NFPA 69 committee for Explosion Protection Systems, and NFPA 654 - NFPA 664 committee for Handling and Conveying of Dusts, Vapors, and Gases. He serves on the Editorial Board of Process Safety Progress, and the Editorial Board of the Journal of Loss Prevention in the Process Industries. He is an author of the Explosion Prevention and Protection chapter of the NFPA Handbook of Fire Protection.

The meeting attendees were captivated by Dr. Ural's knowledge on the topic, his stimulating audiovisual presentation, and his witty commentary. We are very grateful to have had such an expert present for our June meeting.