



Advanced NORM Management and Radiation Protection Training Course

12 – 16 April 2027
Singapore

Advanced NORM Management and Radiation Protection Training Course

Ref: 1507_211325 **Date:** 12 – 16 April 2027 **Location:** Singapore **Fees:** 5700 Euro

Overview

Advanced NORM Management and Radiation Protection Training Course is a one-week course for radiation protection, HSE, industrial operations, waste, and technical leaders, who leave with a NORM Operational Control File. The course connects NORM characterization and monitoring, exposure pathways, worker protection, controlled areas, handling, storage, transport interfaces, residue decisions, incident response, records, and governance. Agile Leaders Training Center presents NORM management as an industrial radiation-control discipline.

Who Should Attend

- Functions responsible for radiation protection and workplace exposure control
- Teams responsible for industrial equipment, residues, scale, sludge, or mineral materials
- Personnel responsible for NORM sampling, measurement, and characterization
- Operations responsible for handling, storage, transfer, and transport interfaces
- Leaders responsible for waste decisions, incident response, records, and assurance

The course assumes participants influence industrial NORM controls and leaves out laboratory qualification, medical radiation practice, and jurisdiction-specific legal advice.

Departments and Industries

The course supports departments managing NORM across oil and gas, mining, mineral processing, phosphate production, waste services, maintenance, and industrial laboratories.

- Radiation protection and occupational health functions
- Oil and gas production and maintenance operations
- Mining and mineral-processing facilities
- Industrial waste and residue management teams
- Environmental monitoring and technical assurance units

Learning Objectives

By the end of this course, participants will be able to:



- Analyze NORM sources, materials, and exposure pathways
- Build characterization and monitoring plans
- Apply worker protection and controlled-area methods
- Evaluate handling, storage, and transfer controls
- Prioritize residue, waste, and incident decisions
- Use NORM records for governance and assurance

Course Agenda

Day 1: NORM Sources and Control Context

- NORM Industry and Material Source Map
- Natural Radionuclide and Process-Concentration Profile
- External, Internal, Dust, and Radon Exposure Pathway Map
- Graded-Approach Control Decision Tree
- NORM Responsibility and Governance Charter

Day 2: Characterization and Monitoring

- NORM Sampling Strategy and Chain-of-Custody Plan
- Gamma Dose-Rate Survey Method
- Surface Contamination Monitoring Grid
- Airborne Dust and Radon Monitoring Plan
- Measurement Quality-Control and Result Register

Day 3: Worker and Operational Protection

- Radiation Protection Program Control Matrix
- Area Classification and Access-Control Map
- Task Exposure Assessment Worksheet
- Engineering, Hygiene, and Personal Protection Hierarchy
- Worker Instruction and Exposure Record System

Day 4: Materials, Residues, and Incidents

- NORM Handling and Temporary Storage Checklist
- Surface-Contaminated Equipment Release Decision
- Transport-Interface Documentation Control
- NORM Residue and Waste Option Assessment
- Suspect Material and Contamination Response Protocol

Day 5: NORM Management Practice

- Suggested Exercise: Characterization Evidence Review
- Suggested Exercise: Worker Exposure Control Decision
- Suggested Exercise: Residue Management Option Selection
- Suggested Exercise: NORM Incident Escalation
- Capstone Exercise: NORM Operational Control File

Practical Exercises

The course uses suggested activities with fictional oilfield, mineral-processing, maintenance, waste, and laboratory scenarios.

- Suggested activity: classify suspect materials and define sampling, monitoring, custody, and decision records.
- Suggested activity: evaluate external and internal exposure pathways and select operational controls.
- Suggested activity: compare handling, storage, transfer, and residue options for a contaminated equipment scenario.
- Suggested activity: present a NORM response linking evidence, worker controls, escalation, records, and governance.

FAQs

Who suits advanced NORM management and radiation protection training, and what does it assume?

Radiation protection, HSE, industrial operations, waste, and technical personnel suit the training; it assumes responsibility for NORM-related workplace or material decisions.

How does NORM management differ from general radiation safety training?

NORM management addresses industrial materials, process concentration, characterization, worker exposure, contaminated equipment, residues, waste, and operational records rather than radiation sources in general.

How should industrial sites characterize NORM?

Industrial sites should define the material and process, exposure pathways, sampling strategy, measurement methods, quality controls, custody records, and decision criteria before assigning controls.

What controls protect workers during NORM operations?

Worker protection combines area classification, access control, task assessment, engineering and hygiene controls, personal protection, monitoring, instructions, health arrangements, and exposure records.



How should NORM residues and contaminated equipment be managed?

NORM residues and equipment should be characterized, segregated, labeled, contained, documented, assessed against applicable controls, and assigned a justified storage, transfer, treatment, release, or disposal route.

Conclusion

Participants leave with a NORM Operational Control File containing source, characterization, monitoring, worker, handling, residue, incident, and governance tools. The file creates a traceable route from suspect material to an authorized operational decision. It helps teams control exposure, manage NORM-bearing materials, document escalation, and review performance.