EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR ENERGY

Directorate D - Nuclear Energy, Safety and ITER
D.3 – Radiation Protection and Nuclear Safety

Main Conclusions of the Commission's Article 35 verification

LUXEMBOURG

National monitoring network for environmental radioactivity

Dates	15 to 16 October 2015
Verification team	Mr V. Tanner Ms M. Montserrat-Ferrier Mr A. Ryan
Reference	LU 15-04

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.

The radiation protection and nuclear safety unit (ENER D.3) of the EC's Directorate-General for Energy (DG ENER) 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 Luxembourg from 15 to 16 October 2015. This mission dealt with

- Environmental radiological monitoring programme and activities as implemented in the visited regions of Luxembourg, 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 (TR) of the verification.

MAIN CONCLUSIONS

All verifications that had been planned by the verification team were completed successfully. The information supplied by the Luxembourg authorities 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 Luxembourg are adequate. The Commission services could verify the operation and efficiency of a representative part of these facilities.

[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).

(2) A few technical recommendations and suggestions are formulated, in particular the following:

a. Concerning the routine environmental monitoring programme (Section 7.2 of the TR), it is recommended that the Department of Radiation Protection (DRP) makes the on-line radiation dose rate data continuously available on its public website.

b. Concerning analytical laboratories, in particular the Service d'Analyses Radiologiques (SAR) laboratory (Section 7.3 of the TR), it is recommended that SAR considers acquiring the expertise and equipment to also carry out ^{90}Sr analysis. In addition the verification team supports the development of improved emergency sample and data control procedures and equipment back-up arrangements with other laboratories. If the number of samples increases, the laboratory throughput should be increased by acquiring additional analytical equipment

c. Concerning the on-line permanent measurement stations (Section 7.4 of the TR) it is suggested to modernise the radiation dose rate monitoring network in the near future.

d. Concerning mobile and emergency monitoring arrangements (Section 7.5 of the TR) the verification team recommends that DRP considers options for ensuring the availability of sufficient qualified staff in an emergency situation, especially in the area of mobile monitoring, laboratory analysis and data handling.

These recommendations aim at maintaining a constant monitoring quality level by improving equipment and people back-up arrangements. They 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 in Article 35 of the Euratom Treaty.

(3) The detailed verification findings and ensuing recommendations are compiled in the 'Technical Report' that is addressed to the Luxembourg competent authorities through the Luxembourg Permanent Representation to the European Union.

(4) The Commission services request a report on the implementation of the recommendations from the Luxembourgish authorities and about any significant changes in the set-up of the monitoring systems before the end of 2017. Based on this report the Commission will consider the need for a follow-up verification.

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

V. Tanner

Team Leader