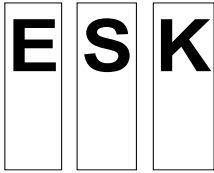


Note:

This is a translation of the ESK document entitled  
“Anhang 1 der Empfehlung der Entsorgungskommission vom 01.03.2018:  
Meldekriterien für meldepflichtige Ereignisse in Einrichtungen mit einer Umgangsgenehmigung nach StrlSchV für  
radioaktive Abfälle mit vernachlässigbarer Wärmeentwicklung”

In case of discrepancies between the English translation and the German original, the original shall prevail.



## **Annex 1 to the recommendation of the Nuclear Waste Management Commission of 1 March 2018:**

### **Reporting criteria for reportable events in facilities with a handling licence under the Radiation Protection Ordinance for radioactive waste with negligible heat generation**

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## **Preliminary remark**

The following reporting criteria shall apply to the handling of other radioactive material. Therefore, both storage and treatment and the facilities and activities required for this purpose, including internal transports, in all facilities for handling radioactive waste with negligible heat generation licensed according to § 7 of the Radiation Protection Ordinance (Strahlenschutzverordnung – StrlSchV) are covered.

### **1. Radiology and radiation protection**

If the following criteria refer to the limits specified in Appendix III, Table 1, Column 4 of the Radiation Protection Ordinance, a surface averaged over 300 square centimetres shall be taken as a basis.

#### **1.1 Discharge of radioactive material**

##### **Criterion S 1.1.1**

Discharge of radioactive material with air or water where the activity discharged within 24 hours

- leads to exceeding the body dose limits according to § 47(1), or
- exceeds the maximum permissible activity discharges per year defined by the competent authority.

##### **Criterion E 1.1.1**

Discharge of radioactive material with air or water where the activity discharged exceeds the maximum permissible activity discharges defined by the competent authority.

#### **1.2 Release of radioactive material**

##### **Criterion S 1.2.1**

Release of radioactive material into the environment involving the danger that the activity released within 24 hours

- causes the body dose limits according to § 47(1) sentence 1 of the Radiation Protection Ordinance to be exceeded, or
- amounts to more than 10 per-cent of the maximum permissible activity discharges per calendar year defined by the competent authority.

##### **Criterion E 1.2.1**

Release of radioactive material into the environment involving the danger that the activity released

- results in body doses amounting to more than 10 per cent of the limits according to § 47(1) sentence 1 of the Radiation Protection Ordinance, or
- amounts to more than 10 per cent of the maximum permissible activity discharges per calendar year defined by the competent authority.

##### **Criterion N 1.2.1**

Release of radioactive material into the environment which is not covered by criteria S 1.2.1 or E 1.2.1.

**Criterion S 1.2.2**

Release of radioactive material within the facility so that the local dose rate exceeds 3 millisievert per hour outside an area marked as a controlled area.

**Criterion E 1.2.2**

Release of radioactive material within the facility so that

- the local dose rate exceeds 3 millisieverts per hour for more than 24 hours within an area marked as controlled area unless it is marked as an exclusion area, or
- the establishment of a new controlled area becomes necessary.

### **1.3 Contamination**

**Criterion E 1.3.1**

Contamination within the supervised area which exceeds a hundred times the limits specified in Appendix III, Table 1, Column 4 of the Radiation Protection Ordinance and whose total activity in becquerel amounts to more than the tenfold of the limits specified in Appendix III, Table 1, Column 2 of the Radiation Protection Ordinance.

**Criterion N 1.3.1**

Contamination within the controlled area which exceeds the thousandfold of the limits specified in Appendix III, Table 1, Column 4 of the Radiation Protection Ordinance in an area which cannot be contaminated during specified normal operation and whose total activity in becquerel amounts to more than a hundred times the limits specified in Appendix III, Table 1, Column 2 of the Radiation Protection Ordinance.

### **1.4 Inadvertent spreading of radioactive material**

**Criterion S 1.4.1**

Spread of radioactive material from the facility by carryover into an area

- outside supervised areas at the premises if the activity carried over there exceeds a hundred times the limits specified in Appendix III, Table 1, Column 4 of the Radiation Protection Ordinance and a hundred times the limits specified in Appendix III, Table 1, Column 2 of the Radiation Protection Ordinance, or
- outside the premises if the activity carried over there exceeds a hundred times the limits specified in Appendix III, Table 1, Column 4 of the Radiation Protection Ordinance and the tenfold of the limits specified in Appendix III, Table 1, Column 2 of the Radiation Protection Ordinance.

**Criterion E 1.4.1**

Spread of radioactive material from the facility by carryover into an area

- outside supervised areas at the premises if the activity carried over there exceeds the tenfold of the limits specified in Appendix III, Table 1, Column 4 of the Radiation Protection Ordinance and a hundred times the limits specified in Appendix III, Table 1, Column 2 of the Radiation Protection Ordinance, or
- outside the premises if the activity carried over there exceeds the tenfold of the limits specified in Appendix III, Table 1, Column 4 of the Radiation Protection Ordinance and the limits specified in Appendix III, Table 1, Column 2 of the Radiation Protection Ordinance.

## **2. Systems engineering and operation**

### **2.1 Malfunctions, damages or failures of safety-relevant systems or components**

#### Criterion N 2.1.1

Malfunction, damage or failure of a safety-relevant system or component.

Not reportable:

- malfunctions, damages or failures of minor degree in single components of structural fire protection as well as the failure of single components of the local equipment for firefighting and fire alarm or
- malfunction, damage or failures of safety-relevant systems for which licensed compensating measures are provided insofar as the event is not reportable according to Criterion N 2.1.2.

#### Criterion N 2.1.2

Failure, damage or finding indicating a systematic fault in a safety-relevant system or component.

### **2.2 Other events with safety significance**

#### Criterion N 2.2.1

Safety-relevant deviation from an engineering or operational value defined by the authority.

#### Criterion N 2.2.2

Safety-relevant damage to a load-bearing structure of a building.

#### Criterion N 2.2.3

Other occurrences related to conditioning, handling, transport and storage of radioactive waste.

### **3. External hazards and internal events**

#### **3.1 External hazards**

##### **Criterion S 3.1.1**

Natural external hazards (such as storm, rain, snow, frost, lightning, flooding, earthquakes and landslides) or man-made natural hazards (such as impacts of harmful substances, pressure waves, external fire spreading inside, damage from mining, aircraft crashes) so that the facility is in a condition which has a dangerous effect on the population or the environment or if danger is involved that this could happen.

##### **Criterion E 3.1.1**

Natural external hazards (such as storm, rain, snow, frost, lightning, flooding, earthquakes and landslides) or man-made natural hazards (such as impacts of harmful substances, pressure waves, external fire spreading inside, damage from mining, aircraft crashes) if the handling of radioactive waste can only be continued with an additional measure not yet specified in the operating procedures.

#### **3.2 Internal events**

##### **Criterion S 3.2.1**

Internal fire, internal explosion, violent chemical reaction, flooding or other internal hazard so that the facility is in a condition which has a dangerous effect on the population or the environment or if danger is involved that this could happen.

##### **Criterion E 3.2.1**

Internal fire, internal explosion, violent chemical reaction, flooding or other internal hazard if the handling of radioactive waste can only be continued with an additional measure not yet specified in the operating procedures.

##### **Criterion N 3.2.1**

Internal fire, internal explosion, violent chemical reaction, flooding or other internal hazard in a room or an area of the facility which contains radioactive material with an activity exceeding the limits according to Appendix III, Table 1, Column 2 of the Radiation Protection Ordinance or where safety-relevant equipment is located.

Local small fires in connection with modification or maintenance work are not reportable if precautionary fire protection measures have been taken with which the fire was successfully fought.