

RADIATION SAFETY OFFICER

HSE035

COURSE DESCRIPTION

Through lectures, hands-on laboratory exercises, and extensive reference materials, provides participants with a balance of technical and theoretical information along with practical applications of radiation safety. Fundamental concepts are presented in a logical progression, providing a sound basis for understanding the day-to-day requirements of the Radiation Safety Officer. There are no pre-requisites or required prior experience necessary to enroll in this course.

COURSE GOAL

To enhance the participants' knowledge, skills, and abilities necessary to understand the technical and theoretical information along with practical applications of radiation safety.

COURSE OBJECTIVES

By the end of this course, participant will be able to

- Understand the basic of radiation physics (nonionizing and ionizing radiations).
- Be familiar with biological effects of ionizing radiation.
- Determine radioactivity and dose quantities and units.
- Deal with sealed and unsealed radiation sources.
- Be familiar with industrial use of ionizing radiations application.
- Understand the norm in oil and gas industries.
- Understand waste management and regulatory control.
- Understand principal of radiation protection.
- Be familiar with radiation emergencies and deal with nuclear accidents.
- Determine factors affecting dose optimization for protection.
- Operational protection.
- Apply methods of safe transport of radioactive materials.
- Be familiar with role of international organizations.
- Be familiar with role of local competent authority.

WHO SHOULD ATTEND

- Radiation Safety Officer.

COURSE DURATION

5 Working Days

COURSE OUTLINES

1. Module -1

- Basic Radiation Physics (Nonionizing and Ionizing Radiations).
- Biological Effects of Ionizing Radiation.
- Radioactivity and Dose Quantities and Units.
- Sealed and Unsealed Radiation Sources.

2. Module 2

- Industrial Use of Ionizing radiations Application.
- NORM in Oil and Gas Industries.
- Waste Managements.

3. Module 3

- Regulatory Control.
- Principal of Radiation Protection.
- Distance, Time and Shielding.
- Exercises.

4. Module 4

- Radiation Emergencies and Nuclear Accidents.
- Factors Affecting Dose Optimization for Protection.
- Operational Protection.
- Practical Design Considerations.
- Safe Transport of Radioactive Materials.

5. Module 5

- Role of International Organizations.
- Role of Local Competent Authority.
- Closing.

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