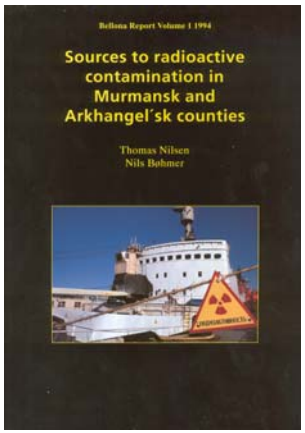
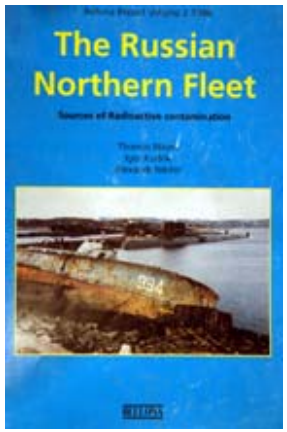
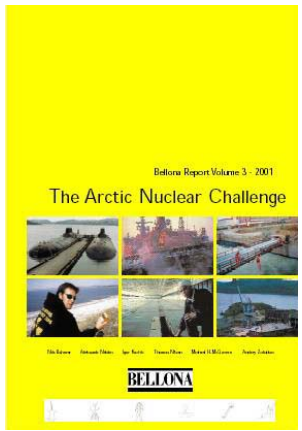
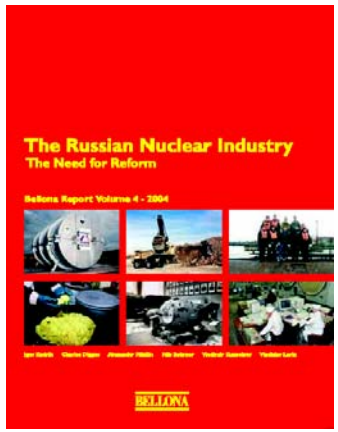
BELLONA

- Environmental NGO
- 15 years in NW Russia
- Offices in Murmansk, St. Petersburg, Oslo, Brussels and Washington









Decisions made in secret, without public participation

Leningrad NPP – illegal life term extension, illegal building of interim storage, new NPP possible.

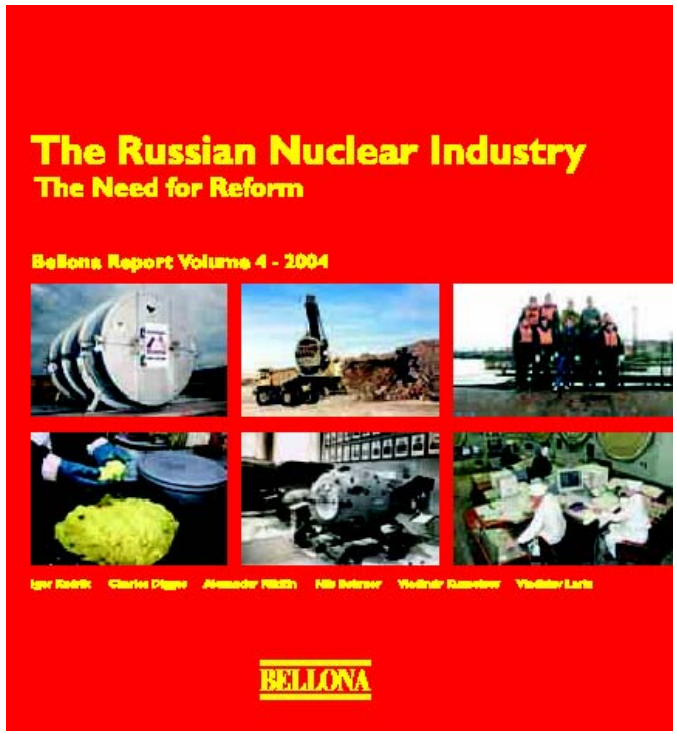
Plans to export electricity through cable to Finland and Sweden – the same as importing nuclear waste to Russia.

Uranium hexafluoride imports to St Petersburg kept secret.

Information about Leningrad NPP accident in 1975 still kept secret

The Russian Nuclear Industry

- Uranium mining
- Reprocessing plants
- Nuclear Power Plants
- Research reactors
- Nuclear ships
- RTG's
- Waste legacy

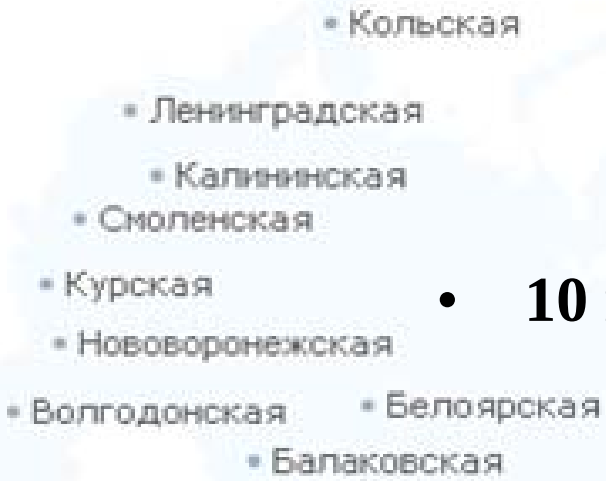


Nuclear industry management

- Nuclear Ministry was as powerfull as Defence Ministry in the Soviet Union
- Ministry (Minatom) transformed to federal agency in 2004
- Non-nuclear head of agency in 2006

Nuclear regulator

- Established after Chernobyl in 1986 – known as GAN
- Stripped of authority several times (1993, 1995, 1999)
- Disbanded in 2004 to become a part of larger agency Rostekhnadzor
- New agency has formally higher standing than predessesor



Nuclear power plants

- **10 nuclear power plants, 31 reactor units**
  - **--10 RBMKs (Chernobyl type reactors)**
  - **--12 first generation reactors (RMBK, VVER, EGP)**
- **Since 1990, four new reactor units put into operation**
- **Have total capacity of 22.2 GWt and supply approximately 16% of the country's energy needs**

Nuclear power plants: plans

- Plans to commission 39 reactor units by 2020 (12 units will be out of service)
- 2000-2005 two units put online, against planned five
- New plans suggest 40 units by 2030

11 units surpass 30 years

- **By 2006, 11 units have surpassed 30 year design life span**
- Putting them out would:
  - reduce capacity by around 1/3
  - reduce knowledge and expertise
  - create social tensions
  - require decommissioning investments

Life span extension facts

- By 2005 extension work completed at seven 1st generation units
- 12 more units will receive extension by 2013
- 2d generation unit will receive 20 year extension (20+40)

Life span extension specifics

- Valid not only for reactor units but also for infrastructure
- Components replaced or repaired
- Non-replaceble components

Life span extension in practice

- Non-replaceble components at Kola NPP, Leningrad NPP
- Infrustructure in shambles (RBMK)

Life span extension economics

- New unit cost $1.7 to $1.8 billion/GWt
- Life span extension cost is half the price (should be 1/3 to be viable)

Life span extension is illegal

- **The law requires state environmental impact assesment**
- **None of the units with life span extended had such assesment**
- **Murmansk regional prosecutors share this position on Kola NPP life extension**

Western aid

- Intended to upgrade oldest reactors til design operation
- Billions of dollars doled: extended life span as the outcome
- The West was not asked, in breach of ESPO convention and order No. 372 of May 16th 2000 from the State Committee on Ecology dictates:

  conducting environmental impact studies on projects that can have a trans-border impact, 'taking into account the conditions of the UN European Economic Commission Convention on evaluating trans-border impact on the environment.

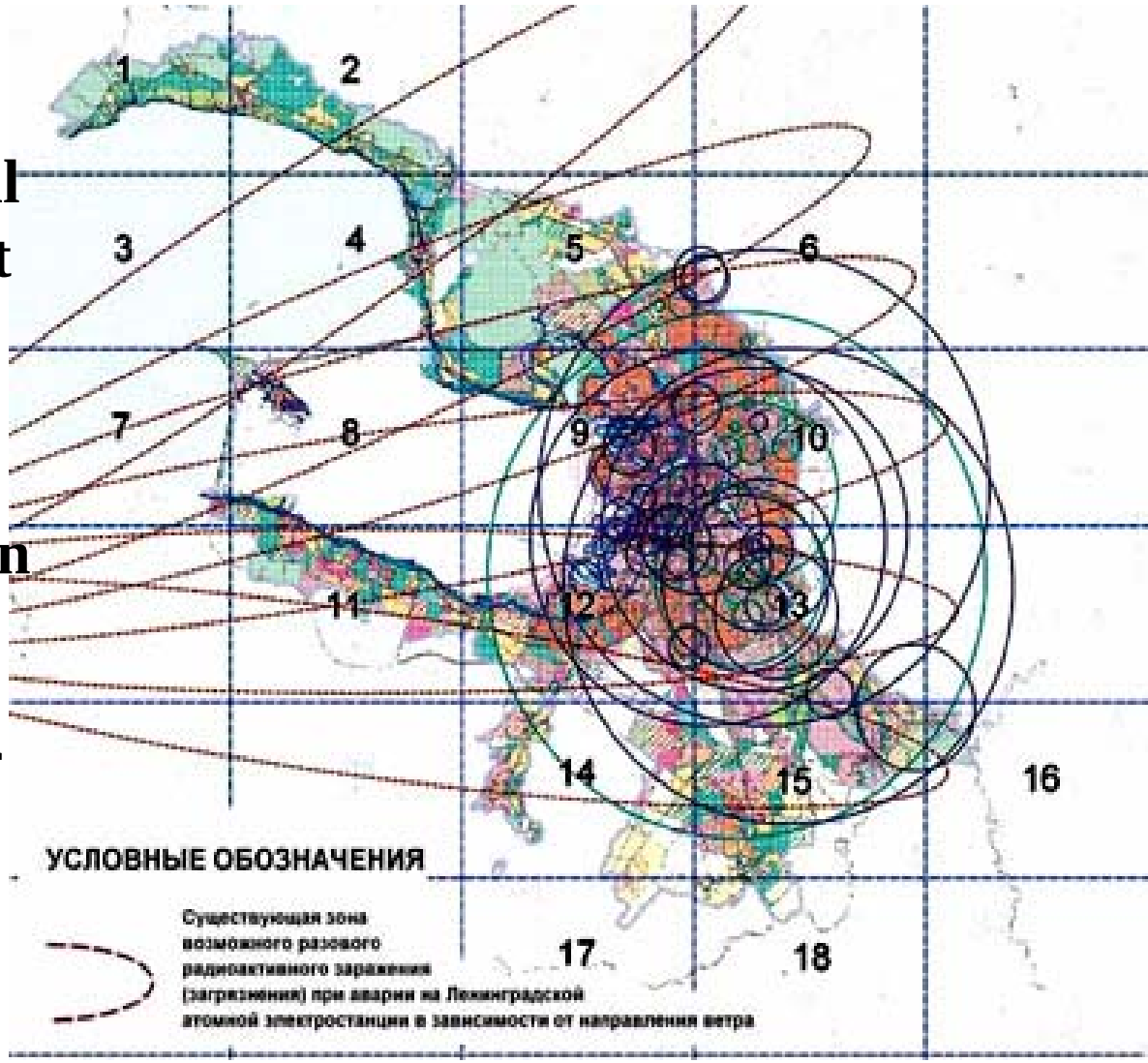
Life term extension:

- Evironmental danger: inherent design failures
- Economically unjustified
- Spent nuclear fuel and radwaste issues remain unresolved
- The practice is in breach of Russian legislation

Leningrad NPP – illegal life term prolongation, new NPP possible.

The same reactors, as in Chernobyl

This map of the General plan of the development of St Petersburg shows the areas of possible radioactive contamination should an accident occur at the LNPP, taking into account the direction of the wind.



Plans to export electricity through cable to Finland and Sweden

– the same as importing nuclear waste to Russia

The notion of uniting the energy systems of Russia and Finland envisions the transport of 8.7 billion kilowatt hours a year. The length of the cable would be 150 kilometers. The government sees a profit of EUR117.2m a year from the exports.

Quasi-Public hearings in March, 2006 on dry storage held post factum

Storage is situated only 90 metres from the Gulf of Finland

Built without license, without environmental evaluation

Imports of uranium hexafluoride ('uranium tails') from Germany and France to St Petersburg

1996 - 2001

9740 tonnes of uranium tails arrived to Russia from Germany alone.

From 2001 to 2005 -- precise information remains unpublished.

90% of uranium tails volume after enrichment is left in Russia

Ангарский Электро Химический Комбинат (АЭХК, Ангарск, Иркутская обл.)

АЭХК

Новоуральск (Свердловск-44)

Сибирский Химический Комбинат (Томск-7)

Зеленогорск (Красноярск-45)

Threats during transportation through Russia

Uranium tails are radioactive waste:

Uranium tails – 10 thousand tonnes of uranium (in 15.000 tonnes of UF6) – are left in Russia, their import is actually import of radioactive waste:

1) During enrichment the volume of uranium tails is minimized not significantly
2) Possibility that getting uranium from the final waste is economically rational, is extremely low
3) Enrichment of tails is done not for market price
4) Russia already accumulated large amounts of its own

Public protests

Акция против ввоза урановых «хвостов». Екатеринбург, Август 2005.

Акции против ввоза ОЯТ. Посольство Венгрии в Москве. Площадь Ленина в Челябинске.


Акция против ввоза ядерных отходов у резиденции губернатора Челябинской обл., 2000.

Accident at Leningrad NPP 1975

- Information still kept secret, though 30 years have passed

Inofficial information: November 30, 1975: breakage of fuel assemblies.
Various estimates: release of radioactive substances into the environment at between 137,000 to 1.5 million curie.

Background radiation level immediately after the accident reached 400 to 600 microroentgens per hour.

The residents were not informed of the danger.