

### Detections of Ru-106 in environmental samples in Finland in fall 2017

A summary of Ru-106 detections in environmental samples in Finland in fall 2017. Sampling and analysis have been performed by STUK - Radiation and Nuclear Safety Authority.

National environmental monitoring program Location/Municipality	Sample type	Sampling period	Explanation	Ref. Date	Ru-106	Unit	Uncertainty (1 sigma)
Helsinki	Air filter sample	28.9. – 3.10.2017			6,4E-05	Bq/m3	9 %
Helsinki	Air filter sample	3.10. – 5.10.2017			4,5E-04	Bq/m3	4 %
Helsinki	Air filter sample	3.10. – 4.10.2017			8,5E-04	Bq/m3	4 %
Imatra	Air filter sample	3.10. – 5.10.2017			2,9E-04	Bq/m3	8 %
Ivalo	Air filter sample	2.10. – 5.10.2017			1,4E-04	Bq/m3	4 %
Kajaani	Air filter sample	2.10. – 9.10.2017			4,5E-05	Bq/m3	4 %
Kotka	Air filter sample	11.9. – 4.10.2017			1,6E-05	Bq/m3	4 %
Kuopio	Air filter sample	2.10. – 5.10.2017			2,2E-04	Bq/m3	4 %
Rovaniemi	Air filter sample	2.10. – 9.10.2017			6,1E-05	Bq/m3	3 %
Sodankylä	Air filter sample	2.10. – 5.10.2017			1,1E-04	Bq/m3	8 %
Kotka	Deposition	3.7. - 2.10.2017		18.8.2017	27	Bq/m2	8 %
Helsinki	Wet deposition	2.10. - 6.11.2017		20.10.2017	66	Bq/m2	8 %
Helsinki	Deposition	2.10. - 2.1.2018		17.11.2017	56	Bq/m2	5 %
Imatra	Deposition	2.10. - 2.1.2018		17.11.2017	5,8	Bq/m2	11 %
Kajaani	Deposition	2.10. - 2.1.2018		17.11.2017	2,8	Bq/m2	16 %
Kuopio	Deposition	2.10. - 2.1.2018		17.11.2017	9,7	Bq/m2	10 %
Sodankylä	Deposition	2.10. - 2.1.2018		17.11.2017	5,3	Bq/m2	10 %
Rovaniemi	Deposition	2.10 - 28.11.2017		30.10.2017	1,9	Bq/m2	27 %

River Kymijoki, Kotka	River water	Sample taken on 9.10.2017		9.10.2017	0,0075	Bq/kg	18 %
Viikinmäki waste water treatment plant, Helsinki	Waste water sludge	Sample taken on 28.11.2017	Dewatered sludge	28.11.2017	10	Bq/kg	10 %
<b>Environmental monitoring around Loviisa NPP</b>	<b>Sample type</b>	<b>Sampling period</b>	<b>Explanation</b>	<b>Ref. Date</b>	<b>Rh-106</b>	<b>Unit</b>	<b>Uncertainty (1 sigma)</b>
<b>Location</b>							
Määrilahti (N 60.44991°, E 26.26073°)	Air filter sample	26.9. - 10.10.2017			1,09E-04	Bq/m3	7 %
Weather Mast (N 60.37781°, E 26.32219°)	Air filter sample	26.9. - 10.10.2017			1,35E-04	Bq/m3	6 %
Böle (N 60.37106°, E 26.39338°)	Air filter sample	26.9. - 4.10.2017			1,92E-04	Bq/m3	8 %
Keitala (N 60.42191°, E 26.36593°)	Air filter sample	26.9. - 4.10.2017			1,92E-04	Bq/m3	8 %
Smoltti (N 60.37408°, E 26.34873°)	Deposition	28.9. - 31.10.2017		15.10.2017	79	Bq/m2	8 %
Loviisa (60.453154, 26.219678)	Deposition	28.9. - 31.10.2017		15.10.2017	87	Bq/m2	8 %
Böle (N 60.37106°, E 26.39338°)	Deposition	28.9. - 28.12.2017		12.11.2017	72	Bq/m2	8 %
Keitala (N 60.42191°, E 26.36593°)	Deposition	28.9. - 28.12.2017		12.11.2017	79	Bq/m2	6 %
<b>Environmental monitoring around Olkiluoto NPP</b>		<b>Sampling period</b>	<b>Explanation</b>	<b>Ref. Date</b>	<b>Ru-106</b>	<b>Unit</b>	<b>Uncertainty (1 sigma)</b>
<b>Location</b>							
Haapasaari (N 61.17251°, E 21.47772°)	Air filter sample	27.9. - 11.10.2017			1,70E-04	Bq/m3	8 %
Korvensuo (N 61.23997°, E 21.48191°)	Air filter sample	27.9. - 11.10.2017			1,60E-04	Bq/m3	7 %
Hankkila (N 61.19590°, E 21.55303°)	Air filter sample	20.9. - 4.10.2017			1,68E-04	Bq/m3	7 %
Kuivalahti (N 61.27394°, E 21.56993°)	Air filter sample	20.9. - 4.10.2017			1,63E-04	Bq/m3	7 %
Weather mast (N 61.24280°, E 021.43025°)	Deposition	27.9. - 25.10.2017		11.10.2017	3,8	Bq/m2	7 %