



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL FOR ENERGY

DIRECTORATE D – Nuclear energy  
**D4 – Radiation protection**

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## **MAIN FINDINGS**

### **Former uranium mines and production sites**

#### **Department of Haute-Vienne and Limousin Region**

#### **France**

**14 to 17 September 2010**

Facilities:	Environmental radioactivity monitoring facilities around former uranium mining sites and storage sites for waste from uranium extraction in Limousin.
Location:	Limousin region
Date:	14 to 17 September 2010
Inspectors:	C. Gitzinger (team leader) E. Hrneck E. Henrich
Report ref:	FR-10/06

## Introduction

Article 35 of the Euratom Treaty requires each Member State to establish the facilities necessary to carry out continuous monitoring of the level of radioactivity in the air, water and soil and to ensure compliance with basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation<sup>1</sup>.

Pursuant to Article 35 of the Euratom Treaty, the European Commission has the right to verify the operation and efficiency of the above-mentioned facilities.

Within the European Commission, the Directorate-General for Energy (DG ENER; formerly the Directorate-General for Energy and Transport – DG TREN) is responsible for implementing the verifications pursuant to Article 35 of said Treaty.

To this end, a team from DG ENER of the European Commission went to France from 13 to 17 September 2010 to visit environmental radioactivity monitoring facilities around former uranium mines and former uranium production sites in the Limousin region, as well as two laboratories involved in the monitoring process.

The objective of the verification was to provide an independent evaluation of the efficiency of the facilities, systems and organisational measures set up to ensure the monitoring of:

- discharges of radioactivity into the environment;
- levels of radioactivity in the environment around the uranium mining sites;
- levels of radioactivity throughout the national territory.

The verification focused on the exploitation of regulatory systems for measuring discharges and on environmental monitoring schemes applied to former uranium mining sites, uranium production sites and the national territory. Maintenance, calibration, recording, archiving and data transmission were verified by means of ad hoc reviews. Insofar as it was difficult to verify each of those items in a highly detailed manner, the verification also focused on the existence and implementation of quality assurance schemes and on the existence of internal and external audits.

The verifications were carried out in accordance with the procedure laid down in the Commission notice<sup>2</sup> - and in line with the 1992 Protocol - defining the general principles used by the European Commission for carrying out verifications of facilities measuring environmental radioactivity in France.

The 'Comité Technique Euratom (CTE)' (Euratom Technical Committee), attached to the Prime Minister's office and responsible in particular for the implementation of the Euratom Treaty at the national level, supervised the preparation of the verification visit by coordinating the various French players involved and the European Commission.

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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 ionising radiation, OJ L 159, 29.6.1996, pp. 1-114

<sup>2</sup> Verifications of the levels of radioactivity monitoring facilities under the terms of Article 35 of the Euratom Treaty – Practical arrangements for the conduct of verification visits in Member States; OJ C155 of 04.07.2006, pp. 2-5

The verification was thus well-prepared thanks to prior discussions on the practicalities of its implementation. In order to facilitate the work of the verification team, the CTE also sent a technical file before the verification took place. Further documents were provided on the premises during the verification activities.

The verification team also used general data, published on the internet site of the Institute for Radiation Protection and Nuclear Safety (IRSN), concerning the monitoring of environmental radioactivity on former uranium mining sites and production sites in France.

## **Main Findings**

All the intended verifications were carried out without any difficulties. In this respect, the file provided beforehand as well as the documents provided on the premises proved very useful.

The main findings are as follows:

- (1) The verification activities which were carried out indicate that the facilities required for permanently monitoring the level of radioactivity in the air, water and soil around former uranium mining sites verified in the Limousin region are well-suited to their task. The Commission was able to verify the operation and the efficiency of the facilities in question;
- (2) The team recommends certain initiatives and actions, in particular the development and testing of a new purification process for uranium-bearing water. The team was able to verify the compliance of the sites under inspection with the provisions of Article 35 of the Euratom Treaty;
- (3) The verification team proposes to share France's know-how in the area of environmental monitoring and in the management of former uranium mining sites with Member States facing the same issues;
- (4) The team's comments are set out in detail in the 'technical report' which was sent with these Main Findings to the competent French authorities via the Permanent Representation of France to the European Union.

Finally, the verification team would like to thank its hosts for their cooperation and availability.

C. Gitzinger

Leader of the verification team

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