RelyOn Nutec
360° Safety

Course code	OTC348
Course name	NR-33 and NR-35 - Emergency and Rescue Team - Operational Level - 24h
Duration	24 hours
Target group	Industry workers in general, contracted or subcontracted, who perform work that requires an initial level of qualification for technical rescue at heights and in confined spaces, and/or people who are part of the emergency brigade of companies, in accordance with ABNT NBR 14276 Fire and Emergency Brigade - Requirements and Procedures, and its revisions.
Prerequisites	- RG and CPF; - Passport (expatriates); - Certificate of Occupational Health (ASO) or Certificate of good physical and mental health; - Minimum education level: complete Fundamental school; - Valid (up to date) first aid training certificate with content and workload compatible with the risk scenarios and typical accidents identified; - Valid (up to date) NR-33 certificate - Confined Spaces - Initial Training for Watchmen and Authorized Workers (16 hours); or - Valid (up to date) certificate of periodic training (according to workload/periodicity) provided for by Regulatory Norm (NR) 33.
Objective	Enable the participant to apply a set of knowledge and skills to perform rescues at height and/or in confined spaces, specific to the Operational Level (Initial Level). Upon successful completion of the training, the participant will reach the Initial Rescue Qualification Level specified for the second level, for which the person is qualified to participate in a limited variety of rescue at height and/or in confined spaces, positioned from a surface that requires its safe displacement through movement restriction personal protection systems, fall arrest and positioning for vertical movement of casualties and rescuers, in scenarios using assembled systems of mechanical advantage, pre-engineered rescue systems or pre-assembled, manual or automatic, and can also perform different progressions by means of rope, mechanical and electrical systems, specific for moving and rescuing people.
Contents	Theory: • Official regulatory standards and applicable Brazilian standards; • Safety principles of a rescue operation; • Identification of risks associated with a rescue operation; • Evaluation of risk × benefit in a rescue operation; • Certification of rescue equipment and systems; • Selection and correct use of the following personal rescue equipment: Safety harness; slings or lanyards; connectors; helmet; gloves; descender; ascenders; fall arrest; stirrup; • Selection and correct use of the following collective rescue equipment: ropes; slings, rings, ribbons or anchor beads; connectors; pulleys; blockers; stretcher; tripod; descenders; ascenders; • Effect of the angles formed by the anchors on the distribution of loads; • Pre-use and periodic inspections of individual and collective rescue equipment used; • Identification of operational readiness conditions or damage, defects and wear to refuse equipment that has been disapproved according to the manufacturers' instructions; • Methods of cleaning, packaging and transport of rescue equipment; • Conceptualization of the shock force generated by retaining a fall from a height; • Concept of fall factor; • (Knowledge of) how inert suspension trauma develops and its main therapeutic measures; • Use of available means of communication, as well as the use of terminology used as standard language for emergencies; • Technical factors that affect the efficiency of a rope and confined space rescue (for example: performance, speed, range, duration, weather conditions, confined space environment, rescuer, etc). Practice:

	• Installation and operation of pre-engineered rescue or evacuation systems; • Assembly of the main stringing nodes used in rescues (blocking, finishing, splicing, anchoring and securing); • Assembly of simple and semi-equalized anchors with string knots; • Assembly and operation of single mechanical advantage systems (block); • Techniques for immobilizing casualties on stretchers, with or without the use of spinal or limb immobilizers; • Different types of stretchers for vertical transport, as well as their compatibility with the type of operation or the casualty's injury; • Techniques for vertical movement of casualty using pre-assembled, pre-engineered or automatic rescue and evacuation systems; • Techniques for vertical movement of casualties at height or in confined spaces using simple mechanical advantage systems; • Basic stretcher movement techniques (vertical, horizontal and terrestrial); • Basic rope progression techniques: ascent and descent; • Techniques for using respiratory protective equipment applied to rescue. Total Contact Time: 24 hours Theory: 08 hours Practice: 16 hours Technical Reference: NR-33 - Safety and Health at Work in Confined Spaces. NR-35 - Work at Height. ABNT NBR 14276 Fire and Emergency Brigade - Requirements and Procedures. ABNT NBR 14626 Personal Protective Equipment Against Falls from a Height - Guided type fall arresters including flexible anchor line. ABNT NBR 14628 Personal Protective Equipment Against Falls from a Height - Retractable type fall arresters. ABNT NBR 14629 Personal Protective Equipment Against Falls from a Height - Energy absorber. ABNT NBR 16577 Confined Space - Accidents prevention, protection procedures and measurements. ABNT NBR 16710-1 Industrial Technical Rescue in Height and Confined Environment. Part 1: Guidelines for Professional Qualification. ABNT NBR 16710-2 Industrial Technical Rescue in Height and Confined Environment. Part 2: Guidelines for Training Providers and Instructors for the Professional Qualification.
Exam	Participants will be evaluated in order to assess the theoretical knowledge acquired through written evaluation and the skills acquired through direct observation and practical test during the practical activities of this training. Validity: 2 years