



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

SWEDEN

Stockholm

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

Dates	4-6 December 2019
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Reference	SE 19-03

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 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 Sweden on 4 - 6 December 2019 to review:

- Facilities for routine monitoring of environmental radioactivity in Stockholm;
- Facilities for emergency monitoring of environmental radioactivity in Stockholm;
- 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 Swedish 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 Stockholm 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 Stockholm in the event of a radiological emergency are adequate. The Commission could verify the availability of a representative part of these facilities.

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)

- (3) The verification team wishes to make the following recommendations:
- a) The Swedish Radiation Safety Authority (SSM) operates a radio-analytical laboratory for analysis of environmental samples (section 6.2.2 of the TR). During the verification the laboratory had no capacity for sample analysis using liquid scintillation counting. The verification team recommends that the SSM restores the liquid scintillation counting capability in the laboratory.
 - b) The Swedish Radiation Safety Authority operates a sophisticated network of environmental radiation dose rate monitoring stations (section 6.2.3 of the TR). The dose rate data produced by this network is made available at the European Union radiation data exchange platform (EURDEP), but it is not available on the SSM public website. The verification team recommends to make the on-line dose rate monitoring data available for the public also via the webpage of the SSM.

These remarks aside, the verification team nevertheless concludes that the verified parts of the monitoring facilities and the monitoring system for environmental radioactivity in Stockholm 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 Swedish competent authority through the Permanent Representation of Sweden to the European Union.
- (5) The Commission services kindly request that the Swedish 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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