

## The Baltic Sea is NOT a Garbage Dump!

Therefore, we demand the following:

1. that radiological releases are included in all attempts to prevent the pollution of the Baltic Sea
2. thorough investigations of radionuclides in water, fish and sediments and a tracking down of the sources, and
3. a moratorium, a stop to the establishment of any new nuclear projects on the coasts of the Baltic Sea – not least, a stop for the planned Swedish and Finnish final storages of spent nuclear fuel by the Baltic Sea!

### Source references:

Ref(1) Find the quote on page 17, in a new report from HELCOM to all the governments of the Baltic Sea region: "TOWARDS A BALTIC SEA UNAFFECTED BY HAZARDOUS SUBSTANCES - HELCOM Overview 2007" – download from:  
[http://www.helcom.fi/stc/files/Krakow2007/HazardousSubstances\\_MM2007.pdf](http://www.helcom.fi/stc/files/Krakow2007/HazardousSubstances_MM2007.pdf)

Ref(2) FOA's illustration, from: "Radioactive sources of main radiological concern in the Kola-Barents region" (Executive Summary) Ronny Bergman and Alexander Baklanov – FRN Stockholm 1998.

Ref(3) Helcom:s illustration: The estimation of the contribution of the Baltic Sea area nuclear power plants into the annual individual doses of the critical groups of population. Fig.5.1.20. - see:  
[http://www.iaea.it/inpp\\_en.asp?lang=1&subsub=41](http://www.iaea.it/inpp_en.asp?lang=1&subsub=41)

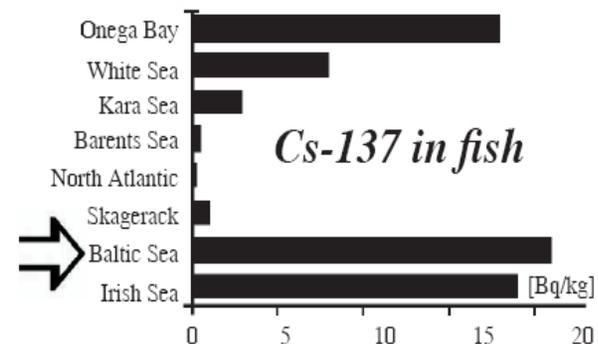
Also see, from the Nordic Council: "Member Proposal on Measures to Prevent Radioactive Pollution of the Baltic Sea" – it can be downloaded in English, Russian, Finnish and Swedish, from: <http://www.nonuclear.se/a1379-environment20051014.html>

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## The Baltic Sea is Radioactive!

**How bad is it?** According to the best international experts, from the Helsinki Commission's international scientific working group – "the levels of anthropogenic (= manmade) radio nuclides are higher in the Baltic Sea than in any other water bodies around the world" (See Reference <sup>1</sup> at the end, with a link to the report)

The illustration below is from the Swedish Defence Research Establishment. (Ref<sup>2</sup>)



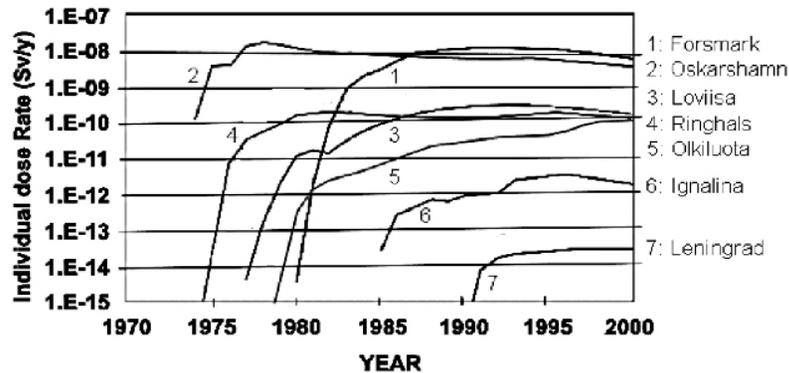
FOA: Levels of cesium-137 in fish from northern Seas during the first half of the 1990's.

### What are the reasons for this ?

One reason is that the exchange of water between the Baltic Sea and the big oceans is very small (only about 1% per year). The greatest historical releases of radioactive contamination we can no longer do anything about: The Chernobyl accident, the atmospheric nuclear bomb tests – and Sellafield's enormous discharges.

However, we have every possibility to do something about the releases today and to prevent releases from planned new projects, like the final storages of spent fuel!

### Whose reactors pollute the most?



Estimation of the contribution of the Baltic Sea area nuclear power plants to the annual individual doses of the critical groups of population (Ref. <sup>3</sup>).

Along the coasts of the Baltic Sea there are around 20 nuclear facilities. **Among all of the reactors on our coasts, the Swedish reactors are responsible for the worst releases to populations around the Baltic Sea!** (See Ref. <sup>3</sup> at the end).

In fact, the Swedish reactors are polluting on a level of 100,000 times more, than the Russian reactors close to St Petersburg (see figure above, and notice the scale to the left shows orders of ten).

Is it right that the worst polluter (Forsmark!) is to take care of the most dangerous waste – the spent nuclear fuel – and why would we allow Sweden or Finland to locate their waste near our common resource, the Baltic Sea? We say: **NO!**

Forsmark is the worst possible location!

The Bottnian Sea in the north and the eastern parts of the Finnish Gulf are the most severely affected areas, with higher levels of cesium and strontium, which causes leukemia in children and cancer in your bones.

Authorities and nuclear companies actually describe the Baltic Sea as a “**recipient**” – that is, a receiver of radioactive releases. **Finland is copying Sweden’s bad solutions, so they also want to place their final storage by the water.** And if the world’s biggest reactor ever comes online at Olkiluoto, Finland’s releases can be expected to increase dramatically.

2005 it was discovered that Forsmark’s storage for low- and intermediate radioactive waste (SFR) – was leaking radioactivity, 10 times more cesium than normal into the Baltic Sea. Containers were supposed to be safe for at least 50-100 years. Because of water-erosion, they started leaking after 10 years!

So what can we expect from the much more dangerous storages of highly radioactive spent fuel, which are being planned at Olkiluoto on the Finnish west coast – and at Forsmark on the east coast of Sweden. They need to be kept safe for 100.000 years!

### From Fish to Human Beings

**Eating fish is the major way that people take in radioactivity.** HELCOM says: “**The dominating exposure pathway is that of fish ingestion, which contributes about 94% - while the other pathways yield the rest.**” <sup>3</sup>

Sweden’s own investigations show much higher levels of cesium in fish caught outside Forsmark, Oskarshamn and Studsvik (a rad-waste “recycler”)!