



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR ENERGY
DIRECTORATE D - Nuclear Energy, Safety and ITER
Radiation protection and nuclear safety

Main Conclusions of the Commission's Article 35 verification

CYPRUS

National monitoring network for environmental radioactivity

Dates 9 to 11 March 2015

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Reference CY 15-01

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 Cyprus from 9 to 11 March 2015. This mission dealt with

- Environmental radiological monitoring programme and activities as implemented in the visited regions of Cyprus, 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.

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 by the Cyprus 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 Cyprus are adequate. The Commission services could verify the operation and efficiency of a representative part of these facilities.
- (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), the drinking water sampling frequencies should be reviewed without delay to ensure they comply with the requirements of the Directive 2013/51/Euratom. The requirements of this Directive need to be implemented by the Member States on 28 November 2015 at the latest.

Furthermore, in order to maintain public knowledge and to create confidence in the monitoring arrangements, on-line access to the monitoring data should be provided for members of the public in Cyprus.

- b. Concerning analytical laboratories, in particular the State General Laboratory (SGL) (Section 7.3 of the TR), it is recommended that the radiological analysis capability be complemented by acquiring a liquid scintillation counter. Additionally it is suggested making arrangements for emergency situations by training back-up staff from other SGL departments for radiological analysis and by allocating more space for the laboratory. Furthermore, it is suggested to consider establishing back-up arrangements for the most important radiological analysis equipment.

In relation to the Department of Labour Inspection Laboratory a system of written instructions for use and maintenance of the various types of equipment in its laboratory should be established.

- c. Concerning the on-line and off-line permanent measurement stations (Section 7.4 of the TR) it is suggested, resources permitting, in relation to the external ambient gamma dose rate network, providing electrical back-up for the station in Limassol, and extending the autonomous operating time of the network data centre in Lefkosia (Nicosia).

Regarding the monitoring of radioactivity concentration in air it is suggested, resources permitting, supplying electrical back-up for the stations at Limassol and Lefkosia (Nicosia) and carrying out the flow meter calibration in 2018 at the latest for the latter.

- d. Concerning mobile and emergency monitoring systems (Section 7.5 of the TR) the Department of Labour Inspection and the Civil Protection Service are recommended to consider alternatives for achieving a more comprehensive picture of the radiological situation in Cyprus in a shorter time than what is possible with the currently available staff and devices. More extensive use of district inspectors or Civil Protection staff in radiation measurement tasks is encouraged.

These 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 Cyprus competent authorities through the Cyprus Permanent Representative to the European Union.
- (4) The Commission services request a report on the implementation of the recommendations by the Cyprus 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.
- (5) Finally, the verification team acknowledges the excellent co-operation it received from all persons involved in the activities it performed.



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