Stratégie de surveillance du compartiment atmosphérique en Europe

Monitoring strategy for the atmospheric compartment in Europe

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Introduction

Legislative aspects

EURDEP

Verifications under Article 35 of the Euratom Treaty

Gamma dose rate

Airborne particulate sampling

Wet or dry deposition collectors

Future strategy document

Legislative aspects

Article 35 of the Euratom Treaty states that "Each Member State shall 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 the basic standards. The Commission shall have the right of access to such facilities: it may verify their operation and efficiency".

In 2000 a Commission Recommendation (2000/473 Euratom) on the application of Article 36 of the Euratom Treaty concerning the monitoring of the levels of radioactivity in the environment for the purpose of assessing the exposure of the population as a whole recommended that external ambient gamma dose rates be measured continuously.

EURDEP

Dose rate data from 39 European countries, from about 5500 automatic stations available on an hourly basis and in addition from some 100 air concentration monitoring stations on a daily basis during an emergency, as well as under normal conditions.

https://remon.jrc.ec.europa.eu/

Celebrated 20 years in 2015

The IAEA IRMIS is based on the EURDEP model

Verifications under Article 35 of the Euratom Treaty

Since 1994 over 100 verification missions. Reports are available at:

http://ec.europa.eu/energy/node/1221

Varied targets (national monitoring systems, plant specific etc.)

Current focus on large population centres

Importance of laboratories performing analysis

Gamma dose rate monitoring

Geiger Muller counter most common instrument

Ideal siting – 1m above ground in unobstructed environment

Other instruments include NaI and $LaBr_3$ detectors

Much data in EURDEP comes from such instruments

Denmark: dose rate station with a GM-tube and spectral station with a 2x2´´ NaI crystal

Greece: Thessaloniki – gamma dose rate probe

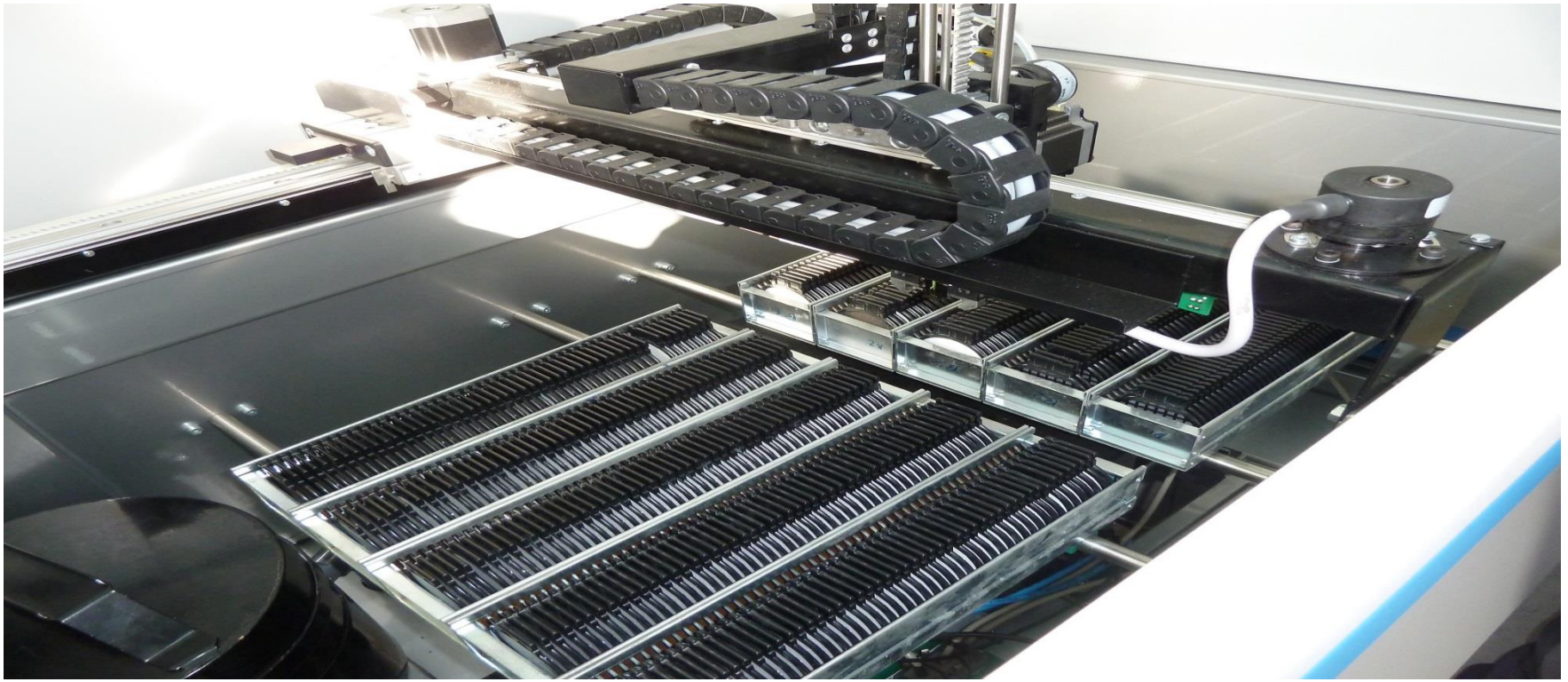
Airborne particulate sampling

Low/medium/high volume with filter for subsequent laboratory analysis

Common equipment problems (flow rate, clogging etc.)

Laboratory analysis requires proper procedures in place

Cyprus: automatic sampler for total alpha, total beta and gamma radionuclides in aerosols



Wet or dry deposition collectors

Can be of various dimensions and materials

In some instances heated in winter

Subsequent analysis in laboratory

Future strategy document

The methods and equipment used in the Member States for environmental and discharge monitoring are highly variable.

Lack of technical guidance issued at EU level.

ENER D.3 has proposed guidelines on monitoring methodology in the form of a technical guidance document on the implementation of the Euratom Treaty Article 35 in the EU Member States.

Discussed with the Member States at the Art. 35/36 meeting in April 2016. Informal comments from some Member States.

Merci pour votre attention

Thank you for your attention