NR37 High Voltage Electric Installations

COURSE: NR-37 COMPLEMENTARY COURSE FOR SERVICES IN HIGH VOLTAGE ELECTRICAL INSTALLATIONS

SCOPE AND APPLICABILITY:

Establish minimum requirements and conditions aiming at the implementation of control measures and preventive systems in order to guarantee the safety and health of workers who directly or indirectly interact in electrical and power high voltage systems in the maritime environment. It applies to all installations and equipment for the generation, transmission and distribution of electric energy up to and including measurement, observing the official technical standards established by the competent bodies. Additionally, it aims at understanding the operation of various specialized components and equipment used.

REGULATIONS & STANDARDS:

- NR37
- NR10
- NR30 - Anexo II
- NBR 14039
- NBR IEC 62271

COURSE CONTENT:

1. **Formal Records:**
   - Records and facility registries;
   - Programming and planning of services;
   - Working methods and procedures;
   - Impeditive conditions for services.
2. **Typical risks and their prevention:**
   - Proximity and contact with energized parts;
   - Induction;
   - Static;
   - Electric and magnetic fields;
   - Typical accidents;
   - Individual and collective protection systems;
   - Work equipment and tools (choice, use, conservation, verification, testing).
3. **Working techniques under tension:**
   - In a live line;
   - Potential;
   - Indoor areas.

COURSE DESIGN

TOTAL: 16 hours

PREREQUISITE(S):

A valid NR10 Basic Safety Training for Electrical Installations

MINIMUM/MAXIMUM NUMBER OF DELEGATES

This course requires a minimum of 1, and a maximum number of 12 trainees.

To offshore trainings, the course number of trainees will comply with the vessels/rig necessity.

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Main Safety Issues:

- Special cares with tools that are used in energized machinery;
- Selection, inspection and use of related tools and PPEs;
- Individual and Collective measures of protection against electricity;
- Risk analysis in workplace;
- Special cares with distractions;
- Detection of tension;

Required Equipment:

- Access to a safe perimeter where it is possible to observe equipment, machinery or High Voltage facilities.
- Switchboards;
- Access to Generators room (recommended);
- Access to Transformers room (recommended);
- Electrical Rescue Hook.

Procedures For Course:

- Demonstration on how to use the rescue hook;
- How to identify equipment Voltage and define safe distances according to NR-10 Annex I;
- Safety visit to electrical equipment areas to reinforce the importance to keep distance from all equipment and explain the importance of PPE use: Gloves, coveralls, insulated tools;
- Electricity accidents first aid techniques demonstration.

Certification:

Training certificate signed by responsible Engineer accredited by Brazilian CREA.

Certificate Validity Period:

2 years.