Division 12 April 2024 - TRT Drill

Host: Lombard FD

Date(S): May 14^{th (Gold)}, 15^{th (Black)},

Time: 0900-1200

Topic: Confined Space – Operations



Description:

The Lombard fire department will be hosting a confined space rescue drill. Lombard Public Works supervisor will conduct a safety presentation on their fall protection and retrieval equipment. Discussion will also include on permit requirements and types of space their work is done in. TRT members will set up for a pick-off of a training dummy on Public Works retrieval equipment. Rescuers will utilize the supplied air system for a mock IDLH atmosphere.

Contact:

Tony Sally – *Lombard FD* Contact - 630-664-9666

Location:

Pumping Station 530 Phillips Court Lombard, IL 60148

OSMF JPR Objectives

Confined Space OPER and TECH – See the attached lesson plan.

Apparatus Needed - Votex, Rope, Hardware, stokes basket, Mannequin, Harness, SABA

Scheduling Notes:

- 1) TRT training is typically the second Monday, Tuesday, and Wednesday of each month or as modified to address potential or known conflicts in advance.
- 2) The location for the training, when indicated as TBD/ Regional, permits multiple training sessions to occur on the same date and the same topic, however, at a location that better accommodates TRT team members. Locations will be finalized one month prior to the training date.

Lesson Title: : Confined Space Drill – May 2024

Level of Instruction: Confined Space Operator

Method of Instruction: Hands-on

Learning Objective: Vertical confined space entry and victim retrieval

References: 29CFR1910.146 -Confined Space, 29CFR1910.120 -Haz whopper; 29CFR1910.147 -LO/TO; NFPA 350 -Confined Space; NFPA 1670 -technical rescue; NFPA 1006 -professional

qualifications; Jones and Bartlett Confined Space, Division 12 SOP/entry form

Location: Pumping Station 530 Phillips Court Lombard, IL 60148

Time/dates: May 14 and 15, 2024 (0900-1200)

Instructor: Tony Sally

Materials Needed: Arizona vortex, SARs system/SCBA, short spine board, sked, ventilation

fan, atmosphere monitors, helmets, harnesses, rope rescue equipment

Safety Hazards / Identification: The training location is a permit-required confined space categorized by OSHA 29CFR1910.146 (large enough to enter, limited means of ingress/ egress, not designed for continuous human occupancy). The rescue group supervisor assigns personnel roles/ responsibilities, performs LO/TO, and monitors the atmosphere. The organization making the entry is responsible for issuing the CS permit and is required by law to retain the permit for 12 months. Additionally, IL OSHA requires operations and technician level rescuers to perform continuing education of CS entry, including one practice or actual rescue annually.

Step #1 Lesson Preparation:

Before beginning the training, the competent instructor will conduct a safety briefing, assemble gear, discuss mission objectives, and prepare the site.

A confined space entry of more than five feet requires a mechanical device and full-body harness attached to a retrieval line. Any instructor or rescuer entering the confined space must be connected to a fall arrest system.

The rescue group supervisor must brief the entrants on the following before a CS entry is made:

- The hazards present in the confined space
- The route of ingress and egress

Ventilation and atmospheric monitoring are required before entry into the confined space and throughout the operation. A change of 1% of the monitor equals 10,000ppm. Stratification of gasses is a concern for Confined Space rescue operations, and layered monitoring shall be performed at 15-minute intervals.

Step #2 Presentation:

Scenario: The PW crew is working in a vault to repair a pipe and remove an inductor. The vault entrant is unresponsive after the attendant smelled a strong egg smell from the confined space. The attendant calls for help, returns to the vault opening and is overcome by the gas, falling into the vault.

The initial fire company, with a supervisor arrived on the scene and began monitoring/ determining the hazard profile. ICS is established, and the Division 12 technical rescue team is mobilized. The Incident Commander designates a Rescue Group Supervisor to achieve strategic and tactical goals for incident mitigation.

Awareness level:

- Identify the need for additional assistance;
- Attempt to affect a rescue without entering into the CS;
- Establish a perimeter (Hot, Warm, Cold) zone

Operations level (Minimum 4 persons):

- Begin the rigging process
- LO/TO hazards
- Ventilate the space
- Call for high-level trained technicians
- SABA systems
- HazMat decontamination

Technician level (Min 6 persons):

- Identify hazards
- Make a direct entry into the space.
- Control hazards
- Package patient

The goals of TRT:

- Set up overhead highpoint anchor,
- Use two sets of rescuers to affect a rescue, one pair per victim if staffing allows.
- Appropriately package each victim and remove them from the vault.
- Mitigate the atmospheric hazards ranging from Low oxygen >19.5 to hydrogen sulfide.

Step # 3 Application:

Illinois OSHA – Confined Space rescue requirement.

OSFM: Objectives on the attached document.

Rope Operations: 6.1.02, 6.1.03, and 6.1.04

Confined Space Operations: 7.2.01, 7.2.02, 7.2.03, 7.2.04, 7.2.05, 7.2.08, 7.2.13, 7.2.14, 7.2.16, and 7.2.17

Confined Space Technician: 7.3.3, 7.3.5 and 7.3.6

Each student is responsible for participating in the rescue process as outlined in the presentation and application of the training. The attached JPR's are used for guidance on student evaluation.

- A note from Jeff
 Hammond. I could not
 change the marked boxes
 in my copy of the
 previous confined space.
 Please refer to the
 objectives above.
- Thank you

Step #4 Evaluation: SWBAT (Student will be able to) successfully demonstrate the abovementioned skills. The instructor shall complete a Target Solutions assignment acknowledging that all participants have completed the skills reviewed.

	OSFM Objectives – Select all that apply
	Rope Operations
	6.1.01 Direct a team
	6.1.02 Direct a lowering operation
	6.1.03 Construct a multiple-point anchor system
	6.1.04 Construct a compound rope mechanical advantage system
	6.1.05 Construct a fixed rope system
	6.1.06 Direct the operation of a compound rope mechanical advantage system
	6.1.07 Ascend a fixed rope in a high-angle environment
	6.1.08 Descend a fixed rope in a high-angle environment
	Rope Technician
	6.2.01 Complete an assignment
	6.2.02 Manage the movement of the victim
	6.2.03 Function as a litter tender
	6.2.04 Direct a team (victim removal)
	6.2.05 Direct a team (highline construction)
	6.2.06 Direct a team (highline operation)
	6.2.07 Access a victim
	6.2.08 Isolate and manage potentially harmful energy sources
	Confined Space Operations
\boxtimes	7.2.01 Initiate a Search Inside a Confined Space in those Areas Immediately Visible
\boxtimes	7.2.02 Perform Size-up of a Confined Space
\boxtimes	7.2.03 Conduct Monitoring of the Environment
\boxtimes	7.2.04 Assess the Incident
\boxtimes	7.2.05 Control Hazards
\boxtimes	7.2.06 Apply and Use Self-Contained Breathing Apparatus (SCBA) as a Rescue Entrant
	7.2.07 Apply and Atmospheric Respirator to a Victim
	7.2.08 Perform Full Spinal Immobilization of a Victim Inside a Confined Space
	7.2.09 Prepare for Entry into Horizontally Oriented Confined Space
	7.2.10 Enter a Horizontally Oriented Confined Space for Rescue
\square	7.2.11 Package a Victim in a Liter for Removal from a Horizontally Oriented Confined
	Space

	7.2.12 Assemble a Portable Anchor System for Application of a High Point of
	Attachment
\boxtimes	7.2.13 Prepare for Entry into Vertically Oriented Confined Space
\boxtimes	7.2.14 Enter a Vertically Oriented Confined Space for Rescue
\boxtimes	7.2.15 Package a victim in a litter for removal from a horizontally oriented confined
	space
	7.2.16 Access and Rapidly Remove a Victim from a Vertically Oriented Confined Space
\boxtimes	7.2.17 Remove Entrants from a Confined Space
\boxtimes	7.2.18 Terminate a Technical Rescue Operation
	Confined Space Technician
\boxtimes	7.3.1 Initiate a Search Inside a Confined Space in those Areas Not Immediately Visible
\boxtimes	7.3.2 Pre-Plan a Confined Space Incident
\boxtimes	7.3.3 Apply and Use Supplied-Air Respirators (SARs) as a Rescue Entrant
\boxtimes	7.3.4 Perform a Short Spinal Immobilization of a Victim Inside a Confined Space
\boxtimes	7.3.5 Prepare for Entry into the Confined Space with a Hazardous Atmosphere
\boxtimes	7.3.6 Enter a Confined Space with Atmospheric Hazards
	Trench Operations
	8.1.01 Conduct a size-up
	8.1.02 Implement a trench emergency action plan
	8.1.03 Implement support operations
	8.1.04 Support a nonintersecting straight wall trench
	8.1.05 Terminate a technical rescue operation
	8.1.06 Remove a victim from a trench
	8.1.07 Disassemble support systems
	Trench Technician
	8.2.01 Support an intersecting trench as a member of a team
	8.2.02 Install supplemental sheeting and shoring for each two feet of depth below a
Ш	shoring system
	8.2.03 Construct load stabilization systems
	8.2.04 Lift a load
	8.2.05 Coordinate the use of heavy equipment
	8.2.06 Release a victim from entrapment by components of a collapsed trench
	Structural Collapse Operations
	6.2.01 Conduct a size-up of a light frame or unreinforced masonry (URM) collapsed
Ш	structure
	6.2.02 Determine potential victim locations in light frame and URM construction collapse
<u> </u>	incidents
	6.2.03 Develop a collapse incident action plan
	6.2.04 Implement a collapse rescue incident action plan
	6.2.05 Search a light frame and URM constructed collapsed structure
	6.2.06 Stabilize a collapsed light frame and URM construction structure

	6.2.07 Release a victim from entrapment
Ħ	6.2.08 Remove a victim from a light frame and URM construction collapse incident
Ħ	6.2.09 Lift a heavy load as a team member
Ħ	6.2.10 Move a heavy load as a team member
Ħ	6.2.11 Breach light frame and URM construction structural components
П	6.2.12 Construct cribbing systems
	6.2.13 Inspect and maintain hazard-specific PPE
	6.2.14 Inspect and maintain rescue equipment
	6.2.15 Terminate an incident
	Structural Collapse Technician
	6.3.01 Conduct a size-up of a collapsed heavy construction-type structure
	6.3.02 Determine potential victim locations in a heavy construction-type incident
	6.3.03 Develop a collapse rescue incident action plan
	6.3.04 Implement a collapse rescue incident action plan
	6.3.05 Search a heavy construction type collapsed structure
	6.3.06 Stabilize a collapsed heavy construction type structure as a member of a team
	6.3.07 Release a victim from entrapment by components of a heavy construction type
	collapse
	6.3.08 Remove a victim from a heavy construction type collapse incident
	6.3.09 Lift a heavy load as a team member
	6.3.10 Move a heavy load as a team member
Щ	6.3.11 Breach heavy structural components
Щ	6.3.12 Construct cribbing systems
	6.3.13 Stabilize a collapsed heavy construction type structure as a member of a team
Щ	6.3.14 Cut through structural steel
	6.3.15 Coordinate the use of heavy equipment
	Vehicle Machinery Technician (VMT)
Щ	08.3.1 Create an Incident Action Plan for a Commercial or Heavy Vehicle
	08.3.2 Stabilize Commercial / Heavy Vehicle
	08.3.3 Determine the Heavy Vehicle Access & Egress Points
Щ	08.3.4 Create Access and Egress Points for Heavy Vehicle
Щ	08.3.5 Disentangle Victim(s)
	08.3.6 Isolate and Mitigate Potentially Harmful Energy Sources
\square	12.3.1 Plan for a large machinery incident
	12.3.2 Stabilize large machinery
	12.3.3 Determine large machinery access and egress points
\square	12.3.4 Create access and egress openings for rescue from large machi
	12.3.5 Disentangle victim(s)