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Directorate H – Nuclear Energy
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Main Findings of the Commission's Article 35 verification in Cyprus

Cypriot National Monitoring Network for Environmental Radioactivity

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INTRODUCTION

Article 35 of the Euratom Treaty requires that each Member State shall 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 the right of access to such facilities in order that it may verify their operation and efficiency.

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 levels of environmental radioactivity on the territory of the Member State.

For the purpose of such a review a verification team from the European Commission visited different locations for monitoring environmental radioactivity in Cyprus, from 08 to 12 May 2006. With due consideration of the scope of the verification mission and taking into account the relatively short time available for the execution of the programme, emphasis was put on:

- The National Environmental Monitoring and Sampling Programme,
- The Cypriot Environmental Radioactivity Telemetric Network (automatic dose rate monitoring and data management system),
- NORM activities in Cyprus: Monitoring in relation to the decommissioning of a fertiliser production plant at Vassiliko, in particular levels of environmental radioactivity at the site perimeter and in the marine, terrestrial and aquatic environment around the site, for all relevant exposure pathways.

The team carried out verifications of monitoring systems and sampling facilities in different locations of Cyprus. These verifications covered both on-line and off-line environmental and foodstuffs radioactivity monitoring provisions.

The present report gives an overview of the main findings of the verification team and corresponding recommendations.

Recommendations are addressed to the Cypriot competent authority.

MAIN FINDINGS

The proposed verification programme could be completed within the time allocated. In this regard the verification team appreciates the advance information supplied, as well as the additional documentation received during and after the verification.

1. Main findings with respect to the monitoring facilities of RICS

The verification activities performed at the Radiation Inspection and Control Service (RICS):

1.1 Established that at the time of the visit, work on setting up a routine monitoring programme for environmental radioactivity was far advanced; this work is performed in close collaboration with SGL.

1.2 Confirmed that a local station and the basic data centre of the automatic dose rate monitoring system are located at the premises of RICS.

1.3 Established that the six monitoring stations (Lefkosia, Larnaca, Limassol, Pafos, Paralimni, and Polis) are fully installed, functional and were - at the time of the visit - in a final test phase.

1.4 Established the existence of two medium volume air samplers for Cyprus.

However,

1.5 With respect to the points 1.1 to 1.4 above, the verification team:

Strongly endorses the efforts of RICS to set up a detailed routine environmental radioactivity monitoring programme in close cooperation with SGL, taking into account the knowledge acquired from past measurement campaigns performed by different organisations in Cyprus.

With respect to the Pafos installation suggests placing the gamma probe on the outer balustrade.

Encourages the move to utilise a high volume air sampler and recommends contacting institutions abroad that may supply expertise in this field with regard to finding appropriate equipment.

2. Main findings with respect to the State General Laboratory (SGL)

The verification activities performed at the SGL:

2.1 Confirmed that at the time of the visit work for setting up a routine monitoring programme for environmental radioactivity was far advanced; this work was performed in close collaboration with RICS.

2.2 Established that the SGL - radiological laboratory is satisfactorily equipped. It is staffed with adequately trained personnel, but only few people are available to perform all activities that the laboratory requires. The laboratory applies the same QA system as the already accredited SGL-laboratories do and is in an advanced process of ISO 17025 accreditation.

However,

2.3. With respect to the point 2.2 above the verification team noted that the radiological laboratory, at the moment of the visit had to rely on an "old" gamma spectrometer only and that there is also a staffing issue.

It is recommended that the SGL considers seriously the possible need to increase the number of trained staff for its radiological laboratory.

The team endorses the purchase of an additional gamma spectrometer, to enable the laboratory to cope with the number of analyses probably to be performed in future.

The team endorses the cooperation of SGL with RICS in setting up a detailed routine environmental radioactivity monitoring programme.

3. Main findings with respect to the former fertiliser factory and phosphogypsum site at Vassiliko ("NORM" plant)

The verification activities performed at the fertiliser factory at Vassiliko:

3.1 Confirmed that the plant is closed down and under decommissioning. Decommissioning activities will be contracted to a specialised company (call for tender). A phosphogypsum disposal site is situated close to the sea.

The team fully endorses the cooperation of RICS/SGL with the University of Cyprus and the University of Athens (Demokritos Institute) in the projected marine monitoring programme (in particular the part focussed on the Vassiliko site).

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 before the start and during the verification, was useful. The information provided and the outcome of the verification activities led to the following observations:

(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 newly installed or in an advanced stage of implementation or of planning. The Commission could verify the operation and efficiency of most of the facilities, even if not yet officially operational.

(2) The team noted that current monitoring campaigns are not yet part of a well established routine programme, and it welcomes the efforts undertaken to set up such a routine programme in close collaboration between RICS and SGL.

(3) A number of topical recommendations are formulated. These recommendations aim at improving some aspects of environmental surveillance in Cyprus. The recommendations do not discredit the fact that environmental monitoring in Cyprus is expected to be soon in conformity with the provisions laid down under Article 35 of the Euratom Treaty.

(4) The Commission Services ask the Cypriot competent authority to inform them of any progress with regard to the situation at the time of the verification. The full implementation of a routine environmental radioactivity monitoring programme, including the installation and functionality of all projected new equipment and of the recommendations issued by the verification team, will be verified by the Commission Services at the occasion of a follow up verification.

(5) The verification team acknowledges the excellent co-operation it received from all persons involved.

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C. GITZINGER
signed
Team Leader