

ABB Marine Academy course description

H853 – HV Safety STCW – US Coast Guard approved

Course goal

This course has been designed to satisfy the HV requirements laid out in the Standards of Training, Certification and Watchkeeping (STCW), Manila Amendments, and is approved by the United States Coast Guard.

Learning objectives

Upon completion of this course, the trainees will be able to manage a high voltage installation, trouble shoot and restore marine HV systems to an operating condition. This will mean that the trainee meets the requirements laid down in the Knowledge, Understanding and Proficiencies for High Voltage installations set out in Tables A-III/2 (part) of the STCW Convention and Code 1978, as amended.

Contents

- Safety rules on marine HV environment according to current regulations and recommendations (STCW, SOLAS, HSE etc.)
- Marine HV safety aspects and safe working procedures
- Special considerations for offshore electrical installations
- Dangers of electricity and arc-faults in switchgears
- Personal protective equipment
- Marine Electrical, Propulsion and Distribution Systems
- Protection system of electrical installations
- Accident analysis workshop
- Practical exercises



Methods

Highly interactive lectures with group work and case studies, as well as practical exercises and assessments.

Student profile

Engine personnel at the operational & management levels, and all electro-technical personnel who are dealing with high voltage equipment and systems.

Prerequisites

Previous electrical degree or certification is not required; however, a basic level of electrical knowledge is advised.

Duration

5 days

Venue

Houston, US

Additional information

Maximum 10 participants per course.

H853 – High Voltage Management (STCW approved)

Course outline

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Day 1 - Regulations

- Welcome & Agenda for the week
- Safe Steps for working on HV equipment
- International Requisites for HV Work On-board
- Grounding Network Simulation Exercise
- First exam

Day 2 - Practical day

- Safe Working Procedures
- PPE and Tools for HV Work
- Practical Exercise

Day 3 - High Voltage Safety

- International Technical Standards
- HV Equipment Safety Guidelines
- Dangers of Electricity
- Second Exam

Day 4 - Exercises & Case Study

- Arc Faults in Switchgear
- Important Considerations in Marine Electrical Installations
- Individual Accident Analysis
- Group Work Case Analysis
- Protection Relay Exercise
- Third Exam

Day 5 - General Protection and Power Plant Regulation

- General Protection and Power Plant Regulation
- Switching Exercise
- Final Exam