TECHNICAL EDUCATION ACADEMY

Operational Risk Management Center

COURSE PROGRAMME

000635

HSSE095 - Management of Low-Specific-Activity Radioactive Materials in the Oil and Gas Industry

The course "Introduction to Radioactive Materials in the Oil and Gas Industry" provides comprehensive training covering all aspects of working with radioactive materials in this sector.



Learn from the Best in the Business!

Course overview

Advanced level

Why take this course

The course "Introduction to Radioactive Materials in the Oil and Gas Industry" provides comprehensive training covering all aspects of working with radioactive materials in this sector. It focuses on raising awareness of radioactive elements, particularly radon, and their impact on health and the environment. The course reviews international and national safety and environmental standards, methods of monitoring and protection against radioactive radiation, as well as methods for cleaning and disposing of radioactive waste. Special attention is given to practical aspects of operations, including personnel responsibilities, training, use of protective equipment, and environmental monitoring.

Who it is for and how it helps

The course "Introduction to Radioactive Materials in the Oil and Gas Industry" is designed for a broad range of professionals working in the oil and gas industry. It will be particularly beneficial for the following categories of professionals:

• Engineers and technical specialists in the oil and gas sector who encounter radioactive materials in their work and need to understand specific risks and safety measures;

• Occupational health and environmental safety specialists who need to be familiar with international and national standards, radiation monitoring methods, and environmental monitoring;

• Project managers and supervisors who are responsible for ensuring compliance with safety norms and standards on-site, as well as coordinating the disposal and handling of radioactive waste;

• Security and emergency response personnel involved in developing and implementing plans to prevent and mitigate incidents related to radioactive materials;

• Educational and research professionals studying the characteristics of radioactive processes in the oil and gas sector and seeking new approaches to training and research in this area;

• New employees in the oil and gas industry who require a basic understanding of working with radioactive materials and related safety measures.

What you will learn

- Identification and assessment of radioactivity levels in oil and gas projects, including the ability to identify radioactive elements and their sources;
- Understanding and applying safety measures when working with radioactive materials, including the use of protective equipment and adherence to safety regulations;
- Risk management associated with radioactive materials, and adherence to environmental standards to minimize environmental impact;
- Compliance with international and national regulatory requirements regarding the transportation, storage, and disposal of radioactive waste;

Course overview — continued

- Practical skills in radiation monitoring, including the use of specialized tools and technologies for detecting and measuring radioactivity;
- Effective communication and teamwork, essential for coordinating safety measures and emergency response;
- Analysis, critical thinking, and informed decision-making in conditions involving radioactive materials.

Curriculum

Modules 01–06

01 Introduction to Radioactive Materials in the Oil and Gas Industry

- Radioactive elements found in the oil and gas sector
- Radon gas in particular and its hazards
- International requirements for the transportation and disposal of radioactive materials
- Regulatory acts on the handling of radioactive waste
- Sources of radioactive radiation in the oil and gas industry
- Responsibilities of specific categories of employees in radiation control

02 Hazards of Radioactive Materials

- Impact on personnel health
- Environmental impact

03 Radiation Control for Personnel Handling Radioactive Materials

- Training
- Documentation
- Equipment (types and specifications, calibration)
- Methods for detecting radioactive radiation

04 Occupational Health and Safety Measures when Working with Radioactive Materials

- Personal protective equipment (PPE) and personal dosimeters
- ALARP principle in handling radioactive materials
- Confined space work

05 Methods for Cleaning Materials from Radioactive Residues

- High-pressure washing
- Acid treatment

06 Methods for Disposing of Radioactive Residues

- Labeling and storage requirements for radioactive waste

Curriculum

Modules 06–08 · Module 06 — continued

- Practical requirements for the transportation of radioactive waste
- Solid waste management
- Sludge management
- Fluid management
- Slag (scale) management
- On-site burial (pits, quarries)
- Injection into wells
- Soil decontamination from radioactive elements
- Regulatory requirements and necessary permits

07 Environmental Monitoring

- Monitoring objectives
- Development of a monitoring program
- Monitoring phases

08 Control of Radioactive Material Storage and Disposal Sites

- • Control of radioactive material storage and disposal sites

Participation and contacts

Joining the programme

Contact the Academy and quote course code 000635 to confirm dates, delivery format, prices and enrolment terms.

Training for your team

Tell us your business goals, the roles and number of participants, and your preferred dates and location. This will help us discuss the right training option.

Preparing for the programme

The published programme does not specify any prerequisites. Contact us before enrolling to confirm how to prepare.

Discuss your training needs

mail@tecedu.org
www.tecedu.academy

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