

TRAINING TODAY FOR A SAFER TOMORROW



NIEHS Worker Education and Training Program
Awardee Meeting and
NATIONAL TRAINERS' EXCHANGE

March 27-29, 2012
Ft. Lauderdale, FL



NIH...Turning Discovery Into Health

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Track Descriptions

- **(ATT) Advanced Training Technologies** (for example: incorporating advanced technologies in training, including internet searches, computer/video simulations, development and appropriate use of power point)
- **(HW/ER) Hazardous Waste Worker Training and Disaster/Emergency Response and Preparedness** (for example: participatory methods that can be used in teaching courses on hazardous waste or disaster/emergency response and preparedness, activities addressing recent disasters and response, incorporating lessons learned from recent emergencies in preparedness)
- **(ID) Instructor Development** (for example: curriculum development, evaluation, creating lesson plans, doing needs assessments, strategies for dealing with classroom situations, technical updates)
- **(LS) Life Skills and Job Training** (for example: using graduates to promote a training program, cultural competency, incorporating life skills in training courses)
- **(WE) Training Approaches for Worker Empowerment** (for example: using methods of Popular Education, Root Cause analysis to engage participants, addressing the needs of special populations, educating for action)

MARCH 28, 2012—Trainers' Exchange Day I

7:00 a.m. – 8:00 a.m.	Continental Breakfast and Registration	Crystal Ballroom Foyer
8:00 a.m. – 8:45 a.m.	Welcome	Crystal Ballroom II & III
	<i>Kelley Davis, Nova Southeastern University</i> <i>Joseph "Chip" Hughes, NIEHS WETP</i>	
	Icebreaker <i>Ted Outwater, NIEHS WETP</i>	
8:45 a.m. – 9:45 a.m.	Plenary 1 <i>Timothy Koegel, Author of The Exceptional Presenter</i>	
9:45 a.m. – 10:45 a.m.	Small Group Activity <i>Practice presentation and feedback</i>	
10:45 a.m. – 11:00 a.m.	Break	Crystal Ballroom Foyer
11:00 a.m. – 12:30 p.m.	Workshops - Block 1	
	1. ATT: Smartboard Technology Innovations for Industrial Safety Training	Panorama B
	<i>University of Illinois / Midwest Consortium</i>	
	2. HW/ER: A Unique Leadership Course for Hazardous Materials Workers	Crystal Ballroom I
	<i>Texas-Utah Consortium for Hazardous Waste Worker Training</i>	
	3. ID: Developing and Implementing Preparedness and Response Core Competencies	Chairman's Boardroom
	<i>NJ/NY Hazardous Materials Worker Training Center – UMDNJ School of Public Health</i>	
	4. LS: Group Counseling for Job Training Success	Chart Room
	<i>Citizen for Environmental Justice / Harambee House</i>	
	5. WE: Putting Feet on Evaluation (and Following the Footprints)	Commodore Room
	<i>United Steelworkers Tony Mazzocchi Center</i>	
	6. HW/ER: Sense of Smell	Panorama C/D
	<i>International Union of Operating Engineers (IUOE) National HAZMAT Program</i>	
	7. HW/ER & ID: NIEHS Disaster Response Training Tools: What They Are and How to Use Them	Crystal Ballroom IV
	<i>NIEHS National Clearinghouse</i>	
	8. ID: Creating Triggers for Training from Existing Video	Panorama A
	<i>Service Employees International Union (SEIU) Education & Support Fund</i>	
12:45 p.m. – 1:45 p.m.	Lunch	Garden Terrace
2:00 p.m. – 3:30 p.m.	Workshops - Block 2	
	9. ATT: Start Making Virtual Simulations for Situational Training--It's Easier Than You Think	Panorama C/D
	<i>Equipment Simulations, LLC</i>	
	10. HW/ER: Engaging Healthcare Hazardous Materials Emergency Response Trainees	Crystal Ballroom I
	<i>EnMagine, Inc.</i>	
	11. ID: Hazardous Materials Training: The Benefits of Utilizing Multiple Modalities and Techniques for Maximizing the Benefits of Training Multiple Professions Simultaneously	Crystal Ballroom IV
	<i>Nova Southeastern University, College of Osteopathic Medicine, Project SEAMIST</i>	
	12. LS: Developing Effective Multimedia Strategies for Outreach and Recruitment	Chairman's Boardroom
	<i>Dillard University Deep South Center for Environmental Justice (DSCEJ)</i>	
	13. WE: When Hands-on Equipment Malfunctions: Being Prepared to Make Lemonade from Lemons	Chart Room
	<i>1199 SEIU / Service Employees International Union Education & Support Fund</i>	
	14. HW/ER: California ATD Standard: Teaching How to Use a New Standard	Commodore Room
	<i>United Healthcare Workers / Service Employees International Union (SEIU) Education & Support Fund</i>	

15. **WE: Innovative Approaches to Teaching Green Chemistry to Workers** Panorama A
Western Region Universities Consortium (UCLA Labor Occupational Safety and Health / UCB Labor Occupational Health Program)
16. **HW/ER & ID: Teaching Fall Protection** Panorama B
Iron Workers / CPWR - The Center for Construction Research and Training

3:30 p.m. – 3:45 p.m. **Break**(Throughout)

3:45 p.m. -5:15 p.m. **Workshops - Block 3**

17. **ATT: A Matter of Time to Save a Life**..... Commodore Room
International Association of Machinists (IAM) and International Chemical Workers Union Council (ICWUC) Center for Worker Health and Safety Education
18. **HW/ER: Teaching Chemical Hazards in the 40-Hour HAZWOPER Class** Panorama A
CPWR - The Center for Construction Research and Training
19. **ID: The Good, The Bad and The Ugly** Chart Room
International Chemical Workers Union Council (ICWUC) Center for Worker Health and Safety Education
20. **LS: Sleep, Sleep Deprivation and Worker Fatigue** Panorama C/D
Rail Workers Hazardous Materials Training Program
21. **WE: Engaging Young Workers in Health and Safety Training** Crystal Ballroom I
United Steelworkers Tony Mazzocchi Center
22. **HW/ER: Mass Casualty Incident Triage Exercise**Crystal Ballroom IV
Alabama Fire College
23. **ID: Providing the Power to Excel Through Education; Standards Based Curriculum Competencies and Instructor Development** Panorama B
LIUNA Training & Education Fund
24. **HW/ER & ATT: Designing and Delivering Information and Training through Mobile Technologies...** Chairman’s Boardroom
MetaMedia Training International, Inc.

5:15 p.m. **Adjourn**

6:00 p.m. – 7:30 p.m. **Reception** Pier Top – 17th Floor

MARCH 29, 2012—Trainers' Exchange Day 2

7:00 a.m. – 8:00 a.m. **Continental Breakfast** Lower Level – Windows on the Green

8:00 a.m. - 9:30 a.m. **Workshops – Block 4**

- 25. **ATT: Making Every Penny Count: Saving Dollars Using Advanced Training Technology**Crystal Ballroom IV
Dillard University Deep South Center for Environmental Justice (DSCEJ)
- 26. **HW/ER: Disaster Response Training: Building Trades SSP Training & FEMA CERT Collaboration, and USW National SERT Program** Panorama A
CPWR- The Center for Construction Research and Training & United Steelworkers Tony Mazzocchi Center
- 27. **ID: OSHA 10 Hour Construction Update, Focus Four and Heat Stress**.....Panorama C/D
Partnership for Environmental Technology Education (PETE)
- 28. **LS: Meeting the Need for Higher Level Mathematics in an Increasingly Technical Workforce**..... Commodore Room
NYC District Council of Carpenters
- 29. **WE: Digging Deeper to Get at the Root**..... Panorama B
United Automobile Workers (UAW)
- 30. **HW/ER: Smart Phone: A Smarter Faster Injury and Illness Prevention Tool**Chairman's Boardroom
UC Davis Extension / Western Region Universities Consortium (WRUC)
- 31. **HW/ER: Green Jobs Hazard Identification**Crystal Ballroom I
International Union of Operating Engineers (IUOE) National HAZMAT Program
- 32. **WE: Surgical Masks Are Not Respirators: Training To Abolish a Workplace Myth** Chart Room
Service Employees International Union (SEIU) Education & Support Fund

9:30 a.m. – 9:45 a.m. **Break**(Throughout)

9:45 a.m. – 11:15 a.m. **Workshops - Block 5**

- 33. **ATT: Technological Advancements for Confined Space Training: Gas Monitor Simulator** Panorama B
West Virginia University, Institute for Labor Studies and Research
- 34. **HW/ER: CPWR's New 4-Hour Hazard Communication Course**Panorama C/D
CPWR - The Center for Construction Research and Training
- 35. **ID: Instructor Development**.....Crystal Ballroom IV
International Union of Operating Engineers (IUOE) National HAZMAT Program
- 36. **LS & WE: Environmental Justice Where We Live, Work and Play: From Toxic Tours to Tree People** Chairman's Boardroom
UCLA - Labor Occupational Safety and Health / Western Region Universities Consortium (WRUC)
- 37. **WE: Don't Blame Workers-- Fix the Hazards!: Problems with Behavior-Based Safety/Blame-the-Worker Approaches to Health and Safety, and Tools for Focusing on Finding and Fixing Hazards**Crystal Ballroom I
United Steelworkers Tony Mazzochi Center
- 38. **HW/ER: The New Face of Waste: Training on the Hazards of Universal Waste** Commodore Room
Dillard University Deep South Center for Environmental Justice (DSCEJ)
- 39. **HW/ER: Hospital Decon Training Using the Small Group Activity Method (SGAM)** Chart Room
1199 SEIU / Service Employees International Union (SEIU) Education & Support Fund
- 40. **HW/ER: Improvising HAZWOPER Hands-On Scenarios** Panorama A
OAI, Inc.

11:30 a.m. – 12:30 p.m. **Plenary 2**

Training Directors Roundtable and Discussion Crystal Ballroom II & III
Moderator: *Linda Delp, Director, UCLA-Labor Occupational Safety and Health Program*
Don Ellenberger, Training Director, CPWR – The Center for Construction Research and Training
James Ridley, Director, HazMat/WMD, International Association of Fire Fighters (IAFF)
Ebony Turner, Asst. Director for Operation and Training, Dillard University, Deep South Center for Environmental Justice (DSCEJ)
Ronnie Westmoreland, Training Director, USW Tony Mazzocchi Center

12:30 p.m. – 1:30 p.m. **Lunch** Garden Terrace

1:45 p.m. – 3:15 p.m. **Workshops - Block 6**

- 41. **ATT: Embracing Technology in the Classroom** Panorama C/D
Rail Workers Hazardous Materials Training Program- National Labor College
- 42. **HW/ER: HAZMAT Air Monitoring Exercise** Crystal Ballroom I
Alabama Fire College
- 43. **ID: Flexing Teaching Style to Improve Learning** Panorama B
Nova Southeastern University
- 44. **LS: Weatherization Training- An Innovative Pathway to Apprenticeship Programs** Commodore Room
Greater Cincinnati Occupational Health Center / Midwest Consortium
- 45. **ATT & WE: Understanding Chemicals and Safer Substitutions for Workers** Chairman's Boardroom
United Steelworkers Tony Mazzocchi Center
- 46. **HW/ER & ATT: Computer Simulation to Create Realistic Exercises** Crystal Ballroom IV
Kentucky Community and Technical College System / Midwest Consortium
- 47. **ID: Strategies for Building an Effective Train-The-Trainer/Worker Trainer Program** Panorama A
Civil Service Employees Association / The New England Consortium
- 48. **HW/ER: Use of Dioramas to Enhance Learning Outcomes** Chart Room
Lakeshore Technical College / Midwest Consortium

3:15 p.m. – 3:30 p.m. **Break** (Throughout)

3:30 p.m. – 5:00 p.m. **Workshops - Block 7**

- 49. **ATT: Death by Power Point or NOT!** Panorama A
International Chemical Worker's Union Council (ICWUC)
- 50. **HW/ER: Incident Command System (ICS) Communication Challenges Exercise** Crystal Ballroom I
Alabama Fire College
- 51. **ID: Training in a Bad Economy** Commodore Room
1199 SEIU / Service Employees International Union (SEIU) Education & Support Fund
- 52. **LS: Engaging Underserved Workers in Low-Income and Minority Communities** Chart Room
Ohio Environmental Council / Midwest Consortium
- 53. **WE: Refinement and Evolution of the Small Group Activity: Problem Solving Using NIOSH Fatality Reports and OSHA Job Hazard Analysis** Chairman's Boardroom
The New England Consortium at University of Massachusetts Lowell
- 54. **HW/ER: Using Tabletop Exercises as an Effective Training Tool to Meet Federal OSHA Training Requirements of HAZWOPER 1910.120** Pier Top
OAI, Inc.
- 55. **ID: Making the Connection: Demonstrating the Value of Receiving Feedback from Trainees** Panorama B
LIUNA Training & Education Fund
- 56. **HW/ER & ID: Radiation Fundamentals: Understanding and Incorporating Radiation Concepts into HAZWOPER Training** Panorama C/D
International Association of Fire Fighters (IAFF) / Mizula, LLC

5:15 p.m. – 5:45 p.m. **Closing Session, Small Group Discussion** Crystal Ballroom II & III

Taking It Home: TRX Lessons to Share
Sharon Beard, NIEHS WETP
Ron Snyder, Partnership for Environmental Technology Education (PETE)

5:45 p.m. **Adjourn**

Plenary Speaker



Tim Koegel

From the White House to boardrooms worldwide, Tim Koegel has strengthened the presentations, media relations and communication skills of CEOs, world leaders, business executives, managers and sales professionals.

Tim conducts CEO Boot camps nationally. He helps prepare executives for IPO Road shows and funding presentations.

A consultant to the political world, Tim has worked with members of both the House and the Senate. He has conducted workshops for the White House, members of Congress, the Department of Labor, NOAA, Office of Civil Rights, USA Freedom Corp, The EPA, Press Secretaries and other governmental organizations.

He provides media training for a client list that includes corporate executives, politicians, athletes, coaches and authors.

Tim lectures at business schools throughout the country: Duke, N. Carolina, Michigan, Notre Dame, Indiana, Wake Forest, Arizona State, Georgia, Emory, RPI Lally, Belmont University, Georgia State, NYU, Thunderbird, George Washington University, The Ohio State University, Purdue...

A graduate of The University of Notre Dame, Tim is the author of The Exceptional Presenter.

Abstracts

Advanced Training Technologies (ATT)

For example: incorporating advanced technologies in training, including internet searches, computer/video simulations, development and appropriate use of power point development

Hazardous Waste Worker Training and Disaster Emergency Response and Preparedness (HW/ER)

For example: activities addressing recent disasters and response, incorporating lessons learned from recent emergencies in preparedness

Instructor Development (ID)

For example: curriculum development, creating lesson plans, doing needs assessments, strategies for dealing with classroom situations, technical updates

Life Skills and Job Training (LS)

For example: using graduates to promote a training program, cultural competency, incorporating life skills in training courses

Training Approaches for Worker Empowerment (WE)

For example: using methods of Popular Education, Root Cause analysis to engage participants, addressing the needs of special populations, educating for action

Sessions that fit into more than one track

1. Smartboard Technology Innovations for Industrial Safety Training

(ATT)

LEAD PRESENTER: *David Tomlinson, University of Illinois / Midwest Consortium*

CO-PRESENTER: *Symantha Aydt, University of Illinois / Midwest Consortium*

As part of the Midwest Consortium, The University of Illinois' Hazardous Materials Training Program has applied innovative technology to incorporate site-specific pictures and figures into training sessions. During this session, we will demonstrate the use of a commercially available smartboard to facilitate participants' management of a response to a chemical release in a neighborhood. Graphics showing homes and businesses near the site are imported from the Internet. Changes to the scene based on the location of evacuees, responders, hazardous material and environmental conditions are illustrated. This interactive technology allows participants to respond to these changing conditions and instructors can pose realistic challenges for participants. Generic instructions for the exercise are provided. Guidance for instructor orientation to the technology is also described.

2. A Unique Leadership Course for Hazardous Materials Workers

(HW/ER)

LEAD PRESENTER: *Robert J. Emery, DrPH, CHP, CIH, CBSP, CSP, CHMM, CPP, ARM; Texas-Utah Consortium for Hazardous Waste Worker Training*

CO-PRESENTER: *Joshua C. Calcote, DrPH(c), MPH, MBIOT; Texas-Utah Consortium for Hazardous Waste Worker Training*

Structured as an informational round table discussion, The Hazardous Materials Leadership Course is a unique 16-hour, 2-day course designed for individuals wishing to progress professionally into positions of leadership within the HAZWOPER community. The course addresses the skills commonly identified as lacking among individuals wishing to ascend to leadership positions. The focus of the training is to develop or enhance skills related to management, leadership, data collection and analysis, presentation development, and hazard communication. Specific topics include: introduction to risk management and insurance, introduction to disaster funding, mutual aid agreements and contracts, and effective communications and communicating with data. Basic security concepts for HAZWOPER operations include: Effectively managing the under-exposed, and HAZWOPER performance measures and metrics. The course was created by the Texas-Utah Consortium for Hazardous Waste Worker Training (TUCHWWT), which is a partnership between The University of Texas School of Public Health's Southwest Center for Occupational and Environmental Health and The University of Utah's Rocky Mountain Center for Occupational and Environmental Health.

3. Developing and Implementing Preparedness and Response Core Competencies

(ID)

CO-PRESENTER: *Kathleen Miner, PhD, MCHES; Rollins School of Public Health, Emory University*

CO-PRESENTER: *Lori Graham, PhD; Texas A&M Health Science Center's College of Medicine and School of Rural Public Health*

At the end of the workshop, participants will be able to: Locate online frameworks and tools for using competencies; explain the value of competency-based approaches to adult education and training; describe how competencies are met and used for training; and identify opportunities for using competencies in one's own training program. This workshop will include an overview of a core competency-based model that was developed by the Association of Schools of Public Health and the Centers for Disease Control and Prevention with nearly 400 national content experts in response to the 2006 Pandemic and All-Hazards Preparedness Act. How to develop competencies for training workers will be illustrated with opportunities for participants to develop competency-based statements for their training programs. A training program that is using competencies to adapt current curricula and develop new curricula will illustrate how competencies are met and used to prepare workers to address all-hazards preparedness and response situations.

4. Group Counseling for Job Training Success

(LS)

LEAD PRESENTER: *Anita Cutter, Citizens for Environmental Justice / The Harambee House*

The Career Guidance/Group Counseling Curriculum was created to reinforce the learning of information taught in the HBCUCC Worker Education Job Training Program's Life Skills and Job Readiness classes. The curriculum is designed to be used by trainers interested in the career development of individuals for the workforce. Trainers will be able to conduct twenty-four one-hour sessions outlined in the curriculum. Subject contents covered include skills identification, people skills, communication skills, accepting responsibility, stress management, understanding and dealing with conflict, problem solving and decision making, marketing tools – the resume, cover letter and the application, networking, and interviewing skills. The curriculum is presented as a PowerPoint ending with a question and discussion session. Trainers will leave the session able to integrate the curriculum into their training programs.

5. Putting Feet on Evaluation (And Following the Footprints)

(WE)

LEAD PRESENTER: *Doug Stephens, United Steelworkers Tony Mazzocchi Center*

CO-PRESENTER: *Tom McQuiston, United Steelworkers Tony Mazzocchi Center*

Preventing injuries and illnesses in an industrial setting demands that companies provide a workplace that is free of recognized hazards. To get there we must train our workforce to identify hazards and near-misses, to understand how to report those hazards/near misses, to resist the counter forces they might face, and finally, to keep track of how well the company does in eliminating those reported hazards/near-misses. The United Steel Works Tony Mazzocchi Center (USW TMC) has launched a new initiative in its annual HAZWOPER refresher training that solicits trainees to join with their local leaders and co-workers in preventing injuries and exposures by increasing the reporting process. This initiative takes evaluation in a new direction and to a higher level by getting immediate and continuous feedback from hazard reporting and elimination.

6. Sense of Smell

(HW/ER)

LEAD PRESENTER: *Robert Harrold, IUOE NTF National HAZMAT Program*

CO-PRESENTER: *Chip Booth, IUOE NTF National HAZMAT Program*

The Sense of Smell module is an hour to two-hour module created for HAZWOPER refreshers. The module has been used at DOE facilities and IUOE local unions. The session presenters will deliver the presentation material and lead the participants through the sense of smell classroom exercises. The module focuses on exposures that can be detected with your nose while they are below a life-threatening threshold; others cannot be detected until a life-threatening threshold has been exceeded. Detecting chemicals with your nose is the least desirable method of recognition and should be avoided, but it can also be the first warning that something is wrong. When participants have completed this module, they will be able to: Recognize the basic anatomy of the nose and how it works, Recognize the meaning of olfactory fatigue and its effect, Identify the concept of odor threshold and how it works, and Recognize the difference between odor threshold and permissible exposure limit (PEL) and threshold limit value (TLV). Participants will receive digital copies of the presentation, exercises and media.

7. NIEHS Disaster Response Training Tools: What They Are and How to Use Them (HW/ER & ID)

LEAD PRESENTER: *Bernie Mizula, NIEHS National Clearinghouse*

Since Hurricanes Katrina and Rita struck the Gulf Coast in 2005, NIEHS, through the National Clearinghouse for Worker Safety and Health Training, has created ten disaster response training tools. These tools consist of a PowerPoint presentation and a pocket guide and/or factsheet for some disasters. Bernie Mizula, who has created seven of the ten training tools, will conduct a workshop focusing on these disaster training materials and their practical use. The materials cover relevant hazards and controls associated with disaster response, both specific to each disaster and in general. A survey of general response procedures, such as incident command and a review of relevant disaster regulations are also incorporated in each tool. All materials were peer reviewed both by the various NIEHS awardees and Federal agencies such as NIEHS, DOE, OSHA, EPA, and DHS. These training tools not only act as a foundation for trainers conducting disaster training operations, they help to serve the response community on an awareness level, helping response workers to understand the many hazards and control options that their employers are responsible for as disaster operations are conducted. The workshop will focus on a review of the disaster training tools, how to effectively use them as a pre-training resource and in the field, conducting needs assessments, and issues of disaster training environments. Trainers attending this workshop will leave with an understanding of the disaster response training resources available to them through the Clearinghouse and how to use them effectively in their training.

8. Creating Triggers for Training from Existing Video

(ID)

LEAD PRESENTER: *Mark Catlin, SEIU Education & Support Fund*

This session is planned as a skill building activity with an objective to encourage trainers to create their own video triggers for use in classes. Video triggers are short clips taken from longer films and videos which emphasize a specific task or point and serve to trigger a discussion among students. During this session, trainers will learn of sources of interesting material (including historical films from Mark Catlin's YouTube channel) and how to select material for effective triggers. The group will participate in the creation of a video trigger, including the editing, using available software, and the embedding into a presentation.

9. Start Making Virtual Simulations for Situational Training – It's Easier than You Think (ATT)

LEAD PRESENTER: *Jonathan Kaye, Equipment Simulations LLC*

Using virtual simulations to re-create actual or potential emergency incidents, instructors can effectively transmit real-world experiences, without the danger and expense of real-world consequences. Such performance-based practice where hands-on practice is not practical or safe develops the capabilities of emergency responders to make better decisions and communicate more clearly, resulting in saving more lives and property. However, the cost and time involved in creating simulations are prohibitive. That is, until now: with SimsUShare. SimsUShare, a new technology developed by Equipment Simulations LLC, with support from an NIEHS Phase I SBIR grant, lets members build virtual environments with simulated hazards and conditions or extend/adapt those of other instructors, using photographs, text, videos, and animations. SimsUShare combines an easy-to-use online simulation development tool (and mobile app) with an extensive and growing repository of simulations that instructors can adapt and extend with minimal effort. The SimsUShare platform is the evolution of the Company's proven learning platform, CommandSim, which has been applied in tens of thousands of training sessions. The objective of this session is to demonstrate SimsUShare, through audience participation, showing how instructors can create virtual simulations of emergency incidents. Using SimsUShare, participants will work in groups to create virtual simulations, and discuss how they can be applied in the classroom. Each participant will receive a complimentary copy of the SimsUShare Android mobile app that they can use to develop their own simulations.

10. Engaging Healthcare Hazardous Materials Emergency Response Trainees (HW/ER)

LEAD PRESENTER: *Paul Penn, EnMagine*

The session aims to engage healthcare workers regarding the significance of hazardous materials emergencies both professionally and personally. A short video with a small group activity used in the HazMat for Healthcare Awareness course will be demonstrated with the session attendees followed by a discussion. This activity is used to develop perspective and commonality among diverse trainee demographics.

11. Hazardous Materials Training: The Benefits of Utilizing Multiple Modalities and Techniques for Maximizing the Benefits of Training Multiple Professions Simultaneously (ID)

LEAD PRESENTER: *Kevin D. Zumwalt, Nova Southeastern University*

CO-PRESENTER: *Kristi Messer, Nova Southeastern University*

The transport of hazardous materials via waterways poses a significant threat to the health and well-being of workers who may come into direct contact with such substances. The Institute for Disaster and Emergency Preparedness (IDEP) at Nova Southeastern University, College of Medicine (NSU-COM) is assisting in the effort to better prepare workers employed in the maritime industry in the preparation for, response to, and mitigation of adverse impacts to the safety of the public, handlers, or carriers during transportation of hazardous materials via waterways. The overarching goal of Project SEAMIST (South East Area Maritime Industry Safety Training) is to provide safety and health training to those who work in or with the maritime industry who may encounter hazardous materials, including those who may respond to cleanup efforts. The objectives of this round table discussion are to actively discuss the following: 1) strategies for adapting existing hazardous materials curriculum, 2) strategies for developing and implementing an inter-professional training environment, 3) strategies for maximizing learning opportunities between diverse occupational backgrounds, 4) creative and effective means of familiarizing oneself with and the direct application of

the Emergency Response Guide, and lastly, 5) evaluation techniques to assess the retention of content over time (6 months post training), including any attitudinal changes specific to one's perception of the importance of hazardous materials training.

12. Developing Effective Multimedia Strategies for Outreach and Recruitment

(LS)

LEAD PRESENTER: *Mary I. Williams, Dillard University Deep South Center for Environmental Justice*

CO-PRESENTER: *Ebony Turner, Ph.D., Dillard University Deep South Center for Environmental Justice*

This session will demonstrate effective outreach and recruitment efforts using multimedia strategies to target the underserved population for the Worker Education Training Program (WETP). The objective of the multimedia outreach and recruitment strategies session is to demonstrate the use of multimedia tools that conveys information, stimulates interest, and increases enrollment for the WETP. Using multimedia will help promote the program in a simplified way that delivers information consistently and economically to a broad audience. Session participants will learn how to develop a WETP recruitment video using digital media tools i.e. digital camera, video camera. Participants will learn how to upload the recruitment video to YouTube and post on Facebook. Participants will also develop effective ways to engage WETP graduates to share their training and work experience to demonstrate real-life success stories in the video. Participants will view a sample WETP recruitment video and give feedback about ways they can develop a video for their program.

13. When Hands-On Equipment Malfunctions: Being Prepared to Make Lemonade from Lemons

(WE)

LEAD PRESENTER: *Steve Schrag, 1199 SEIU / SEIU Education & Support Fund*

Despite the best preparation, equipment used in hands-on training, including air testing instruments, respirators and engineering controls can malfunction during classes. The objective of this round table discussion is to share ways to turn these equipment failures into positive teachable moments for students. For example, the failure of an oxygen sensor in a confined space monitor during an exercise can be a powerful demonstration of the necessity for calibration and the fragility of some instruments. These equipment failures can also be opportunities for students to apply the knowledge from their training to an unanticipated event. During the session, a list of such teachable moments from the participants will be transcribed and a short trainer's guide will be produced.

14. California ATD Standard: Teaching How to Use a New Standard

(HW/ER)

LEAD PRESENTER: *Erika Moody-Gilliard, SEIU-UHW / SEIU Education & Support Fund*

The objective of this technical update is to introduce trainers to the California OSHA ATD Standard and also to demonstrate a participatory training method for introducing the requirements of a new standard to students. In 2009, California OSHA enacted the Aerosol Transmissible Disease (ATD) Standard, a unique health and safety regulation aimed at protecting workers in California at high-risk of droplet and airborne spread diseases. The ATD Standard requires a written ATD exposure control plan that addresses infection control measures, including reducing exposures by the use of engineering controls, work practices, and personal protective equipment. This standard covers workers in healthcare, emergency response, corrections, public safety and laboratories. Federal OSHA is now considering the need for a similar national standard.

15. Innovative Approaches to Teaching Green Chemistry to Workers

(WE)

LEAD PRESENTER: *Katherine McNamara, UCLA LOSH / Western Region Universities Consortium*

CO-PRESENTER: *Valeria Velazquez, UCLA LOSH / Western Region Universities Consortium*

This workshop will demonstrate a new curriculum designed to help worker and community allies increase their awareness of green chemistry principals, and to engage as advocates for safer alternatives to toxic chemicals. Participatory activities that identify individual chemical usage and exposure issues will be used as a framework upon which to build knowledge of sustainability concepts. Energy consumption, water usage, pollution prevention and waste minimization will be described in terms of the global impacts of chemical mass production. Toxicity testing and chemical policy will be tied to worker health. Learning tools will be employed to motivate participants about opportunities for chemical policy reform and encourage participation in advocacy and change. Participants will workshop recent case studies that illustrate gaps in chemical safety regulation and use them to develop learning modules specific to different work environments. All are encouraged to share approaches that have been successful in making abstract concepts accessible to diverse audiences and to bring suggestions for ways to motivate activism.

16. Teaching Fall Protection

(HW/ER & ID)

LEAD PRESENTER: *Joseph J. Hunt III, Iron Workers / CPWR- The Center for Construction Research and Training*

CO-PRESENTER: *Don Ellenberger, Iron Workers / CPWR- The Center for Construction Research and Training*

As a small component of a much larger Personal Protective Equipment (PPE) section delivered in OSHA 10 and 30 hour general construction safety courses, fall protection has a significant impact on the students. Delivering this session involves covering both passive and active means of fall protection. Passive systems are those put in place to prevent a fall without having to take some personal action, such as guard rails or other engineered measures. Active systems are those used by an individual, usually to arrest a fall in progress, such as a safety harness, lanyard and tie-off point. Presenting a fall arrest section effectively should involve hands-on student participation. During this workshop, techniques for presenting Personal Fall Arrest Systems (PFAS) and their requirements will be discussed. Participants will be involved in interactive hands-on demonstrations as proper usage and standards are covered, to model an effective adult educational workshop. The workshop presenter will ask the participants to take the role of students for approximately 60 minutes, followed by a general discussion. Questions to be considered by workshop participants are:

- 1) Is the curriculum technically accurate?
- 2) Is the complexity of the material geared appropriately to the intended student population?
- 3) Are the instructors teaching methods interactive, and do they provide students with opportunities to participate with the material?
- 4) What other types of training methodologies would enhance the delivery of this material?

17. A Matter of Time to Save a Life

(ATT)

LEAD PRESENTER: *Pat Goble, IAM and ICWUC Center for Worker Health and Safety Education*

CO-PRESENTER: *John S. Morawetz, IAM and ICWUC Center for Worker Health and Safety Education*

This session is an overview of an IAM/IBEW worker trainers' training plan at the HAMMER DOE facility on technology advancements and their usefulness in emergency response. The session will include a review the history of information resource delivery from hand written books, printing press, telegraph, telephone, television, computer, Internet to Instant Messaging and a demonstration of current Tablet and Smart phone applications and resources. By using tablet technology, students will see available information resources and access techniques through instructor guided, hands on activity. The instructor will show some available websites for HAZWOPER information (OSHA, NIOSH, DOT, NFPA, Chemical Protective Clothing websites). During Scenario Tables exercise, participants will be given one of three work or emergency scenarios to research (all with the same chemical of concern). Each table will be divided with 3 students researching from printed resources and 2 students will use the iPad tablet resource. Each table can see their Hammer scenarios video saved on iPad tablet (at HAMMER students to a prop to see their scenarios conditions and location). Students will be asked for PEL, TLV, IDLH, vapor pressure, vapor density, incompatibles, personal protective equipment needed and working plan. The instructor will show the full class each scenario one at a time and ask for information from students using printed resources and those using the iPad. Discussion will include the importance of chemical information, product information from manufacturers on PPE and CPC and possible changes in chemical information from resources. Instructor will tie the importance of time and information when planning a job to keep workers safe and still getting work done effectively.

18. Teaching Chemical Hazards in the 40-Hour HAZWOPER Class

(HW/ER)

LEAD PRESENTER: *Kara French, CPWR - The Center for Construction Research and Training*

CO-PRESENTER: *Don Ellenberger, CPWR - The Center for Construction Research and Training*

CPWR's Hazardous Waste Worker curriculum provides many opportunities for interactive, participatory hands-on training, especially with regards to PPE, decontamination, air monitoring, etc. But can our new training curriculum on Chemical Hazards, a 147-slide PowerPoint presentation known by CPWR trainers as The Monster be delivered using effective adult education techniques? It is often challenging for instructors to keep students' undivided attention while navigating this technically complex material through dialogue, interactive questioning, and participatory activities. Typically, in each Chemical Hazards class, the majority of students do not fully understand the meaning of specific gravity, solubility, miscibility, etc. We will present a hands-on method which allows Chemical Hazards students to gain better understanding of these important chemical properties while working among themselves. Session participants will play the role of Chemical Hazards students as CPWR demonstrates this training, which will then be followed by an interactive round table discussion. This session connects students with the NIOSH Pocket Guide, web-based chemical registry sites, the DOT Emergency Response Guidebook, the USCSB training materials, WISER and other information sources. Questions to be considered by workshop participants are:

- 1) Is the curriculum technically accurate?
- 2) Is the complexity of the material geared appropriately to the intended student population?
- 3) Are the instructor's teaching methods interactive and do they provide students with opportunities to participate with the material?
- 4) What other types of training methodologies would enhance the delivery of this material?
- 5) The workshop will consist of approximately 1 hour of delivery, followed by a 30 minute exchange of views.

19. The Good, The Bad and The Ugly

(ID)

LEAD PRESENTER: *Rich Smith, ICWUC Center for Worker Health and Safety Education*

CO-PRESENTER: *LaVerne Mayfield, ICWUC Center for Worker Health and Safety Education*

This is a basic exercise that the ICWU Center conducts in our Train the Trainer class (thanks to LOSH for their development). It aims to give new trainers the experience of dealing with a range of student responses from unresponsive, disruptive, excessive questions, and erroneous information. Trainers practice dealing with these situations in an effort to strengthen the ability of new trainers to deal more effectively with these problems when encountered in actual classes. Trainers will break up in groups of 6 to 8 and one trainer (a volunteer) is given a simple, short scenario to teach. Students are given role plays to act out that the volunteer trainer has to handle. Depending on the time constraints, each group is then given a new scenario and a new volunteer trainer has to handle the class with a new challenge. At the conclusion of the exercise, all the groups are brought back together to have a group discussion on lessons learned, how to better handle future classes and if there are any suggestions to improve this exercise.

20. Sleep, Sleep Deprivation and Worker Fatigue

(LS)

LEAD PRESENTER: *Gary R. Quick, Rail Workers Hazardous Materials Training Program*

CO-PRESENTER: *Carl W. Fields, Rail Workers Hazardous Materials Training Program*

We live in a sleep deprived nation and it has affected our productivity, safety, health and social wellness. The National Transportation Safety Board attributes over 40% of human factor railroad accidents to fatigue. Fatigue is also known as a major contributor in all modes of transportation accidents. New and inexperienced workers to the transportation industry may suffer fatigue in greater numbers due to their inexperience in adjusting their sleep and rest patterns. In this program we look at several aspects of sleep and its effects on the human body while exploring how the lack of sleep affects our mental and physical health. We will examine worker fatigue, how it manifests itself and the problems with a fatigued workforce. We will also address fatigue mitigation for both new and experienced workers and managers. During the program we will:

- Define sleep, sleep deprivation and sleep debt and examine their effects on our lives
- Demonstrate to participants how to recognize their own daytime sleepiness with use of the Epworth Sleepiness Test
- Offer solutions to adjusting your sleep and rest cycles to maximize their effectiveness
- Define fatigue and its effects at work and at home
- Discuss the effect fatigue has on cognitive recognition and situational awareness
- Discuss fatigue mitigation and its benefits to workers, employers and families

21. Engaging Young Workers in Health and Safety Training

(WE)

LEAD PRESENTER: *Anna Fendley, United Steelworkers Tony Mazzocchi Center*

CO-PRESENTER: *John Scardella, United Steelworkers Tony Mazzocchi Center*

With an aging worker population, current worker training programs need to engage younger workers to carry on the movement of protecting worker health and safety. Participants of this workshop will discuss the need and strategies to engage younger workers in all aspects of our training programs. The workshop will include a presentation of results from the United Steelworkers (USW) Next Generation focus group on involving young USW activists in health and safety activities and training. Following the presentation will be a roundtable discussion for participants to share successes and challenges and to brainstorm on topics including how to recruit young workers to attend training, how to create curriculum that engages young workers, what trainers can do to involve young workers in the classroom, and how training programs need to be modified to ensure their effectiveness in the future.

22. Mass Casualty Incident Triage Exercise

(HW/ER)

LEAD PRESENTER: *Sam Hansen, Alabama Fire College*

CO-PRESENTER: *Ted Kraye, Alabama Fire College*

This participatory exercise is the summation of an 8-hour Mass Casualty Incident Triage course. A room is set up to be dark and have screaming, sirens and other sound effects to simulate chaos of an MCI. Stuffed Teddy Bears are placed in the area with tags listing injuries/symptoms represent victims. The class will organize into a response team operating under the ICS. Entry teams in appropriate personal protective equipment enter the scene with the specific charge to find and triage victims according to guidelines learned earlier in the class. Actual triage tags are attached to the "victims" and the number and classification of victims is reported to the command post after entry. After all entries are completed, the reports are compared to the actual number and classification and discussed with the class. The objective for this exercise is to practice triage under stressful and chaotic conditions. This exercise will be beneficial to EMS trainers who train for response to mass casualty incidents. Trainers of public safety response agencies and industrial EMS can use this exercise. This exercise allows trainers to evaluate the students' ability to effectively and efficiently triage multiple patients in a participatory manner that is safe, simple, and inexpensive.

23. Providing the Power to Excel through Education; Standards Based Curriculum Competencies and Instructor Development

(ID)

LEAD PRESENTER: *Gary F. Gustafson, LIUNA Training and Education Fund*

CO-PRESENTER: *George McCoy, LIUNA Training and Education Fund*

The proper design of instructional materials is a critical component of a sound teaching methodology. This session will look at best practices of instructional design through a review of LIUNA Trainings accredited curriculum and instructor development model. Using LIUNA Trainings Hazardous Waste course as an example, instructors attending this session will learn about the role of skill standard development, objectives, instructor and participant learning materials and written and performance assessments. In addition, attendees will take away an understanding of how skill standards, curriculum development and assessment must be connected to ensure participants successfully receive industry relevant information and skills.

24. Designing and Delivering Information and Training through Mobile Technologies (HW/ER & ATT)

LEAD PRESENTER: *Chris Held, MetaMedia Training*

CO-PRESENTER: *Dan Govar, MetaMedia Training*

Mobile learning or MLearning has risen over the last few years to be more than a buzz word. In this session we will cover developing mobile training and projects for tablets, cell phones, and various other devices. In particular we will cover developing training and material for a mobile platform, best practices, costs involved, and the difference between mobile web content and apps. On each device covered, an example MetaMedia has developed for client projects will be demonstrated and explained and there will be a healthy question/answer period for discussion.

25. Making Every Penny Count: Saving Dollars Using Advance Training Technology (ATT)

LEAD PRESENTER: *Dr. Ebony Turner, Dillard University Deep South Center for Environmental Justice*

CO-PRESENTER: *Jessica Patton, Green Door Initiative*

This session will demonstrate a model that uses distance learning to save funds and maintain an interactive training process for participants. The session will include the use of Adobe Connect Pro, PowerPoint and YouTube to effectively deliver training modules that can be duplicated with similar programs. Lessons learned will be shared about training diverse populations and the necessary preparation that may be needed for participants to effectively participate in the training process. A live demonstration will be conducted during the session. Attendees are welcome to bring laptops to the session to participate.

26. Disaster Response Training: Building Trades SSP Training & FEMA CERT Collaboration, and USW National SERT Program (HW/ER)

LEAD PRESENTERS: *Spencer Schwegler, John Scardella, Mike Gill, and Ronnie Westmoreland*

CPWR - The Center for Construction Research and Training and United Steelworkers Tony Mazzocchi Center

The workshop will compare and contrast CPWR's Disaster Response Training, (DRT), and FEMA's Community Emergency Response Team, (CERT), training programs. CPWR's DRT program trains skilled construction workers to function as Skilled Support Personnel in the emergency phase and cleanup phase of a disaster response. The CERT program trains people from all walks of life to assist in an emergency response. The training programs were evaluated, and a gaps analysis chart was produced identifying commonalities and missing elements in the respective programs. The presenters will identify areas of potential collaboration between the building trades training programs and the national FEMA CERT training program. They will suggest ways to provide community support and involvement for skilled support personnel from the building trades and to expand the CERT network through collaboration with the building trades. The workshop will also explore a program developed by the United Steel Workers to place highly Skilled Emergency Response Trainers, (SERTs), strategically around the country. These trainers are ready to provide in depth targeted training to clean-up workers after a disaster occurs. Presenters will address the barriers to implementing the type of training clean-up workers need and how SERTs can meet this training challenge. Presenters will also explain how to build a SERT team, including: how to identify trainers for a SERT team, the training they will need, and how to prepare them for a quick response. The workshop will identify the commitment that is needed from the individual SERT trainers and their employers, and present a plan to keep the SERTs active and involved while waiting to respond to a disaster.

27. OSHA 10 Hour Construction Update, Focus Four and Heat Stress (ID)

LEAD PRESENTER: *Ron Snyder, Partnership for Environmental Technology Education (PETE)*

This session will provide trainers with the most recent update on the OSHA 10 hour construction requirements; Focus Four activities: caught-in or caught-between, electrocution, falls, and struck-by; heat stress and Brownfield activities. Participants will be able to discuss the updates for OSHA 10 hour training requirements, identify hazards associated with Focus Four activities by utilizing actual photographs which the participants will assess and offer corrective actions. The presentation will also discuss how to perform a needs assessment of participants' KSAs and ways to incorporate this information into training delivery. Additionally, factors effecting heat stress, signs and symptoms of heat stress, and various brownfields activities will be discussed. Participants will be engaged in skills development and hazard recognition through the use of photographs and other handouts provided to assist in their own training delivery.

28. Meeting the Need for Higher Level Mathematics in an Increasingly Technical Workforce (LS)

LEAD PRESENTER: *Allannah Thomas, UMDNJ Consortium*

Higher-level mathematics competency has become increasingly integral to obtaining employment and advancing in careers, even in entry-level blue-collar jobs. With math proficiency in our public schools at historic lows, especially among low-income populations, bringing trainees up to speed in math has become a key component to job readiness. This panel seeks to open a discussion on identifying the depth of the problem and to present successful strategies to address it.

At the end of the workshop participants will understand:

- the cause of public high school graduates' (particularly those from low-income communities) low math proficiency
- the importance of reinforcing minimum mathematics standards for entry into occupational-training programs
- the need to add and/or enhance mathematics instruction in occupational-training programs
- what level of mathematical competency is required for workforce development professionals

29. Digging Deeper to Get at the Root

(WE)

LEAD PRESENTER: *Sam Orlando, United Automobile Workers*

CO-PRESENTER: *Steve Mitchell, United Automobile Workers*

Most accidents can be attributed to deviations (those things that occur seconds, minutes or hours before an event) and determining factors (conditions that tend to be stable over extended periods of time). Determining factors can be physical/technical, organizational/economic or social/individual. During this session, participants will learn about an approach designed by two Swedish investigators Urban Kjellen and Tore Larsson that uses these factors to identify systemic root causes and workplace cultural influences that contribute to suboptimal work practices or conditions that pose an increased probability of leading to an adverse event, injury or death. A portion of the session will allow participants the opportunity to apply this approach while examining a generic health and safety incident.

30. Smart Phone: A Smarter Faster Injury and Illness Prevention Tool

(HW/ER)

LEAD PRESENTER: *Ken Beutler, UC Davis Extension / Western Region Universities Consortium*

The smart phone has been called man's greatest invention. This course will give attendees an overview of how emergency responders and hazardous waste workers can use this invention to obtain and share information in a way that will make their job easier and safer. Like owning a four wheel drive vehicle and never switching to four wheel drive, the smart phone is no more than just a phone to those who fail to take full advantage of this handheld safety tool. Participants will learn how to make verbal requests for health and safety information, share information with others, and how to download safety applications that will make them more efficient in the field. They will learn how to download an instrument manual, obtain a GPS waypoint of a sample location, and take sound level readings around a drill rig using their smart phone. In a typical class, at least a quarter of the students will own a smart phone. This allows the class to break up into smaller groups and actually practice using some of the features. During the discussion there will likely be those who will share other health and safety applications they have found on their smart phone.

31. Green Jobs Hazard Identification

(HW/ER)

LEAD PRESENTER: *Chip Booth, IUOE NTF National HAZMAT Program*

CO-PRESENTER: *Bernie Mizula, Mizula LLC,*

This is an awareness-level module on green jobs that uses proven health and safety hazard identification tools to identify health and safety hazards associated with green jobs or alternative energy. The main purpose of delivering this module is to introduce students to green jobs and to provide them with an understanding that there are still health

and safety hazards associated with green technologies and green methods of work. The overall purpose of this course is to make sure students leave the course feeling confident they can recognize green jobs and are aware that green jobs are not hazard free. Objectives for the module are:

- 1) Give two examples of why we must start doing things in a green way
- 2) Provide the definition of a green job
- 3) Define green construction
- 4) Give two examples of green building materials
- 5) Discuss how green jobs affect worker health and safety
- 6) Conduct a Green Job Hazard Analysis

The session will include a review of the presentation material and manuals. Participants will also complete a classroom activity using the Green Job Hazard Analysis to identify health and safety issues working on green jobs or using alternative energy. The session will conclude with a discussion on how green jobs and alternative energy use has impacted the participants populations.

32. Surgical Masks Are Not Respirators: Training to Abolish a Workplace Myth

(WE)

LEAD PRESENTER: *Mark Catlin, SEIU Education & Support Fund*

Myths about health and safety are common in many workplaces and can be obstacles to creating change that trainers must overcome. This can be difficult, especially for peer trainers, when recognized sources of information at a workplace support the myth. The objective of this skill building activity is to have trainers practice and evaluate approaches to countering health and safety myths using a common myth in healthcare and public safety workplaces. In many of these workplaces, workers are constantly exposed to the myth that surgical masks are a form of respiratory protection from airborne infectious disease, such as TB or influenza. This myth is promulgated by many authorities within the healthcare workplace, including some doctors, infection prevention professionals, employers, local and state health departments and the federal CDC.

33. Technological Advancements for Confined Space Training: Gas Monitor Simulator (ATT)

LEAD PRESENTER: *Aaron A. Ondo, West Virginia University - Institute for Labor Studies and Research*

CO-PRESENTER: *Chip Booth, IUOE NTF National HAZMAT Program*

Incorporating new technologies into any type of training comes with some degree of risk. Risk that the technology will completely malfunction, will not operate the way it did when tested, or will not be well received by students. Accepting the risk, we incorporated a new technology called Gas Monitor Simulator, by LightsOn Safety Solutions, into an existing hands-on confined space train-the-trainer curriculum for the International Union of Operating Engineers National HAZMAT Program. The reward for incorporating the technology was well worth the risk and paid dividends far beyond our high expectations. Students were immediately drawn to the technology because of its design and ability for real time interactivity with the instructor. The Gas Monitor Simulator technology is incorporated within an iPod touch and mimics the function of a multi-gas meter, in real time. Students are able to use the iPod touch as if it were a real multi-gas meter. The instructor is connected to each student's iPod touch via a wireless network and is able to manipulate the gas concentrations the student sees on his or her simulated multi-gas meter. In a few taps of the instructor's iPad, the students' iPods display the concentration changes sent by the instructor. In addition to concentration changes, the instructor can send notifications or ask questions requiring a student response, all of which can be sent to every student or specific students. This presentation will include a hands-on demonstration of the Gas Monitor Simulator technology and a discussion of possible training applications and scenarios.

34. CPWR's New 4-Hour Hazard Communication Course (HW/ER)

LEAD PRESENTER: *Bernie Mizula, Mizula LLC,*

CO-PRESENTER: *Don Ellenberger, CPWR - The Center for Construction Research and Training*

Mizula, LLC produced a 4-hour course on Hazard Communication Training in accordance with 29 CFR1910.1200 for CPWR. Bernie Mizula will conduct a training with this material, developed using the Assertion Evidence structure, in which a sentence headline states the main assertion of the slide. That headline assertion is then supported not by the typical bullet list, but by visual evidence: photos, drawings, diagrams, graphs, etc. Assertion Evidence fosters a more interactive classroom environment over the use of standard PowerPoint format. Introductory research has shown students scored higher on tests when Assertion Evidence format was used compared to standard PowerPoint format. Along with the PowerPoint presentation, the course includes a participant manual and an instructor guide. Several interactive group activities are included, all contributing to the completion of the various course objectives. Elements of this training to be presented in the workshop include classroom and time management strategies, lecture, questioning and debriefing tactics, assessing successful completion of the learning objectives, and guiding the group activities. The legal aspects of Hazard Communication training will be explored, including employer obligations under this standard. Issues of Hazard Communication training for multi-employer sites and mobile work populations will be explored. Trainers attending this workshop will complete some portion of the course activities in small group format along with a short debrief. Course sections include an overview of the standard, training requirements, chemicals and toxicology, health effects, measurement, exposure limits, hazard communication methods, controls, spill response, and a brief section on the GHS and REACH.

35. Instructor Development

(ID)

LEAD PRESENTER: *John J. Kovach, IUOE National HAZMAT Program*

CO-PRESENTER: *Barbara McCabe, IUOE National HAZMAT Program*

An Experience and Exposure Profile (EEP) form was developed to track work experience and work exposure over the past 12 months for the IUOE members. The EEP was also used to identify training courses that they would like to take over the next 12 months to better protect themselves on the job. This form was distributed to instructors beginning January 2010. An online impact analysis was developed that addresses the types of jobs workers have worked during each six month interval; any incidents they encountered on those jobs that presented safety or health hazards; how the NTF training affected their response to the hazards; and whether they have applied green concepts they learned. Members who attended a 40- or 8-hour HAZWOPER or 10- or 30-hour Construction Industry Outreach under the ARRA award who have submitted email addresses were sent this online impact analysis approximately six months after their training course. The NTF sent out five impact analyses during the grant period. A summary of the results will be analyzed; the significance of the data and its utility for program improvement will be discussed. Training impact analyses are the bottom line on the utility and effectiveness of the training program and its value. It is important that these results be viewed within the context of other training evaluations for the program to obtain a more complete picture. Coupled with continuing instructor evaluations in training program, all evaluations are used to identify areas of further development for instructors. This is also coupled with the NTF 5-year Plan that was developed to improve and maintain instructor training credentials.

36. Environmental Justice Where We Live, Work and Play: From Toxic Tours to Tree People

(WE/LS)

LEAD PRESENTER: *Linda Delp, UCLA-LOSH / Western Region Universities Consortium*

CO-PRESENTERS: *Kevin Riley and Samantha Quintero, UCLA-LOSH / Western Region Universities Consortium*

Environmental Justice (EJ) embodies critical principles that apply to hazardous waste, hazmat exposures and disaster preparedness. A proposed 2012 strategic plan by Health and Human Service calls for worker and community education and involvement; NIEHS WETP grantees played a critical role in recent HHS hearings to integrate workers into the EJ plan and have a key role in educating workers about environmental justice. This workshop will demonstrate participatory activities to engage workers in efforts to improve workplace and community environments. Presenters will use hands-on activities to demonstrate course objectives that include: 1) understanding our environment beyond polar bears, 2) learning principles of EJ through case study analysis and role plays, and 3) bringing it home to our communities mapping, analysis and engagement for policy change. This EJ curriculum was initially designed for a UCLA-LOSH MWTP course but can be integrated into other WETP courses. The course includes 8 hours of classroom instruction and another 8 hours of an EJ tour including: 1) a toxic tour of neighborhoods with concentrations of hazardous waste sites, TSD facilities, refineries and other emissions sources surrounding the LA/Long Beach ports complex and 2) a tour of Tree People, a non-profit organization/local park that analyzes the distribution of trees and green space, operates a sustainable green building and water conservation system. Presenters will provide an overview of the course, facilitate case study, EJ timeline and community mapping activities, distribute the lesson plan/handouts and discuss how activities can be adapted to other areas. Presenters will also describe how to build local EJ partnerships that facilitate worker involvement in environmental and social justice initiatives.

37. Don't Blame Workers – Fix the Hazards! Problems with Behavior-Based Safety/Blame-the-Worker Approaches to Health and Safety and Tools for Focusing on Finding and Fixing Hazards

(WE)

LEAD PRESENTER: *Nancy Lessin, United Steelworkers Tony Mazzochi Center*

CO-PRESENTERS: *Jim Frederick and John Scardella, United Steelworkers Tony Mazzochi Center*

This interactive skill-building workshop will explore problems with workplace programs that focus on worker behavior rather than hazardous conditions as the cause of workplace injury, illness and death. We will discuss various behavioral safety programs, policies and practices and delve into the impacts that these programs have, including

impacts on discouraging workers from reporting job injuries and illnesses; and shifting attention away from identifying and addressing workplace hazards. This workshop will also include hands-on experience with a variety of tools that can redirect workplace health and safety focus onto identifying and addressing unsafe and unhealthy workplace conditions, tools that are examples of education for action.

38. The New Face of Waste: Training on the Hazards of Universal Waste

(HW/ER)

LEAD PRESENTER: *Bruce McClue, Dillard University*

CO-PRESENTER: *Kim Chapital, Tulane University*

Universal Waste (UW), the general descriptive term used to describe wastes that are generated by a large, diverse population including both businesses as well as unregulated households, is ever increasing. Regulations and laws governing these wastes have been designed to address the potential hazards associated with them via reuse, recycling, and redistribution. There is the need for awareness in this area as well as specialized training for workers handling this type of waste to ensure their safety and to reduce and eliminate occupational hazards in the field. This session will provide trainers with an overview of a curriculum that will address the training needs of this worker population.

39. Hospital Decon Training Using the Small Group Activity Method (SGAM)

(HW/ER)

LEAD PRESENTER: *Maureen Hobbs, 1199 SEIU / SEIU Education & Support Fund*

CO-PRESENTER: *Beatrice Staten, 1199 SEIU / SEIU Education & Support Fund*

The objective of this demonstration activity is to show the participatory Small Group Activity Method (SGAM) approach to Hospital Decon Training. OSHA's First Receiver Operations-level Training is suppose to train healthcare workers to be prepared to decontaminate victims of hazardous material incidents arriving at hospitals for evaluation and care. However, many healthcare workers have little or no experience wearing the protective clothing for this work nor are familiar with the work practices and procedures. The SEIU Training and Education Fund developed and uses a 16-hour SGAM-based Hospital Decon Training class to train decon teams at several hospitals in New York City.

40. Improvising HAZWOPER Hands-On Scenarios

(HW/ER)

LEAD PRESENTER: *Jamar Sullivan, OAI, Inc.*

When training HAZWOPER students in a classroom setting, instructors typically use whiteboards, PowerPoint and tabletop exercises as teaching tools. In instances where space is limited and props are non-existent, instructors may not take the time to include hands-on drills for all course participants. Furthermore, spending funds on high tech props or training sites are not always economically feasible when working within grant budget constraints. Through the creative use of everyday items, instructors can build drills and hands-on scenarios that allow the students to demonstrate and reinforce the skills they have gained during their HAZWOPER course. The session will discuss challenges when performing scenarios, introduce ideas that have been used to deliver training scenarios, solicit ideas for props and equipment. Participants will have new ideas for possible hands-on scenarios for their students. Participants will be able to build a complex drill that will tie in relevant HAZWOPER course work, while using inexpensive everyday items such as water bottles, a box of Kleenex, bag of nails etc.

41. Embracing Technology in the Classroom

(ATT)

LEAD PRESENTER: *Yvonne Hayes, Rail Workers Hazardous Materials Training Program - NLC*

CO-PRESENTER: *Henry Jajuga, National Labor College - Center of Excellence in Health & Safety*

Technology surrounds us. This presentation will demonstrate and discuss the possibilities of embracing technology and incorporating it with adult learner centered methods. The Rail Workers Hazardous Material Training Program (RWHMTP) at the National Labor College will demonstrate how it has been integrating new methods into their classroom training implementing concepts as simple as providing resource information on CD's in an effort to "green" their training to the use of "Audience Response Clickers" to capture and compile evaluation data instantaneously. In addition, the workshop will present how the RWHMTP uses technology tools such as tablet presenters, wireless projectors, interactive whiteboards, personal cell phones and computer based e-learning tools. The use of new equipment to create small portable classrooms for hard to reach target audiences similar to the RWHMTP's Navajo Nation Training Program will also be presented. Following the demonstration there will be a question and answer period and a brainstorming session for additional uses focused on the increasing new technology centered workforce.

42. HAZMAT Air Monitoring Exercise

(HW/ER)

LEAD PRESENTER: *Kenny Oldfield, Alabama Fire College*

CO-PRESENTER: *Ted Kraye, Alabama Fire College*

This exercise follows classroom instruction on air monitoring principles. It includes a demonstration of chemical properties using pH paper and common corrosives that may damage air monitoring instruments. The class is then divided into small groups which test one of three or four simple, prepared atmospheres with common multigas and PID instruments. The atmospheres yield predictable results that can be used to discuss capabilities and limitations of these instruments. The attendees will practice operating and interpreting common air monitoring instruments and will review basic chemical properties like vapor pressure and vapor density.

43. Flexing Teaching Style to Improve Learning

(ID)

LEAD PRESENTER: *Dr. Stan Cohen, Ed.D., Nova Southeastern University*

Changing teaching style is crucial to maximize learning. It requires changing Hazmat teaching behavior both verbally and non-verbally in order to get to every individual. For example, those who prefer "thinking style methodology" will use the lecture approach most of the time, and they will lose their audience after about thirty minutes. They can crank up the learning curve by switching to directed questioning, by using concrete real stories, by appealing to emotionally charged issues, and by asking students to pair up and explain content to each other. The session will also deal with how other teaching styles will adapt to their learners, and how planning for these session objectives is the first step in the process.

44. Weatherization Training – An Innovative Pathway to Apprenticeship Programs

(LS)

LEAD PRESENTER: *Glen Grosardt, Greater Cincinnati Occupational Health Center / Midwest Consortium*

The American Recovery and Reinvestment Act of 2009 funds for health and safety training of weatherization workers provided an opportunity for the Greater Cincinnati Occupational Health Center to build a comprehensive pathway for

selected workers to access apprenticeship training and receive college credits through course work at Cincinnati State. 245 workers completed health and safety training, in partnership with Cincinnati Energy Alliance. Of these, 15 percent entered pre-apprenticeship programs through the Community Construction Career Readiness Collaboration (3CRC). Of these students, six submitted applications for Building Trades apprenticeship programs and were placed with the Heat & Frost Insulators, Cement Masons, Laborers, Operating Engineers or International Brotherhood of Electrical Workers. Two students entered Cincinnati State working towards an associate degree in Technical studies. In addition to weatherization health and safety, the program provided for development of life skills needed to be successful in a career. These include: need to be motivated, how to dress, practicing skills they learned at work and at home, looking to the next task (not waiting to be told what to do every minute), and notification procedures when unable to come to work. Through the training, the participants learn about both weatherization health and safety and how to cope in the construction trades so they can make a good living for themselves and their families and contribute to society. This program was initiated with NIEHS funding to the Midwest Consortium and is continuing to be presented. Materials used will be demonstrated and testimonials from several participants will provide documentation of how this innovative weatherization program has provides a pathway to better employment opportunities.

45. Understanding Chemicals and Safer Substitutions for Workers

(WE & ATT)

LEAD PRESENTER: *Anna Fendley, United Steelworkers Tony Mazzocchi Center*

CO-PRESENTER: *Charlotte Brody, Blue Green Alliance*

Existing chemical databases and MSDSs can be difficult for workers to understand. This workshop will present information on a new web-based tool for workers to answer their first questions about the safety of chemicals in the workplace. Participants will be shown the tool that has been developed. Following the demonstration, there will be a discussion with the goal of improving the usefulness of the tool for workers and for worker trainers. Participants in this workshop will also discuss the concept of safer substitutions for chemicals in the workplace, how this affects workers, and what workers can do to promote safe substitution.

46. Computer Simulation to Create Realistic Exercises

(HW/ER & ATT)

LEAD PRESENTERS: *Don Ransford and Teresa Oakley*

National Partnership for Environmental Technology Education (PETE) and Kentucky Community and Technical College System / Midwest Consortium

This workshop will introduce participants to the ease of constructing a 3-D representation of an Emergency Response or Site Worker situation utilizing free downloadable program's Google Sketch-up 8 & Code3D software. Sketch-up is an innovative tool with user-friendly features that allows facilitators to design a realistic activity tailored to the participants work location or expected activities. Users can create a complete facility and the equipment used there (e.g. specialized tanks) or they can download items from the on-line warehouse. The exercise includes how to add specific elements and integrate it in a scene. With just a few clicks of your mouse you can create a scenario for participant engagement using skills from the workshop.

47. Strategies for Building an Effective Train-The-Trainer/Worker Trainer Program

(ID)

LEAD PRESENTER: *Janet Womachka, Civil Service Employees Association / The New England Consortium*

CO-PRESENTER: *Matthew C. Kozak, Civil Service Employees Association / The New England Consortium*

Worker trainer programs can be difficult to develop and maintain, but lead to significant rewards including worker empowerment, internal structures for safety and health programs and a culture change towards a safer workplace. This workshop will focus on overcoming the challenges that come with implementing and maintaining worker training programs. Through a variety of activities and discussion, solutions will be provided to keep your program a continued success.

48. Use of Dioramas to Enhance Learning Outcomes

(HW/ER)

LEAD PRESENTER: *John A. Hanson, Lakeshore Technical College / Midwest Consortium*

Instructional tools have been a critical part of effectively facilitating a learning plan since the first teachable moment. A variety of inexpensive, versatile instructional tools are available. One of the tools successfully woven into a variety of course subjects is the use of a diorama. It is a universal tool that can be constructed with common physical features, such as flat, rolling, or rugged terrain. It can be used as a table-top display to represent a countryside, village, city or combination of several of these areas. Versatile construction allows it to be utilized as a stage for changing from a physical site that represents a company location to a large metropolitan area. Use of a variety of buildings, railroad track, train cars and Matchbox-type vehicles greatly enhance the surroundings and scenery the instructor wants to create. The instructor can create a teachable location that will enhance any type of teachable moment. Universal dioramas can accommodate diverse learning objectives. Successful past uses Dioramas in Public Safety Instruction include the following areas; wind energy technical rescue, health and safety planning and plans development, hazardous waste site remediation, emergency response, industrial emergency response, municipal emergency plans development, emergency operations center management, law enforcement and criminal justice applications like crime scene investigation or active shooter, fire response, emergency medical response, and use of the Incident Command System. Basically, spending a few moments to create a storyline or narrative that surrounds the learning objective(s) will foster the creative use of a diorama. The measured successes of enhanced learning outcomes through use of a diorama support the investment in time and energy to construct it. This hands-on session will provide participants experience in creating a storyline using dioramas provided by the presenter.

49. Death by Power Point or NOT!

(ATT)

LEAD PRESENTER: *John Morawetz, ICWUC Center for Worker Health and Safety Education*

CO-PRESENTER: *Mike Gill, ICWUC Center for Worker Health and Safety Education*

We all have sat through power point presentations where the speaker read every word on every slide with nothing added, some of which had print so small even the first row couldn't read. Based on a survey of worker trainers from a number of the union grantees, a group of seven NIEHS union grantees held a 4 day class that was aimed at better using Power Point to support worker centered values of union training efforts. The Learning Objectives included a review of a set of 2002 principles of participatory adult education (reviewed in another Trainers Exchange class), how to evaluate how electronic media can enhance the classroom experience, understanding the limits of electronic technology and keeping the focus of training on the participants, editing and designing Power Point presentations and exploring how other grantees are using electronic training technologies. The class included a mixture of basic educational goals of worker centered programs, a review of all the menu options of Power Point and 4 exercises where the trainers edit and develop Power Point presentations to center of participants' experiences and opinions. This class will review this project, divide into small groups to discuss the strengths and weaknesses of Power Point and discuss how best to use Power Point. This will be followed by a group discussion of each groups' major views.

50. Incident Command System (ICS) Communication Challenges Exercise

(HW/ER)

LEAD PRESENTER: *Ervin Roy Stover, Alabama Fire College*

This session is a skill building activity, which demonstrates the basic functions, used in the incident command system (ICS), and highlights the difficulties in formulating a response strategy, its implementation, and effective communication. This activity engages all the participants, through a fun and friendly competition. The participants are divided in two teams; each team chooses an Incident Commander (IC). The IC is presented with the rules and tools of the incident; then the IC chooses his team, (Safety, Logistics, Planning and Operations), sets strategy for completion of the task presented to him, and oversees its completion in the shortest amount of time, (as accurately and safe as possible). They are presented with a model (LEGO figure - the incident), just outside the room and allowed to view the model for 1 minute, then return to the teams command post to accurately describe and build the same model as accurately and as fast as possible from the duplicate set of parts. At the end we compare the two model figures for accuracy. This is followed by a discussion on the subject of ICS, and any problems encountered (Strategy, implementation, communication). The exercise highlights the importance of the Incident Command System, and the importance of strategy, effective communication, and prior training.

51. Training in a Bad Economy

(ID)

LEAD PRESENTER: *Steve Schrag, 1199 SEIU / SEIU Education & Support Fund*

A roundtable discussion on how the ongoing economic recession affects training opportunities and student participation for both employer-based and open-enrollment health and safety training; and how training programs and trainers can respond. The objective of this session is to share the experiences of both trainers and training programs working during a bad economy and to learn from each other what responses have worked to improve training and student participation. The discussions will include training programs for both the public and private sectors and include construction, healthcare and general industry.

52. Engaging Underserved Workers In Low-Income and Minority Communities

(LS)

LEAD PRESENTER: *Raenell Nagel, Ohio Environmental Council / Midwest Consortium*

CO-PRESENTER: *David Celebrezze, Ohio Environmental Council / Midwest Consortium*

The Ohio Environmental Council (OEC) has provided trainings to a wide range of workers and community groups on reporting environmental releases, toxic use reduction, and persistent bioaccumulative toxins. One aspect of providing these trainings that we have found particularly challenging, but rewarding, is engaging underserved workers and citizens, particularly those in low-income and minority communities.

Poor air quality is a serious issue for Ohio residents. Diesel engines are a major contributor to fine-particle (soot) and ozone (smog) forming emissions in Ohio. In 2009, diesel trucks, buses and construction equipment released more than 6,556 tons of soot-forming particulate matter in areas that are failing air quality standards (mainly urban areas). Additionally, cars trucks and buses emitted 147,256 tons of smog-forming nitrogen oxide into Ohio's air. Diesel pollutants have been linked to asthma attacks, hospitalizations due to asthma, heart and lung disease, leukemia and premature death, resulting in missed school and work days and high medical costs for the residents of Ohio. Further, diesel emissions have a disproportionate effect in creating "hot spots" of poor air quality zones with an elevated risk of premature death, cancer incidents, and hospitalizations due to asthma attacks.

Clearly, it is critical that workers and citizens who are disproportionately exposed to these pollutants understand risks and how to advocate for change. In this workshop, we would like to share the strategies we have developed for working with these audiences, within the context of trainings related to diesel emissions, anti-idling efforts, and improvements to air quality.

53. Refinement and Evolution of the Small Group Activity: Problem Solving Using NIOSH Fatality Reports and OSHA Job Hazard Analysis

(WE)

LEAD PRESENTER: *Bridget McGuiness, The New England Consortium (TNEC) at University of Massachusetts Lowell*

CO-PRESENTER: *Thomas Estabrook, The New England Consortium (TNEC) at University of Massachusetts Lowell*

Over the past five years we have strengthened small group activities by blending in different interactive features. We use NIOSH Fatality Reports and the OSHA Job Hazard Analysis as examples of this refinement process. For instance, a NIOSH Face Report activity evolved from "read, recommend, report" to "read, draw, recommend, report, self-reflection." In this workshop students should bring in their own small group activities that could be enhanced and refined. Working in small groups, students will help each other create an activity that is stronger, layered and nuanced. Finally, they will report back their challenges and successes.

54. Using Tabletop Exercises as an Effective Training Tool to Meet Federal OSHA Training Requirements of Hazwoper 1910.120

(HW/ER)

LEAD PRESENTER: *Gary Yurt, OAI, Inc.*

Through the use of a tabletop simulator, accompanying PowerPoint and group activities, HAZWOPER instructors can deliver an impactful training program. This session will allow trainers to demonstrate, through simulation, how communities can test their ability to respond to HazMat incidents. This instructional tool provides trainees with the opportunity to identify response and coordination issues that could arise during various HazMat scenarios and make the decisions to resolve those issues. This session will focus on three popular HazMat training scenarios:

- 1) Fixed Facility (rural) - accident involving a chlorine leak in a water treatment plant.
- 2) Highway Accident (suburban) - describing an acetone release.
- 3) Rail Accident (urban) -involving release of chlorine.

The exercises simplify and sequence events during a timeframe that in reality would be characterized by a series of complex issues occurring nearly simultaneously. These exercises allow instructors to demonstrate to students:

Validation of coordination and communication capabilities during HazMat incidents, Verification of policies and procedures for responding to HazMat incidents, and Identification of the overall strengths and weaknesses of HazMat plans. Upon completion of these exercises, instructors will be able to use a similar tabletop exercise to teach trainees: How to direct, coordinate, and control emergency activities using the Incident Command System (ICS); How to alert, mobilize, and activate personnel and deploy equipment for emergency response and maintain operations until the situation is brought under control; and How to coordinate and disseminate timely/accurate information to the media and public.

55. Making the Connection: Demonstrating the Value of Receiving Feedback from Trainees (ID)

LEAD PRESENTER: *George McCoy, LIUNA Training and Education Fund*

CO-PRESENTER: *Gary F. Gustafson, LIUNA Training and Education Fund*

The ability to elicit feedback from trainees is a powerful tool instructors need to ensure participants are learning in the class. Gathering trainee feedback is also helpful to capture evaluation and employment information required by NIEHS. During this presentation, LIUNA Training and Education Fund will demonstrate how Trainers can use this technique to do both. Utilizing a questionnaire incorporated into the 8-hour Hazardous Waste Refresher application, LIUNA Training instructors facilitate a think, pair and share activity where they gather participant feedback. The information collected is used to inform teaching and learning and to assist in preparing reports to NIEHS. Trainers attending this workshop will learn the value of eliciting and leave with an example of an activity they can employ in their own refresher classes to enhance participation, gather feedback and capture vital grant reporting information.

56. Radiation Fundamentals: Understanding and Incorporating Radiation Concepts into HAZWOPER Training (HW/ER & ID)

LEAD PRESENTER: *Bernie Mizula, Mizula LLC*

CO-PRESENTER: *Al Valerioti, IAFF*

Radiation is one of the most feared and misunderstood topics in the HAZWOPER realm, including emergency response work and hazardous waste site cleanup and storage activities. In the fire service, professional hazmat teams have been called to respond to a myriad of radiological incidents, including response to dirty bombs, nuclear incidents, transportation accidents and emergencies at facilities where radiological material are used and/or stored. The International Association of Fire Fighters (IAFF), and Bernie Mizula, created a Radiological Control Training Program which focuses on creating a solid understanding and respect for radiation and radiological materials including what it is, how to detect it, how to avoid it, how to respond when it is released and how to clean it up. The program contains two courses; one which covers personnel who are considered radiological workers under DOE (such as fire fighters and EMS personnel who work with the DOE) and one which is geared to those who will respond to radiological incidents including dirty bombs, nuclear and transportation accidents. The materials foster adult-education methods including small-group learning with a focus on learner participation and hands-on activities. The workshop will review the fundamentals of radiation; which is the foundation of radiation protection. Trainers attending this workshop will leave with a solid understanding of what radiation and radiological materials are and are not. Methods for teaching and incorporating radiation concepts into HAZWOPER courses will be discussed as well as the current state of the National response effort concerning dirty bombs and nuclear incidents.

Hotel Map—Hyatt Regency Pier Sixty-Six

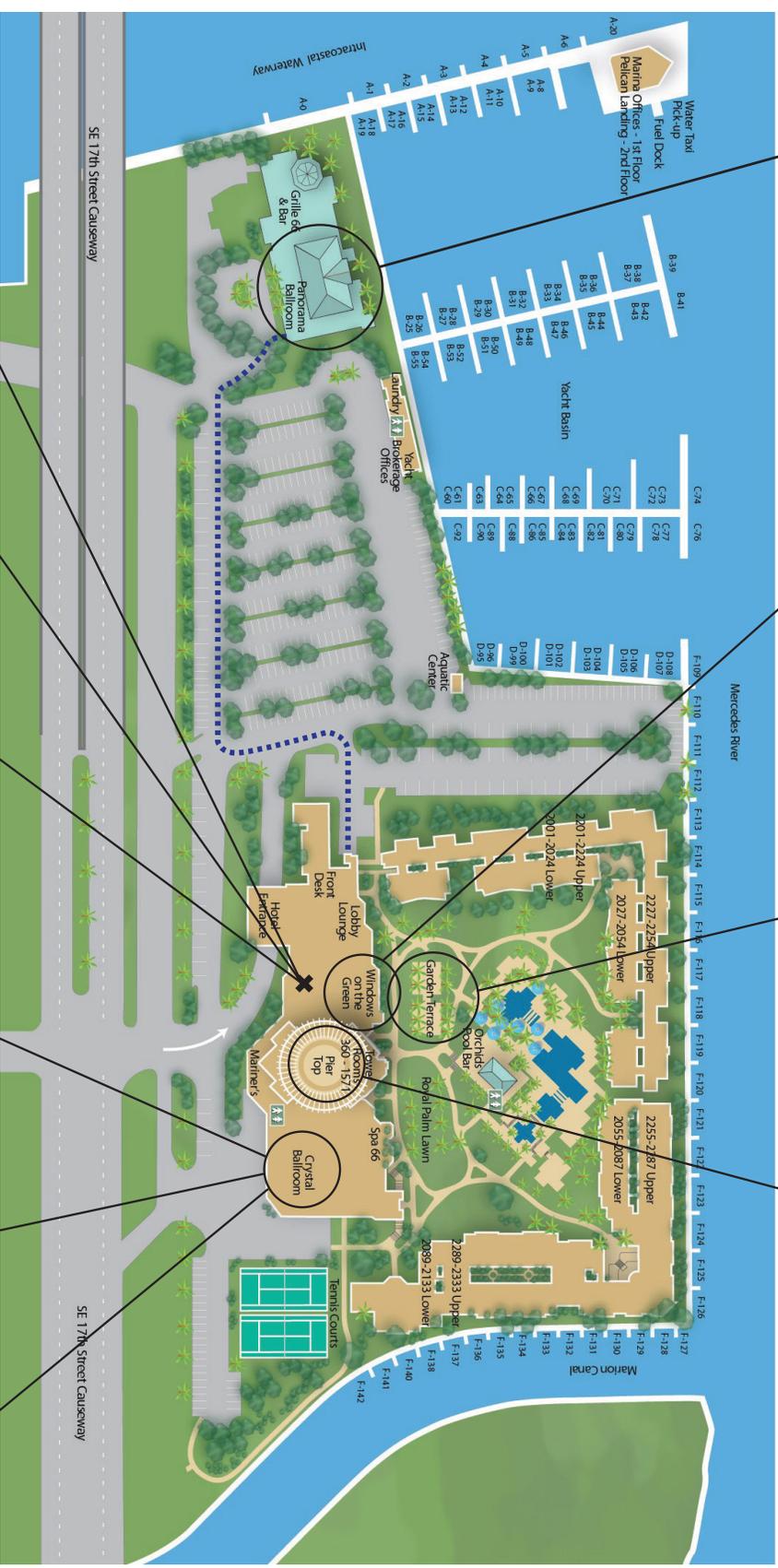
..... Route between Panorama Ballroom and Main Building
 (Golf carts are available upon request for those who may need a ride between the Panorama and Main buildings.)

Workshop Sessions
 Panorama A
 Panorama B
 Panorama C/D

**Continental Breakfast
 Wednesday and Thursday**
 Windows on the Green
 (Ground Floor)

**Outside Lunch
 Wednesday and Thursday**
 Garden Terrace

Wednesday Night Reception
 Pier Top
 (17th Floor)



Workshop Sessions
 Chairman's Boardroom
 (Ground Floor)

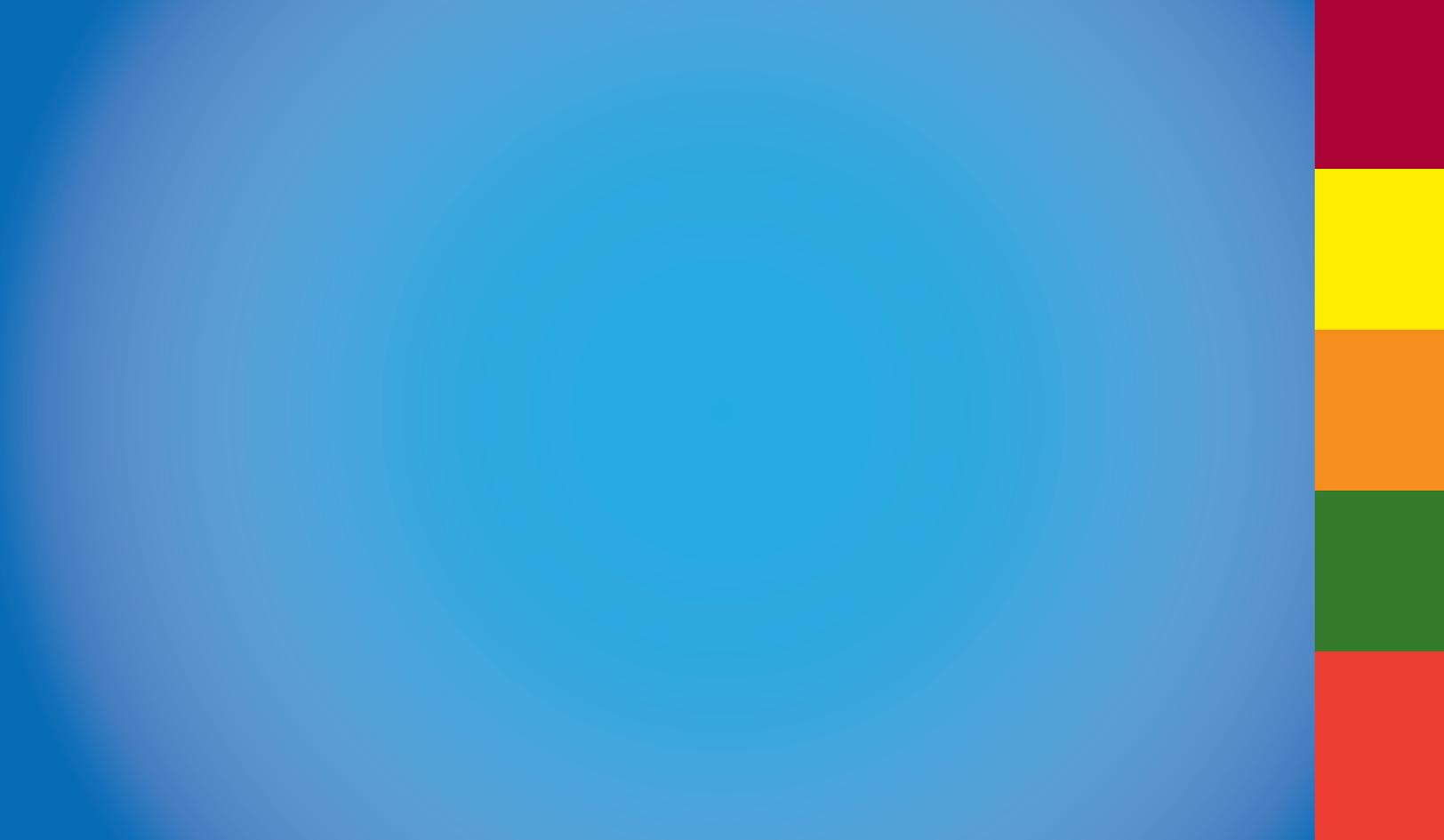
Workshop Sessions
 Chart Room
 (Ground Floor)

Workshop Sessions
 Commodore Room
 (Ground Floor)

Workshop Sessions
 Crystal Ballroom IV
 (Lobby Level)

General Session
 Crystal Ballroom II & III
 (Lobby Level)

Workshop Sessions
 Crystal Ballroom I
 (Lobby Level)



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