Scenario Based Nuclear and Radiological Emergency Preparedness in a Non-Nuclear Country (Norway)

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XVII Conference of the NSFS, Roskilde 24-27 August 2015
The world according to a non-nuclear country
Norwegian concerns (overview)

- Foreign nuclear power plants and other nuclear installations
- Domestic research reactors
- Floating nuclear power plants, nuclear-powered marine vessels, visits from allied nuclear-powered marine vessels
- Transportation of spent nuclear fuel along the Norwegian coastline
- Radiation sources in use in the Norwegian society
- Satellites and space crafts
- Old nuclear and radiological waste, “nuclear legacy”
- Criminal acts, terrorism, illicit trafficking
- Security issues, unrest (fx. Ukraine)
- Nuclear weapons
Nuclear and radiological events in general...

- Call for quick implementation of protective measures
- May affect large geographical areas
- Have impact on many sides of society
- Call for specialized knowledge
- Call for good coordination and information exchange nationally and internationally
Norwegian authorities must be prepared to handle:

**Six scenarios**

decided by the Government in May 2010
Purpose

• Joint and comprehensive understanding of different nuclear and radiological events and crisis management needs

• Raise general consciousness on different needs in emergency response

• Prioritise needs and plan an as good as possible national nuclear and radiological emergency preparedness

Primary users:
All authorities with responsibilities in nuclear and radiological emergency preparedness and response
Scenario 1:
Large airborne release from another country
Scenario 2: Airborne release from facility in Norway
Scenario 3:
Local event from mobile source
Scenario 4:
Local event evolving over time
Scenario 5: Marine release, and/or fear of contamination
Scenario 6: Severe events abroad without direct consequences for Norwegian territory
Terrorism and nuclear weapons

Terrorism:
• Relevant for all scenarios

Nuclear weapons:
• Use of nuclear weapons against Norwegian territory is not emphasised
• More likely that nuclear weapons may be used in some regions abroad in the future
Use of the scenarios (examples)
Discussions with stakeholders and non-experts
Countermeasure and crisis management strategies

“Strategy for management of radioactivity in fodder and food stuffs” by the NRPA and the Norwegian Food Safety Authority (2013)
Joint plans between authorities
Strategic planning

NRPA Report 2008:11 “Nuclear and radiological threats” (in Norwegian)

NRPA Report 2012:5 “Roles, responsibilities, crisis management and challenges in Norwegian nuclear and radiological preparedness” (in Norwegian)

NRPA Report 2010:13 “Consequences in Norway after a hypothetical accident in Sellafield”

NRPA Report 2012:4 “Potential consequences in Norway after a hypothetical accident at Leningrad nuclear power plant”