



Preparedness and response for nuclear and radiological emergencies

SCK•CEN (Mol, Belgium)

Objective

This training course focuses on the early to intermediate phases after a nuclear/radiological accident, and addresses the state of the art in nuclear and radiological emergency management including the international recommendations, the lessons learned from the Fukushima accident and the latest results from the PREPARE project. This includes, but is not limited to, principles of intervention; radiological evaluations; decision-support tools; different aspects of planning and organization in off-site emergency response; economic, social and psychological impact. The European and international dimension is addressed through lectures on Community legislation and international data and information exchange.

The course is organized in collaboration with the main European emergency management actors and the European platform [NERIS](#) (Preparedness for Nuclear and Radiological Emergency Response and Recovery)

Target audience

The course is mainly targeted towards technical and radiological advisors, staff responsible for the overall emergency organisation and policy, such as civil protection officers and environmental protection officers, either entering the domain or being interested in refreshing the basics and getting acquainted with latest developments in the field. A basic knowledge of radiation protection is recommended.

Topics

This training course can contain the following modules:

- Radiological emergencies
- Transfer pathways to the environment and exposure pathways
- Monitoring and data management strategies
- Principles of intervention
- Implementation of early countermeasures – Practical aspects
- Countermeasures for contaminated food production systems
- Countermeasures for inhabited areas
- Decision support systems: RODOS
- International data and information exchange
- Economic, psychological, social and ethical aspects of intervention
- Emergency plans: organisation & requirements
- Communication
- Community legislation
- Stakeholder involvement
- The Fukushima accident
- Specific issues related to radiological emergencies of other origin than nuclear accidents
- Triage, monitoring and treatment of people exposed to malevolent use of radiation
- Organisation of exercises and lessons learned



Group activities are organised to explore in depth several aspects presented during the course lectures. A comprehensive table-top exercise simulating a nuclear accident is organised, plunging participants in the decision-making process and confronting them with the real difficulties. A technical visit of several points of interest in SCK•CEN can be also foreseen.

Language

This course is organised in English.

Duration

This 5-day training course is provided from 09h00 to 17h00, including two coffee breaks and lunch.

Registration

Registration is only available online on <http://academy.sckcen.be/en/Upcoming-events>.

Contact and venue

The course is held at the [Lakehouse](#) of the Belgian Nuclear Research Centre, Boeretang 201, BE-2400 Mol, Belgium.

Rooms can be booked at the [Lakehouse hotel](#) or at the the [Alauda Hotel](#) in Dessel.

Further information is available via academy@sckcen.be or + 32 14 33 21 57.

<http://academy.sckcen.be>



Training course on preparedness and response for nuclear and radiological emergencies

SCK•CEN Lakehouse, Mol, Belgium

Programme

Day 1

08:00 – 08:40 h	Refresher course: Basic concepts in radiation protection
08:40 – 09:00 h	Registration
09:00 – 09:10 h	Welcome
09:10 – 09:40 h	Course overview and introduction of participants
09:40 – 10:35 h	Radiological emergencies
10:35 – 11:25 h	Main transfer processes to environment: atmospheric dispersion and deposition
11:25 – 11:40 h	Coffee break
11:40 – 12:30 h	Main transfer processes to environment: transfer to food chain and man
12:30 – 13:30 h	Lunch

13:30 – 14:15 h	Main contributions and exposure pathways to man
14:15 – 14:45 h	Application of the Commission's recommendations for the protection of people in emergency exposure situations
14:45 – 15:00 h	Coffee break
15:00 – 15:45 h	International initiatives to improve the emergency preparedness and response capabilities based on the lessons learned from Fukushima
15:45 – 17:00 h	The Fukushima accident: overview and lessons learned
17:00 h	End of course day
18:00 h	Reception at the SCK•CEN Lakehouse

Day 2 |

08:15 – 09:00 h	Countermeasures during the early phase
09:00 – 09:45 h	Practical aspects of intervention in the early phase (part 1)
09:45 – 10:00 h	Coffee break
10:00 – 10:30h	Practical aspects of intervention in the early phase (part 2)
10:30 – 11:30 h	Management options for inhabited areas
11:30 – 12:30 h	Management options for food production systems
12:30 – 13:30 h	Lunch
13:30 – 14:30 h	Advanced decision support systems
14:30 – 14:45 h	Coffee break
14:45 – 17:00 h	Radiological evaluations. The RODOS system (workshop and demonstration)
17:00 h	End of course day



Day 3 |

08:30 – 09:30 h	Monitoring and data management
09:30 – 10:15 h	The emergency plan: organisation and requirements
10:15 – 10:30 h	Coffee break
10:30 – 11:15 h	International data and information exchange: ECURIE and EURDEP
11:15 – 12:00 h	Information exchange in radiation emergencies The IAEA role and perspective
12:00 – 13:00 h	Lunch
13:00 – 14:00 h	Communication in nuclear and radiological emergencies
14:00 – 14:45 h	Communication with the media during emergency situations
14:45 – 15:00 h	Coffee break
15:00 – 15:50 h	Community legislation
16:00 – 18:00 h	Technical visit of SCK•CEN Visit of the <ul style="list-style-type: none">antropogammametry laboratory;emergency decontamination wing of the medical service.
18:00 h	End of course day



Day 4 |

08:30 – 09:30 h	Economic, psychological, social and ethical impact of intervention in emergency and post-emergency conditions
09:30 – 10:15 h	Stakeholders involvement in decision processes
10:15 – 10:30 h	Coffee break
10:30 – 11:30 h	Organisation of exercises and lessons learned
11:30 – 12:30 h	Lunch
12:30 – 13:00 h	Introduction to the Table-top exercise
13:00 – 17:00 h	Table-top exercise continued
17:00 – 17:30 h	Debriefing
17:30 h	End of course day

Day 5 |

08:30 – 09:30 h	Presentation of the intervention vehicle of SCK•CEN
09:30 – 10:30 h	Other emergencies: specific issues
10:30 – 10:45 h	Coffee break
10:45 – 11:45 h	Triage, monitoring and treatment of people exposed to the malevolent use of ionising radiation
11:45 – 12:00 h	Closing session
12:00 h	Lunch

