

# **RULEBOOK**

## **FOR ESTABLISHING PROGRAMME OF EARLY WARNING OF EMERGENCY**

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### **Article 1**

These Rulebook govern the Programme of Early Warning of Emergency, printed out with these Rulebook and which makes an integral part hereof.

### **Article 2**

By implementing the Programme under Article 1 of this Rulebook, a system for early warning of emergency shall be put in place, providing the continual measurement of ambient dose rate equivalent.

### **Article 3**

These Rules, after the Government approval, shall be published in the "Official Gazette of the Republic of Serbia" and come into force eight days after its publishing.

## **THE PROGRAMME OF EARLY WARNING OF EMERGENCY**

### **1. Introduction**

The Programme of Early Warning of Emergency (hereinafter referred to as: Programme) shall set up a system for early warning of emergency providing the continued measurement of ambient gamma dose rate equivalent in the air. The early warning of emergency system shall be set up for early detection of an accident which threatens or may threaten the territory of the Republic of Serbia.

The Programme of Early Warning of Emergency shall define the sites and methods for measurement of ambient gamma dose rate equivalent in the air and the manner of reporting on the conducted measurements.

The surveillance over the early warning of emergency system shall be the responsibility of the Serbian Radiation Protection and Nuclear Safety Agency (hereinafter referred to as: Agency).

### **2. Measurement sites and methods**

The measurement of ambient gamma dose rate equivalent for the purpose of early warning of emergency shall be conducted in the following places in the territory of the Republic of Serbia:

Beograd, Kladovo, Beograd - Vinča, Palić, Novi Sad, Zlatibor, Niš, Vranje and Kosovska Mitrovica.

The system for early warning of radiological emergency may be extended if necessary.

Ambient gamma dose rate equivalent shall be measured daily, throughout 24 h a day, at the height of 1 m above uncultivated grassy area.

The measurement devices shall meet the required metrological conditions.

The system for early warning of emergency shall contain as follows:

- 1) Instruments for continual measurement of ambient dose rate equivalent ranging from 50 nSv/h to 0.1 Sv/h, which shall be capable of sending data in real time and shall own an internal memory storage which may store measurement data for 5 days;
- 2) Data transfer equipment from the measuring point to the data collection centre;
- 3) Central computer for data collection;
- 4) Alarm system.

The central computer for data collection shall be located within the Agency.

### **3. Reporting**

The measurement results of ambient dose gamma rate equivalent in the air shall be recorded every 30 minutes. Every 30 minutes, the centralized computer takes over data from all measuring stations and enters them into the database. The unit used in the early warning of emergency system for ambient dose rate equivalent is nSv/h.

The daily report contains measured half-hourly values of ambient dose rate equivalent, minimum daily value, maximum daily value and average daily value of ambient dose rate equivalent.

The monthly report contains measured minimum and maximum daily values and mean daily value, measured minimum and maximum mean value of ambient gamma dose rate equivalent in the air.

The annual report contains the coordinates and brief description of measurement sites, basic characteristics of measurement devices of the early warning of emergency system, tables and graphs with minimum and maximum measured monthly values and of mean monthly value of ambient gamma dose rate equivalent in the air and the comment on the measurement results.

The daily and monthly reports shall be retained in electronic form, and the annual report shall be retained in electronic form and hard copy.

In case of increase of ambient dose rate equivalent value by more than 50% above the average mean values for certain location, the Agency shall undertake measures to investigate the causes for increased value and to decide on the further action.