



NORM in Sweden

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Regulation of NORM-waste in Sweden

- ➔ Council Directive 2013/59/EURATOM
- ➔ The Radiation Protection Act (2018:396)
- ➔ The Radiation Protection Ordinance (2018:506)
- ➔ Regulation issued by the Authority (SSMFS2018:4), exemption and clearance

- ➔ The Act of Nuclear Activities (1984:3)



Clearance and exemption levels

- ➔ 1 kBq/kg for nuclides in the uranium and thorium series
- ➔ 10 kBq/kg för K-40



Specific clearance

Clearance is also possible for NORM originating in Sweden with activity concentrations below

- 10 kBq/kg for nuclides in the U- and Th-series
- 100 kBq/kg for K-40

if the material is deposited in landfills for hazardous waste.



Examples of NORM in Sweden

- ➔ Geothermal energy production
- ➔ Cement production, maintenance of klinker ovens
- ➔ Coal-fired powerplants, maintenance of boilers
- ➔ Primary iron production
- ➔ Tin/lead/copper smelting
- ➔ Ground water filtration facilities
- ➔ Mining of ores other than uranium ore
- ➔ Bio fuel (peat and wood)
- ➔ Legacy sites (burned alum shale)



Thank you

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