

HAZ-MAT TEAM COMPETITION RULES

Release Date 11/30/2016

Date of Competition Wednesday January 18, 2017 – 9:00 a.m. (8:00 to 8:30 check-in)

The Plaza Resort Convention Center 600 N. Atlantic Avenue • Daytona Beach, Florida

Team Registration Deadline: 5:00 pm Friday December 16, 2016

Awards announced at FLHMR Team Party Thursday Evening January 19, 2017 7:00 PM - 9:00 PM Sloppy Joes Restaurant, Daytona Beach



IMPORTANT COMPETITION DATES and TIMES

Competition Date: January 18, 2017 starting at 9:00 a.m.

<u>Competition Location</u>: The Plaza Resort and Spa

600 North Atlantic Blvd. Daytona Beach, FL Room : Granada I

Team Registration Deadline

December 16, 2016 5:00 p.m. www.flhazmatsymposium.org

Team Check-in: Wednesday January 18, 2017

8:00 - 8:30 a.m.

Plaza Hotel Granada I

Rules & Safety Briefing: Wednesday January 18, 2017

8:30 a.m.

Plaza Hotel Granada I All teams must be signed-in

Drawing for start times will occur during briefing

Competition Hours: Wednesday January 18, 2016

9:00 a.m. - 1400 (Ten Teams)

<u>Award Ceremony</u>: Thursday Evening January 19, 2016

7:00 - 9:00 p.m.

Sloppy Joe's Restaurant

250 N Atlantic Ave #220, Daytona Beach, FL

REGISTER YOUR COMPETITION TEAM HERE



INTRODUCTION

The fourth annual Florida Hazardous Materials Team Competition is being sponsored by the Florida State Emergency Response Commission, the Florida Association of Hazardous Materials Responders and various vendors to the emergency response community.

The standards utilized for the development of this competition have been drawn from: a) the current SERC training standard, b) the Florida 160 hr HazMat Technician training program, c) Standard NFPA 472

The competition for 2017 will be comprised of seven scored and/or timed stations and two unscored support stations. Each station shall be 15 to 20 minutes in duration with travel time between stations.

	Station Number and Name	Grading
int	1 – Container & Product Hazard Analysis	Individual – All team members
Risk Assessment	2 – Monitoring & Detection	Individual – All team members
Ri	3 – Report on Risk Assessment	Individual – All team members
Š	4 – Field Hazard Screening	Individual – All team members
<u>0</u>	5 – PPE Dress-out	Un-scored
Cont	6 – Leak Control Situation 1	Team – Technique & Time
Leak Control	7 – Leak Control Situation 2	Team – Technique & Time
Le	8 – Leak Control Situation 3	Team – Technique & Time
	9 – Best Poker Hand	Not calculated into competition scoring

Stations 1 through 4 will be conducted by three team members from each team working individually. Their individual scores will be combined into a total team.

Stations 5 through 8 will be conducted as three person teams and scored as a team on both technique and time. Station 9 is just for the heck of it!

TEAM MAKE-UP

Maximum number of teams: 10

An organization may field more than one team <u>unless</u> more than 10 teams register. If more than 10 teams register, then multiple teams from a single organization will not be permitted. Those organizations that registered more than one team will be contacted to reduce the number of teams.



All competition teams shall be comprised of three primary team members and one (1) optional alternate. The alternate may only be used if one of the primary team members becomes physically incapable of continuing the competition. Otherwise, mid-competition substitution with the alternate is not permitted.

All team members must be a hazmat technician assigned to a hazardous materials team from a local, state or federal government agency or industry.

AWARDS

AWARD	BASED UPON
Team Best "Risk Assessment"	Total team scores for stations 1, 2 & 3
Team Best "Leak Control"	Shortest combined time stations 5, 6 & 7
Individual Best "Risk Assessment"	Individual best combined risk assessment score
Best Overall	Total team score all stations

<u>SAFETY</u>

The competition shall be managed using a Incident Action Plan (IAP) including a designated Safety Officer. As with any incident, the Safety Officer shall have the authority to suspend, alter or terminate any activity deemed to be a safety risk to participants or competition staff.

CHECK-IN AND PROCESSING

Check-in begins at 0800 and all teams must be checked in by no later than 0830 hrs Wednesday January 18, 2017. Check-in will occur at the Plaza Hotel Room Granada I.

Requirements at check in:

- Organization photo identification for each team member from an established private sector or governmental hazmat team.
- Any organization specific equipment brought for use as allowed for in Station 1 or 5. (See station 1 and 5 rules for special considerations)
- Any personal dress-out equipment that is allowed for the leak control stations must be enclosed in gear bags or cases capable of being secured (sealed).
- Cell phones, web enabled devices and other forms of external communication <u>are not</u> <u>permitted in the competition area including staging area located in Granada I.</u>
 Failure to follow this rule shall constitute grounds for team disqualification.



Check-in activities:

- Team member identities will be verified with organization issued photo I.D., registered and issued participant number.
- All agency specific detection equipment shall be evaluated for compliance with the requirements of the special consideration statements found in the station descriptions.
- Air monitoring equipment for use by teams at station 1 shall be checked in, tagged and secured. This equipment will be moved to Station 1. The equipment will be made available to all teams for use during Station 1. This equipment can be picked up only after the last competition team completes the station.
- Any personal dress-out supplies or equipment permitted for use in station 5 (except SCBA and face pieces) must be contained in a gear bag or case which is sealable with a numbered tag. This tag must remain intact until the team reaches the dress-out area at Station 5. The seal shall be removed only by the competition staff assigned to the dress-out area.

After check-in:

- All team members will held in the staging area in room Granada I. All registered team members must be in the staging area by no later than 0830 hrs.
- Any late team members not in the staging area by 0830 hrs shall be disqualified from participation.
- Competition pre-entry and safety briefing will be conducted starting at 0830 hrs.
- There will be a drawing for team start times. The number of start intervals will be determined based upon the number of teams registered. Two teams will be started every 20 minutes beginning at 0900 hrs. Start points will be Stations 1 and 5.
- All team members must remain in the staging area until they enter their first competition station.
- Teams are encouraged to bring snacks or drinks.
- No communication devices of any kind (voice, text, web) will be permitted in the staging or competition area. Exception: In-suit communications systems bought by teams for use in leak control activities and have been secured in sealed gear bags. These devices <u>must</u> remain sealed and off in the gear bag or container until they are donned in station 5.
- Any communication by competition participants with persons or information sources outside the competition area shall disqualify the full team from competition.
- Any travel by competition participants to areas outside the secured area (e.g. restrooms) must be escorted by competition staff.



TIME TABLE - 10 TEAMS

		Team 1	Team 2	Team 3	Team 4	Team 5	Team 6	Team 7	Team 8	Team 9	Team 10
1	Detection use & interpretation	0900	1020	0920	1040	0940	1100	1000	1120	1020	1140
2	Hazards Analysis	0920	1040	0940	1100	1000	1120	1020	1140	1040	1200
3	Report on incident risks	0940	1100	1000	1120	1020	1140	1040	1200	1100	1220
4	Field Screening	1000	1120	1020	1140	1040	1200	1100	1220	1120	1240
5	Dressout	1020	0900	1040	0920	1100	0940	1120	1000	1140	1020
6	Tanker	1040	0920	1100	0940	1120	1000	1140	1020	1200	1040
7	Leak Control 2	1100	0940	1120	1000	1140	1020	1200	1040	1220	1100
8 & 9	Leak Control 3	1120	1000	1140	1020	1200	1040	1220	1100	1240	1120

(Start Times in Green)

AFTER THE COMPETITION

Depending upon the number of participating teams, the competition will complete by no later than 1500 hrs.

Competition staff shall compile scoring and times to determine the winners in the areas previously discussed.

Awards shall be made during the Florida Association of Hazardous Materials Responder party on Thursday evening January 19, 2017 starting at 7:00 P.M. at Sloppy Joe's Restaurant in Daytona Beach Ocean Walk across from the convention center.

REGISTER YOUR COMPETITION TEAM HERE

Registration will close at 5:00 p.m. December 16, 2015

Questions can be directed to Douglas Wolfe at Response Technologies at: dwolfe@responsetechnologies.com

Additional Information Concerning the Symposium and HazMat Team Competition can be found at: www.flhazmatsymposium.org



STATION DESCRIPTION 2017

STATION: Detec	ction Use & I	STATION No.:	1	
ALOTTED TIME:	20 min	X Individual A	ctivity _ Team	Activity

STATION OBJECTIVE

The team member will be presented with a scenario involving the potential release of hazardous materials. Scenario will include information that represents an initial risk assessment and entry objectives which has been approved by the I.C., Incident and HazMat Safety Officers. The technician will select appropriate detection equipment for the situation. They will then approach the simulation using the selected instruments and, based upon their interpretation, indicate appropriate safety actions to be taken. In addition, they will gather additional information necessary to facilitate a hazard analysis of the material and container. The evaluator will take notes as reported by the team member and these notes can be used by the technician at the next station.

CONDITION

The technician will be briefed on the situation by the evaluator who is role playing as "Entry Supervisor". The technician will be provided access to a table of common detection equipment. Based upon the scenario provided, the technician shall select instruments that would be appropriate for the situation. The instruments available will include the following:

pH paper or test strips and deionized water

4 Gas detectors - Ventis®, MSA Altair® / 5 Gas detectors - Multirae Pro, ISD Mx6

Single PID unit - MiniRae, Single FID unit MicroFID, Combination PID/FID TVA 1000B

Radiological Survey - CDV kit, Ludlum 2261-2RK Kit, Thermo Radeye, FLIR Identifinders

Colorimetric Tubes - Drager & Sensidyne

(Team specific detection equipment not listed above may be utilized in accordance with the special considerations listed below)

This assessment will be conducted in an enclosed simulation area while wearing PP/SCBA facepiece (provided by the team) and Vapor Protective Garment (Level A) HALF SUIT provided by the competition management site for the purpose of limiting visibility and dexterity.

The technician shall assume that they have been tasked with conducting a recon using air monitoring equipment necessary to identify IDLH conditions and to gather any additional, relevant information possible concerning the situation.

The assessment area will be comprised of a closed room containing the simulated situation. It is expected that the technician will select, start, use and interpret instruments necessary to determine if IDLH conditions exist.

The technician will be asked questions by the evaluator and expected to provide appropriate responses based upon meter readings obtained from the atmospheric samples provided.



TEAMS MUST PROVIDE THE FOLLOWING

- Positive pressure SCBA **facepeice** for each team member
- Air monitoring equipment will be provided. However, agencies wishing to bring their own equipment should read "Special Considerations" below.

SPECIAL CONSIDERATIONS

It is understood that teams may use comparable equipment that is not listed above. Teams may bring their units for the purpose of the competition. If this option is selected, the following actions must be followed:

- 1) Equipment to be used must be tagged or clearly marked as to the ownership organization.
- 2) Equipment and associated manufacturer operating manuals must be checked in at time of team check-in and left with the competition management team. Equipment will be secured after they have been evaluated for proper operation.
- 3) Equipment will be placed in the station and made available to **all teams** during the competition.
- 4) Equipment shall be picked-up after all teams have completed the competition.

Advanced coordination is recommended (although not required) by calling Response Technologies at 941–371–7849 or by email at info@responsetechnologies.com prior to the competition date.

SCORING CONSIDERATIONS

Each evaluation element will be scored as "not proficient, operationally proficient or fully proficient". Each team member shall be evaluated individually and the participant's individual grades shall be combined into a team score for the station.

STATION DESCRIPTION 2017

STATION: Container and Product Analysis					STATION N	o.:	2
ALOTTED T	IME:	20 min	_X_	Individua	Activity	_ Te	eam Activity

STATION OBJECTIVE

Using the data collected in Station 1, the technician will now assume the role of "Technical Specialist" and will be tasked with evaluating the collected data and developing a hazard analysis and risk assessment.

CONDITION

This station shall be set up with 3 computer work stations with various electronic and printed chemical reference sources. Each team member will be provided a printed workbook.

The member will evaluate the data collected during entry. The member shall identify the container type by name and, if appropriate, specification number. They will identify container characteristics including potential construction materials, nominal capacities and operating pressures. The member will also analyze product hazards necessary to make initial recommendations concerning responder and public safety considerations.

All questions in the workbook will require written responses rather than multiple choice questions.

The participant will be provided with the following references.

Printed: NIOSH Pocket Guide, Condensed Chemical Dictionary, Chris Manuals

Databases: WISER, CAMEO Chemicals, Electronic NIOSH Pocket Guide, Chemical Companion (ERDSS)

The team members shall take their completed workbooks to the next station.

SPECIAL CONSIDERATIONS

No additional resources will be permitted other than those listed above. All electronic databases will be local only and no internet resources will be allowed or accessible.

GRADING CONSIDERATIONS

Each participant is graded on each element as "not proficient", "operationally proficient" or "fully proficient" and that grade is combined into a three person team grade and included in the Risk Assessment area of the competition.

STATION DESCRIPTION 2017

STATION: Briefing the I	C.	STATION No.:	3
ALOTTED TIME: 5 min	X Individual Acti	vity _ Team A	Activity

STATION OBJECTIVE

Evaluate the technicians' understanding of the product hazards and risk assessment findings and their ability to communicate actionable, summative information to an incident commander that may not be fully familiar with the hazard analysis and risk assessment process.

CONDITION

After completing Station 2, the technician shall meet with an evaluator role playing as the "Incident Commander" and will brief the I.C. concerning the hazards and risks associated with the scenario.

The members shall be able to use notes from their workbook used at stations 1 and 2.

The briefing should include:

- 1) Key findings concerning the container and potential container impacts
- 2) Hazards of the product involved
- 3) Risks to responders and the public
- 4) Findings of initial recon and detection
- 5) Recommendation for public protective actions
- 6) Recommendations for continued responder protective actions

SPECIAL CONSIDERATIONS

The team of three technicians must not communicate with each other in any manner or they will be disqualified in the station. The order in which the technicians will provide their briefing will be determined by the draw of straws.

SCORING CONSIDERATIONS

Each scenario shall be evaluated against the same elements regardless of situation. For each element evaluated the technician will be scored as "not proficient or fully proficient". Each of the team members shall be evaluated individually and their individual scores shall be compiled into a team score for the station.

STATION DESCRIPTION 2017

STATION: Field Chemical Screening (Hazard ID)				STATIO	ON No.:	4
ALOTTED TIME:		15 min	X Individual Act	ivity	_Team A	ctivity

STATION OBJECTIVE

Given an unidentified, potentially hazardous material (solid or liquid), the technician, working independently, shall conduct field screening activities using basic supplies in order to determine the potential hazards of the material.

CONDITION

There will be three work spaces, one for each member of the team. There will be one evaluator for each work space.

Each technician shall be provided equipment and supplies commonly utilized for basic field hazard screening analysis procedures. These items shall include:

- Watch dishes & test tubes
- Handling materials (e.g. pipettes, spatulas, tweezers, etc)
- Test strips/kits (pH, oxidizer, fluoride, M8(C8), protein screen, cobalt chloride)
- CGI/PID & Radiological Survey Meter
- De-ionized water
- Hydrochloric acid

Each technician will be provided a solid or liquid sample in over-pack containers and bagged with labels that will represent an unidentified substance that was obtained by a sampling team. Scenario information shall be provided concerning the hypothetical scenario that suggests that, based upon down range detection efforts, that there does not appear to be an airborne IDHL hazard at the scene. A screening process should be utilized to detect the volatility and potential overall flammability, reactivity and radioactivity of the materials.

Documentation of the screening process should follow their organization's policy and procedures and should include written documentation of each step taken in the analysis process as well as the technician's final interpretation.

The overall performance objective of the technician is to <u>classify potential hazards</u> of the material.

SCORING CONSIDERATIONS

Scoring shall be based upon safety of procedures, appropriate application of test methods (i.e. proper test for material and situation) and correct identification of the hazards presented by the material within the allotted time frame. The individual shall be scored based upon "not proficient, operationally proficient and fully proficient". Individual scores of each team member shall be added together for an overall team score.

STATION DESCRIPTION 2017

STATION: PPE Dress-out Station					ON No.:	5
ALOTTED TIME: Up		Up to 20 min	Individual A	ctivity	X Tea	m Activity

STATION OBJECTIVE

This station is a preparatory station for the three leak control stations which follow. **This is an** un-scored station.

CONDITION

Teams of three will be provided a covered dress-out area, drinking water and support personnel. If the team has an optional 4th member, they may assist in this station. Prior to dressing out, the support personnel will obtain pre-entry vitals and will provide a pre-entry briefing. The level A garment will be provided. The team of three will dress to the waist in vapor protective ensembles (Level A) and be prepared to go on air when instructed. The station controller role playing as the Entry Supervisor, shall brief the three person team on their entry objectives.

They will be instructed to complete three sequential leak control evolutions each lasting up to 15 minutes. If leak control is not completed in 15 minutes, the evaluator at the leak station will instruct the team to stop and move to the next objective. It is highly recommended that teams utilize a minimum of 45 minute SCBA.

SPECIAL CONSIDERATIONS

The team is required to provide their own agency's SCBA and face peices. Over boots will be available and single use level A training garments will be provided by Kappler®. Teams may bring their own over-boots and garments if desired provided they follow the checkin requirements identified below.

Any team supplied equipment must be logged in at time of competition check-in and, with the exception of SCBA's & facepeices, must be sealed in equipment bags and must remain sealed until arrival at the dress-out location.

Additional items will be limited to communication systems, anti-fogging solution, personal over boots, helmets, and handlights. These items must should be enclosed in gear bags and must be checked in and sealed by competition staff at the time of team check-in. These bags may be carried by the team members but shall not be opened in at any time until they arrive at dress-out. Failure to follow this rule will result in team disqualification.

SCORING CONSIDERATIONS

This is an un-scored station. Dress-out procedures by the team shall be governed by the team's agency policy. However, teams may be limited to 20 minutes including pre-entry vitals and briefing.

STATION DESCRIPTION 2017

STATION: Pressurized Leak Control			Control		STATIO	ON	No.:	6
ALOTTED T	IME:	15 min	In-	dividual Act	ivity	X	Team	n Activity

STATION OBJECTIVE

A team of 3 technicians shall demonstrate the ability to stop a simulated pressurized leak. The team the type and location of the leak. Based upon the leak type and location, the team shall take appropriate action to reduce the risk and apply appropriate Chlorine A or B kit components.

CONDITION

During pre-entry briefing, the team shall be advised of the leak control activities that are to be conducted. Station 6 shall involve either the chlorine 150 lb cylinder or 1 ton chlorine tank in an enclosed room. The tank type shall be selected immediately prior to the start of the competition. They will not be advised of the location or cause of the leak. (Note: Standard Chlorine A and B kits shall be provided)

The team will be taken to the start line which will be 25 feet from and out of view of the subject container. Timing will start immediately upon the 1st team member crossing the start line.

Simulant smoke and poor lighting conditions will challenge leak control operations. The team shall assess the tank and determine the point of leak. They will take appropriate actions to control the leak using the standard Chlorine A or B Kit. If leak control is not completed in 15 minutes, the station evaluator will instruct the team to stop and move to the next objective. Timing shall stop at 15 minutes or when the last team member crosses the line to the next station, whichever occurs first.

SPECIAL CONSIDERATIONS

Allowable leak control equipment shall be only those items contained within the standard Chlorine A and B Kits, hand lights and in-suit communications provided by the team will be permitted. No other team specific leak control or hand tools may be used.

Any team supplied equipment must be logged in at time of competition check-in and sealed equipment bags must remain sealed until arrival at the dress-out location.

SCORING CONSIDERATIONS

Scoring shall be based upon technique and time.

Technique considerations shall include: a) proper container damage assessment to determination of type and leak point, b) reduction of leak to least possible risk, c) selection of appropriate leak control techniques, d) use of appropriate tools, e) minimization of contamination, f) protection of PPE to minimize potential damage/failure, g) teamwork and communications, and h) successful leak control.

Time shall be based upon: The first team member to cross the start line and the last team member to cross finish line to the next station.

STATION DESCRIPTION 2017

STATION: DOT 406 Leak Control				STATION No.:	7
ALOTTED T	IME:	15 min	_ Individual Activity	X Team Acti	vity

STATION OBJECTIVE

A team of 3 technicians shall demonstrate the ability to stop a simulated leak from a DOT Multi-Tactic Leak SimulatorTM using various leak control devices commonly available to response teams. Scoring shall be based upon technique of leak control actions and time.

CONDITION

After completion of the previous station the team shall immediately approach, assess and engage in leak control using provided devices. Timing will start immediately upon the 1st team member crossing the start.

Possible leaks: Manhole leak, manhole vent leak, manhole clamp ring leak, vapor recovery leak, tank side wall breach, piping breach, internal valve leak failure.

Teams will be provided with a selection of possible leak control equipment. The team will need to assess the leak characteristics, select the appropriate leak control equipment and apply the equipment to control the leak.

Available equipment: Edwards and CromwellTM AE or A-1 kits, assorted pipe plugs, LidLoc® and Western® dome clamps, air bag leak control systems, ladder patch kits, assorted clamps and hand tools.

Timing shall stop at 15 minutes or when the last team member crosses the line to the next station. If leak control is not completed in 15 minutes, the station evaluator will instruct the team to stop and move to the next objective.

SPECIAL CONSIDERATIONS

Tools and leak control materials shall be provided. Teams may use their own hand lights and insuit communications. No other team specific leak control or hand tools may be used.

GRADING CONSIDERATIONS

Scoring shall be based upon technique, time to achieve leak control. Technique considerations shall include: a) assessment to determine best approach, b) selection of appropriate leak control tools and techniques, d) use of appropriate tools, e) minimization of contamination, f) protection of PPE to minimize potential damage/failure, g) teamwork and communication, and h) successful leak control.

Time shall be based upon: The first team member to cross the start line and the last team member to cross the final finish line.



STATION DESCRIPTION 2017

STATION: Pipe Leak Control Relay				
ALOTTED TIME: 15 min		am Activity	ivity <u>X</u> Team	

STATION OBJECTIVE

A team of 3 technicians shall demonstrate the ability to stop various simulated leaks from a pipe leak simulation prop using assorted control devices found in Edwards and Cromwell AE and A1 kits. This will be a team relay.

CONDITION

After completion of the previous station, team members will proceed to a location which obstructs their view of the leak simulator. At this "staging" position they shall be shown the tools available for leak control activities.

Each team member will in-turn be allowed to assess the leaks. They will quickly recon the leaks, select the most appropriate leak to attack, assess the needed tools, return to a tool staging area and select the tools necessary for control of their leak. That member will then control the leak to the extent feasible and return to the staging area and tag off to the next team member. This will be repeated until all three leaks have been controlled.

Timing starts when the first team member crosses the line leaving the tool staging area. Timing shall stop when the last team member crosses the line to the staging area and indicates that they are finished or at 15 minutes, whichever occurs first. If all three leaks are not completed in 15 minutes, the station evaluator will instruct the team to stop and move to the next objective.

SPECIAL CONSIDERATIONS

Tools and leak control materials shall be provided. The team shall also be provided with necessary wrenches and hand tools. Teams may use their own hand lights and in-suit communications. No other team specific leak control or hand tools may be used.

SCORING CONSIDERATIONS

Scoring shall be based upon technique and time to achieve control of all leaks to the maximum point feasible.

Technique considerations shall include: a) assessment to determine best approach, b) selection of appropriate leak control tools and techniques, d) use of appropriate tools, e) minimization of contamination, f) protection of PPE to minimize potential damage/failure, g) teamwork and communication, and h) successful leak control.

Time shall be based upon: The first team member to cross the start line and the last team member to cross the final finish line and indicating to the evaluator that the team has completed.

STATION DESCRIPTION 2017

STATION: Best Poker Hand	STATION No.:	9	
ALOTTED TIME:	X_ Individua	I Activity X Te	eam Activity

STATION OBJECTIVE

Given a challenging environment each team member will, within a specified amount of time, collect the best 5 card poker hand while wearing vapor protective PPE. With the exception of tie breaking, the scoring of this station **DOES NOT** calculate into the overall team competition scoring but will be used for additional award considerations.

CONDITION

All three team members shall be placed in a sensory deprived environment. There will be 4 decks of cards thrown randomly in the environment. Each team member shall work for a specified amount of time locate 5 to obtain the best 5 card poker hand.

SPECIAL CONSIDERATIONS

None, it is just for fun!

GRADING CONSIDERATIONS

Individual best hand score and summative score of all three team hands. Points are based (roughly) upon inverse probability of obtaining the hand in a true poker game. ©

No pair / High Card - 1 pts

One Pair - 1.5 pts

Two Pair - 5 pts

Three of a kind - 12 pts

Straight - 65 pts

Flush - 125 pts

Full house - 175 pts

Four of a kind - 1,000 pts

Straight Flush - 18,000 pts

Royal Flush - 162,000 pts