

SWEDEN

1. LOCATION AND CAPABILITY OF NUCLEAR FACILITIES

Sweden's nuclear power reactors provide approximately 50% of its electricity. In 2004, the reactors required 1,536 tons of uranium. The first nuclear power was generated in 1972. Six reactors entered commercial service in the 1970s and six in the 1980s. The reactors are at four sites around the southern coast. In February 2005, the Centre Party, one of the country's opposition parties, changed its long-held position supporting Sweden's nuclear phase-out policy, joining the rest of the opposition non-socialist coalition, calling for the country's currently operating reactors to be able to remain open as long as possible. <http://www.world-nuclear.org/info/reactors.htm>
http://www-pub.iaea.org/MTCD/publications/PDF/cnpp2003/CNPP_Webpage/countryprofiles/Sweden/Sweden2003.htm
<http://www.world-nuclear.org/nb/nb05/latestnews.htm>

Power Reactors

Operational: 11

Shut down: 2

Decommissioned: 0

Planned: 0

<http://www.iaea.or.at/programmes/a2/>

Research Reactors

Operational: 2

Shut down: 1

Decommissioned: 1

Planned: 0

<http://www.iaea.or.at/worldatom/rrdb/>

Uranium Mines

Ranstad (Västergötland)- operating

2. FISSILE MATERIAL HOLDINGS

Unirradiated Civil Plutonium

In country: 0

In other countries: 0.833 tons

Total: 0.833 tons

http://www.isis-online.org/global_stocks/separated_civil_pu.html

Separated Civil Plutonium

end 2002: 0.83 tons

2010-2020 (projected): 0

Radioactive waste disposal

Low-level waste: Sweden has a centralized spent fuel storage near Oskarshamn, and will encapsulate spent fuel there for geological disposal by 2015. An underground repository for low- and intermediate-level waste is operating near the Forsmark nuclear power plant since 1988. This repository consists of four rock caverns for different types of wastes.

Intermediate-level waste: The Forsmark plant has an underground rock silo for the most active components of intermediate-level waste. Spent fuel is shipped by sea to the interim store situated by the reactor site at Oskarshamn.

High-level waste: The CLAB interim repository for spent fuel handles high-level waste. Investigations for a final repository are ongoing. The locations in consideration are Östhammar or Oskarshamn, and a repository should be operational by the year 2015.

http://www.enviros.com/vrepository/not_subscribed/country/sweden/index.cfm

http://www.world-nuclear.org/info/printable_information_papers/inf42print.htm

3. NUCLEAR ACTIVITIES

Research Programs

Åspö Hard Rock Facility

Åspö Modelling Task Force

KTH Dept of Nuclear Power Safety

NFL - Neutronforskningslaboratoriet i Studsvik
NUTEK - National Board for Industrial & Technical Development
Resursförmedlingen Norden
SLU Department of Radioecology
SKC - Svenskt kärntekniskt centrum / Swedish Centre for Nuclear Technology
TFR - Teknikvetenskapliga Forskningsrådet
<http://www.radwaste.org/research.htm>

Nuclear Cooperation

The Swedish Nuclear Fuel and Waste Management Company (SKB) has a broad network of international contacts and is party to formal collaboration agreements with the following organizations:

EU: Euratom
Finland: Teollisuuden Voima, Imatran Voima
France: Commissariat à l'Energie Atomique (CEA), Agence Nationale pour la Gestion des Déchets Radioactifs (ANDRA)
Japan: Japan Nuclear Fuel Limited (JNFL)
Canada: Atomic Energy of Canada Limited (AECL)
Switzerland: Nagra
USA: US Department of Energy (DoE)

The following organizations have signed participation agreements in the Aspö Hard Rock Laboratory project:

Canada: Atomic Energy of Canada, Limited (AECL)
Japan: Power Reactor & Nuclear Fuel Development Corporation (PNC) and Central Research Institute of Electric Power Industry (CRIEPI),
France: Agence Nationale pour la Gestion des Déchets Radioactifs (ANDRA)
Finland: Teollisuuden Voima (TVO)
UK: Nirex
Switzerland: Nagra

Russia: In February 2005, the Swedish government allocated resources for developing nuclear security in Russia during 2005, focusing on nuclear reactors, nuclear waste, radiation protection and readiness to emergency situations.
http://www-pub.iaea.org/MTCD/publications/PDF/cnpp2003/CNPP_Webpage/countryprofiles/Sweden/Sweden2003.htm
<http://www.energy-net.org/is/en/nuke/POL/INT/NEWS/05227242.TXT>

4. INTERNATIONAL NON-PROLIFERATION EFFORTS

Treaties Signed and Ratified, date of deposit

APM Convention, 30 November 1998
Biological Weapons Convention, 5 February 1976
Certain Conventional Weapons Convention, 7 July 1982
Comprehensive Nuclear Test-Ban Treaty, 2 December 1998
Chemical Weapons Convention, 17 June 1993
Nuclear Non-Proliferation Treaty, 9 January 1970
Open Skies Treaty, 28 June 2002
Outer Space Treaty, 11 October 1967
Sea Bed Treaty, 28 April 1972

Sweden ratified the IAEA Additional Protocol 30 April 2004.

Multilateral Groups

Conference on Disarmament
Hague Code of Conduct against Ballistic Missile Proliferation
Missile Technology Control Regime

5. POSITIONS TAKEN IN INTERNATIONAL FORA ON VARIOUS ISSUES OF NUCLEAR DISARMAMENT

Disarmament and non-proliferation: "...weapons of mass destruction constitute one of the main threats to international peace and security. The threat of terrorism in connection with proliferation of such weapons is real.

"The need for strong policies in disarmament and non-proliferation is acute. The nuclear weapon states must show real progress towards disarmament. Efforts to combat proliferation must be strengthened. Compliance with existing treaties leaves much to be desired, and must improve."

- **Statement by H.E. Mr. Göran Persson, Prime Minister, to the General Debate of the 59th Session of the General Assembly of the United Nations, 21 September 2004.**

<http://www.un.org/webcast/ga/59/statements/sweeng040921.pdf>

Nuclear Fuel Cycle: "Sweden believes that there are a number of elements to consider when developing measures to control the fuel cycle.

- The approach should be broad-based, aiming at strengthening multinational control and limiting the existing global inventory of material directly usable in nuclear weapons and the capacity to produce the same.

- A non-discriminatory approach to assuring supply of nuclear fuel and material for peaceful purposes should be developed. This approach should aim at maintaining enrichment and reprocessing capacity globally at a level sufficient to meet international demand and ensure commercial competitiveness.

- Another element should be to halt the production of plutonium and highly enriched uranium for nuclear weapons through a Fissile Material Cut-off Treaty.

- Existing frameworks for the disposal of excess plutonium and highly enriched uranium should be maintained and expanded.

- A central element would be the Additional Protocol, as the new verification standard, in order to enhance transparency and to facilitate a non-discriminatory system for assured supply of nuclear material for legitimate civil use." - **Statement by Counsellor Mr. Jörgen Persson to the Third Session of the Preparatory Committee for the 2005 NPT Review Conference, 29-30 April 2004.**

<http://www.reachingcriticalwill.org/legal/npt/prepcom04/SwedenCL3.pdf>

Negative Security Assurances: "It is important that the Nuclear Weapon States continue to uphold and reiterate their commitments with regards to security assurances for all non-nuclear weapon States parties to the NPT." - **Statement by H.E. Mrs. Elisabet Borsini Bonnier on behalf of the New Agenda Coalition to the First Committee on Disarmament and International Security, 18 October 2004.** <http://www.reachingcriticalwill.org/political/1com/1com04/thematic/NACdist.pdf>