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Follow-up Report on the Verification Under the Terms of Article 35 of the Euratom Treaty to Finland in 2023

Introduction

Under the Article 35 of the Euratom Treaty, all Member States must establish the 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. Article 35 also gives the European Commission (EC) the right of access to such facilities to verify their operation and efficiency. The radiation protection and nuclear safety unit of the European Commission's Directorate-General for Energy is responsible for undertaking these verifications.

- The main purpose of the verifications 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 from a site into the environment;
- levels of environmental radioactivity at the site perimeter and in the marine, terrestrial and aquatic environment around the site, for all relevant exposure pathways;
- levels of environmental radioactivity on the territory of the Member State.

A team from the European Commission's Directorate-General for Energy conducted a verification under the terms of Article 35 of the EURATOM treaty to Finland on 28-30 August, 2023, with the verification focusing on the arrangements in the capital region.

Main Conclusions of the Verification

The conclusions of the verification are presented in two report documents (Reference ARES(2024)184704), the Main Conclusions and the Technical Report. The main conclusions from the verification were that facilities for monitoring are adequate both for routine and

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emergency monitoring and that the verified parts of the monitoring facilities and the monitoring systems for environmental radioactivity in Helsinki conform to the provisions laid down under the Article 35 of the Euratom Treaty.

Verification team makes suggestions when it identifies an action which would further improve the quality of the monitoring. A recommendation would be given when there is a clear need for improvement in implementing Art. 35.

No recommendations were given to Finland in the verification report. Five technical suggestions are given in the Technical Report. Here we report on actions undertaken to address these suggestions.

Technical Suggestions and Actions Undertaken Following the Verification

The verification team suggests that STUK reviews the food sample measurement capacity situation in co-operation with other relevant authorities.

Actions undertaken: potential lack of national measuring capabilities of food samples in the event of large scale radioactive environmental contamination following e.g. severe nuclear power plant accident has been identified in Finland already before the verification visit and actions to improve the national capabilities are described in the [“National radiation measurement strategy for radiation hazard situations”](#) document published by the Ministry of Interior in 2022.

The implementation of the steps described in the strategy document are coordinated by the Ministry of Interior. Currently, Stuk is supporting the Finnish Food Authority in enhancing their laboratory capabilities for radioactivity measurements. Stuk is also preparing guidance document on technical specifications of radiation monitoring instruments different organizations could acquire for emergency monitoring purposes and this document includes guidance for food monitoring. The document is expected to be published in 2025. Food monitoring capabilities and needs to enhance these at various public and private organizations is also actively communicated by Stuk experts at training events and seminars to raise awareness on the needs to improve the capabilities.

The verification team suggests including data from the Finnish NPP monitoring networks in the EURDEP data files, in agreement with the nuclear site operators.

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Stuk is starting discussions with the Finnish utilities on the possibility of including the monitoring data from the utilities environmental monitoring networks around the nuclear power plants into the data stream provided to EURDEP. The provision of the data from utilities' monitoring networks is subject to a decision by the utilities as they own the monitoring data and are required to provide the data only to Stuk for authority use.

Following suggestions were given to Finnish Meteorological Institute (FMI):

The verification team suggests that the FMI considers training additional experts for radioactivity monitoring to maintain sufficient staff competence in the future.

FMI has taken note of the suggestion.

The verification team suggests acquisition of a back-up for the alpha/beta analyser currently in use.

The verification team suggested the acquisition of a back-up for the alpha/beta analyser currently in use in the Finnish Meteorological Institute. Based on this recommendation the acquisition of components for a back-up measurement system has started together with the installation work. The back-up alpha/beta counter based on ZnS/plastic scintillation detectors is expected to be fully operational in May 2024.

Following suggestion was given to Helsinki City Rescue Department:

The verification team suggests acquisition of a few sealed small multinuclide radiation sources for training purposes.

Acquisition of a few sealed small multinuclide radiation sources for training purposes will be considered once licensing issues related the acquisition of the radioactive sources have been investigated.