



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL FOR ENERGY  
DIRECTORATE D - Nuclear Safety and Fuel Cycle  
**Radiation protection**

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## Main Conclusions of the Commission's Article 35 Verification

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### IRELAND

#### National monitoring network for environmental radioactivity

<b>Dates</b>	23-26 September 2014
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<b>Reference</b>	IRL 14-02

## 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.

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 and DG JRC visited Ireland from 23 to 26 September 2014. The main focus of the mission was Dublin, and the area broadly above a line running from Dublin to Galway, and dealt with:

- environmental radiological monitoring programme and activities as implemented, including sampling and monitoring systems, in particular the off-line and on-line air sampling stations and the installation of ambient gamma dose rate probes as part of the national surveillance network;
- 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 of the verification.

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<sup>1</sup> 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. In particular the report of the extensive peer review carried out in 2009 of the environmental monitoring programme is considered as a valuable example of best practice in this area.

- (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 Ireland 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 Irish competent authorities through the Irish Permanent Representative to the European Union.
- (3) A few technical recommendations are formulated, the most significant ones being the following:
  - a. With regard to the national environmental radioactivity monitoring programme it is suggested to routinely include monitoring of soil or leafy vegetables/grass (Section 7.2 of the technical report).
  - b. With regard to the EPA-ORP analytical laboratories it is recommended to maintain an adequate level of staff for the routine programme and to foresee training of other EPA staff to be able to assist in emergency situations (Section 7.3 of the technical report).
  - c. Active charcoal cartridges are available at the air sampler stations but not deployed. In order to ensure that staff is adequately trained in their analysis it is suggested to include a cartridge from one station occasionally in the regular analytical measurements programme (Section 7.4 of the technical report).
  - d. Whilst currently the siting of both gamma dose rate and air sampling equipment is generally as close to ideal as possible this should be kept under regular review. Notwithstanding, siting of the on-line air sampler in Drogheda and the gamma station in Dundalk should be reviewed (Section 7.4 of the technical report).
- (4) The recommendations aim at improving some aspects of the surveillance of environmental radioactivity in Ireland. 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.
- (5) The Commission services request a report on the implementation of the recommendations by the Irish 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.
- (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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