

Japan

1. Location and Capability of Nuclear Facilities

Japan's nuclear industry

Japan is heavily dependent on energy imports (it gets 80% of its energy requirements from abroad). Despite being the only country in the world to have suffered the effects of a nuclear attack, Japan has developed a nuclear program for non-military purposes since the 1950s.

Nuclear Electricity Generation 2001- 321,9 billion kWh (34%)
Uranium required 2003 for nuclear power reactors- 7561 tons
<http://www.world-nuclear.org/info/reactorsprint.htm>

Research Reactors

Operational- 16
Shut down- 5
Decommissioned- 3

Power Reactors

Operational- 53
Shut down- 3
Under construction- 3

A full list of Japan's reactors can be found at: <http://www.iaea.or.at/programmes/a2/>

Uranium mines

Japan has no domestic exploration program. Domestic uranium exploration activities in Japan were terminated in 1988. Mining interests previously held by the Japanese government abroad are being transferred to the private sector.
<http://www1.oecd.org/publications/e-book/6602111E.PDF>

2. Fissile Material Holdings

Civil Plutonium Amount Discharges from Civilian Power Reactors: 129 tons
<http://www.isis-online.org>

Waste Disposal

The Nuclear Waste Management Organization (NUMO) was set up in October 2000 by the private sector to progress plans for deep geological disposal of high-level wastes, including site selection, licensing, construction, and operation. Some 40,000 canisters of vitrified HLW are envisaged by 2020, needing disposal. In March 2001, Japan Nuclear Fuel (JNFL) put forward proposals to construct an additional facility to store vitrified HLW at the Rokkasho-mura site, as the existing waste storage center will be filled by the end of 2005.

<http://www.world-nuclear.org/waste/report2002/chapter2.htm#lowwaste>
http://www.world-nuclear.org/info/printable_information_papers/inf79print.htm

3. Nuclear Activities

Research Centers

Central Institute of Isotope Science

CRIEPI - Central Research Institute of Electric Power Industry

Institute of Advanced Energy, Kyoto University

INSAF - International Network for Safety Assurance of Fuel Cycle Industries

JAERI - Japan Atomic Energy Research Institute

Kansai Research Establishment

KEK - High Energy Accelerator Research Organization

KENS Neutron Scattering Facility

Kobelco Research Institute

LDRC - Low Dose Radiation Research Center

Musashi Institute of Technology -Atomic Energy Research Institute

NIC - Nuclear Information Center

NIFS - National Institute for Fusion Science

NIRS - Japanese National Institute of Radiological Sciences

NUSTEC -Nuclear Safety Technology Center Office of Nuclear Ship Research & Development

ReaD - Research and Development Database

RERF - Radiation Effects Research Foundation

RIKEN - Institute of Physical & Chemical Research

SARL - Severe Accident Research Laboratory

SPring-8 Synchrotron Radiation Facility

SRI - Ship Research Institute

TIARA Research Facilities.

<http://www.radwaste.org/research.htm>

Nuclear Cooperation

So far, the reprocessing of Japanese spent fuel has been largely undertaken in Europe by BNFL (UK) and Cogema (France). Vitrified high-level wastes are then returned to Japan for disposal. This reprocessing will finish in 2005, when full-scale operation of JNFL's reprocessing plant at Rokkasho-mura is scheduled to start. Plutonium recovered by reprocessing in the UK and France will be used mainly in LWRs as mixed-oxide (MOX) fuel. Until now, Japan has received three shipments containing over 2 tonnes of its (reactor-grade) plutonium from Europe.

http://www.world-nuclear.org/info/printable_information_papers/inf79print.htm

4. International Nonproliferation Efforts

Treaties signed and ratified, date of deposit

APM Convention, 30 September 1998

Biological Weapons Convention, 8 June 1982

Certain Conventional Weapons Convention, 9 June 1982

Comprehensive Test Ban Treaty, 8 July 1997

Chemical Weapons Convention, 15 September 1995

Nuclear Non-Proliferation Treaty, 8 June 1976
Outer Space Treaty, 10 October 1967
Partial Test Ban Treaty, 15 June 1964
Sea Bed Treaty, 21 June 1971

Japan signed the Additional protocol 4 December 1998.

Multilateral Groups

Conference on Disarmament
Hague Code of Conduct
Missile Technology Control Regime
Nuclear Suppliers Group
Proliferation Security Initiative
Wassenaar Arrangement
Zangger Committee

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

Universality of the NPT: “In order for the NPT regime to serve as a cornerstone underpinning international peace and security, its universality is essential. [...] Nevertheless, there are countries still remaining outside the NPT. [Japan has] seized every opportunity to convince these countries of the importance of their acceding to the Treaty. [...] Nuclear weapon States should take seriously the fact that, to date, almost all countries have committed to renounce the option of nuclear armament under the NPT regime. [...] Nuclear weapon States must respond to such resolute determination of non-nuclear weapon States, which are the overwhelming majority of the NPT States parties, by demonstrating tangible progress towards nuclear disarmament.”- **Minister for Foreign Affairs of Japan, Yoriko Kawaguchi, addressing the Conference on Disarmament, 4 September 2003.**

Fissile Material Cut-Off Treaty: “Japan, in particular, places great importance on the commencement of negotiations on the Fissile Material cut-Off Treaty (FMCT). [...] Japan also believes that all States concerned, including the nuclear-weapon States, should declare a moratorium on the production of fissile materials for nuclear weapons, pending the entry into force of the FMCT.”- **Minister for Foreign Affairs of Japan, Yoriko Kawaguchi, addressing the Third Session of the Conference on Disarmament, 4 September 2003.**

Safeguards: “It is important to strengthen the IAEA safeguards and, in particular, to promote the universality of the IAEA Additional Protocol as an effective means to stem non-compliance.”- **Ambassador Kuniko Inoguchi, Permanent Representative, addressing the First Committee of the 58th Session of the UNGA, October 2003.**

CTBT: “Since Japan is the only country in the world to have suffered the tragedy of atomic bombings, we Japanese people have a particularly strong desire for a ban on nuclear testing. [...] Our efforts toward the early entry into force of the CTBT have permeated international opinion and the norm has taken root that all types of nuclear tests should be banned. [...] The verification technology of the CTBT makes it extremely difficult to clandestinely conduct nuclear tests without having the world know about it. This verification technology thus represents a significant added deterrence against nuclear testing.”-**Yoriko Kawaguchi, Japan Foreign Minister, Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty, September 2003.**