



REPUBLIC OF BULGARIA

PROGRESS REPORT ON THE IMPLEMENTATION OF THE RECOMMENATIONS OF ARTICLE 35 VERIFICATION MISSION -2018



Sofia, December 2020

INTRODUCTION

In the period 13-15 November 2018 a verification mission on implementation of Article 35 of EURATOM Treaty obligations of the Republic of Bulgaria was conducted by team of experts of European Commission. Several recommendation for improvements were made by the European experts in the Technical report of the mission. The recommendations were given to some of the authorities involved in the environmental monitoring of radioactivity. They concern in particular laboratory equipment, calibration procedures and staffing.

In two years period according to the p.5 of the Conclusions of the Technical report it is expected the Republic of Bulgaria to inform the European Commission about the progress report for implementation of the recommendations that were made as a result of the verification mission. This report describes the status of implementation of those recommendations by the relevant authorities.

1. MINISTRY OF ENVIRONMENT AND WATER (MOEW)

EXECUTIVE ENVIRONMENTAL AGENCY (EEA) Laboratory for radiological measurements

RECOMMENDATION

The verification team suggests that the EEA ensures that the sampling documentation is precise enough to ensure sample traceability also in situations where the number of samples increases.

IMPLEMENTATION

The sampling documentation now is prepared exactly as described in the recommendation. On each marinelli beaker with a sample prepared for analysis, there is an indication of the sampling location, time and date of sampling and a sample code is corresponding to the code in which the sample is entered in the sample acceptance log. Sampling documentation is precise enough to ensure sample traceability also in situations where the number of samples increases.

2. MINISTRY OF HEALTH (MH)

National Centre of Radiobiology and Radiation Protection (NCRRP)

RECOMMENDATION

The verification team recommends that the Ministry of Health proceed to improve the laboratory equipment, in particular by acquiring a liquid scintillation counter, an alpha spectrometer and an additional gamma spectroscopy system.

IMPLEMENTATION

Ministry of Health is the beneficiary of the Operational Program "Environment" under Project "Improving the Monitoring of Drinking Water Quality" and within this project it is expected to purchase laboratory equipment, including a liquid scintillation counter, an alpha spectrometer and a gamma spectroscopy system, etc.

RECOMMENDATION

The verification team recommends that the Ministry of Health proceed to fill the vacant staff positions of the laboratory as soon as possible.

IMPLEMENTATION

All vacant laboratory staff positions are filled in 2019. Currently there are no vacant laboratory staff positions.

RECOMMENDATION

The verification team recommends that the NCRRP introduce a computer-based sample and results handling system (LIMS) to replace the paper logbooks.

IMPLEMENTATION

At present, no funding has been provided for the introduction of a computer-based sample and results handling system (LIMS). The data and records are kept in a paper logbook.

RECOMMENDATION

The verification team recommends that the Public Exposure Monitoring Laboratory introduce a sample matrix correction algorithm to the gamma spectroscopy efficiency calibration procedure.

IMPLEMENTATION

When providing the equipment and in particular the gamma spectroscopy system under the Operational Program "Environment", it is envisaged that the same shall include a sample matrix correction algorithm for the gamma spectroscopy efficiency calibration procedure.

RECOMMENDATION

The verification team recommends that the Public Exposure Monitoring Laboratory include monitoring of gaseous radioactive iodine in its monitoring capabilities available in a nuclear emergency situation.

IMPLEMENTATION

Due to lack of funding, iodine filters were not purchased. Collaboration has been established with the Executive agency for the environment to provide iodine filters if needed.

RECOMMENDATION

If the number of annual samples increases, the verification team recommends that the NCRRP introduce a computer-based sample and results handling system (LIMS) at the Radiation Expertise and Radon Monitoring Laboratory.

IMPLEMENTATION

At present, no funding has been provided for the introduction of a computer-based sample and results handling system (LIMS). The data and records are kept in a paper logbook.

3. NATIONAL INSTITUTE FOR METEOROLOGY AND HYDROLOGY(NIMH) – BAS

RECOMMENDATION

The verification team recommends renewal of the laboratory counting equipment in the near future.

IMPLEMENTATION

The recommendation was taken into consideration but due to lack of targeted funding the renewal of the laboratory counting equipment is postponed for the future.

4. INSTITUTE FOR NUCLEAR RESEARCH AND NUCLEAR ENERGY (INRNE) - BAS

RECOMMENDATION

In order to maintain long-term operation during a radiological emergency, the verification team recommends that the Institute for Nuclear Research and Nuclear Energy increases the number of staff trained to carry out mobile monitoring.

IMPLEMENTATION

At the time of the verification there were three persons from the staff of the Institute for Nuclear Research and Nuclear Energy of the Bulgarian Academy of Sciences (INRNE-BAS)

trained to use the equipment of the mobile CBRN unit – two physicists and one chemist. INRNE-BAS aims at long-term operation of the mobile laboratory and that is why two additional specialists were involved and trained to use the corresponding equipment – one chemist and one physicist. Unfortunately, due to personal reasons, the latter resigned in the summer of 2020. INRNE-BAS plans to train two more physicists from its staff who has access to the mobile CBRN unit but this process is going to be postponed due to the current COVID-19 pandemic situation. The goal that is expected is to have 2 chemists and 4 physicists trained and qualified to use the mobile equipment.