

**Dose assessment for workers at mercury recycling  
of sludge from natural gas production**

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Sludge and scale resulting from processing, production and cleaning of plant components in oil and gas industry are recycled due to its high content of mercury (10 - 15 %). The dominant radionuclides are Ra-226 and Pb-210/Po-210 with specific activities up to 500 Bq/g. The radionuclides Ra-228 and Th-228 are less abundant. The dose calculation considers the entire recycling process from the transport to the recycling plant, the recycling process itself, the immobilisation of the residuals and the disposal.