

# IADC High Voltage Safety & Switching

## Course Overview

This course is designed to instruct electrical personnel in the safe working techniques for offshore and onshore industrial high voltage applications.

## Course Scope

The course covers the IEC & NEC standards for HV switching, electrical isolations, and flash protection boundaries per the NFPA 70E 2012. Our new power generation and distribution simulator instructs technicians in the start-up and troubleshooting of offshore power systems including fundamental system principles and dynamics, bus loading management, distribution to lower voltage electrical networks, HV electrical cabling & stress relief concepts, and other associated electrical applications. The course also offers practical learning, including fully functional HV, and LV units.

## Intended Audience

Delegates attending this course should have basic knowledge of electrical practice and/or theory. Technical training in a relevant electrical/electronic discipline (AAS) or equivalent 2 years practical electrical experience.

## Duration

4 days

## Topics

- NFPA-70E Electrical Safety Standards
- Arc Flash Protection Boundaries & appropriate PPE
- Recommended practices for isolations, switching and grounding
- HV terminology, system component identification and functions
- Core electrical principles and concepts
- Alternators and voltage regulation
- Power system distribution and dynamics (P.F, KVAR, KW, KWA)
- Synchronization, load sharing (droop), and Isochronous Generator Operations
- Distribution component-switchgear and transformers
- Testing for Dead (practical assessment)
- High Voltage cabling and electrical stress relief
- Hi-Pot and IRT testing
- Switching Plans
- Black Start Procedures
- Drill Ship and Platform Utilization

## Methods

Students will learn through lectures, demonstrations, hands-on learning, practical exercises and discussions. They will be evaluated via attendance, self-assessment, continuous assessment, a theory exam, and a practical test of competency.

## Certification

- IADC DIT Certificate upon successful completion.



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