

Radiation and Nuclear Safety Authority Regulation on Radioactive Waste and Discharges of Radioactive Substances in the Use of Unsealed Sources

Adopted in Helsinki on 4 April 2019

In accordance with a decision of the Radiation and Nuclear Safety Authority, the following provisions are issued by virtue of the Radiation Act (859/2018):

Section 1

Scope of application

This regulation applies to the following arising from the use of unsealed sources:

- 1) radioactive waste;
- 2) discharge of radioactive substances.

The regulation is not applicable to:

- 1) natural radioactive substances when they are not being used as radiation sources;
- 2) radioactive waste or the discharge of radioactive substances arising from the use of nuclear energy or the utilization of natural resources.

Section 2

Definitions

Representative person means, in this regulation, an individual receiving a dose representative to the dose of the most exposed members of the public, excluding those individuals with extreme or rare behaviour.

Section 3

Marking of waste packages

A package containing radioactive waste must be marked with an ionizing radiation warning sign and a label indicating that the package contains radioactive waste.

In addition, the package must be marked with information necessary for the safe handling of the waste.

Section 4

Record keeping

The information referred to in section 3, subsection 2 must be presented waste batch-specifically in the records concerning radioactive waste.

The records must include information on the measures and dates of the management of each batch of waste.

Records must be kept of the discharge of radioactive substances to be able to demonstrate compliance with the discharge limit values and so that the information referred to in section 8 can be determined.

Section 5

Clearance levels for disposal and utilization by incineration

The clearance levels referred to in section 85 of the Radiation Act for the delivery of a waste batch to utilization by incineration or disposal as referred to in the Waste Act (646/2011) are:

- 1) the activity in a single waste package is, at maximum, equal to the exemption level or, if the waste contains different radionuclides, their activities meet condition 1 of the Annex;
- 2) the activity of the waste delivered during a month from a single place of use is, at maximum, 10 times the exemption level or, if the waste contains different radionuclides, their activities meet condition 2 of the Annex.

Section 6

Limit values for minor discharges

The limit values for minor discharges of radioactive substances into the sewerage system as referred to in section 127, subsection 1 of the Radiation Act are:

- 1) the activity of the waste delivered at any one time from a single place of use is, at maximum, equal to the exemption level or, if different radionuclides are discharged, their activities meet condition 1 of the Annex;
- 2) the activity of the waste delivered during a month from a single place of use is, at maximum, 10 times the exemption level or, if different radionuclides are discharged, their activities meet condition 2 of the Annex.

The limit value for a minor discharge in the effective dose received by members of the public from discharges of radioactive substances into the open air is 10 µSv a year. The undertaking shall determine the dose as the calculated dose received by the representative person as a result of measured or otherwise reliably determined discharges.

Section 7

Discharges and the plan concerning their monitoring

The plan concerning the discharges of radioactive substances referred to in section 127, subsection 2 of the Radiation Act shall detail:

- 1) the grounds for the necessity of the discharge;
- 2) a proposal and its grounds on the dose constraint to be applied to the exposure caused to members of the public by the discharges;
- 3) procedures for monitoring the discharges and the exposure caused to members of the public by the discharges;
- 4) a proposal and its grounds on the limit values for the discharges.

Section 8

Delivery of information concerning discharges and their monitoring

The Radiation and Nuclear Safety Authority must be delivered with the following information on the discharges of radioactive substances referred to in section 127, subsection 2 of the Radiation Act every three months, always by the end of the month following each quarter:

- 1) the nuclide-specific quantities of the discharges;
- 2) the temporal variation of the discharges.

Section 9

Monitoring public exposure resulting from the discharges

The monitoring of public exposure resulting from the discharges shall be carried out in accordance with the provisions in the Radiation and Nuclear Safety Authority Regulation on Practices that Cause Exposure to Natural Radiation S/3/2019.

Section 10

Baseline environmental radioactivity study

The conduct of an environmental radioactivity baseline study shall be carried out in accordance with the Radiation and Nuclear Safety Authority Regulation on Practices that Cause Exposure to Natural Radiation S/3/2019.

Section 11

Entry into force

This regulation enters into force on 5 April 2019 and is valid until further notice.
This regulation applies to any matters pending on the date of its entry into force.

In Helsinki on 4 April 2019

Director General Petteri Tiippana

Director Tommi Toivonen

Availability of the regulation, guidance and advice

This regulation has been published as part of the regulations issued by the Radiation and Nuclear Safety Authority (STUK) and it is available from the Radiation and Nuclear Safety Authority.

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Legislative data bank: <http://www.finlex.fi/fi/viranomaiset/normi/555001/>

ANNEX

If the waste or the discharges contain several different radionuclides, condition 1 referred to in section 5 and 6 is:

$$\sum_k \frac{A_k}{A_{E,k}} \leq 1$$

and condition 2 is:

$$\sum_k \frac{A_k}{A_{E,k}} \leq 10$$

where A_k is the activity of radionuclide k and $A_{E,k}$ is the exemption level of radionuclide k .