



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL FOR ENERGY

Directorate D - Nuclear energy, safety and ITER  
**D.3 – Radiation protection and nuclear safety**

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## Verification under the terms of Article 35 of the Euratom Treaty

### Main Conclusions

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# GREECE

## Athens

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

**Dates** 11-13 December 2019

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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<sup>1</sup>.

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 from a site;
- Levels of environmental radioactivity at the site's 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.

A verification team from DG ENER visited Greece on 11 - 13 December 2019 to review:

- Facilities for routine monitoring of environmental radioactivity in Athens;
- Facilities for emergency monitoring of environmental radioactivity in Athens;
- Measuring laboratories, in particular infrastructure, analytical methods, quality assurance and control aspects;
- Reporting of the environmental monitoring programme results.

This document gives an overview of the verification team's main conclusions on the environmental surveillance systems in place and recommendations for their improvement. More detailed information concerning the verification is available in the technical report (TR) of the verification.

## MAIN CONCLUSIONS

The verification team successfully completed every verification planned for the visit. The information supplied by the Greek 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 for the monitoring of levels of radioactivity in air, water and soil in Athens 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 for the monitoring of levels of radioactivity in air, water and soil in Athens in the event of a radiological emergency are adequate. The Commission could verify the availability of a representative part of these facilities.

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<sup>1</sup> 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)

- (3) The verification team wishes to make the following remarks:
- a) The Greek Atomic Energy Commission (EEAE) operates a network of detectors for monitoring the radioactivity content in air (section 7.3.2 of the TR). The verification team recommends that the EEAE establish a plan for sharing the air radioactivity data produced by this network via the European radiological data exchange platform (EURDEP).
  - b) The Environmental Radioactivity Laboratory (ERL) of the Institute of Nuclear & Radiological Sciences & Technology, Energy & Safety operates several gamma-ray spectrometry systems based on High Purity Germanium detectors (section 7.6.2 of the TR). The verification team recommends that the ERL establish trend control worksheets to enable a regular follow-up of the technical stability (calibration for energy, efficiency and resolution) of these systems.

These remarks aside, the verification team nevertheless concludes that the verified parts of the monitoring facilities and the monitoring system for environmental radioactivity in Athens conform to the provisions laid down under the Article 35 of the Euratom Treaty.

- (4) The detailed verification findings are compiled in the 'Technical Report' that is addressed to the Greek competent authority through the Permanent Representation of Greece to the European Union.
- (5) The Commission services kindly request that the Greek authorities submit, before the end of 2021, a report on their implementation of the recommendations, as well as on any significant changes in the set-up of the monitoring systems. The Commission will take this report into account when considering whether a follow-up verification would be necessary.
- (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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Team Leader