

# IRAN

## 1. LOCATION AND CAPABILITY OF NUCLEAR FACILITIES

Iran's nuclear program commenced in the 1950s with the development plans of a large-scale nuclear power program, capable of producing 23,000 megawatts of nuclear power by the end of the century. Progress on this program was continually stalled by political and security upheavals; the eight-year war with Iraq brought it to a screeching halt.

Under Khomeini, Iran's nuclear program has steadily grown on all fronts. Not all aspects of this program were disclosed to the IAEA, however; foreign intelligence, satellite images and dissident expatriated groups maintain that Iran is pursuing a covert weapons program- an accusation that Iran staunchly denies.

By 2003, Iran admitted to having construction plans for two enrichment facilities, a heavy water production plant and a fuel fabrication plant, as well as having undertaken research into conversion and enrichment activities. On 19 August 2003, Iran began testing a ten-machine cascade at the Pilot Fuel Enrichment Plant at Natanz with uranium hexafluoride.

Concerns over Iran's nuclear program mounted, leading Iran to sign the IAEA Additional Protocol on 18 December 2003; it has not yet ratified, though it pledged to apply the Protocol pending entry-into-force.

If Iran's designs to develop a complete nuclear fuel cycle continue as planned, it would have the capability to produce nuclear weapons if it were to choose to do so.

[http://www.nti.org/e\\_research/profiles/Iran/1819\\_1822.html](http://www.nti.org/e_research/profiles/Iran/1819_1822.html)

### Power Reactors

Operational: 0

Under Construction: 2

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

[http://www.nti.org/e\\_research/profiles/Iran/index.html](http://www.nti.org/e_research/profiles/Iran/index.html)

### Research Reactors

Operational: 5

Shut down: 0

Planned: 0

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

### Fuel Fabrication

Natanz- uranium enrichment facilities

Parchin- suspected uranium enrichment facilities

Lavisan- suspected nuclear program facilities

Arak- heavy water production

Darkhovin- suspected underground nuclear weapons facility of unspecified nature

Esfahan- research center (Nuclear Technology/Research Center), University of Esfahan, research reactors, suspected hexafluoride plant, missile production facilities,

<http://www.fas.org/nuke/guide/iran/facility/index.html>

### Uranium Mines

Saghand, Yazd province- under construction

Gchine, Bandar Abbas- operational as of July 2004

<http://www.globalsecurity.org/wmd/world/iran/gchine.htm>

<http://www.wisconsinproject.org/countries/iran/nuke2003.htm>

## 2. FISSILE MATERIAL HOLDINGS

### Radioactive waste disposal

The Atomic Energy Organization of Iran (AEOI) is responsible for waste management and disposal. Waste disposal facilities include Anarak, Esfahan, and Qom.

### 3. NUCLEAR ACTIVITIES

#### Research Centers

Amirkabir University of Technology

Bouali-Sina University

Guilan University

Esfahan University

Khajch-Nasi-Toosi University of Technology

Shiraz University Shiraz University of Medical Sciences

Tehran University

University of Mashhad

Iran University of Science and Technology

<http://www-pub.iaea.org/MTCD/publications/PDF/cnpp2002/index.htm>

#### Nuclear Cooperation

*US:* 1974 contract for construction of nuclear plants and supply of nuclear fuel

*Germany:* 1976 contract for construction of nuclear plants and supply of nuclear fuel

*France:* 1976 purchase of Tricastin uranium enrichment plant, operated by European consortium

- 1977 contract for construction of nuclear plants and supply of nuclear fuel

*Namibia:* 1976 purchase of RTZ uranium mine in Rossing

*South Africa:* 1976 contract for the purchase of uranium yellowcake and technical training.

- Another agreement in 1988-89 for the provision of large quantities of yellow cake remains in dispute; European officials claim the deal went through; South Africa insists it had cancelled the deal.

*Pakistan:* 1987 agreement for long-term nuclear cooperation and technical training

*Argentina:* A 1987 agreement from Argentina's Applied Research Institute to provide Iran with a pilot-scale mill- later cancelled in 1992 by Argentine President Carlos Menem

- Another uranium enrichment and heavy water production facilities agreement was blocked by the US

*China:* 1990 agreement for long-term nuclear cooperation, including technical training, provision of a 27KW miniature neutron source reactor and two 300MW Qinshan power reactors;

- Later, Iran and China were in negotiations for a plutonium-producing research reactor, two power reactors and a uranium conversion plant; the agreement was blocked by the US.

- In 1997, China's Beijing Research Institute of Uranium Geology aided Iran with uranium exploration.

- In February 2003, Iran admitted to having imported from China 1.8 tons of nuclear material used to manufacture uranium metal.

*Germany:* In 1991, Germany's Leybold negotiated to sell Iran a vacuum arc furnace for fuel fabrication

*UK:* The UK firms Air Products, British Nuclear Fuels, Fisions, and Leeds & Northrup allegedly sold Iran fluorine gas.

*Russia:* 1995 agreement to complete construction of Bushehr reactors as well as

three additional reactors at the site. Another agreement for a heavy water production plant was blocked by the US.

[http://www.nti.org/e\\_research/profiles/Iran/1819\\_1822.html](http://www.nti.org/e_research/profiles/Iran/1819_1822.html)

<http://cns.miis.edu/research/wmdme/flow/iran/mining.htm>

<http://cns.miis.edu/research/wmdme/flow/iran/fuel.htm>

<http://cns.miis.edu/research/wmdme/flow/iran/milling.htm>

### 4. INTERNATIONAL NON-PROLIFERATION EFFORTS

#### Treaties Signed and Ratified, date of deposit

Comprehensive nuclear Test-Ban Treaty, 24 September 1996

Nuclear Non-Proliferation Treaty 5 March 1970

Outer Space Treaty 27 January 1967

Sea-Bed Treaty 11 February 1971

Iran signed the Additional Protocol on 18 December 2003 but has not yet ratified.

## Multilateral Groups

Conference on Disarmament

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

*Disarmament and Proliferation:* "... one particular area that requires resolute action by the international community is the existence and proliferation of weapons of mass destruction... Iran feels very strongly about the absolute imperative of a collective and rule based multilateral campaign to eradicate all these weapons and to prevent the proliferation of nuclear weapons as an interim measure. This must be done by the universal application of disarmament and non-proliferation instruments in a comprehensive and non-discriminatory manner." - **Statement by H.E. Dr. Kamal Kharrazi, Minister for Foreign Affairs to the 59th session of the General Assembly, 24 September 2004.**

<http://www.un.org/webcast/ga/59/statements/iraneng040924.pdf>

*Universality:* "The (arms control) multilateral instruments must become truly universal and the rights and obligations of all must be scrupulously enforced. Access to technology for peaceful purposes is the only true incentive for the universality of these instruments." - **Statement by H.E. Dr. Kamal Kharrazi, Minister for Foreign Affairs to the 59th session of the General Assembly, 24 September 2004.** <http://www.un.org/webcast/ga/59/statements/iraneng040924.pdf>

*Nuclear weapon-free zone:* "Since 1974 when Iran first raised the idea of establishing a Nuclear Weapon Free-Zone in the Middle East, the countries of the region have spared no efforts to make such a cause come true...We believe the 2005 Review Conference provides another opportunity to register the international demand for Israel to accede to the NPT and put its nuclear facilities under the IAEA safeguards system. Should this happen, the NPT would get a major step closer to real universality and the ground would be paved for the establishment of a nuclear weapon free-zone in the volatile Middle East Region." - **Statement by H.E. Gholam Ali Khoshroo, Deputy Foreign Minister for Legal and International Affairs to the Third Preparatory Committee of the 2005 NPT Review Conference, 27 April 2004.** <http://www.reachingcriticalwill.org/legal/npt/prepcom04/iran27.pdf>

*Negative security assurances:* "The question of the security of Non-Nuclear Weapon States against the use or threat of use of nuclear weapons by Nuclear Weapon States has been an issue of concern since the very inception of the NPT. The unilateral declarations registered as UN Security Council documents and the subsequent Resolution were fundamental prerequisites for sealing the indefinite extension of the Treaty...However, recent developments and the latest posture review by a Nuclear Weapon State have proved that unilateral statements fall too short of providing legally binding security assurances against the use or threat of use of nuclear weapons. Such reversals in nuclear policies of Nuclear Weapon States blow the very basis of previous agreements and would certainly run contrary to the promotion of full implementation of the Treaty." - **Statement by H.E. Gholam Ali Khoshroo, Deputy Foreign Minister for Legal and International Affairs to the Third Preparatory Committee of the 2005 NPT Review Conference, 27 April 2004.**

<http://www.reachingcriticalwill.org/legal/npt/prepcom04/iran27.pdf>