



The MiLo Portal: <http://www.miloonline.com/>

AleffGroup



FIPR Institute

MiLoRad: Radiation Safety Training

RP fundamentals. NORM industries. Nuclear Energy. Medicine. Security.

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MiLoRAD: Overview

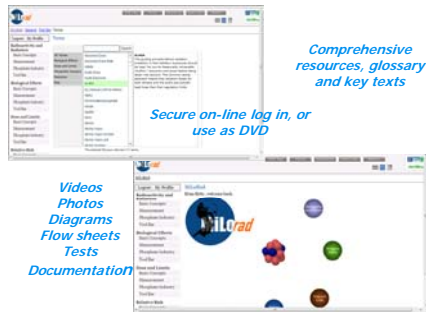
Who is MiLoRAD for?

Managers, supervisors, radiation safety officers, health physicists, radiation workers, safety trainers, inspectors, industrial hygienists, laboratories, universities, colleges...

What is in MiLoRAD?

Fundamental Knowledge and Core Competencies

- Radiation Protection: the fundamentals
- Competencies by level of responsibility
- Capacity building and levels of expertise
- The culture of safety
- Good Practices and Core Values
- The full Life-Cycle Approach (LCA)
- The BSS and IAEA Safety Principles
- HACCP and the "All Hazards" approach
- Critical Control Points (CCPs)
- Diagnostics/ National needs analysis



Comprehensive resources, glossary and key texts

Secure on-line log in, or use as DVD

Videos
Photos
Diagrams
Flow sheets
Tests
Documentation

Instrumentation

Interaction of radiation with matter

Determining dose

Radiation Safety: Industries and Activities

- Stakeholders – Who is involved?
- Working with ministries/ the authorities/ managers and executives/ experts
- Communication, documentation and record-keeping

MiLoRAD: Training On-demand

Why? Training and capacity building are the keys to sustainable economic development: the greatest asset of any organisation is its people.

How? On site/ hands-on, online, DVD, or classroom – or any combination that suits your needs and local capacity building objectives.

When? A solution is urgent given the rapid development of demand for such capabilities in emerging and developing economies, some with little or no indigenous source of knowledge or experience in the domain as they are working in the radiation safety arena for the first time.

Short Courses: *In situ* short courses are available of varying durations. Typically courses for senior and management staff last 1-2days, for operational and technical staff 2-5 days.

Fundamental capacity-building course are also available lasting 4-6 weeks.

Location: Courses are offered in a variety of locations around the world, including, by arrangement on your own site.

Customisation and Bespoke Training: MiLoRAD is modular in nature and can easily be adapted to your specific needs, or form part of a bespoke training programme.

Competency-based Approach

MiLoRAD offers a competency-based approach to radiation safety training for all industries working with Radiation Safety Requirements. These include Medicine, Nuclear Energy, NORM industries and the Security sectors.

Competencies

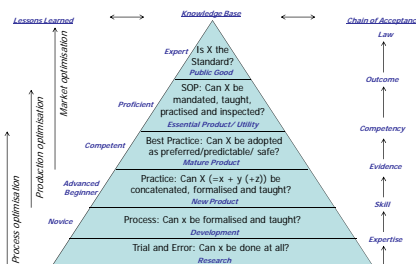
A competency may be defined in terms of what a person is required to do (**operational task**), under what conditions it is to be done (**operating conditions**), what the task is intended to achieve (**outputs and outcomes**) and how well it is to be done (**performance standards**). **Competencies commonly map to skills**, which in turn may be simple or complex in nature.

In MiLoRAD, skills are broken out into five distinct categories:

- Task-specific** – such as using the clutch on a motor-car or fitting a plug to a wire
- Procedural** – in which tasks are concatenated into a coherent process or flow sheet
- Contextual** – such as demonstrating capacity to work within the wider operating or process environment
- Contingent** – such as dealing successfully with the unexpected or unforeseen
- Interpersonal** – such as communications (oral and written) and teamwork.

MiLoRAD uses a five-tier, criterion-referenced competency and best practice model, developed especially for the program:

The Competency Pyramid: From Trial and Error to Standards?



NORM industries

Twelve NORM industries are covered:

- Mining and processing of **uranium** ores
- Extraction of **rare earth** elements
- Production and use of **thorium** and its compounds
- Production of **niobium and ferro-niobium**
- Mining** of ores other than uranium ore
- Production of **oil and gas**
- Manufacture of **titanium dioxide** pigments
- The **phosphate** industry
- The **zircon** and zirconia industries
- Production of **tin, copper, aluminium, zinc, lead, and iron and steel**
- Combustion of **coal**
- Water** treatment.

Assessing the Need for Radiation Protection Measures in Work Involving Minerals and Raw Materials, Safety Reports Series No. 49, IAEA, Vienna, (2006)



Invest in your people



Nuclear Medicine

Radiation safety is now an essential part of patient and professional care in medicine, whether for diagnostic or treatment purposes.

Courses have been developed for capacity building in this rapidly expanding area of health care. They include one-day courses for senior managers and medical directors and five day courses for clinical and technical staff.

The Nuclear Renaissance

With more than 60 countries planning to join the nuclear energy family for the first time, training and capacity building is a key objective, starting with safety for the workforce and for stakeholders.

Uranium mining and production, and the extraction of uranium from phosphoric acid are two areas of special interest that bridge NORM industries to nuclear power.

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Contacts



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Continuing Professional Development

Training, Continuing Professional Development (CPD) and wider training needs are addressed in a combination of *in situ* (in-post) learning, classroom and web-based/ DVD course elements.

Certification and CEU Credits

In association with suitable national or regional centres of excellence, MiLoRAD offers options for certification or accreditation of both individuals and operating units who have successfully completed the courses. CEU credits are also available.