

# Electric Power Failure Preparation of an Emergency

How do we ensure that all important facility functions are protected from power failures, particularly on board vessels or offshore platforms? ARE YOU PREPARED FOR THE UNEXPECTED?

The Maritime and Coastguard Agency (MCA) states in the Marine Guidance Note MGN 52 (M+F) that *“Investigation into marine casualties has indicated that a number of incidents have occurred in which the emergency source of electrical power has not operated correctly following the loss of main power. The purpose of this Marine Guidance Note is to remind those responsible for the operation of ships that the Regulations require periodic testing of the complete emergency electrical system including any automatic starting arrangements”.*



It is important to regularly assess the risk of electrical power failure at various degrees of magnitude and impact severity, and make plans to deal with such an emergency. Planning and implementation of risk reduction approaches to addressing electrical power failure are vital preparation for emergencies.

Providing competency training and testing for all operators and others responsible for system maintenance of the emergency power supply systems play a major role in minimising emergency consequences.

## **H**ow to Train for a Power Failure Emergency

The best way to prepare for loss of electrical power is to methodically consider the problems that will likely arise and devise strategies to minimise those problems.

In addition to technical skills and competencies, training of the non-technical skills that are crucial to effective management of emergency situations is a vital issue, with particular focus on the human factors and how we behave in an emergency situation, including decision making, situation awareness, communication and co-ordination, teamwork and stress management.

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# The Control & Management of Offshore & Marine High Voltage Power Systems

[\(Course code MAR6\)](#)

**This course is accredited by Teesside University and worth 30 credits. Candidates who successfully complete the course and assessment will receive a Teesside University 'UCPD' certificate, University Certificate for Professional Development.**

The power of electricity can be dangerous if it's not used correctly. Electrical energy can damage property and ignite fires. It can also injure and even kill. Sound safety practices help minimise electrical hazards and cut down the risk of accidents. The hazard of electricity cannot be eliminated, but it can be controlled through education and training. The more you understand about electrical energy, the safer you will be.

At The Faraday Centre, we strive to provide high quality electrical training programmes to include 'hands-on' practical training to further assist the development of electrical competencies and safety skills.

This 5-day course is designed for candidates involved in the management and operation of marine/offshore high voltage power systems requiring an understanding of the principles of power generation and high voltage distribution systems.

The course also includes an awareness of how to safely control and manage abnormal situations such as power failures and emergencies.

## **Who should attend:**

Personnel responsible for the safe control and management of high voltage power systems in marine or offshore environments. Although the course is designed for non-electrical personnel, some technical background would be advantageous.

## **Aim**

To give participants an understanding of the functional, operational and safety requirements for marine and offshore high voltage systems and the remedial action necessary during system faults. This course is not intended to authorise participants to carry out switching duties.

## **Outline Contents**

- Statutory electrical regulations
- Situation / stress management
- Operational and safety features of switchgear
- High voltage safety rules and procedures
- An introduction to electrical protection
- Synchronisation and control of generators
- An outline of DCS and SCADA systems
- An introduction to power management systems
- The operation of power systems during planned and fault situations
- Action to be taken during loss of high voltage control facilities
- Simulated and practical exercises

## **Course Dates**

For courses undertaken at our UK training centre

- 15th – 19th Feb      10th – 14th May      13th – 17th Sep

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