

1. Location and capability of nuclear facilities

Five nuclear reactors generate about 40% of Switzerland's energy. Its first research reactor began operating in 1957, and its first commercial reactor began in 1969.

In a 2003 referendum, the Swiss public rejected two initiatives on a new 10-year moratorium on the construction of new nuclear power stations: “Moratorium plus”, and “Sortir du nucléaire”, a nuclear phase-out by 2014. Thus, there will be no nuclear phase-out, but there are no plans for expansion either. The alternative law to the moratoriums doesn't show any sign in favor of the construction of new nuclear units. http://www.wise-paris.org/index.html?/english/ournews/year_2003/ournews030612.html&/english/frame/menu.html&/english/frame/band.html; <http://www.world-nuclear.org/info/inf86.html>

Power Reactors

Operational: 5
Shut down: 0
Decommissioned: 0
Planned: 0

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

Research Reactors

Operational: 3
Shut down: 2
Decommissioned: 1
Planned: 0

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

2. Fissile Material Holdings

Separated Civil Plutonium end 2003

In country: 0.5-1 ton
In other countries: 1-2 tons
Total: 1.5-3 tons
Projected 2010-2020: 0

Highly Enriched Uranium end 2003

In country: 0.005-0.01 tons
Supplied by: US

Three tons of plutonium in spent fuel or in separated form are located at foreign reprocessing plants, according to Switzerland's declaration to the IAEA. At least one ton of this plutonium is estimated to remain in spent fuel, based on 2001 reprocessing schedules for Thorp and La Hague.

http://www.isis-online.org/global_stocks/end2003/plutonium_watch2005.pdf

http://www.isis-online.org/global_stocks/end2003/civil_heu_watch2005.pdf

Radioactive waste disposal

Low- and intermediate-level waste: Two smaller interim storage sites for low- and intermediate-level wastes have been operating since 1993: Zwibez at Beznau and BZL at the Paul Scherrer Institute at Villigen. Plans are to develop a permanent low-level radioactive waste facility. Swiss Energy Minister Moritz Leuenberger wants to allow Swiss citizens to help decide where this facility should be located. A possible location near Zurich was pulled back after protests. A site is to be chosen by 2017 and be operating by the middle of the century. <http://www.indymedia.org.uk/en/2007/02/362354.html>

<http://www.ocrwm.doe.gov/factsheets/doeymp0417.shtml>; <http://www.uic.com.au/nip86.htm>

<http://www.nea.fr/html/rwm/rf/switzerland.pdf>

High-level waste: In 2001, Zwiilag, an industry-owned organization, built Switzerland's centralized interim storage facility for spent nuclear fuel, high-level radioactive waste, and conditioning low-level radioactive waste at Wuerenlingen. <http://www.ocrwm.doe.gov/factsheets/doeymp0417.shtml>

A permanent repository for the high-level and the long-lived intermediate-level waste is planned. Two potential host rock formations, both in northern Switzerland, are being investigated for that purpose. In March 2006, the Federal Office for Energy issued a draft implementation plan for the siting of deep geological repositories for all classes of radioactive waste. A final version of this plan is expected by summer 2007. http://www.enviros.com/vrepository/not_subscribed/country/switzerland/index.cfm

3. Nuclear Activities

Research Centers

ARAMIS - Swiss Research Information System
CERN - European Laboratory for Particle Physics
CH-Forschung
CUEPE - Centre universitaire d'étude des problèmes de l'énergie
EAWAG - Eidgenössische Anstalt für Wasserversorgung, Abwasserreinigung und Gewässerschutz
EMPA - Eidgenössische Materialprüfungs- und Forschungsanstalt
Environmental Radioactivity Centre
Grimsel Test Site
IGA - Institut de Génie Atomique
KBF - Coordination Office for Swiss Participation in International Research Projects
LES Waste Management Laboratory
PSI - Paul Scherrer Inst
RQF - Institut für Raum-Quanten-Forschung
SNF - Swiss National Science Foundation
Vision - Science & Innovation Made in Switzerland
<http://www.radwaste.org/research.htm>

Nuclear Cooperation

France, Germany: Switzerland has well established bilateral relations with French and German authorities in the nuclear field. Within this framework, French and Swiss regulatory authorities have been collaborating in common inspections of their nuclear installations.

The Swiss authorities have been following the evolution of the international nuclear projects, in particular the MEGAPIE project, within the Fifth European Framework program, and have interest in joining the Generation IV Initiative. http://www-pub.iaea.org/MTCD/publications/PDF/cnpp2003/CNPP_Webpage/PDF/2002/Documents/Documents/Switzerland%202002.pdf

Switzerland's major nuclear trading partners are the EURATOM member states; and Switzerland has been participating in EURATOM's fusion research programme since 1979.

<http://www.sbf.admin.ch/htm/international/org/fusion-e.html>

US: 1965 nuclear cooperation agreement, extended and updated in 1997.

http://www.nnsa.doe.gov/na-20/docs/Switzerland_Agam.pdf

China: 1986 agreement on cooperation in the peaceful uses of nuclear energy.

<http://www.nti.org/db/china/nca.htm>

Egypt: 1984 agreement under which Switzerland supplies equipment and services for peaceful applications of nuclear energy. http://www.nti.org/e_research/profiles/Egypt/Nuclear/2011.html

4. International Non-proliferation Efforts

Treaties Signed and Ratified, date of deposit

Antarctic Treaty, 15 November 1990
APM Convention, 24 March 1998
Biological Weapons Convention, 4 May 1976
Certain Conventional Weapons Convention, 20 August 1982
Chemical Weapons Convention, 10 March 1995

Comprehensive Nuclear Test Ban Treaty, 1 October 1999
Convention on the Physical Protection of Nuclear Material, 9 January 1987
Nuclear Non-Proliferation Treaty, 9 March 1977
Outer Space Treaty, 18 December 1969
Seabed Treaty, 4 May 1976

Switzerland ratified the IAEA Additional Protocol on 1 February 2005.

Multilateral Groups

Australia Group
Conference on Disarmament
Hague Code of Conduct against Ballistic Missile Proliferation
Missile Technology Control Regime
Nuclear Suppliers Group
Wassenaar Arrangement
Zangger Committee

5. Positions Taken in International Fora on Various Issues of Nuclear Disarmament

US-India Nuclear Cooperation: "The draft initiative for nuclear cooperation between India and the United States raises fundamental questions about the future of the nuclear non-proliferation system based on the NPT. This project of de-regulating nuclear cooperation contrasts with various proposals put forward recently to adopt even more restrictive measures formulated recently regarding access to sensitive technologies of the nuclear fuel cycle. It is Switzerland's view that the right to cooperation and access to sensitive technologies remains dependent on adherence to the NPT and on strict application of all of the Treaty's provisions." - **Statement by H.E. Ambassador Jürg Streuli to the 61st General Assembly First Committee on Disarmament and International Security, 2 October 2006.** <http://www.reachingcriticalwill.org/political/1com/1com06/statements/Switzerlanddoct2.pdf>

Nuclear Disarmament and Non-Proliferation: "For Switzerland, the NPT represents the sole legally binding instrument of global scope intended to promote non-proliferation and nuclear disarmament. In this sense, it is a key tool for international peace and stability. Switzerland emphasizes that the stress currently placed on nuclear proliferation should not lead to neglect of the other two pillars of the NPT, including nuclear disarmament. We agree with those who have reaffirmed the links between nuclear disarmament and non-proliferation, including the delegation of Sweden in its analysis of existing risks. Accordingly, Switzerland emphasizes respect for the compromise which made possible the conclusion of the NPT among States which renounced nuclear weapons in exchange for an undertaking by the nuclear States to continue their efforts to secure nuclear disarmament. In view of the fact that the overwhelming majority of non-nuclear States parties have respected the undertaking not to acquire nuclear weapons, we call on the nuclear States to continue the progressive implementation of their disarmament obligations." - **Statement by Conseiller militaire Sascha Fuls to the Conference on Disarmament, Geneva, 2 March 2006.** <http://www.reachingcriticalwill.org/political/cd/speeches06/2March.htm#Switzerland>

Universality: "Access to nuclear weapons and technologies by non-State actors is a legitimate concern, but Switzerland remains convinced of the importance of the NPT as the best safeguard against security worries - which for some are linked to the non-achievement of nuclear disarmament while for others they are connected with nuclear proliferation. This underlies the vital importance of the universality of the NPT." - **Statement by Ambassador Peter Maurer to the Seventh Review Conference of the NPT, New York, 3 May 2005.** <http://www.un.org/events/npt2005/statements/npt03switzerland-french.pdf>