

Studsvik



Of polluting the BALTIC SEA!

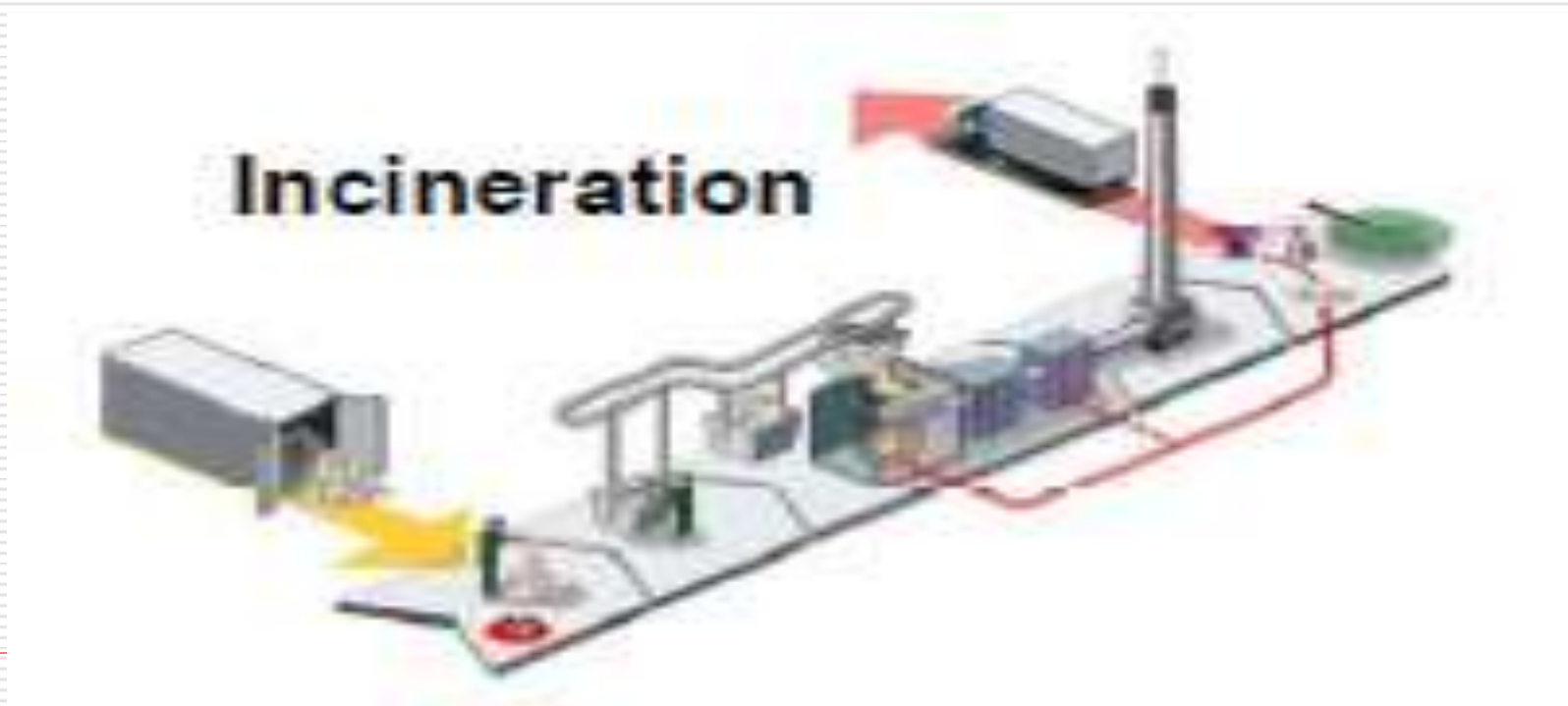
Short presentation by Per Hegelund,
Baltic Sea Region Radioactivity Watch:

www.bsrrw.org

Added Profit: Studsvik Waste Treatment Route

Volume reduction by incineration or melting.

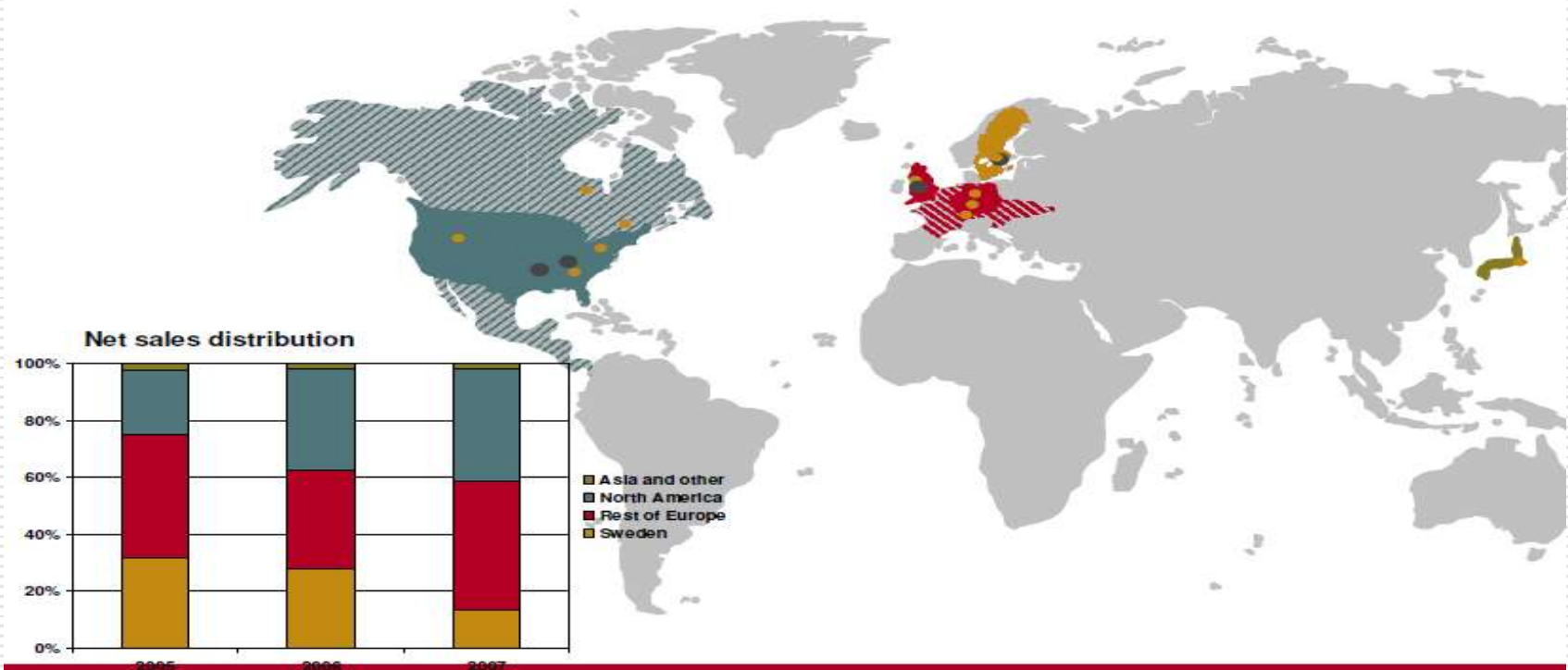
- **Free release & recycling of Metal**
- 100% energy recovery by incineration
- Free release of metal > 90 %



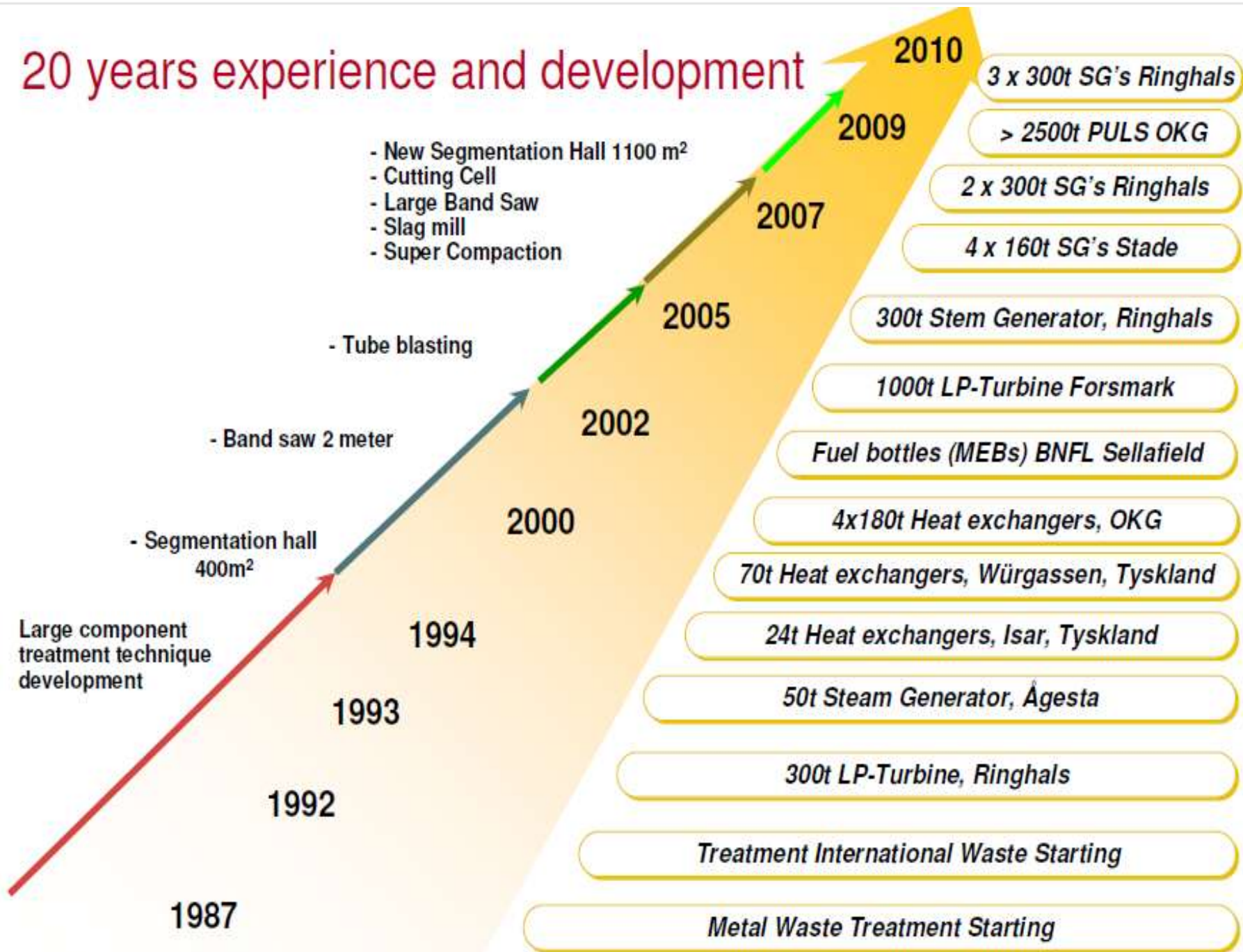
As of January 2010:

- Net sales SEK 1.2 billion, 1,100 employees
- Global presence with subsidiaries in 8 countries
- Listed on the Nordic Stock Exchange Stockholm, MidCap

Studsvik main markets



20 years experience and development



Metal is Free Released according to European Commission's Recommendation RP89

Studsvik is following the guidelines Paragraph 3.1
– Clearance criteria for metal scrap recycling (table 3.1)
including **a mandatory remelt with other metal**
in ratio of at least 1:10

**More than 20 000 tonnes metallic material
treated for Free-Release & Recycling**

Mass balance of treated scrap metal [%]

In decay storage 8%

Secondary waste 3%

Free Released 89%

True story: **Radioactive Babyfood cans!**

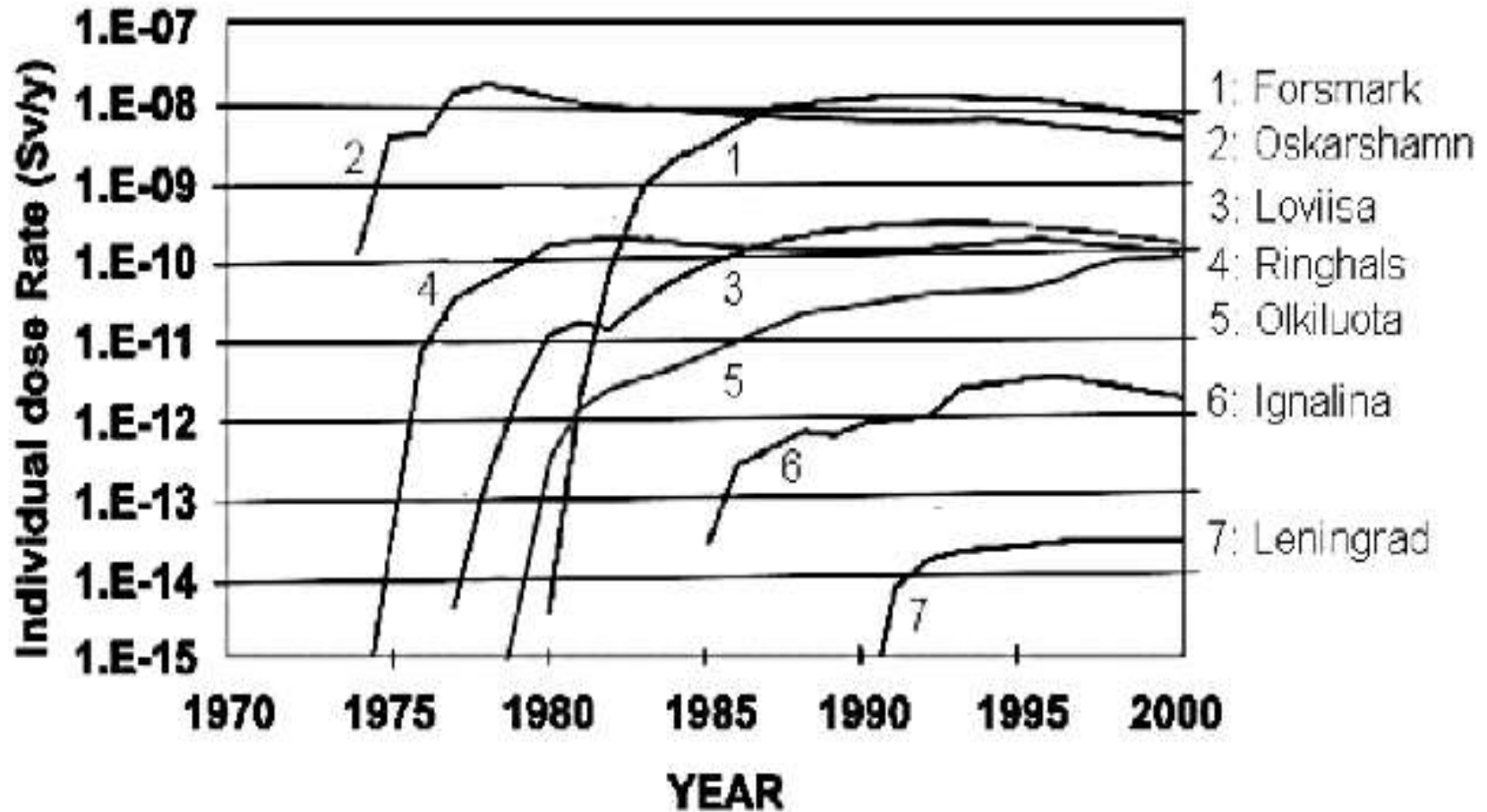
Göran Larén, procurer at Sandvik steelcompany:

*"There was a case which got a lot of attention when an english steelcompany received a batch of deregulated radioactive material, which after dilution ended up in products which were considered sensitive. In that case it was **steelsheets used to make cans for babyfood**. And when the media picked up on this and said, this should not be allowed in Sweden – then we had to retreat.*

*But if we get a consensus about this and **if the authorities are willing to help us convince the press and the public, that this is fully acceptable**, then we will consider it."*

From: <http://www.nyteknik.se/nyheter/verkstad/verkstadsartiklar/article9262.ece>

Whose reactors pollute the most?

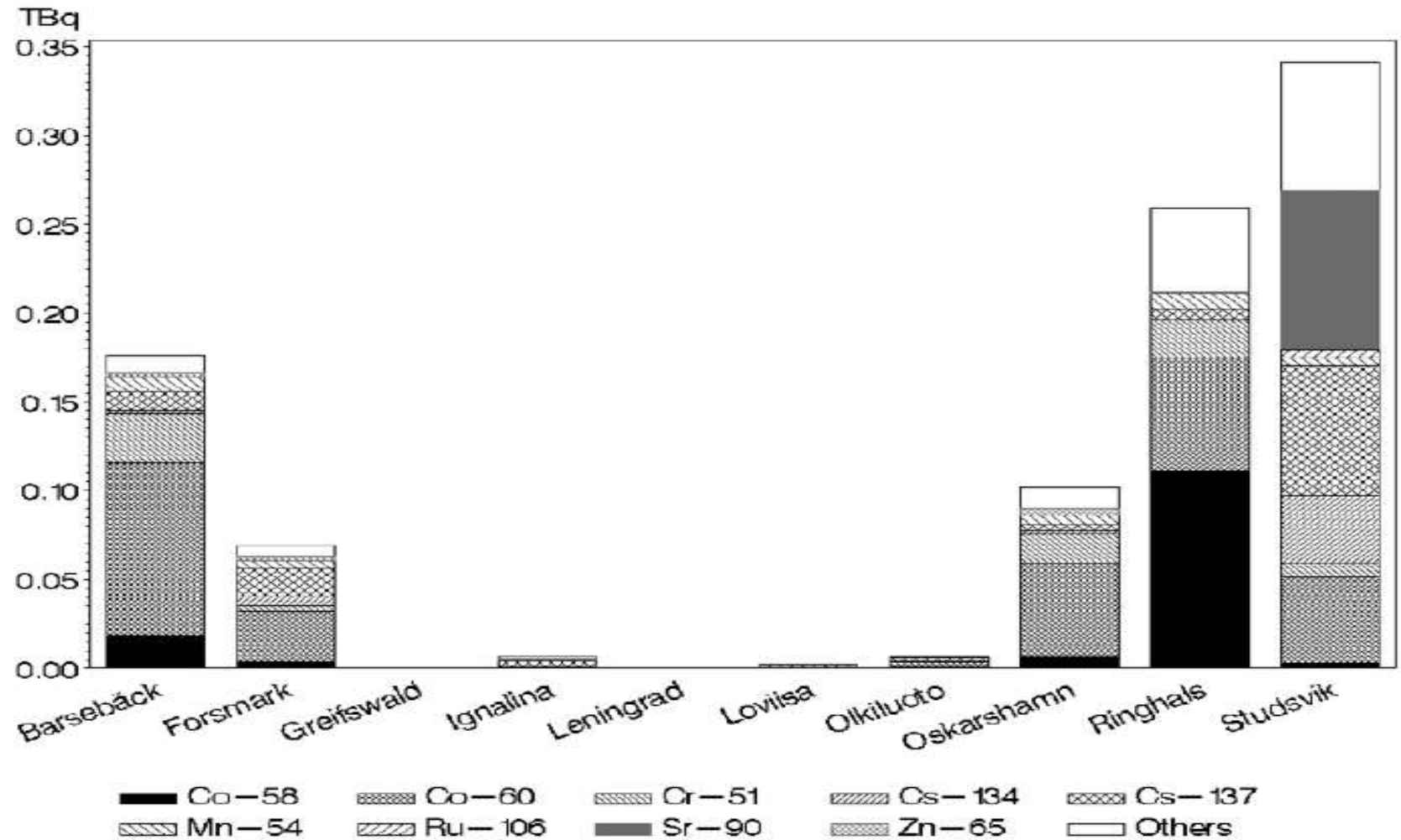


Estimation of the contribution of the Baltic Sea area nuclear power plants to the annual individual doses of the critical groups of population. Note that the left hand axis is showing powers of ten! **This means Forsmark pollutes 100.000 times more than Leningrad NPP! And has been alone, at the top - ever since the Chernobyl accident! - Why trust them now?**

Studsvik disperses dangerous isotopes!

- ❑ **Studsvik is the prime source of releases of strontium-90 in the entire Baltic Sea region.**
Higher doses Strontium-90 causes skeletal cancer. This is shown in a recent report from the Swedish Radiation Protection Authority! Studsvik's strontium releases per annum via points on the Baltic Sea coastline are roughly **1000 times greater than releases from the worst Swedish reactors!**
 - ❑ Even other radioactive substances are found in much larger concentrations in the environment around Studsvik.
 - ❑ This holds particularly true for cesium-137 in sediments and in alga growth in the waters outside Studsvik – and even the milk from cows in the surroundings of Studsvik has a higher content of cesium, than at most nuclear reactors.
 - ❑ *From article on the homepage of the Swedish Broadcasting company:*
<http://www.sr.se/Sormland/nyheter/artikel.asp?artikel=764931>
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Radioactivity in the Baltic Sea, 1999-2006



HELCOM: Total aquatic discharges from local nuclear facilities into the Baltic Sea 1999-2006, excluding H-3

STUDSVIK WORST OFFENDER, AGAIN!

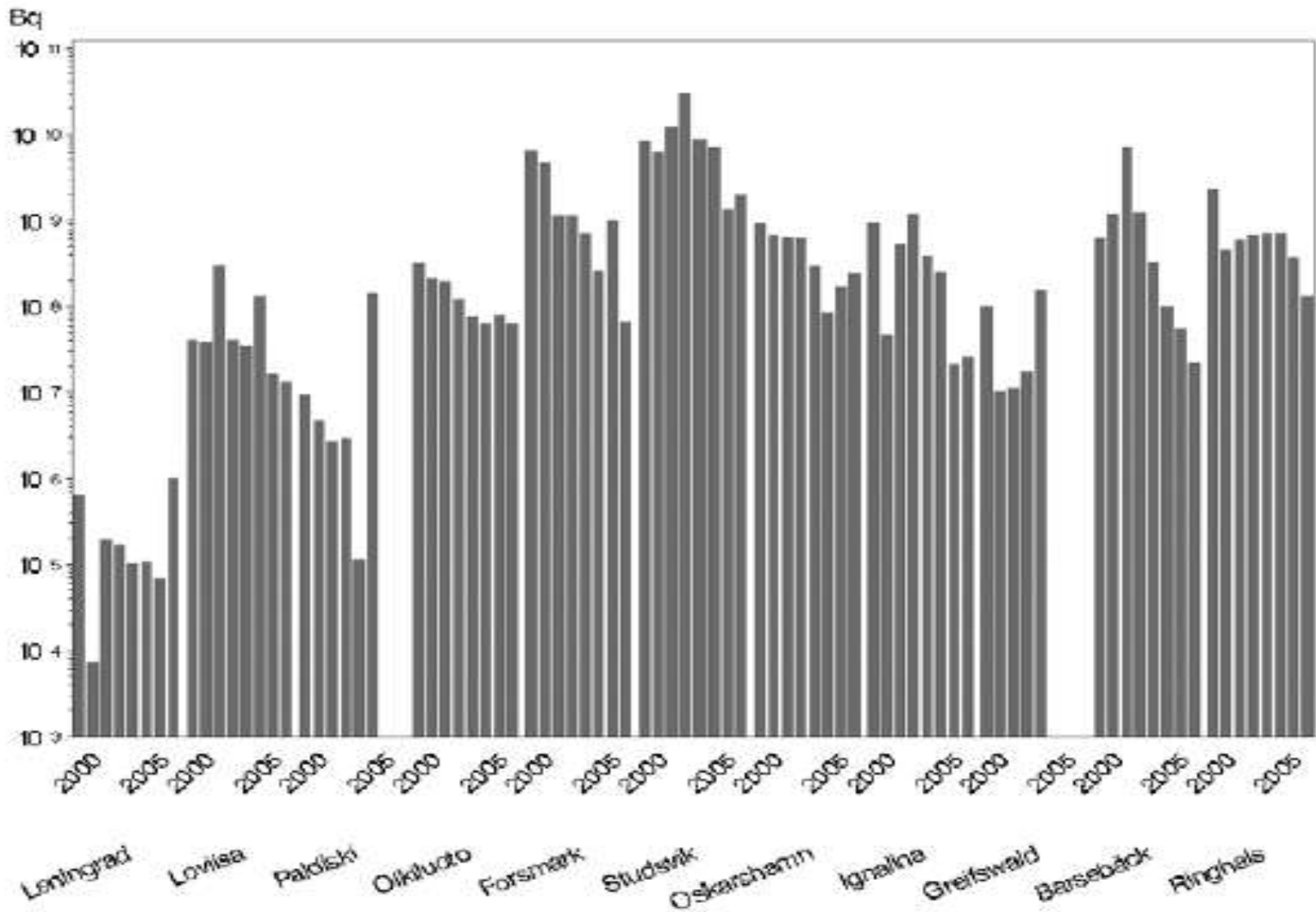


Figure 6: Annual Cs-137 discharges from local nuclear facilities into the Baltic Sea 1999-2006. NOTICE that Studsvik is in top!

Professor Chris Busby, European Committee on Radiation Risk:

- “Using data supplied to us for small areas ~~by the Wales cancer registry for 1974-1990~~, a huge database, **we were able to show that those living very close to the coast, inside about 1km, suffered a 40% excess of all cancers.**
 - The HELCOM and some STUK results show **very much greater levels in the Baltic, some 50 times this**, and so we might expect similar but **perhaps greater cancer effects in coastal populations of the Baltic!**”
-

Studsvik's business idea !



Radioactive consumer products from Studsvik and Swedish steel-industries

So - How much does Studsvik release to our waters?

| Mn-54 | Co-60 | Cs-134 | Cs-137 | H-3 | Sr-90 |
|----------|----------|----------|----------|----------|----------|
| 7,60E+08 | 1,30E+10 | 1,99E+09 | 7,00E+09 | 1,80E+13 | 1,67E+10 |

This is an example of Studsvik's own reported releases to the ocean at just one location – Studsvik has several such points on the coast where sewers or old decrepit aquaducts dispose of various radioactive isotopes: here are shown four gamma emitters, as well as tritium and strontium-90.

For strontium the number translates into: 16 700 000 000 Bq/yr

For tritium the number translates into: 18 000 000 000 000 Bq/yr

For cesium-137 the number translates into: 7 000 000 000 Bq/yr

However, if you want the true number of ionising “explosions” or rays, that can harm your DNA or give you cancer – since Bq always means disintegrations per second, you'd have to multiply these incredible numbers with:

$60 * 60 * 24 * 365$ or 31 536 000 to get the number of disintegrations per year.

- For strontium releases alone - in just one of their discharge spots, this gives:
- **526 651 200 000 000 000 disintegrations per year !!!**

STOP the radioactive seatransports!



- ❑ **KIMO:** "On the 4th July 2009 **the containership "Kapitan Lus" carrying uranium oxide had a collision** with a Norwegian freighter **carrying methanol** near the Oeresund bridge between Sweden and Denmark. The Russian Kapitan Lus was holed below the waterline!
- ❑ Our comment: This Russian ship has often before been carrying UF6. In combination with the other ship carrying methanol, it seems there was the basis for **an explosive fire, breach of containers and release of all the radioactive contents.**
- ❑ Peter Diehl, Uranium Project of WISE: "The worst case for a UF6 transport is, **if the cylinder is caught in a long-lasting externally fueled fire. If the temperature rises in the cylinder, the UF6 is no longer solid and expands, resulting in a sudden cylinder burst — releasing major parts of its contents instantaneously.**"

KIMO – the organisation for coastal communities and their local authorities – **says:**

~~“It puts at risk the marine environment and **the millions that live along the shipping route** which route transverses some of Europe’s busiest shipping lanes and most dangerous waters” !~~

These radioactive sea-transports are going on **all the time!** From western Europe to Russia – and from many countries worldwide to Studsvik.

Russia has it’s own Studsvik by the Baltic Sea (at Sosnovy Bor) – it’s called **“Ecomet S”**

Ecometals, “recycling”:

who do they think they are fooling?

~~We cannot depend on good luck to save us from disaster every time...~~



The Studsvik landing spot for foreign nuclear waste – once an idyllic landscape, now a radioactive hotspot!

STOP Studsvik's Pollution of the Baltic Sea Region!

- ❑ ~~There's now a truly international campaign to stop Studsvik's activities~~ – including strong organisations in Canada, the USA and Great Britain! (Join in!)
We need to put pressure on governments and authorities and make them wake up and realise:
- ❑ Studsvik's activities will harm Swedish exports and Swedish steel industries – **nobody wants radioactive consumer products!**
- ❑ Studsvik's activities will harm the rest of the world's perception of Sweden, unless Studsvik - and in particular their import of radioactive waste to the Baltic Sea and their export of radioactive consumer goods to the rest of the world – is brought under proper control and stopped.

STOP radioactive transports through the Baltic Sea!
