



Confined Space Rescue Outline

Our Rescue Confined Space Training Program offers comprehensive coverage of OSHA 29 CFR 1910.146 and meets all applicable training (including ANSI and NFPA) standards. In the classroom, the course introduces the student to the requirements of entry procedures as stated in the OSHA regulation. The classroom exercises emphasize the human element of the confined space equation and cover authorized entrant and attendant duties and the practical development of a Confined Space Rescue Team.

In the field, Rescue presents the students with the techniques necessary to efficiently and proficiently perform the duties of confined space entrants/ attendants and the duties of a Confined Space Rescue Team. Five key areas of rope techniques covered include: Anchoring systems, Lowering systems, Hauling systems with mechanical advantage theory, Retrieval systems and Stretcher rescue systems. All raising and lowering systems are integrated into retrieval systems. Each student will be individually responsible for performing each technique taught to them in the training program. The final section of the class introduces the student to the challenges of confined space rescue and includes three confined space rescue scenarios. Each student's performance will be reviewed and evaluated.

Procedures covered in Rescue include:

- Rescue knots - Anchoring systems
- Mechanical retrieval systems - Tripod operations
- Use of SCBA/ SAR in confined spaces
- Air monitoring procedures - Patient packaging
- Extrication procedures - OSHA reg. 29 CFR 1910.146
- Rescue equipment familiarization
- Confined space rescue operations
- Vertical lowering systems - Horizontal lowering systems
- Communication systems - Supplied air systems
- Ventilation - Personal protective equipment

RESCUE KNOTS:

During this phase of rescue training, rescue knots will be examined. The focus of the examination is on strength, application, utilization and proper tying methods. Students will learn what makes a rescue knot and why these knots are used in rescue operations.

ANCHORING SYSTEMS:

During this phase of training, the fundamentals of anchoring systems will be covered. The instruction focuses on: 1) strength of each respective anchoring system and analyzing the existing rescue environment to construct the strongest possible anchor system. Primary and secondary anchoring points, natural and artificial anchoring points, bomb proof anchoring points, load sharing and equalizing anchoring will be the topics addressed. Proper rope angles, padding, abrasion, moving and stationary lines and directional pulleys will all be introduced and demonstrated. Hands-on participation by the student is essential and the only true method of developing effective skills necessary to implement anchoring systems in the field. Anchoring systems and their components are the building blocks of not only



vertical and confined space rescue operations but will set the ground work for many technical operations.

During rescue operations, regardless of the environment, conditions or circumstances, a tool box approach is necessary to complete an operation successfully. The tool box approach teaches the student different anchoring techniques in different environments and allows the student to decide which system best fits the situation. A rescuer does not pick the environment that a rescue will be performed in or the mental or physical condition of the victim and thus, must bring this tool box concept to every rescue scenario. It is the job of the rescue team to adapt to the situation, overcome all obstacles and perform up to the standard of excellence the public expects of all professionals.

MECHANICAL RETRIEVAL SYSTEMS:

During this phase of training various methods, techniques and types of retrieval equipment will be discussed. The systems that are demonstrated in the classroom will be used extensively in the confined space rescue operation exercises.

TRIPOD OPERATIONS:

During this phase of training, the use of tripods in both confined space operations and confined space rescue will be discussed. Different tripod models will be examined with the focus on their strength and flexibility in rescue operations. During the training program, several evolutions will use tripods, thus ensuring that each student has a working understanding of tripod application in the rescue environment.

USE OF SCBA AND SAR IN CONFINED SPACES:

Regulations governing the use of respiratory protection in confined space rescue operations will be reviewed. Since the majority of fatalities in confined spaces are the result of atmospheric conditions, respiratory protection is of a primary importance in confined space rescue operations.

AIR MONITORING PROCEDURES:

Air monitors and air monitoring procedures will be reviewed according to manufacturer's recommendations for various models. OSHA has required a procedure for air monitoring in confined spaces, and these procedures will be followed throughout every training exercise.

PATIENT PACKAGING:

During this phase of the training program, students will be instructed in the fundamental techniques necessary to safely and securely package a patient in a basket or stretcher. These techniques allow transport of the patient in the vertical rescue environment and thus, all techniques taught come from a technical rescue view point. Allowances will be made to adapt these techniques to local protocols in handling injured victims.

EXTRICATION PROCEDURES:

During this phase of training, a variety of extrication equipment will be introduced, demonstrated and then used by each of the students. Using this equipment in the many types of possible confined space environments must be considered prior to the extrication of any victim. No matter how efficient a piece of equipment is, it may not



meet the needs or parameters necessary to accomplish each and every rescue operation.