



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR ENERGY

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

Verification under the terms of Article 35 of the Euratom Treaty

Main Conclusions

ROMANIA

Routine and emergency radioactivity monitoring arrangements

Monitoring of radioactivity in drinking water and foodstuffs

Dates	6-8 December 2017
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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 standards¹.

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;
- 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 Bucharest on 6 – 8 December 2017. This mission dealt with

- Facilities for routine monitoring of environmental radioactivity in Bucharest;
- Facilities for emergency monitoring of environmental radioactivity in Bucharest;
- Measuring laboratories, in particular infrastructure, analytical methods, quality assurance and control aspects, as well as reporting.

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 Romanian 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 monitoring of levels of radioactivity in air, water and soil in Bucharest are adequate. The Commission could verify the operation and efficiency of a representative part of these facilities.
- (2) The verification activities that were performed demonstrated that the facilities necessary to carry out monitoring of levels of radioactivity in air, water and soil in Bucharest in the event of a radiological emergency are adequate. The Commission could verify the operation and efficiency of a representative part of these facilities.
- (3) A few technical recommendations and suggestions are formulated, in particular the following:
 - a) Concerning the **National Environmental Protection Agency (NEPA)** (section 6.1.1 of the TR) the verification team suggests that NEPA evaluates the need for having additional high-sensitivity gaseous iodine detection capability in Bucharest.

¹ 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)

- b) Concerning the **Radioactivity Laboratory of the Ministry of Health** (Ionizing Hygiene Laboratory) (section 6.2.1 of the TR) the verification team recommends that when reporting an estimated annual dose from drinking water consumption also the assumptions and restrictions of the dose calculation would be communicated to the customer.

As a matter of good laboratory practise, the verification team recommends participation in laboratory inter-comparison exercises, in particular on drinking water measurements, at least on national, but preferably on international level.

The verification team recommends acquisition of a new gamma spectroscopy system for the Bucharest laboratory as soon as possible.

In addition, the verification team recommends that the Ministry of Health considers different options for allocating sufficient additional personnel for the laboratory in the event of a radiological emergency.

- c) Concerning the **Radioactivity Laboratory of the Institute for Hygiene and Veterinary Public Health** (section 6.3.1 of the TR), the verification team recommends that the laboratory considers a room plan where a specific room outside the counting room is allocated for management of possible contaminated samples in the event of an emergency.

As a matter of good laboratory practice the verification team recommends long term trend visualization of gamma spectroscopy system efficiency, energy stability and resolution.

Notwithstanding these remarks the verified parts of the environment monitoring facilities and the national monitoring system for environmental radioactivity are in conformity with the provisions laid down under the Article 35 of the Euratom Treaty.

- (4) The detailed verification findings and ensuing suggestions are compiled in the 'Technical Report' that is addressed to the Romanian competent authorities through the Permanent Representation of Romania to the European Union.
- (5) The Commission services kindly request the Romanian authorities to submit a report on the implementation of the recommendations by the Romanian authorities and about any significant changes in the set-up of the monitoring systems before 30 June 2019. Based on this report the Commission will consider the need for a follow-up verification.
- (6) Finally, the verification team acknowledges the excellent co-operation it received from all persons involved in the activities it performed.

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