



Baltic Marine Environment Protection Commission

Expert Group on Monitoring of Radioactive Substances
in the Baltic Sea

MORS EG 5-2015

Oulu, Finland, 19-21 May 2015

Document title	Monitoring of Radionuclides in the Baltic Sea 2014
Code	3-3
Category	INF
Agenda Item	3 – Scientific reports by the Contracting Parties and IAEA
Submission date	07.05.2015
Submitted by	Estonia
Reference	

Background

This document contains the results by Estonia on monitoring of radionuclides in the Baltic Sea in 2014.

Action required

The Meeting is invited to take note of the information.

MONITORING OF RADIONUCLIDES IN THE BALTIC SEA 2014

ESTONIA

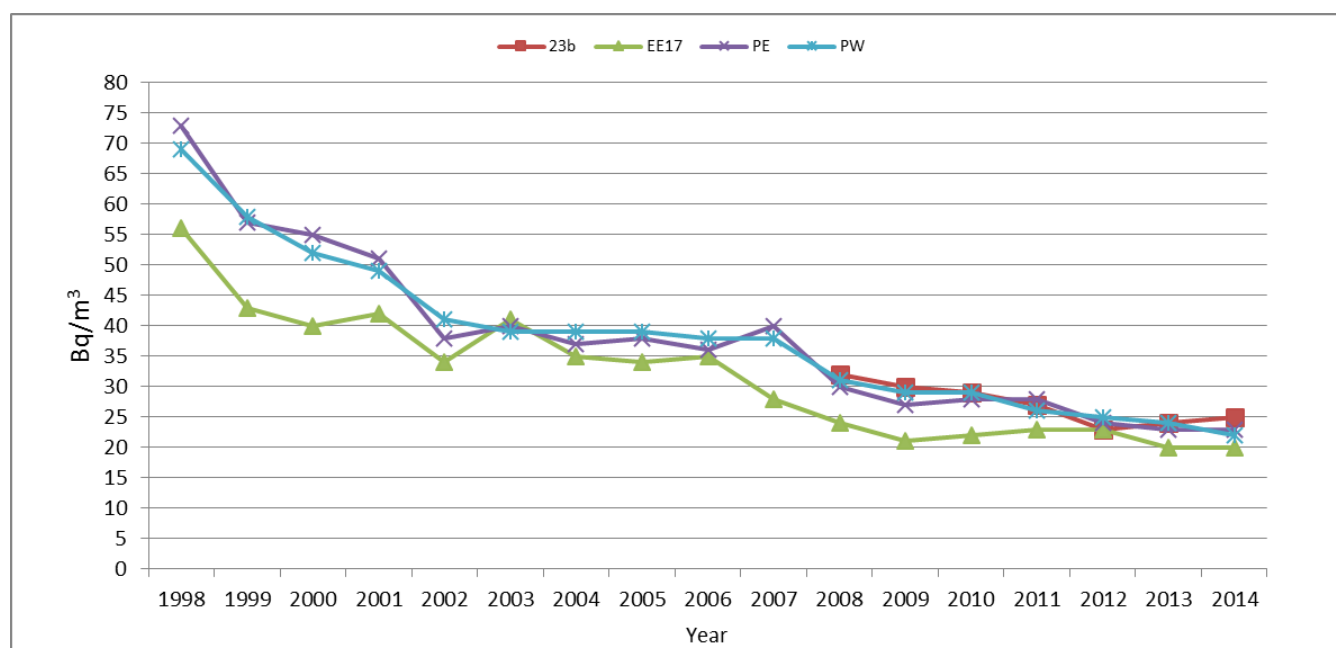
Environmental Board, Radiation Safety Department

Eia Jakobson

1. Surface sea water

Year	Sampling station	Sampling date	Total depth (m)	Temp (°C)	Salinity (‰)	Cs-137 (Bq m ⁻³)	K-40 (Bq m ⁻³)
2014	23 b 59°18,39' N 23°16,93' E	25.08.2014	84	17,2	6,2	25±3	2140±190
	EE17 59°43,00' N 25°00,87' E	25.08.2014	110	17,6	5,5	20±3	1870±200
	PE 59°22,80' N 24°09,25' E	25.08.2014	20	18,1	5,7	23±2	2130±190
	PW 59°20,05' N 24°01,94' E	25.08.2014	18	17,8	5,7	22±3	2100±230
	N8 59°28,46' N 28°00,48' E	25.08.2014	11	18,2	3,7	13±2	1420±130

Cs-137 concentrations (Bq m⁻³) in surface water in Gulf of Finland 1998-2014



2. Aquatic plants: Fucus vesiculosus

Year	Sampling station	Sampling date	Dry weight (kg)	Cs-137 (Bq/kg)	K-40 (Bq/kg)
2014	Paldiski 59°21,7' N 24°02,33' E	26.10.2014	0,32	9,8±1,2	551±32
	Sillamäe (Kunda) 59°32,85' N 26°39,05' E	11.10.2014	0,31	10,0±1,0	634±45

3. Fish:

Year	Sampling area	Sampling date	Fish	Wet weight (kg)	Cs-137 (Bq/kg)	K-40 (Bq/kg)
2014	Aseri 59°27,95' N 26°51,97' E	16.09.2014	Baltic herring	1,9	3,2±0,2	114±6
	Paldiski 59°20,15' N 24°03,33' E	16.09.2014	Flounder	1,8	2,8±0,2	106±7

4. Bottom sediments:

Year	Sampling station	Sampling date	Total depth (m)	Core slice depth from surface (cm)	Cs-137 (Bq/kg)	K-40 (Bq/kg)
2014	EE17 59°43,12' N 25°00,94' E	5.11.2014	109	0-2 cm	148±8	1020±100
				2-4 cm	22±2	1120±70
				4-6 cm	5±1	1010±80
				6-8 cm	< 3	1090±80
				8-10 cm	< 3	1090±80
				10-12 cm	< 3	1040±80
				12-14 cm	< 3	1070±90
				14-16 cm	< 3	1090±80
				16-18 cm	< 3	1030±80

Year	Sampling station	Sampling date	Total depth (m)	Core slice depth from surface (cm)	Cs-137 (Bq/kg)	K-40 (Bq/kg)
2014	23b 59°18,28' N 23°17,24' E	7.11.2014	84	0-2 cm	180±14	940±80
				2-4 cm	162±13	900±70
				4-6 cm	200±16	970±80
				6-8 cm	234±18	990±80
				8-10 cm	237±18	880±80
				10-12 cm	233±18	890±70
				12-14 cm	224±17	880±80
				14-16 cm	192±15	880±70
				16-18 cm	92±7	920±70
				18-20 cm	53±5	900±70