

TRAINING MODULES FOR RADIATION PROTECTION EXPERT (RPE) & EXPOSED WORKERS (EW) IN ITALY: SOME EXAMPLES OF APPLICATIONS

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INTRODUCTION: Italian system for physical surveillance has been established since many years (DPR185-1964, D.Lgs. 230/95 e s.m.i. and D.Lgs. 626/94) and has a self consistent basis to be harmonized with the other countries rules. Here three examples of training are presented: Radiation Protection Expert and "On call personnel" at ENEA and Exposed Workers Training at the University of Bologna.

Radiation Protection Expert

In Italy the professional person closer to the Radiation Protection Expert (RPE) is the Qualified Expert (QE), "Esperto Qualificato". QE qualification requirements and attributions are stated within Italian legislation. 3 qualification degrees for QE are possible.

"ON THE JOB" TRAINING

QE 1st degree : 120 working days

QE 2nd degree: 240 working days

QE 3rd degree: 360 working days



A full university degree (master) in physics, chemistry, industrial chemistry or engineering is required

First level university degree (bachelor) in physics, chemistry, industrial chemistry or engineering is required

QE THIRD DEGREE:

may be entitled of the responsibility for the protection from RX tube radiation exposure, unsealed sources, and all kinds of radiation including Nuclear Power Plants

QE SECOND DEGREE:

may be entitled of the responsibility for the protection from RX tube radiation exposure and unsealed sources

QE FIRST DEGREE:

may be entitled of the responsibility for the protection from RX tube radiation exposure

QE THEORETICAL TRAINING

Nuclear reactions, particle accelerators and neutron generators
Neutron measurement

Sealed and unsealed sources
Small electron accelerators
Internal dosimetry

Nuclear physics and ionizing radiations
RX sources
Radiation protection and dosimetry principles
X ray measurements

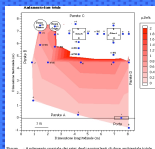
On call personnel at ENEA

The "on call personnel" team is trained, among the exposed workers, by ENEA QE in radiation measurement techniques. The "on call personnel" is required to reach in 1 hour the site in case of accident that could imply the involvement of radioactive sources. For this reason a special training is followed:

An exact knowledge of the working site is required



Together with the knowledge of the sources and their characteristics.



The training includes practical exercises on the localization of a "hidden source" and on smear tests



Exposed Workers at University of Bologna Training

Collaboration between Health Physics Operative Unit and APOS (Personnel Area) – Training Sector

Every 2 years a course is organized for EW

two training macro-areas

1- radionuclides

2- X ray tubes and accelerators

Training characteristics

Basic seminars

legislation
dosimetry
radiation biology effects
operative radiation prot.

Training characteristics

Advanced seminars/case study

radiat. prot. practical case
specific risk analysis
protection tools & devices
management

For the responsables of the activities with radiations the attendance to all the Seminars is mandatory

For the involved personnel the attendance to the seminars is mandatory (at least 1 over 2 Seminars).

For students and temporary personnel the attendance is mandatory under the control of their responsables.

