

**TUESDAY, May 25**

**Environmental Health Officer Category Day Agenda**

*Room: TBD*

---

7:45 am - 8:00 am

**Welcome and Introductory Remarks**

LCDR Carrie Oyster, MPH, REHS, USPHS and  
LCDR Jill Shugart, MSPH, REHS, USPHS, Category Day  
Planning Representatives

8:00 am - 8:30 am

**Environmental Health Officer (EHO) Chief Professional  
Officer Update**

CAPT Michael Welch, MSEH, REHS, USPHS

The session will examine the trends, challenges, and issues facing  
U.S. Public Health Service (USPHS) EHOs.

At the end of the session, participants will be able to:

1. List the key goals of the USPHS Chief EHO.
2. Explain the significant impact USPHS EHOs have had in promoting, protecting, and advancing the health and safety of our nation.
3. Identify 3 challenges facing USPHS EHOs in the coming years.

/8:30 am - 9:00 am

**Salmonella south of the border**

CAPT Thomas Hill, MPH, CP-FS, RA, DAAS, USPHS

This session will examine how between June and August of 2009, multiple samples of green onions imported from Mexico to the United States tested positive for salmonella. These samples were collected as part of the U.S. Department of Agriculture's Microbiological Data Program (MDP) and by the U.S. Food and Drug Administration (FDA) as part of the imported produce sampling assignment. An FDA investigation team was sent to inspect two farms that had positive samples. The team's investigation included sampling of the surrounding environment which resulted in numerous environmental water samples, including irrigation canals that tested positive for salmonella and matched the green onion samples collected earlier in the US during the June-August 2009 time frame. The canal serving the two ranches was cleaned during this same time period and the sediments from the canal may have contained salmonella that was stirred-up and then entered into the green onion fields being irrigated resulting in contaminated green onions.

At the end of the session, participants will be able to:

1. Explain the adaptability of salmonella in the environment.
2. Describe possible modes of salmonella transmission resulting in contamination of green onions.
3. Explain the implications of "clean" canal water for the safety of fresh produce.

9:00 am - 9:30 am

**Successful strategies to reduce nitrous oxide exposures in the dental environment**

CDR Danny Walters, MPH, RS, USPHS

This session will discuss a comprehensive industrial hygiene evaluation of nitrous oxide within dental operation rooms that was conducted at twelve sites (2 hospitals and 10 clinics) within the Oklahoma City Area Indian Health Service. The evaluation was conducted to determine what control measures were in place, if control measures were capable of maintaining nitrous oxide to safe levels, evaluating employee work practices and to determine employee exposure during procedures where nitrous oxide is utilized. The concentration of nitrous oxide in the dentists' and/or dental assistants' breathing zones were measured during one procedure at each site to determine the short-term exposure limit.

At the end of the session, participants will be able to:

1. List the factors that lead to overexposure of nitrous oxide.
2. Recognize key areas within the scavenging system where exposures are most likely to occur.
3. Describe the vital role that proper exhaust ventilation, scavenging systems, and best work practices play in minimizing exposure levels to dental employees.
4. Identify how training dental staff can lead to significantly decreased levels of nitrous oxide while conducting dental procedures.

9:30 am - 10:00 am

**Environmental public health leadership development efforts at the Centers for Disease Control and Prevention**

CAPT John Sarisky, RS, MPH, DAAS, USPHS

The session will provide an overview of the Environmental Public Health Leadership Institute (EPHLI), which was established in 2004 by the Centers for Disease Control and Prevention (CDC), National Center for Environmental Health (NCEH). The purpose of the Institute is to improve the leadership capacity of the environmental public health workforce. The EPHLI is a one-year competency-based program that focuses on personal assessment and growth. Participants use the core functions of public health

and the essential services of environmental public health to conduct a self-assessment of their organization. Systems thinking methods are used to evaluate the findings of the self-assessment and to develop a department/agency performance improvement plan. Each participant also applies systems thinking methods in the evaluation of an environmental public health issue. These activities strengthen critical thinking and problem solving skills and increase understanding of organizational and political structures that impact decision-making and influence change. Participants become more effective collaborators and are able to build important partnerships. The institute hopes to strengthen the national environmental public health services system by improving the leadership capacity of the professionals that work in environmental public health.

At the end of the session, participants will be able to:

1. Describe why the development of leadership skills is necessary to advance the practice of environmental public health.
2. List the primary components of an environmental public health leadership development program.
3. Explain how systems thinking methods may be used by environmental public health professionals.

10:00 am - 10:15 am **BREAK**

10:15 am - 10:45 am **Indian Health Service injury prevention program successes using evidence-based strategies**  
CDR Donald B. Williams Jr, REHS, MPH, USPHS

The presenter will describe the IHS Injury Prevention Program, which is the most comprehensive community injury prevention program of its kind. The program is based on the premise that injuries are not accidents but are events that are predictable and preventable. Interventions utilized are based upon proven effective strategies or best practices. The presentation will highlight success stories in injury prevention and explore ways that lessons learned can be utilized by everyone.

At the end of the session, participants will be able to:

1. Identify injury problems in their community and have concrete ideas as to how they can be remediated.
2. List several interventions that have been successful and how they could be utilized at home or in the workplace.
3. Describe several facets of a comprehensive injury prevention program.

10:45 am - 11:15 am **Diacetyl and food flavorings: A primer**  
CDR Lauralynn Taylor McKernan, USPHS

This session will examine diacetyl, a common ingredient in butter and other flavorings, which continues to receive significant attention in the EHO profession. Diacetyl occurs naturally in butter, yogurt, beer, wine, coffee, and other foods and is added to foods, such as popcorn, butter substitutes, vanilla, and snack foods to enhance taste and texture. Occupational exposures to diacetyl in the flavoring and food production industry have been associated with lung disease including bronchiolitis obliterans (BO), a rare lung disease. Employees within the flavoring and food production industry have complex exposures in terms of the physical form and the number of different chemicals used. Although there are thousands of flavoring compounds in use, only a small number have occupational exposure limits and there are scarce data documenting occupational exposures in these industries. This presentation will review current topics in occupational exposures to diacetyl, including the National Institute for Occupational Safety and Health (NIOSH) criteria document effort.

At the end of the session, participants will be able to:

1. List typical flavoring and food production processes and recognize potential sources of exposure to diacetyl and other flavoring substances.
2. Identify potential adverse health effects related to diacetyl and other flavoring substances.
3. Describe the NIOSH diacetyl criteria document effort
4. Review the range of sampling and analytical methods for measurement of diacetyl and flavoring chemicals in the workplace.

11:15 am - 11:45 am **Water and food - Solomon Islands - Pacific Partnership 2009**  
CDR W Lynn Hodges, MES, REHS/RS, USPHS

This session will provide an overview of environmental health activities in Solomon Islands, Pacific Partnership 2009

At the end of the session, participants will be able to:

1. Describe public water supplies/conditions in Solomon Islands
2. Identify food safety and food supplies in Solomon Islands
3. Describe next steps in providing safe water and food in the Solomon Islands

11:45 am - 12:30 pm **BREAK**

12:30 pm - 2:00 pm **LUNCHEON and Panel Speakers**  
**EHO Leadership Panel, Our First Flag Officers: RADM John Todd, USPHS; RADM Robert Marsland, USPHS; & RADM Webb Young, USPHS**

2:00 pm - 2:30 pm **Planes, trains, and what? An introduction to the FDA's interstate travel program**  
CDR Diane L. Kelsch, REHS, MS, USPHS

This session will discuss the Food and Drug Administration's Interstate Travel Program, which is responsible for inspecting and investigating passenger conveyances (aircraft, trains, busses, and U.S. flagged vessels), certifying and approving sanitary systems on conveyances, approving watering points, support facilities, and food sources, and identifying risk factors related to environmental conditions or management practices that may lead to foodborne illnesses, waterborne illnesses, and the transmission of communicable diseases.

At the end of the session, participants will be able to:

1. Provide an overview of the FDA's Interstate Travel Program.
2. Describe the FDA's jurisdiction related to passenger conveyances.
3. Identify the different types of inspections that fall under the FDA's Interstate Travel Program.

2:30 pm - 3:00 pm **Silica exposures to roofing workers during concrete tile roofing operations**  
CDR Ronald M. Hall, MS, CIH, USPHS

This session will discuss the National Institute for Occupational Safety and Health's (NIOSH) evaluation of worker exposures to dust and noise during saw cutting operations of cement roof tile in Phoenix. Results of respirable dust personal breathing zone (PBZ) air samples during roofing operations indicated that workers were over exposed to respirable silica. Respirable silica PBZ samples indicated concentrations exceeding the general industry and construction industry Occupational Safety and Health Administration (OSHA) permissible exposure limits (PEL), NIOSH recommended exposure limits (REL), and the American Conference of Governmental Industrial Hygienists'(ACGIH(r)) Threshold Limit Values (TLVs(r)). In addition, engineering control evaluations were conducted. The engineering control evaluations documented and evaluated the effectiveness of the controls in reducing respirable dust and silica exposures during

concrete roofing tile cutting task. NIOSH researchers conducted demonstration and evaluation surveys at roofing tile training facilities and at a number of homes where concrete roofing tiles were installed.

At the end of the session, participants will be able to:

1. Identify hazards in cement tile roofing operations.
2. Describe potential controls for concrete tile cutting operations.
3. Identify which workers are exposed during concrete tile roofing operations.

3:00 pm - 3:15 pm **BREAK**

3:15 pm - 3:45 pm **Fluoridation of a rural Alaskan community**  
LTJG Racheal Lee, REHS, USPHS

This presentation will take the audience through the entire collaboration process associated with a community located in rural Alaska beginning to fluoridate their community water system. The presentation will elaborate on how the process involved collaboration with various organizations and programs.

At the end of the session, participants will be able to:

1. Identify a few of the environmental health concerns specific to rural Alaskan villages.
2. Explain the necessity of environmental health interventions that are culturally appropriate.
3. Describe the methodology for developing a collaborative partnership to address an environmental health issue if given a specific scenario.

3:45 pm - 4:15 pm **Risk profile on norovirus: Developing an understanding of the transmission pathway as a means of potential control options**  
CAPT Wendy Fanaselle, M.S., R.S. D.A.A.S, USPHS

This session will examine an approach to addressing Norovirus (NoV) that is now recognized as the leading cause of food borne illness in the United States and in the western world. Current estimates attribute more than 50 percent of all food borne outbreaks of gastroenteritis in the U.S. to NoV. Norovirus usually results in a mild illness, but can be severely debilitating in immunocompromised individuals and has been estimated to cause as many fatalities internationally as Salmonella food borne illness. Norovirus can be transmitted by air, oral-fecal, person-to-person, and can also be transmitted by consumption of contaminated seafood. However, most NoV food borne outbreaks result from an

infected food handler that is handling ready-to-eat foods, directly before consumption. These issues, together with the ease in transmission from infected food workers to ready-to-eat foods, and the difficulty in controlling this virus through normal cleaning procedures increase the importance of achieving a better understanding of effective controls for preventing the transmission of NoV. The U.S. Food and Drug Administration (FDA), Center for Food Safety and Applied Nutrition,(CFSAN) initiated a risk profile assessment as an initial step in managing risks associated with potential NoV food borne illness. The risk profile summarizes the background information, the risks associated with transmission of the virus by food workers, and available risk management options in controlling NoV food borne illness. This presentation will focus on the methods of NoV transmission and how this information can be utilized in developing effective control mechanisms for NoV foodborne illness.

At the end of the session, participants will be able to:

1. Describe the routes of transmission of human NoV.
2. List the main routes of human NoV transmission.
3. List the major interventions used to control NoV.

4:15 pm - 4:45 pm

**In the wake of the Samoan tsunami**

LT Elena B. Vaouli, MPH, USPHS

The session will examine the aftermath of the Samoan tsunami. On September 29, 2009, the US Territory of American Samoa was struck by an 8.0 magnitude earthquake followed by tsunami waves that devastated the main island of Tutuila. The presenter will convey experiences of a US Public Health Service Environmental Health Officer stationed in American Samoa who was present during the tragedy. The presenter will describe the destruction, immediate and long-term environmental health impacts, and challenges of recovering and rebuilding in an isolated small island nation.

At the end of the session, participants will be able to:

1. Describe immediate and long-term environmental health impacts following earthquake and tsunami disaster.
2. Identify challenges of disaster recovery in a remote hardship duty location.
3. List expected and unexpected roles of an environmental health officer during disaster recovery.

4:45 pm - 5:15 pm

**Closing Remarks**

LCDR Carrie Oyster, USPHS and LCDR Jill Shugart, USPHS