

Design, Installation, and Operation of OSFP

FLNG E&I

Introduction

This five-day training course on Course N Carry OSFP/FLNG E&I Design Installation and Operation offers a thorough technical understanding of the instrumentation, safety systems, process control, and electrical systems on OSFPs and FLNGs. In addition to covering measuring fundamentals, this training programme offers a wide range of topics, from fundamental E&I engineering to advanced practice in hazardous regions and data communications.

With a focus on safety in equipment design, installation, and operation, this Course N Carry training event will provide attendees with a wealth of knowledge to assist them progress their projects.

Featured in this Course N Carry training seminar are:

- Power Generation and Distribution Electrical Safety
- Electrical Devices in Dangerous Environments
- Safety Instrumentation and Measurement Systems Documentation

Objectives

Following this Course N Carry training programme, attendees will be qualified to:

- Determine the electricity systems' safety hazards.
- Recognise the fundamentals of electrical equipment protection
- Deciding on and implementing electricity distribution solutions
- Analyse power consumers and demand.
- Establishing the essential conditions for instrument specifications

Training Methodology

To guarantee optimal comprehension, retention, and understanding of the material provided, this Course N Carry OSFP/FLNG E&I Design Installation and Operation

training course will make use of a range of tried-and-true adult learning strategies. There will be a lot of interaction and participation in the daily workshops. This calls for frequent communication between the director of the training session and the delegates. Detailed material, real-world case studies, images, and video animation will all be used in the training seminar to give the participants an in-depth understanding.

Organizational impacts

A solid understanding of the underlying concepts of the various systems is necessary for the E&I design and installation for OSFPs and FLNGs. It is crucial to have educated, skilled, and well-trained staff in order to manage the many project issues and adhere to budget and time constraints. These individuals should include:

- Recognise the dangers to safety that electricity systems pose.
- Recognise power consumers and demand
- Understands the essential criteria for instrument specifications
- Recognise the interdisciplinary nature of projects and the need for teamwork to succeed.
- Recognise the laws, ordinances, and industry norms.
- Adopt the guidelines and best practices of the industry.
- The following advantages will accrue to the organisation from sending participants to this Course N Carry training seminar:
 - Create a team with strong technical capabilities.
 - Boost productivity
 - Achieve improved results at reduced expenses while maintaining compliance
 - Keep an eye on the project budget and avoid overspending.

Personal Impact

Gaining knowledge of the primary factors influencing the design and implementation of electrical, instrumentation, process control, and safety systems on OSFPs and FLNGs will equip participants with the skills needed to identify problems and come up with solutions, enabling them to move forward with ongoing and new projects.

Multidisciplinary knowledge of the following will be provided by this Course N Carry training seminar:

- The Power Systems' Associated Safety Risks
- The Fundamentals of Electrical Equipment Protection
- How can the power system be examined for potential difficulties and how may faults be identified and fixed (troubleshooting)?
- Your Participation's Effect on the Project
- The Value of Multidisciplinary Approach and Teamwork in Ensuring Project Success
- How and why might something go wrong?

Who should attend?

Professionals of all stripes can benefit from this Course N Carry training programme, but the following will be very helpful:

- Managers, Operators, and Designers
- Project engineers, technical staff, engineering discipline leads, and engineering specialists
- Staff Members in Operation

Course Outline

Day 1

An Overview of Electrical System Design

- Standardisation of Electrical System Design Basis
- Criteria for Electrical Safety Design

Day 2

Generation and Distribution of Power

- High-quality, low-voltage generators from Prime Movers
- Protection for Generators in Photovoltaic Plants
- Calculating Plant Heat Rate: Efficiency
- Devices for Protecting Switchboards
- Cables for Transformers
- Batteries and UPSs

Day 3

Distributing power, protecting people, and using variable speed drives and motors

- Security and Defence
- Grounding Harmonics
- Electrical Devices in Dangerous Environments

Day 4

Instrumentation and Control I

- Overview of Instrumentation and Control System Architecture
- Hardware and Measurement HART Protocol

Day 5

Instrumentation and Control I

- Overview of Instrumentation and Control System Architecture
- Hardware and Measurement HART Protocol
- Communication and Networking Systems Safety Instrumentation and Control II
- Installation Requirements for Automation
- Documentation (instrument loop diagrams, cable schedule, termination details, instrument layouts, logic drawings, construction installation details, wiring diagrams, P&IDs, etc.) related to subsea instrumentation and control system valves