

LSP351

NR-10 - Basic Training - Electrical Instalation and Services Safety - 40h

Duration 5 days

Target group Industrial and maritime workers who deal directly or indirectly with

electricity.

Prerequisites - RG and CPF;

- Passport (Expatriate);

- Grade School;

- Occupational Health Certificate (ASO) or certificate of good physical and

mental health conditions.

Objective Qualify workers from industrial and maritime areas who deal directly or

indirectly with electricity.

Contents

Theory-36 Hours

1. Introduction to Safety with Electricity; 2. Risks in Facilities and Services with Electricity: a) electric shock, mechanisms and effects; b) electric arcs; burns and falls; c) electromagnetic fields. 3. Risk Analysis Techniques; 4. Control Measures of Electrical Risk: a) de-energization; b) functional grounding (TN/TT/IT); protection; temporary c) equipotentialization; d) automatic feeding sectioning; e) leakage current devices; f) extra low voltage; g) barriers and wrappers; h) blockages and impediments; i) obstacles and bulkheads; j) insulation of the living parts; k) double or reinforced insulation; l) out-of-reach placement; m) electrical separation. 5. Brazilian Technical Standards - NBR of ABNT: NBR-5410, NBR 14039 and others; 6. Ministry of Labor Regulations: a) NR's; b) NR-10 (Safety in installations and services with electricity); c) qualification; license, empowerment and authorization. 7. Collective Protective Equipment; 8. Personal Protective Equipment; 9. Work Routines Procedures: a) deenergized installations; b) release for services; c) signaling; d) inspections of areas, services, tooling and equipment. 10. Electrical Installation Documents; 11. Additional Risk: a) height; b) confined environments; c) classified areas; d) humidity; e) atmospheric conditions. 12. Fire Fighting and Protection: a) basic concepts; b) preventive measures; c) methods of extinction; d) practice. 13. Accident of Electrical Origin: a) direct and indirect causes; b) discussion of cases. 14. First Aid: a) concepts about injuries; b) prioritization of care; c) use of artificial respiration; d) cardiac massage; e) techniques for removal and transport of injured; f) practices. 15. Responsibilities.

Practical - 4 Hours

- Fire Fighting;
- First Aid.

Technical Reference: NR-10; NBR 5410; NBR 14039.

Exam

 $\label{eq:multiple} \text{Multiple choice exam with minimum passing grade of 60\%.}$

Validity: 2 years