



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR ENERGY

DIRECTORATE D - Nuclear Safety and Fuel Cycle
Radiation protection

Main Conclusions of the Commission's Article 35 verification

Central Italy Sardinia and Tuscany

Dates: 17 to 21 June 2013

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Reference: IT-13/01

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 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.

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 visited Sardinia and Tuscany in central Italy in order to verify the monitoring of environmental radioactivity in these regions as well as the environmental radiological monitoring around the military bases in Sardinia, in which depleted uranium ammunition were suspected to have been tested. Representatives of the regions of Sardinia and Tuscany provided full information of the environmental radiological monitoring in their regions during the opening meeting. 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.

MAIN CONCLUSIONS

All verifications that had been planned by the verification team were completed successfully. In this regard, the information supplied 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 national scale facilities necessary to carry out continuous monitoring of levels of radioactivity in the air, water and soil in central Italy (Sardinia and Tuscany) are adequate. The Commission services could verify the operation and efficiency of these facilities in these regions.
- (2) The verification activities that were performed demonstrated that the regional scale facilities for monitoring environmental radioactivity on the territory of the regions of Sardinia and Tuscany are adequate and that each of these regions is currently implementing a specific programme for the monitoring of environmental radioactivity. The Commission services could verify the operation and efficiency of these facilities in these regions.
- (3) With regard to the depleted uranium issue in Sardinia the verification team encourages in-depth studies for characterisation of the situation in the vicinity of the Salto di Quirra inter-forces experimental test site and training ground. In particular the team recommends a good overview of soil contamination with detailed soil profiles (section 7.2 of the technical report).

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 (Official Journal of the European Union L 13 of 17.1.2014, p. 1)

- (4) With regard to the measured radionuclide concentrations outside the military area of Capo Lorenzo the team asks for a study to determine the origin (natural or "manmade" origin) and recommends in the latter case to take all measures to prevent such contamination of the public domain in future (section 7.2 of the technical report).
- (5) With regard to the laboratories involved in environmental radioactivity monitoring in central Italy the verification team recommends the following:
 - a. Staffing of the laboratories should allow that each work task can be performed by at least two persons in order to allow operating a routine programme also during holiday times and in case of sickness of a staff member. The verification team recommends finding a stable solution to achieve this with trained personnel (section 6.1.5 of the technical report).
 - b. With regard to highly specific tasks involving radiochemical sample preparation such as alpha spectrometry and analysis of Sr-90 the team recommends co-operation between the regional environment agencies (ARPAs and APPAs). Such co-operation should achieve that not each laboratory has to perform each of these complex analyses. Necessary training for such tasks could be organised and given by ISPRA. The team points out that radiochemical work should be performed as a routine task to guarantee continuity and to reach a reasonably high qualitative standard (section 6.2.4 of the technical report).
- (6) In addition, a number of technical recommendations are formulated and presented in the Technical Report of the verification. These recommendations aim at improving some aspects of the surveillance of environmental radioactivity in Sardinia and Tuscany.
- (7) The recommendations do not discredit the fact that environmental radioactivity monitoring in Sardinia and Tuscany is in conformity with the provisions laid down under Article 35 of the Euratom Treaty.
- (8) The Commission services request a report on the implementation of the recommendations by the Italian 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 in Italy.
- (9) Finally, the verification team acknowledges the excellent co-operation it received from all persons involved in the activities it performed.



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