EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR ENERGY

DIRECTORATE D - Nuclear Safety and Fuel Cycle
Radiation protection

Main Conclusions of the Commission's Article 35 Verification

LATVIA

National monitoring network for environmental radioactivity

Dates	10 to 13 June 2014
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INTRODUCTION

Article 35 of the Euratom Treaty requires that each Member State shall establish facilities necessary to carry out continuous monitoring of the levels of radioactivity in air, water and soil and to ensure compliance with the Basic Safety Standards[1].

Article 35 also gives the European Commission (EC) the right of access to such facilities in order that it may verify their operation and efficiency.

For the EC, the Directorate-General for Energy (DG ENER) and in particular its Radiation Protection Unit (ENER.D.3) is responsible for undertaking these verifications.

The main purpose of verifications performed under Article 35 of the Euratom Treaty is to provide an independent assessment of the adequacy of monitoring facilities for:

- Liquid and airborne discharges of radioactivity into the environment by a site (and control thereof);
- Levels of environmental radioactivity at the site perimeter and in the marine, terrestrial and aquatic environment around the site, for all relevant pathways;
- Levels of environmental radioactivity on the territory of the Member State.

For the purpose of such a review, a verification team from DG ENER visited Latvia from 10 to 13 June 2014. This mission dealt with:

- environmental radiological monitoring programme and activities as implemented in the visited regions of Latvia, including sampling and monitoring systems, analytical methods, quality assurance and control aspects, reporting, etc.;
- measuring laboratories, in particular infrastructure, analytical methods, quality assurance and control aspects, as well as reporting;
- installation of ambient gamma dose rate probes as part of the national surveillance network.

The present document gives an overview of the main conclusions by the verification team concerning relevant aspects of the environmental surveillance and corresponding recommendations. More detailed information concerning the verification is available in the technical report of the verification.

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1 Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation (OJ L-159 of 29/06/1996) which will be superseded by Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom (OJ L 13 of 17.1.2014, p. 1)

MAIN CONCLUSIONS

All verifications that had been planned by the verification team were completed successfully. The information supplied in advance of the visit, as well as the additional documentation received during and after the verification was useful.

(1) The verification activities that were performed demonstrated that the facilities necessary to carry out continuous monitoring of levels of radioactivity in the air, water and soil in Latvia are adequate. The Commission could verify the operation and efficiency of a representative part of these facilities.

(2) The detailed verification findings and ensuing recommendations and suggestions are compiled in the 'Technical Report' that is addressed to the Latvian competent authorities through the Latvian Permanent Representative to the European Union.

(3) With regard to the status of discharge monitoring at the Salaspils Research Reactor, the verification team recommends restoring functionality of (1) the reactor building dose rate monitoring system and (2) the stack gaseous discharge monitoring system as soon as possible, but in any case before the dismantling and decommissioning work of the reactor commences (Section 8.6 of the technical report).

(4) In addition, a few technical recommendations are formulated, the most significant ones being the following:

a. With regard to commissioning of the new national ambient radiation dose rate monitoring network, the verification team recommends (1) 'live' alarm testing of the system and training of duty personnel by exposing monitoring stations to actual radiation and (2) a critical review of the content of the system nuclide library (Section 8.1.1 of the technical report).

b. With regard to the new water radioactivity monitoring station in Kekava, the verification team recommends (1) clarification of the efficiency calibration methods used by the system provider for this station and (2) validation of the calibration results experimentally (Section 8.1.3 of the technical report).

c. With regard to staffing at the Latvian Environmental, Geological and Meteorological Centre laboratory in the area of environmental radioactivity, the verification team encourages maintaining a sufficient number of appropriately trained staff to ensure continuation of the quality levels seen, in conformity with the ISO 17025 certification (Section 8.2 of the technical report).

d. With regard to radioactivity monitoring at the national radioactive waste near-surface repository Radons, the verification team points out that operating the air sampler only four times a year for one week does not fulfil the requirement of 'continuous' monitoring under Article 35, therefore the team recommends that Latvian Environmental, Geological and Meteorological Laboratory considers options for establishing a permanently operating measurement system for radioactivity concentration in air (Section 8.3 of the technical report).

e. With regard to the Institute of food safety, animal health and environment laboratory (BIOR), the verification team recommends improvement of the procedure for the gamma spectroscopy system calibration by (1) acquiring a multi-nuclide calibration standard of reasonable activity and (2) by including in the regular calibration controls

also control of system energy and resolution stability. In addition the verification team recommends the BIOR laboratory to make sure there are a sufficient number of persons trained for radioactivity measurements, also having in mind the possible significant increase in the number of samples in the event of a radiological emergency (Section 8.4 of the technical report).

(5) The recommendations aim at improving some aspects of the surveillance of environmental radioactivity and radioactive discharges in Latvia. The recommendations do not discredit the fact that the verified parts of the national monitoring system for environmental radioactivity are in conformity with the provisions laid down under Article 35 of the Euratom Treaty.

(6) The Commission services request a report on the implementation of the recommendations by the Latvian authorities and about any significant changes in the set-up of the monitoring systems before the end of 2016. Based on this report the Commission will consider the need for a follow-up verification in Latvia.

(7) Finally, the verification team acknowledges the excellent co-operation it received from all persons involved in the activities it performed.

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Team Leader