



Renewable Energy & Engineering

Nuclear Safety

- Location: London
- Date: From 13/1/2025 To 17/1/2025
- Investment: \$5950 (Excluding VAT)



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Course Introduction

Nuclear Safety is a 5-day intensive course designed to provide a comprehensive understanding of the principles, practices, and regulatory requirements for ensuring the safe operation of nuclear facilities. This course will cover a wide range of topics, including radiation protection, nuclear reactor safety, emergency preparedness, and security culture.

Training Method

- Pre-assessment
 - Live group instruction
 - Use of real-world examples, case studies and exercises
 - Interactive participation and discussion
 - Power point presentation, LCD and flip chart
 - Group activities and tests
 - Each participant receives a binder containing a copy of the presentation
 - slides and handouts
 - Post-assessment
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Course Objectives

Upon completion of this course, participants will be able to:

- Understand the fundamentals of nuclear safety: including radiation protection, criticality safety, and radiological protection.
- Apply safety principles and practices: to nuclear facilities and operations.
- Identify and assess safety hazards: and implement effective risk mitigation strategies.
- Develop and implement safety culture: within nuclear organizations.
- Comply with national and international safety standards and regulations.
- Respond effectively to nuclear emergencies and incidents.

Who Should Attend?

This course is suitable for:

- Nuclear power plant personnel: Engineers, operators, technicians, and managers.
 - Regulatory authority personnel: Inspectors, engineers, and scientists.
 - Emergency responders: Firefighters, police officers, and emergency medical personnel.
 - Nuclear security personnel: Security guards, cyber security experts.
 - Students and researchers in nuclear engineering and related fields.
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Course Outline

Day 1: Fundamentals of Nuclear Safety

- Introduction to Radiation:
 - o Types of radiation
 - o Units of radiation measurement
 - o Biological effects of radiation
- Radiation Protection Principles:
 - o ALARA principle
 - o Time, distance, and shielding
 - o Personal dosimetry
- Criticality Safety:
 - o Criticality accidents and their consequences
 - o Criticality safety principles and practices

Day 2: Nuclear Reactor Safety

- Reactor Design and Operation:
 - o Reactor types and components
 - o Reactor physics and thermal hydraulics
 - o Reactor control and safety systems
- Accident Analysis and Mitigation:
 - o Severe accident scenarios
 - o Emergency core cooling systems
 - o Containment systems

Day 3: Emergency Preparedness and Response

- Emergency Planning and Response:
 - o Emergency plans and procedures
 - o Emergency drills and exercises
 - o Communication and coordination
- Incident Response:
 - o Incident investigation and analysis
 - o Lessons learned and improvement actions

Course Outline

Day 4: Nuclear Security and Safeguards

- Physical Protection of Nuclear Materials and Facilities:
 - o Security measures and barriers
 - o Personnel security
 - o Contingency planning for security incidents
- Nuclear Material Safeguards:
 - o IAEA safeguards and inspections
 - o National safeguards systems
 - o Nuclear material accountancy and control

Day 5: Human Factors and Organizational Culture

- Human Factors in Nuclear Safety:
 - o Human error and its impact on safety
 - o Human-machine interface design
 - o Crew resource management
- Safety Culture:
 - o Promoting a safety-conscious culture
 - o Leadership and management commitment
 - o Employee involvement and participation

Registration & Payment

Complete & Mail to London Royal Academy or email
registration@londonra.com

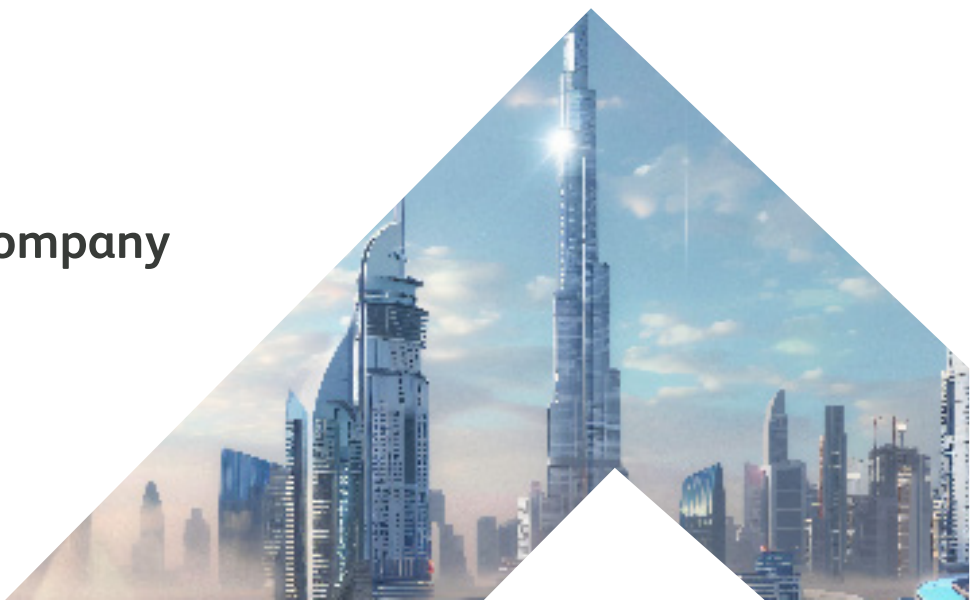


Registration Form

- Full Name (Mr / Ms / Dr / Eng)
- Position
- Telephone / Mobile
- Personal E-Mail
- Official E-Mail
- Company Name
- Address
- City / Country

Payment Options

- Please invoice me
- Please invoice my company





Terms & Conditions

Complete & Mail to London Royal Academy or email
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Cancellation and Refund Policy

Delegates have 14 days from the date of booking to cancel and receive a full refund or transfer to another date free of charge. If less than 14 days' notice is given, then we will be unable to refund or cancel the booking unless on medical grounds. For more details about the Cancellation and Refund policy, please visit www.londonra.com/terms-and-conditions/

Registration & Payment

Please complete the registration form on the course page & return it to us indicating your preferred mode of payment. For further information, please get in touch with us

Course Materials


The course material, prepared by the LRA, will be digital and delivered to candidates by email

Certificates

Accredited Certificate of Completion will be issued to those who attend & successfully complete the programme.

Travel and Transport

We are committed to picking up and dropping off the participants from the airport to the hotel and back.



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THANK YOU

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