

Lecture Hall

Session Abstracts

National Environmental Health Association (NEHA)
72nd Annual Educational Conference & Exhibition

Hazardous Materials and Toxic Substances

Wednesday, June 25

8:00 – 8:50am

Best Practices for Commercial Products Containing Lead

Lead Exposure at Do-It-Yourself Ceramics Studios

Richard Rabin, Lead Registry Coordinator, Massachusetts Department of Labor, MA

In recent years do-it-yourself ceramics studios have become quite popular. Customers, who are often young children, decorate pre-fired ceramic pieces with a non-lead paint or under glaze. Studio personnel then cover the pieces with an overglaze, which may contain lead, and then fire them again. Health department investigations and at least one research study have found significant concentrations of lead dust in both customer and staff work areas. As a consequence, both studio employees and young children have been lead-poisoned.

The Massachusetts Department of Labor contacted all identified do-it-yourself ceramics studios in the state (approximately 40) by mail. The mailing warned studio owners of the hazards of leaded glaze to both children and workers, provided guidelines for the safe clean-up of lead dust, suggested the replacement of leaded glazes, and offered a free health and safety consultation.

Two ceramics studios took advantage of the department's consultation service. The consultation service found elevated surface dust lead levels in both customer and staff work areas. Both studios that received consultations performed a lead dust clean-up and

Get the Lead Out! Paint Retailers Survey

Bethany Gordon, MSN, RN, Assistant Professor, Calvin College, MI

Michelle R. Datema, MS, RN, Affiliate Faculty, Grand Valley State University, MI

The purpose of the *Get the Lead Out! Paint Retailers Survey* presentation is to emphasize the importance of educating paint retailers on lead safe work practices to reduce lead exposure. The primary cause of lead poisoning in the United States is known to be deteriorating lead-based paint and lead dust found in pre-1978 housing and industrialized areas. Simple yet specific lead safe work practices (LSWP) need to be employed by homeowners, landlords and others to ensure that lead dust levels in the household environment do not become unsafe.

A collaborative multi-phase research project was conducted to determine if best practices related to lead safe products, supplies, employee training and customer education are employed. Forty paint retailers from big box, department stores and small local hardware stores participated in the study. Nursing students from Calvin College and Grand Valley

State University collected assessment data, provided an overview of survey results and presented written materials for use by employees and customers. Later other students returned to store managers to share additional references. Replication of the survey is in process to determine paint retailer knowledge and customer access to supplies and information.

Data was analyzed at the aggregate level. Only 40% of retailers provided any type of training for staff on LSWP. While the majority of the retail stores stocked lead protective products, 53% of retailers surveyed had no product information available. Over one-half of the surveyed paint retailers reported they never asked basic questions of customers to assess knowledge and risk. Only 2 of 32 paint retailers had 8 or 9 “best practices” responses and 13 retailers gave no “best practices” responses. The final phase of the project is in process and will be completed by June 2008.

Findings support the need for increased paint retailer education on lead safe work practice. Paint retailers are open to discussion of LSWP with health care providers. *The Get the Lead Out! Paint Retailers Survey* presentation provides valuable information that can be used to develop educational programs for paint retailers. Building a sustainable community-campus partnership can assist in primary prevention efforts to reduce lead exposure.

9:30 – 10:20am

The Right Thing to Do: Detoxification of the PCB Landfill in Warren County, NC

Michael A. Kelly, REHS/RS, CHMM, REM, Deputy Director for the Division of Environmental Health, North Carolina Dept. of Environment and Natural Resources, NC

In 1978 and 1979, PCB laced oil was illegally disposed and dumped along more than 210 miles of roadsides in North Carolina. After evaluating options in 1982, the soils were removed and placed in a TSCA landfill in Warren County, NC. The siting of the landfill was vehemently opposed by the local citizens and gained national attention. More than 500 people were arrested for protesting and lying in the road in front of dump trucks. This protest has been credited for being the birthplace of today’s Environmental Justice movement.

Then Governor Jim Hunt promised the citizens of Warren County in 1982 that if detoxification technology ever became a feasible option, the state would work to treat the contaminated soil. Upon returning to office as Governor in 1993, Governor Hunt was reminded of his promise and the state began pursuing options to fulfill that promise.

A technology called Base Catalyzed Decomposition (BCD), which uses low temperature thermal desorption, was chosen as the appropriate technology. During the process, PCBs are separated from the soil and collected. Treated soils were returned to the landfill and the oils eventually shipped to a TSCA incinerator for disposal. More than 82,000 tons of soil was treated from August 2002 until October 2003. The cleanup goal for the soil was 200 parts per billion (ppb), well below the EPA high occupancy level of 1 part per million (ppm). Each batch was tested for compliance with the cleanup goal before removal from the pad. Routine perimeter air monitoring was performed to measure ambient air concentrations.

The entire process was a joint effort with a local Citizens Advisory Board, Technical Advisor and oversight contractor. The total cost was \$17.1 million. On June 12, 2004, a “closure” celebration was held on the site.

11:00 – 11:50am

The Utility of Cholinesterase Testing for Biological Monitoring of Exposure to Pesticides and Nerve Agents

Paul L. Knechtges, REHS, Visiting Assistant Professor, East Carolina University, NC

Cholinesterase testing is used to biologically monitor the exposure of workers to organophosphate and carbamate pesticides. It is also used to confirm exposures to certain chemical warfare agents such as sarin. Several methods are used for cholinesterase testing, and some methods have been adapted for kits that permit cholinesterase testing in the field. Despite the widespread use of cholinesterase testing, there are many circumstances where cholinesterase testing has limited value. Furthermore, the interpretation of cholinesterase test results is inherently complicated for several reasons. This presentation reviews the utility of and various methods for cholinesterase testing. The benefits and limitations of cholinesterase testing are also critically examined.

1:30 – 2:20pm

How Can Your Community Fight Back Against Methamphetamine Contamination?

Christine A. Rogers, Methamphetamine Response Team Coordinator, Kalamazoo County Health and Community Services Dept., MI

The Meth Program in Kalamazoo County, that enforces cleanup with new their new Regulations pertaining to meth contaminated properties, has tackled close to 200 meth busts and has been very successful in just one year (of a 2 year pilot program). This presentation will:

- Discuss the major impact of meth busts in the County and what Methamphetamine is (Numbers, Maps, Statistics).
- Discuss KCHCS new Regulations Pertaining to the Cleanup of Methamphetamine Laboratories -Discuss Who enforces these Regulations. And How?
- Discuss the Timeline, How can we go back and enforce our Regulations.
- Discuss Why Kalamazoo County needed regulations.
- Discuss Why Methamphetamine Contamination is "bad".
- Discuss Who are most at risk. (Children, Home-owners, landlords, renters, business owners, hotels/motels, mobile home park owners, apartment owners) -Discuss Who cleans up the properties. (The current Property Owner does!) What is all involved with the cleanup process?
- Discuss Who/where are the primary targets. (Mobile homes, trailers, hotels/motels, apartments, garages/sheds) -Discuss How the community can help and combat this epidemic. (Meth Task Forces, Board of Commissioners, Sponsors, Supporters) -Discuss How to Get other communities involved and educated; get more Regulations implemented across Southwest Michigan, across the state!
- And also Discuss How the DEC protocol is implemented in Kalamazoo County.

3:00 – 3:50pm

The Regulation and Control of Toxic Products Imported into the U.S.

Doug Farquhar, JD, Program Director for Environmental Health, National Conference of State Legislatures, CO

The regulatory oversight of environmental hazards in materials used in manufacturing of consumer goods is unable to address goods imported from foreign manufacturers. Even U.S. industries, such as Mattel, producing goods for U.S. stores, such as WalMart, are unable to prevent illegal and unhealthy hazards from being introduced into the consumer product stream.

This session will look at the regulatory structure of the trade in goods from developing nations, efforts by policy makers to curb the introduction of these goods, efforts by the federal government to stop these goods at the border, and efforts from industry to improve the manufacturing process to end the introduction of these harmful goods into the U.S. market.

4:00 – 4:50pm

From Chernobyl to Tacoma—Developing Effective Risk Reduction Strategies for the Slavic Community

Judy Olsen, Environmental Health Specialist I, Tacoma-Pierce County Health Dept., WA

For nearly 100 years the Asarco smelter in Ruston, Washington spewed arsenic and lead from its 565 foot tall stack into the Puget Sound winds. Unhealthy levels of arsenic and lead have been found in an area over 1000 square miles, covering parts of four counties in Washington State.

In Pierce County, the Tacoma-Pierce County Health Department and the Washington State Department of Ecology created the “Dirt Alert” program, which uses a variety of innovative outreach and education strategies to educate community members about risks from arsenic and lead contaminated soil.

From 2003 to 2007 the Dirt Alert program worked to teach families how to reduce their risks. Initial materials and media were developed only in English. However, early focus groups were conducted with the Russian-speaking community. These groups revealed an obvious need to develop community specific outreach.

In 2007 work began to learn more about the Russian-speaking or Slavic community so that culturally appropriate Dirt Alert materials could be created. We conducted research using a variety of methods, including key informant interviews, surveys and focus groups, to learn what messages and risk reduction strategies would be most appropriate. In order to gain the trust of this community our initial information gathering and survey work took longer than expected and methods were adjusted as we went.

The data will be analyzed and Russian language materials and a specific outreach plan for the Slavic community will be developed in early 2008. We will share developed materials at the conference, and discuss strategies that can be used to help ensure the success of materials developed for non-English speaking populations. We will also present survey results regarding changes in awareness and behavior.