



Article 35 Euratom verifications

2016 - 2018

V. Tanner, DG ENER





Verification programme summary

Breakdown

- 4 NPPs – UK , Belgium, Czech Republic and Spain
- 2 Nuclear fuel reprocessing facilities – UK and France
- 6 Population centres – Malta, France, Poland, Lithuania, Romania, Germany and the Netherlands
- *Planned for autumn 2018

Year	Country
2016	Malta
	France
	United Kingdom
	Poland
	Belgium
	Lithuania
2017	Romania
	Germany
	Czech Republic
	United Kingdom
	The Netherlands
2018	France
	Spain
	<i>Bulgaria*</i>
	<i>Portugal*</i>
	<i>Italy*</i>





2016 Malta

Routine and emergency radioactivity monitoring arrangements Monitoring of radioactivity in drinking water and foodstuffs

- Malta has modernised its automatic radiation monitoring systems, but still lacks laboratory capacity for environment and foodstuffs samples
- Recommendations:
 - Data availability to the public
 - In-house radioactivity measurement capacity and laboratory equipment
 - Acquisition of additional hand-held dose rate meters, one portable air sampler and one mobile HPGe gamma spectroscopy system for emergency monitoring purposes.





2016 United Kingdom
Torness Nuclear Power Plant, Scotland
Monitoring of radioactive discharges to the environment
Environmental radioactivity monitoring programme
Environmental radioactivity monitoring network in the vicinity

- Torness NPP has a comprehensive discharge and environment monitoring programme, but some of the equipment are close to the end of operation
- Recommendations:
 - Modernisation of discharge monitoring equipment
 - Participation in intercomparison exercises
 - Trend analysis of NPP laboratory instrument stability





2016 Poland

National monitoring network for environmental radioactivity around the city of Warsaw

- There is a comprehensive environment radioactivity monitoring programme in Warsaw, but some of the equipment is close to the end of operation
- Recommendations:
 - Mixed diet sampling procedures
 - Service contracts for the PMS-stations





2016 Belgium

Tihange NPP discharge and environmental monitoring National environmental radioactivity monitoring network in the vicinity

- Tihange NPP has a sophisticated programme for monitoring radioactivity in the environment and in discharges
- Sophisticate on-site contamination monitoring equipment
- Recommendations:
 - System of interlocks to avoid accidental discharge of tanks
 - Representativeness control of environment samples





2016 Lithuania

Routine and emergency radioactivity monitoring arrangements

Monitoring of radioactivity in drinking water and foodstuffs

- Lithuania has completely modernised its automatic radiation monitoring network after the 2011 verification
- 2011 recommendations have been well implemented
- New monitoring network, more stations in the future on the Belarus border
- Recommendations:
 - Emergency on-call service
 - Automatic sampling of the river Neris
 - Laboratory staffing in an emergency situation





2017 The Netherlands

Routine and emergency radioactivity monitoring arrangements Monitoring of radioactivity in drinking water and foodstuffs

- Netherlands has a modern system for monitoring radioactivity in the environment
- Monitoring of foodstuffs very good, milk in particular
- Mobile laboratories available for emergency situations
- Recommendations:
 - ^{131}I monitoring in the event of an emergency





2017 United Kingdom Sellafield nuclear site

Emergency radioactivity monitoring arrangements Monitoring of radioactivity in drinking water, Recent advances in monitoring aerial discharges

- Sellafield site has several gaseous discharge points
- New (impressive) site gaseous discharge monitoring facility (SEP) collects and monitors gaseous discharges from several old facilities
- Some on-site equipment are close to the end of operation
- Recommendations:
 - Modernisation of on-site dose rate monitoring systems and air samplers
 - Public availability of drinking water radioactivity data
 - Water laboratory equipment back-up





2017 Czech Republic Dukovany Nuclear Power Plant

Discharge and environmental monitoring and national environmental radioactivity monitoring network in the vicinity

- Dukovany NPP has a sophisticated programme for monitoring radioactivity in the environment and in discharges
- Recommendations:
 - Laboratory capacity in an emergency situation
 - Participation in intercomparison exercises
 - Laboratory instrument stability monitoring





2017 Germany

Routine and emergency radioactivity monitoring arrangements in Berlin

- Intensive monitoring in Berlin by both national and local authorities
- Impressive mobile monitoring systems (terrestrial and airborne)
- Closure of the BER II research reactor soon
- No recommendations





2017 Romania Bucharest

Routine and emergency radioactivity monitoring arrangements Monitoring of radioactivity in drinking water and foodstuffs

- Romania has a large network of monitoring laboratories for radioactivity
- Recommendations:
 - ^{131}I monitoring in Bucharest
 - Some of the laboratory equipment close to end of operation
 - Participation in intercomparison exercises
 - Laboratory instrument stability monitoring





2018 France La Hague nuclear site Environmental radioactivity monitoring arrangements Emergency radioactivity monitoring arrangements

- Intensive environment monitoring
- Xe-releases from fuel reprocessing operations need continuous attention
- Small off-site environmental contamination area visited
- Verification results not available yet





2018 Spain Almaraz NPP

Environmental radioactivity monitoring arrangements Emergency radioactivity monitoring arrangements

- Several organisation involved (national, local, civil protection, operator)
- Verification results not available yet

