

The Swedish Radiation Protection Authority's Regulations on the Discharging of Goods and Oil from Controlled Areas in Nuclear Plants;

issued on September 25, 1996.

On the basis of sections 7 and 8 of the Radiation Protection Ordinance (1988:293), the Swedish Radiation Protection Authority has issued the following regulations.

Definitions

1 § In these regulations the following terms and concepts are used with the meanings specified here.

Goods: tools, components, equipment, things, substances, materials, raw materials,

free use: use outside a controlled area without limitations from a radiation protection point of view,

contamination: contamination with radioactive substances,

nuclear plant: according to the definition in the Nuclear Activities Act (1984:3),

sealed source: a radioactive substance firmly combined to a non-radioactive solid or sealed within a capsule of non-radioactive material strong enough to, at normal use, prevent diffusion of the radioactive substance,

controlled area: an area which is specially marked for radiation protection reasons and to which admittance is restricted.

Applicability

2 § These regulations apply to goods and oil from all nuclear plants in Sweden. The regulations deal with discharging of goods and oil for free use or handling as radioactive waste. Goods and oil that only have been handled in places where there is no risk of contamination or activation may be used freely.¹

¹ In addition to these regulations, limitations due to other laws or regulations may apply, for instance the Nuclear Activities Act, the Act on Environment Protection or the Act on Transport of Hazardous Goods.

3 § These regulations do not apply to such goods that after transport from the controlled area shall

1. be stored as radioactive material and in future be used only within a controlled area, a storage for which a licence is required according to the Radiation protection Act or the Nuclear Activities Act, or

2. undergo a treatment, such as repair or service at a workshop or equivalent, and after which the goods again shall be used within a controlled area.

4 § These regulations do not apply to sealed sources.²

5 § The bringing of goods into a controlled area shall be restricted to items necessary.

Measurements

6 § At each nuclear plant written instructions on measurement procedures on goods or oil, as well as documentation, shall be established. The instructions shall make clear which categories of the personnel are authorised to perform the measurements. The accuracy and limits of detection shall be documented.

7 § Measurements regarding alpha nuclides according to the sections 8-10 and 16, do not need to be performed if alpha contamination, by other means in a highly reliable way, can be excluded.

Discharging of goods

8 § The surface contamination³ of goods may at discharging from a controlled area not exceed

1. 40 kBq/m² in total of beta- and gamma nuclides,

2. 4 kBq/m² of alpha nuclides.

The surface contamination shall be determined as the mean value over an area of 0.03 m².

Free use

9 § At discharging from a controlled area of goods for free use, the activity of the goods may in addition to the normal natural content of activity outside a nuclear plant not exceed 500 Bq/kg of which at most 100 Bq/kg may come from alpha nuclides. This limit value does not apply to single objects. However, the limitations of surface contamination according to section 8 always apply.

Deposit at an own or a municipal dump

10 § At discharging from a controlled area of goods for deposit at an own or a municipal dump, the activity of the goods may in addition to the normal natural content of activity outside a nuclear plant not exceed 5 kBq/kg from beta- or gamma nuclides and not exceed 0.5 kBq/kg from alpha nuclides.

² Regarding sealed sources a licence according to the Radiation Protection Act is required.

³ For goods in the form of powder, such as sand-blasting sand, it is enough to comply with the sections 9 or 10 respectively.

11 § Goods that is discharged from a controlled area for deposit at an own or a municipal dump must not be attractive for immediate reuse. Utility goods must be deformed or destroyed so they cannot be used any more.

12 § The activity shall be determined by nuclide specific measurements.

13 § The measurements shall be recorded and reported to the Swedish Radiation Protection Authority according to section 20.

14 § The total activity in goods discharged from controlled areas, from all nuclear plants located at the same place, for deposit at an own or a municipal dump must not exceed 1 GBq per year.⁴

Discharging of oil

15 § The activity shall be determined by nuclide specific measurements.

16 § The activity of oil that is discharged from a controlled area to be destructed or burnt must not exceed

1. 5 kBq/kg in total of beta- and gamma nuclides,
2. 0.1 kBq/kg of alpha nuclides.

17 § If the requirements given in the sections 15 and 16 are fulfilled, oil may, without a special permit from the Swedish Radiation Protection Authority, be burnt in a refuse incinerator or in an oil burner the power of which exceeds 10 megawatts⁵.

18 § The total activity in oil that is discharged from controlled areas, from all nuclear plants located at the same site, to be destructed or burnt must not exceed 500 MBq per year.

19 § The measurements shall be recorded and reported to the Swedish Radiation Protection Authority according to section 20.

Reporting to the Swedish Radiation Protection Authority

20 § Goods that is discharged from a controlled area for deposit at an own or a municipal dump as well as oil that is discharged from controlled areas to be destructed or burnt shall annually be reported to the Swedish Radiation Protection Authority. In addition the report shall comprise goods and oil that is discharged from controlled areas according to separate permits.

The report shall comprise

1. the amount of goods and oil that has been discharged in the last year,
2. the nuclides involved and their activities as well as criteria for omitted measurements on alpha nuclides according to section 7,
3. the dates of discharging and,
4. the receiver (dump, refuse incinerator etc.) of goods and oil.

⁴ Deposit of low activity waste in ground is regulated by particular licence conditions issued by the Swedish Radiation Protection Authority according to the section 19 of the Ordinance (1984:14) on Nuclear Activities.

⁵ For the handling of oil other regulations may apply, for instance the Environment Protection Law, the Ordinance on Environmental Hazardous Waste or the Ordinance on Waste Oil.

The report shall before the end of the month of February the subsequent year have been sent to the Swedish Radiation Protection Authority. If no goods or oil have been discharged in the last year, this fact shall also be reported.

Exemptions

21 § If particular grounds exist, the Swedish Radiation Protection Authority may grant exemptions from these regulations.

These regulations enter into force on January 1st 1997, when the Swedish Radiation Protection Authority's regulations (SSI FS 1983:3) on discharging from controlled areas at nuclear plants of goods for free use or disposal as waste, and the Swedish Radiation Protection Authority's regulations (SSI FS 1991:6) on contaminated oil from nuclear plants shall cease to apply.

On behalf of the Board of the Swedish Radiation Protection Authority

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