

COURSE: TECHNICAL RESCUE AT HEIGHTS TRAINING (INDUSTRIAL LEVEL)

SCOPE AND APPLICABILITY:

It is considered prepared to act in a basic level of qualification for rescues in industrial level, the professional that is prepared to participate in a limited variety of rescues in heights and/or confined spaces, positioned from a surface that requires their safe movement and through individual protection systems for movement restriction, fall arrest and positioning for simple vertical movement of victims and rescuers, in scenarios with restricted use of pre-engineered or pre-assembled, manual or automatic rescue systems.

A qualified industrial-level rescuer is a person qualified and trained to use manual or automatic pre-engineered or pre-assembled systems to act in accordance with the company's rescue plan.

REGULATIONS AND STANDARDS

- NR 06 – Personal Protective Equipment (PPE);
- NR 34 - Work Environment in the industry of Naval construction and repair;
- NR 35 – Work at Heights;
- NR 33 – Confined Spaces;
- NBR 15595, manuals and Petzl protocols;
- NBR 16710 - Industrial Technical Rescue at Heights and Confined Spaces;
- NBR 14276 - Fire and Emergency Brigade.

COURSE CONTENT:

- a) Introduction.
- b) Official Regulatory Standards and Applicable Brazilian Standards;
- c) Safety Principles of a Rescue Operation;
- d) Identification of Risks Associated with a Rescue Operation;
- e) Risk Benefit Assessment in a Rescue Operation;
- f) Certification of Rescue Equipment and Systems;
- g) Selection and Correct Use of the Following Personal Rescue Equipment:
 - Parachute Belt;
 - Slings or Lanyards;
 - Fall Arrest;
 - Connectors;
 - Helmet;
 - Gloves.
- h) Installation and operation of pre-engineered rescue or evacuation systems;
- i) Selection and Correct Use of the Following Collective Rescue Equipment:
 - Ropes;
 - Slings, Ring, Ribbons or Anchor Straps;
 - Connectors;
 - Pulleys;
 - Blockers;
 - Stretchers;
 - Tripod.
- j) Techniques for Immobilization of Victims;
- k) Assembly of basic string Knots;
- l) Assembly of basic anchors using string knots;
- m) Assembly and Operation of Simple Mechanical Advantage Systems in the Vertical Movement of Victims;
- n) Pre-Use Inspection of Individual and Collective Rescue Equipment;
- o) Identification of the Conditions of Operational Readiness or Damage, Defects and Wear for Refusal of Equipment that Have Been Rejected According to Manufacturers' Guidance;
- p) Methods for Cleaning, Packing and Transporting Rescue Equipment;
- q) Conceptualization of the Shock Force Generated by Restraining a Fall from Height;
- r) Fall Factor Conceptualization;
- s) Knowledge of how inert suspension trauma develops and its main therapeutic measures;
- t) Use of Available Means of Communication, as well as Use of Terminology Used as Standard Language for Emergencies;
- u) Rescue and Emergency Procedures and Plan;
- v) Recommendations for Companies That Have a Technical Rescue Team;
- w) Installation and Operation of Pre-Engineering Rescue or Evacuation Systems in the Vertical Movement of Victims;
- x) Techniques for the Use of Respiratory Protection Equipment Applied to Rescue.

COURSE DESIGN:

Theoretical – 8 hours;
TOTAL: 16 Hours.

Practical – 8 hours;

REQUIREMENTS:

Valid NR35 Work at Heights Course and good health conditions.

It will be considered that in an offshore environment the members will have the following prerequisites:

- Minimum education of the 5th year of elementary school;
- First aid training, with content and workload compatible with the identified typical risk and accident scenarios (according to the CBSP module).

MINIMUM/MAXIMUM NUMBER OF DELEGATES

This course requires a minimum of 2 and a maximum of 8 participants.

For offshore training, the number of course participants will follow the needs of the vessel.

MAIN SAFETY ISSUES

- Proper way to immobilize the victim;
- Care when lifting and lowering a victim;
- Care with anchor points;
- Transport Planning;
- Dealing with Suspension Trauma.

REQUIRED EQUIPMENT

- Rescue kit designed for heights;
- Rescue ropes;
- Set of ascenders and descenders;
- Pulleys set.

PROCEDURE FOR PRACTICAL EXERCISES

- Reinforce the safety procedures adopted by the company and the guidelines for emergencies according to the local emergency plan with the workers;
- Supervisors and safety officers must be advised of any practical outside activity;
- An inspection of equipment for personal and collective use must be carried out in advance on the rescue equipment made available to the team on site;
- The instructor will demonstrate the equipment use and then observe and guide the students in the handling, installation and operation of pre-engineered systems, as trained, following the instructions of the equipment manufacturers;
- It is strictly forbidden to carry out practical exercises in any situation where the student or instructor has any possibility of falling above 1.80m.

CERTIFICATION:

Training certificate signed by the responsible engineer accredited by the Brazilian CREA.

CERTIFICATE VALIDITY PERIOD:

2 years.