

- TO: Training Officers HazMat Program Managers
- FROM: Douglas E. Wolfe President, Response Technologies



REF: Introducing HAZ MAT CON-ED

Response Technologies Corporation introduces **HAZMAT CON-ED**<sup>TM</sup>, a managed, continuing education program for hazardous materials technicians.

**HAZMAT CON-ED<sup>TM</sup>** helps you manage the continuing education needs of your technicians through a cost effective and engaging series of training programs using blended educational methodologies. This means a training package tailored to your needs using both online and infield hands-on instructional programs.

**Competency based** – The program aligns with the requirements of 29 CFR 1910.120, the competencies found in NFPA 472 "Competence of Responders to Hazardous Materials and WMD Incident", the Florida SERC Hazardous Materials Training Guidelines and Refresher Competency Checklist (task book).

**Tailored to your needs** – Through a needs analysis process we assess your organization's greatest training gaps and select in-services to fill those gaps from a menu of options. If your need is not on the menu, we will design and construct an in-service to meet YOUR specifications.

**Blended** – Our in-services involve an instructor lead, asynchronous, online training environment followed by hands-on in-services to practically apply skills and techniques. The on-line portion is not the "point, click, test" training that fails to engage your personnel. These on-line portions require completion of on-line activities, written responses, discussion forums and interaction with subject matter expert instructors. The hands-on portions are fast paced, scenario based and problem solving.

**Cost effective** – Needs analysis insures that time is spent on appropriate topics. The blended program and use of online training insures that less time is spent in a classroom, less down time, and less overtime for your organization.

For more information, contact Response Technologies at (941) 371–7849.



#### BLENDED TRAINING PROGRAMS TO MEET THE NEEDS OF YOUR HAZARDOUS MATERIALS RESPONSE PERSONNEL

#### **Training Needs Analysis**

- » Desktop Review
- » Facilitated Discussion
- » Drill/Exercise Evaluations

#### HazMat Con-ED<sup>TM</sup> Training Road Map

#### HazMat Con-ED<sup>™</sup> Menu 2011

- » Rapid I.D. and Risk Assessment of Hazardous Materials
- » Personal Protective Equipment
- » Technical Decontamination
- » Air Monitoring and Analysis
- » Hazardous Materials Sampling Techniques
- » Hazardous Materials Response to Illicit Situations
- » Offensive CNG and LPG Leak Control
- » Hazardous Materials Advanced Life Support
- » Integrated Response to Chemical Suicides
- » Field Chemical Analysis

HazMat Con-ED<sup>™</sup> Skills Drills Traditional Course Deliveries



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# apid I.D. and Risk Assessment of Hazardous Materials

#### DEVELOPING A HIGHLY REPEATABLE RISK ASSESSMENT SKILL SET THAT CAN BE APPLIED TO FIELD RESPONSE

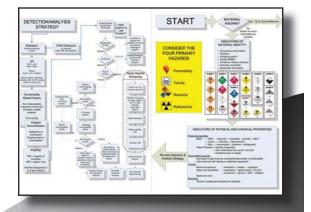
This one day HazMat Con-ED<sup>™</sup> in-service enables the participant to develop the skills necessary to make risk based decisions at the hazardous material scene. Because the risk assessment and material identification procedures discussed and practiced in this



program are used repeatedly throughout the HazMat Con-ED<sup>TM</sup> program series, this program serves as a starting point for future sessions. In Rapid I.D. and Risk Assessment, participants gain knowledge concerning the hazards of various chemical families that will aid them

in decision making activities. The program builds upon commonly accepted chemistry concepts, the basic principles of detection and field chemical analysis procedures. Hands-on opportunities for interpreting air monitoring data and the actual use of field screening procedures in a controlled classroom environment reinforces the content. These activities, along with the repeated application of the decision making flow chart introduced during the program, results in a highly repeatable risk assessment skill set that is readily field usable.

- » Review of Hazard Characteristics
- » Chemical Families and Their Associated Hazards
- » Predict the Likely Fire, Reactivity, Toxicity and Radioactivity Risks
- » Identification of PPE Considerations
- » Proper Air Monitoring and Analysis Sequence
- » Field Screening Tests and Their Application
- » Developing a Risk Based Response





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# Personal Protective Equipment

#### PERSONAL PROTECTIVE EQUIPMENT CONTINUING EDUCATION BASED UPON YOUR ORGANIZATION'S TRAINING NEEDS AND MISSION

This in-service is tailored to meet the specific personal protective equipment training needs of the organization and its mission. Starting with an on-line review of important requirements



relating to PPE, the participant is guided through an overview of the applicable regulations and standards. This review includes those requirements established by OSHA, EPA, NFPA and, if applicable, the National Institutes of Justice Law Enforcement CBRN PPE Standard.

In addition, detailed information geared towards the levels and types of personal protective equipment used by your organization is discussed.

After completing the online portion, participants attend a one day hands-on in-service. During this in-service, skills are enhanced by performing a series of inspection, testing and risk based PPE selection activities. Confidence and acclimation are further developed with exercises in donning, operating in and doffing ensembles under a variety of skill building sessions with extensive manipulative stations.

- » Regulations and Standards
- » Features & Considerations of PPE
- » Risk Based Selection Process
- » Testing, Inspection and Operational Safety
- » Operating in Particulate, Liquid & Vapor Protective Ensembles
- » Emergency Procedures, Communications & Hand Signals





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# Technical Decontamination

#### MAINTAINING TECHNICAL DECONTAMINATION SKILLS WHILE REVIEWING AND ENHANCING SPILL AND LEAK CONTROL CAPABILITIES

Preventing cross contamination and material spread is essential to a safe response. One of the most commonly identified violations of the HAZWOPER standard is the failure to properly address the need for technical decontamination. This HazMat Con-ED<sup>TM</sup> program provides



a review and update of technical decontamination procedures while addressing other manipulative spill and leak control competencies. The program reviews the legal requirements, risk assessment considerations, current best practices and your organization's specific

decontamination policies. During an on-line portion, cognitive and technical competencies are addressed including a customized portion concerning your agency's specific policies. Then, during a one day in-service, the hands-on skills are applied through multiple scenarios involving decontamination. Not only do the participants engage in performing technical decontamination, but they also operate in various levels of personal protective equipment and perform a wide variety of tactical response activities.

- » Roles of Personnel Relating to Decontamination
- » Information Sources to Guide Risk Assessment
- » Procedure and Equipment Selection Process
- » Contamination Minimization and Reduction Efforts
- » Location, Set-Up and Operational Procedures
- » Field Expedient Victim and Responder Emergency Decontamination Activities
- » Equipment Decontamination and Incident Termination
- » Various Leak Control Activities



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# Air Monitoring and Analysis

TRAINING YOUR PERSONNEL IN THE USE, CARE AND MAINTENANCE OF A WIDE VARIETY OF AIR MONITORING AND ANALYSIS EQUIPMENT

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This HazMat Con-ED<sup>™</sup> program is designed to provide the participants with the understanding of basic principles and skills necessary for the proper use of air monitoring and detection instruments during hazardous materials responses. The program is tailored to meet your agency's specific equipment and needs. It addresses the selection,



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care, use, interpretation and field maintenance of equipment used by your personnel. The program starts with an on-line review of basic air monitoring equipment principles, the introduction to an analysis strategy and the specific capabilities and limitations of equipment used by your agency. Then, during a subsequent in-service involving a combination of both classroom

and hands-on application, the participants are able to develop their skills in the proper selection, use and care of their equipment. Throughout the program, the concepts of material identification, risk assessment procedures and personal safety are reinforced.

- » Air Monitoring Strategies and Planning
- » Field Calibration, Care and Maintenance
- » Instrument Capabilities and Limitations
- » Selection Appropriate Equipment
- » Operation, Interpretation and Action Taking
- » Documentation and Incident Termination



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# Hazardous Materials Sampling Techniques

DEVELOPING THE SKILLS AND TECHNIQUES NECESSARY FOR THE RESPONDER TO GATHER QUALITY SAMPLES DURING HAZARDOUS MATERIALS SITUATIONS

This hands-on intensive HazMat Con-ED<sup>™</sup> program is designed to provide the participant with the skills necessary for the proper collection of hazardous material samples in accordance



with a nationally recognized 12 step process. During the on-line portion of the program, participants will gain information concerning the

importance of proper sample collection, equipment used, quality control, sample plan development and team techniques for successful sample collection. Then, during a one day instructor lead in-service involving multiple hands-on activities and scenarios, participants are given an opportunity to develop and execute a sampling plan and participate in multiple sampling missions. Throughout the in-service, the concepts and skills for developing a risk based response and maintaining responder safety are continuously reinforced.

- » Importance of the Sampling Plan
- » FBI Twelve Step Sampling Process
- » Assessing Initial Situational Intelligence
- » Developing a Risk Based Response
- » Quality Control and Team Techniques
- » Hands-on Application to Various Situations





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# Hazardous Materials Response to Illicit Situations



#### DEVELOPING A JOINT HAZMAT AND FORENSIC RESPONSE TO CRIME SCENES INVOLVING HAZARDOUS AND POTENTIALLY IDLH CONDITIONS

This HazMat Con-ED<sup>™</sup> program provides the trained technician or operations core responder with the knowledge and skills necessary for the coordinated hazmat and law enforcement response



to incidents involving illicit labs or crime scenes with hazardous environments. The program focuses on the development of a "risk based" response. During either a classroom or on-line session, knowledge is gained concerning the various illicit labs and situations,

associated processes, legal implications, unified incident management, detection, field analysis, personal protection and scene processing. The class is heavily orientated toward hands-on learning. During the practical session, numerous simulations will be presented to enable the participants to apply what they have learned to mock situations.

Program duration varies depending upon the previous education of the participants. Recommended pre-requisites for the technician include: Rapid ID and Risk Assessment of Hazardous Materials and Hazardous Materials Sampling Techniques.

- » Identify Types of Illicit Labs
- » Evaluate Hazards Present
- » Develop a Risk Based Response
- » Conduct Entry and Forensic Missions
- » Interagency Operations and Unified Command
- » Incident Termination and Evidentiary Procedures





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# Offensive CNG and LPG Leak Control

DEVELOPING THE ABILITY TO ASSESS OPTIONS, DEVELOP PLANS, AND IMPLEMENT OFFENSIVE CONTROL OPERATIONS AT NG, CNG AND LPG EMERGENCIES

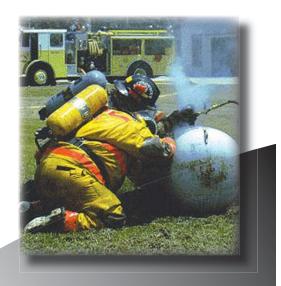
One of the most commonly encountered and time consuming hazardous materials emergencies are those involving the response to un-ignited leaks of liquefied petroleum gas (LPG) and compressed natural gas (CNG). Agencies in cooperative arrangements with their



local gas provider may often be tasked with controlling the leaks in an offensive manner. This HazMat Con-ED<sup>™</sup> program provides an initial on-line or classroom session where important characteristics of these products, types of installations, pre-incident activities, risk assessment considerations

and control opportunities are identified. Then, during the hands-on portion, participants are given an opportunity to work with offensive control equipment in a controlled setting. This is followed by several simulated situations, including live product evolutions during which all aspects of risk assessment, scene control, protective measures and offensive control, including flaring and freeze downs, are practiced. Note: Response Technologies requires the use of practices established by NFPA 1403 for any live product scenario that has a potential to develop an IDLH environment.

- » Regulatory Environment for NG, CNG and LPG
- » Developing a Risk Based Response
- » Defensive & Offensive Action Options
- » Leak Control Equipment
- » Planning Offensive Operations
- » Hands-on Leak Control Evolutions





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# Hazardous Materials Advanced Life Support

#### PREPARING THE EMT AND PARAMEDIC FOR FIELD MANAGEMENT OF MEDICAL EMERGENCIES ARISING FROM HAZARDOUS MATERIALS EXPOSURE

Response Technologies Corporation is currently in development of a blended Advanced Life Support Training Program for hazardous materials emergencies. This program involves an on-line



training component, an instructor led in-service and a series of lab and field evolutions designed to develop the skills of the ALS provider. The program is being designed to comply with the educational competencies outlined in the National Fire Protection Association's (NFPA)

Standard 473 "Standard for Competence of Responders to Hazardous Materials / Weapons of Mass Destruction Incidents". It assumes that the participant is at least an EMT-Paramedic and has already achieved Operations Core Level Training prior to participation. Upon successful completion of this blended training program, the ALS responder, while properly functioning within the established incident command system, shall be able to deliver Advanced Life Support care at the hazardous materials or WMD emergency.

- » Advanced Life Support
- » Hazardous Materials/WMD
- » Meets NFPA 473 & SERC
- » Hazard/Risk Assessment
- » Online, Classroom & Practical
- » Responder Health & Safety
- » Toxic Syndromes & Treatment
- » Field Patient Management
- » Hands-on Application





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# Integrated Response to Chemical Suicides (Operations and Technician Level)

ADDRESSING A GROWING CHEMICAL CHALLENGE IN EMERGENCY SERVICES FOR THE DISPATCHER AND THE OPERATIONS OR TECHNICIAN LEVEL RESPONDER

One of the fast growing challenges to the hazardous materials community is the response to incidents involving chemical induced suicides. These trends originally began along the Asian



Rim, particularly in Japan. Through the internet the techniques have surfaced widely throughout the United States. The events require the ability to rapidly recognize and assess the risks associated with the situation and to take decisive

actions to properly manage the incident. This online training program is designed for fire, EMS and law enforcement personnel and presents the knowledge and skills necessary for safe and appropriate actions by dipatch personnel and operations or technician level responders.

The program can be provided for three levels: Dispatcher Awareness, Operations Level Responder, and Technician/Law Enforcement Integrated Response. Additionally, a Train-the-Trainer course can be provided.

- » History of Chemical Suicides
- » Materials, Processes and Their Risks
- » Physiologic Effects to the Body
- » Victim Rescue and Treatment
- » Forensic and Medical Examiner's Considerations
- » Organization's Policies and Procedures





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# Field Chemical Analysis

#### A HANDS-ON APPLICATION OF WET CHEMISTRY AND ANALYSIS PROCEDURES DESIGNED TO AUGMENT FIELD ANALYTICAL CAPABILITIES

Which the advent of portable FTIR and Raman technologies, the basic skills of qualitative analysis using wet chemistry processes have, in many cases, become a diminishing ability. However, these techniques must be maintained and integrated with new and emerging technologies in order to insure a balanced field analysis capability.



This HazMat Con-ED<sup>TM</sup> program is designed to provide the participant with a sound understanding of the basic principles of field qualitative analysis procedures

using wet chemistry methods and how to integrate those procedures with high tech assets. This hands-on program emphasizes a basic understanding of chemical families, risk assessment, procedural safety, materials and tools used, and the analysis processes necessary to achieve a high degree of confidence. It is recommended that the participant have attended "Rapid LD, and Risk Assessment of Hazardous Materials" prior to this training session.

- » Field Analysis Process
- » Chemical Analysis Safety
- » Identifying General Hazards of Materials
- » Materials and Supplies
- » Tests and Procedures
- » Identifying Unknown Materials





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