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SUBJECT: **The Atomic Energy Organization of Iran, AEOI**

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SUMMARY: The Atomic Energy Organization of Iran was established by the Shah in April, 1974, to develop nuclear power in Iran on a top priority basis. In the first three years of its existence, the Organization has (1) grown into a bureaucracy of about 1,500 employees, (2) contracted for two large nuclear power plants, (3) initiated an intensive search for sources of uranium within Iran and abroad, (4) arranged for training of large numbers of Iranians in nuclear sciences and engineering abroad, (5) started development of nuclear research centers at home, and (6) entered into bilateral relationships with several foreign atomic authorities. The Government of Iran has an ambitious program to produce 23,000 MWe of nuclear power by 1994 which is purely intended as an eventual alternative to thermal and hydro-electric power and is in no way intended to serve as a base upon which to develop nuclear weapons capability. Iran has signed and ratified the Nuclear Proliferation Treaty (NPT) and has accepted controls of the International Atomic Energy Agency (IAEA) over the nuclear installations and material within its sovereignty. In April 1977, in Shiraz/Persepolis, AEOI and the U.S. Nuclear Regulatory Commission signed a formal arrangement for cooperation in nuclear safety. Also, it is anticipated that soon an agreement will be signed between the Energy Research and Development Administration, ERDA, and AEOI for giving advanced training to Iranians at the Oak Ridge National Laboratory, ORNL. This program will be funded by AEOI.

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History

The antecedents of the present Atomic Energy Organization of Iran (AEOI) developed in the 1960's partly in the Ministry of Science & Higher Education, partly in the then Ministry of Water and Power, and partly in the Plan and Budget Organization, PBO. The Ministry of Science and Higher Education carried on technical and administrative relations with the International Atomic Energy Agency (IAEA) and foreign atomic energy organizations. The Ministry of Water and Power (now the Ministry of Energy) began initial planning for the introduction of nuclear power and sent some Iranian students abroad for training in nuclear science and engineering.

The first atomic energy facility of any significance in Iran was a five megawatt research reactor constructed in the mid 1960's under the Atoms for Peace program. It became the showpiece of Tehran University Nuclear Center. The USG contributed \$350,000, as a grant, to this center, and the reactor itself came from the USA.

The AEOI was created by Imperial decree in March 1974. A law was passed a few weeks later specifying its functions and giving it unusual authority to hire staff and to initiate a high priority program.

Functions

The AEOI has both developmental and regulatory authority and has been empowered to carry out the following functions:

1. To generate electricity from nuclear power plants for the national grid.
2. To carry on atomic research.
3. To train specialists needed in all phases of nuclear science and technology.
4. To promote applications of radioactivity in medicine and agriculture.
5. To study and make recommendations for the development of alternative sources of energy.
6. To represent Iran in international conferences dealing with atomic energy.

7. To determine participation of Iran in joint projects dealing with atomic energy.
8. To use nuclear energy, for desalination, to produce fresh water from the sea.

FYI: There is now a movement beginning within the AEOI to create a promoting (GOI "ERDA") and regulatory ("NRC") agency analogous to the U.S. system.

Organization

The AEOI is an autonomous government agency headed by a President who has the rank of Deputy Prime Minister. Because of the Shah's strong personal interest in the nuclear program, the President of the AEOI reports directly to him, and all major problems are referred to him for the ultimate decision.

The policy-making body of the AEOI is a High Council of Atomic Energy composed of the following:

- Prime Minister
- Minister of Energy
- Minister of Economic Affairs & Finance
- Minister of Agriculture & Natural Resources
- Director of the Plan & Budget Organization
- Director of the Department of the Environment
- President of the Atomic Energy Organization

The internal organization of the AEOI is as follows:

- President (Dr. Akbar Etemad)
- President's Office

- Committees of the AEOI reporting directly to the President:
 - Planning Committee
 - Research Coordination Committee
 - Education Committee
 - Safety, Safeguards, Radiation Protection Committee
 - Organization & Administrative Committee

- Nuclear Safeguards & Safety
 - Nuclear Safeguards and Physical Protection (Eng. Mehdi Sarram)
 - Nuclear Safety (Dr. Mohammad-Hassan Farzin)
 - Radiation Protection (Dr. Parniapour)

- Legal & International Office
 - Cyrus Manzour

Deputy, Supporting Services

Office for Construction
Nuclear Information Center
Computer Service
Education (Mr. Mustapha Sohrabpour)

Deputy, Research (Dr. Reza Khazeneh, Director)

Nuclear Technology Center, Esfahan
Radioactive Materials Research Center, Youssefabad, Tehran
(Dr. Ali Sekhavat)
Nuclear Research Center, Amirabad, Tehran (Dr. Mojtaba Taherzadeh)

Deputy, Industry (Dr. Ahmad Sotoodehnia)

Desalination Project (Dr. Ahmad Sotoodehnia)
Nuclear Power Plant Projects (Dr. Ahmad Sotoodehnia)
Environmental Studies (Dr. Farzin)

Deputy, Nuclear Fuel, Energy Sources (Dr. Ghassem Arabian, Chief)

Fuel, Exploration & Recovery (also Dr. Arabian)

Chief, Administration & Finance

Finance
Personnel
Administrative Services

At latest count there were approximately over 1,500 employees of all categories in the AEOI. The Organization has unusual authority to hire personnel at wage rates above those normal in the GOI, a sign of the high priority given to the nuclear program.

There are three (3) local consulting firms which have been established by influential Iranians to service the AEOI and through which most foreign consultants operate. Iran Nuclear Energy Co. (INECO) a creation of the well-know industrialist, Mr. Abolfath Mahvi, provides a wide variety of services. For example, NUS Corp. of Washington, D.C., has worked with INECO to provide initial advice on regulatory matters.

URIRAN, a company owned by Eng. Reza Niazmand, who developed Iran's Sarchesmeh copper deposit, has undertaken for the AEOI the task of prospecting for uranium and is subcontracting with foreign aerial survey firms for a complete radiometric survey of Iran.

The third is "Tehran-Berkeley", mainly Iranian alumni of the University of California. This group seems to be growing in importance.

By operating through these companies, the AEOI can get urgent tasks off to an expeditious start without having to enlarge its own staff through normal bureaucratic processes.

Key Personnel

President -- Dr. Akbar Etemad. Born Feb. 3, 1930, in Hamadan, Iran. Diploma in Electrical Engineering from Polytechnique of Lausanne in 1957. MSc. equivalent in Nuclear Engineering from l'Institute Francais des Sciences et des Techniques Atomiques in 1958. PhD in Reactor Physics from Polytechnique of Lausanne in 1963. He worked for a year and one-half as a research engineer for Brown Boveri in Baden, Switzerland and then for five and one-half years for the Swiss Federal Institute for Atomic Reactor Research as head of their nuclear shielding group. Dr. Etemad returned to Iran in 1965 to head a section for atomic energy matters in the Plan Organization with particular responsibility for construction of the research reactor at Tehran University. In 1968 he entered the Ministry of Science and Higher Education as Deputy Minister for Research and a year later became Director of its Institute for Research and Planning. He visited the U.S. in March-April, 1970, as a leader grantee. In 1973 he was named Chancellor of Bu-Ali Sina University, a French language university in Hamadan. He was appointed as Deputy Prime Minister and President of the Atomic Energy Organization of Iran on April 10, 1974. Dr. Etemad has numerous publications to his credit and has represented the GOI at several international conferences including meetings of the International Atomic Energy Agency. He is fluent in French and English and somewhat less so in German. He has initiated a management system at the AEOI under which his subordinates are encouraged to make important decisions on their own when he is away on his frequent travels. But, this is conditioned by the Shah's known personal interest in atomic matters which tends to inhibit any devolution of responsibility. Dr. Etemad is an extremely able, intelligent, and personable man, evidently wholly committed to bringing the Shah's vision of nuclear power for Iran into being. His key deputies comment that his delegation of authority and responsibility to them is unique in the Iranian bureaucracy.

In Charge, Raw Materials and Fuel -- Dr. Ghassem Arabian. About 37 years old. Educated in Canada (University of Vancouver, British Columbia). Degree in Chemical Engineering. One of Dr. Etemad's first and most trusted assistants. Also probably the only one in AEOI with an anti-American bias.

In Charge, Nuclear Safeguards, Training -- Eng. Mehdi Sarram. Born 1942 in Kerman. MSc. in reactor engineering from the University of Michigan. Obtained reactor operator's license from the AEC. For several years he was the only qualified operator for the research reactor at Tehran University, and he still retains a consultancy role at the AEOI's Amirabad Nuclear Research Center. Sarram was the key figure in making arrangements for and the practical planning of the Shiraz April 1977 Nuclear Conference.

In Charge, Project for Esfahan Nuclear Technology Center -- Dr. Reza Khazaneh. About 40 years old. Electrical engineering degree in Iran followed by graduate work, PhD., in nuclear science in U.S. (University of California at Berkeley).

In Charge, Power Plan Project -- Dr. Ahmad Sotoodehnia. About 40 years old. PhD. in nuclear engineering from UCLA. He worked several years for the NIOC before joining AEOI. Handles negotiations with Germans and with the French.

In Charge, Nuclear Safety, Environmental Studies -- Dr. Mohammad-Hassan Farzin. Born 1942 in Khoj, Iran. Civil engineer trained at Tehran University, Tufts College, and Northwestern University (1969-1972). He worked two years in Boston for Stone and Webster on non-nuclear projects before being persuaded to return to Iran to join the AEOI in 1974. Farzin and Mr. Shea, U.S.N.R.C., signed cooperative agreement in Shiraz for U.S.-Iran cooperation in nuclear safety and safeguards.

In Charge, Legal and International Affairs -- Cyrus Manzour (no biographic information available.)

In Charge, Tehran Nuclear Research Center -- Dr. Mojtaba Taherzadeh. About 45 years old. Advanced degree from an American university. Spent many years with Cal Tech's Jet Propulsion Laboratory before returning to Iran in 1975 to join the AEOI. Pro American. In U.S. worked on applications of nuclear energy to space program, such as "SNAP".

Director, Youssefabad Radioactive Materials Research Center -- Dr. Ali Sekhavat. About 36 years old. He has an advanced degree from France and is more comfortable in French than in English. Dr. Sekhavat has single-handedly developed a wide-ranging research institution, principally on sheer inventiveness and an unimpaired ego. Actually, he is undoubtedly more an inventor and showman than he is a scientist. For example, he makes extravagant claims for the beneficial physiological effects of negatively ionized air on both man and animals.

Training

The principal problem facing Iran in the nuclear power field is a lack of trained and experienced manpower. From the outset priority has been placed upon attracting from abroad Iranians already trained in nuclear sciences and engineering. Since the AEOI was founded, Dr. Etemad has had considerable success in luring such people into his organization. Now the emphasis is upon finding and training the second wave of scientists and technicians needed to man the facilities planned and being built.

At the present time the AEOI has about 300 students at nuclear centers abroad, principally in the U.S. and the U.K., France, Germany, and Austria. There is a contract with MIT to train two groups of nuclear engineers in a two-year Masters program which has received adverse publicity from environmentalist and anti-Shah groups but an equal number of Iranians are studying at other American universities. Iranians are also receiving training at the U.K.'s Harwell facility and British universities. Twenty-eight (28) Iranians from AEOI will probably go to Oak Ridge (ORNL) this September for training. Of fundamental importance is initial training in Iran for young people selected for specialist studies abroad. The large Nuclear Technology Center to be built near Esfahan will have the most important training function but at a more advanced level.

Budget

Some idea of the priority and pace of the Iranian nuclear energy program can be obtained from published budget figures:

	Iranian Year	
	2534	2535
	(3-21-75 - 3-20-76)	(3-21-76 - 3-20-77)
AEOI as a whole	\$80.6 million	\$1,027.7 million
Additional for purchase of uranium	--	\$ 171.7 million

Iran's Nuclear Power Policy

Iran has embarked upon one of the world's most ambitious nuclear power programs, because it sees no alternative to power from nuclear energy for its needs in the middle-term future. As explained by Dr.

Etemad, (1) Iran's petroleum exports will dwindle in about thirty (30) years, (2) much of Iran's huge gas reserves will be needed in the oil fields for secondary recovery, (3) both oil and gas are ultimately more valuable as raw materials than as fuel, (4) it will take Iran five years to get into nuclear technology, and (5) in the cultural environment of Iran, the Shah himself believes that a high visibility nuclear program with top priority must be mobilized if competing demands are not to siphon off the necessary money and manpower.

At present Iran has an installed electricity generating capacity of about 6,000 megawatts (MWe), half of which is connected to the national grid. Of this total approximately 80 percent is generated in thermal power plants and 20 percent in hydro-electric plants. By 1994 the GOI hopes to have an installed capacity of 70,000 MWe to serve its industry and to cater to rising expectations among private consumers. At the moment, it is planned that 23,000 megawatts of the 1994 total will be supplied from nuclear power plants.

The GOI and the Shah have stated repeatedly that it has no ambitions to become a nuclear weapons state. Iran has signed and ratified the Nuclear Proliferation Treaty (NPT) and has accepted controls of the International Atomic Energy Agency (IAEA) over the nuclear installations and material within its sovereignty. It has, in addition, proposed the creation of a nuclear-free zone in the Middle East. Furthermore, Iranians are skeptical of their friends, "Against whom should we arm ourselves with nuclear weapons? Conventional arms serve our purposes adequately."

Iran's nuclear policy is very environmentally oriented--the two major problems are pollution of the Persian Gulf (Bushehr) and design against earthquakes. One senior AEOI official stated recently that \$2 million are being spent extra in Bushehr for protection against seismic disturbances.

Iran's Nuclear Power Program

Iran's ambition to acquire an installed nuclear power capacity of 23,000 MWe by 1994 places its program among the largest in the world. It is for this reason that Iran is interested in assuring itself of supplies of uranium ore, in securing uranium enrichment services, and eventually having access to fuel reprocessing facilities. In fact, the AEOI wants to develop its expertise in all phases of the nuclear fuel cycle so that it will be as independent as possible from outside constraints in the nuclear power field.

At an early stage in its planning the AEOI decided to concentrate upon light water reactor (LWR) technology. The reasons given for this were that (1) it was the most commercially advanced, (2) it had proven itself in the U.S. and elsewhere, and (3) there were more vendors from whom to buy reactors.

Iranian officials privately express intent in Boiling Water Reactors, (BWR,) but state that the problem is one of qualified operating personnel.

Uranium Exploration and Production -- The activity of Iran to procure supplies of uranium and to obtain mining concessions is a valid picture of the present status and is difficult to construct, owing to the highly commercial nature of such operations. It is public knowledge, however, that Iran has concluded arrangements for exploration and production of uranium deposits in Niger and Gabon, and has an agreement with South Africa. Australia is now actively working with Iran on uranium exploration. The earliest significant uranium exploration in Iran itself was carried out by the French in the 1960's. When the prospects did not look promising the project was terminated. Now a major new project is underway, funded by the AEOI, to find domestic sources, and Dr. Etemad is optimistic about finding commercially viable uranium deposits.

Uranium Enrichment -- Although the AEOI originally contemplated building a uranium enrichment plant within the country, it soon realized this was not really feasible. Instead, the AEOI has looked abroad for investment opportunities which would secure for it the enrichment services its large program will require. France has been happy to oblige, through a holding company jointly owned by France and Iran. Iran has 10 percent participation in EURODIF, a gaseous diffusion plant now under construction in France. A loan of one billion dollars to the Commissariat a l'Energie Atomique of France, payable in three, yearly installments beginning November 1975, also helps the French Government to finance its portion of EURODIF. In addition, the GOI has taken a 25 percent participation (20 percent directly and 5 percent through EURODIF) in COREDIF, a company which is studying the feasibility of building another uranium enrichment plant. These investments assure Iran of sufficient enrichment services for the near term.

Nuclear Power Plant Projects -- In the early months of its existence, officials of the AEOI frequently spoke of their expectation that American companies would win the contracts for construction of the first Iranian nuclear power plants. Later the same officials stated that the American companies proved slow to respond to the AEOI's insistence upon receiving proposals incorporating not only construction of plants per se but also training of the personnel to

man them, provision of the enriched uranium to fuel them, and construction and operation of all the local infrastructure necessary to build and run them. The Iranians felt they had to press for so-called "turnkey" contracts, because they had no experience in nuclear power and because the most likely sites for the plants were on the south coast, an areas which is practically very undeveloped. The American companies were reluctant to commit themselves to such ventures in a foreign environment, especially since they had lost heavily on turnkey projects in the U.S. when American utilities, too, were entering the nuclear age.

In the period when the American companies were gearing up to meet the Iranian concept of turnkey projects, other foreign vendors, eager to gain a foothold in the market, signed the first letters of intent for Iranian nuclear power plants. (It is alleged that their governments guaranteed them against unusual losses.) The German firm, Kraftwerk Union, is now building in Iran the Nuclear Power Plants Nos. 1 and 2, actually two 1,200 MWe stations at Bushehr, in the Persian Gulf, to be completed in 1981 and 1982. Framatome of France might build another two plants of 900MWe each to come on stream in 1983 and 1984, near Ahwaz on the Karun River. According to French sources, probably oil barter will account for about one-third of the financing, and the GOI/AEOI will pay the remaining two-thirds in cash for the two reactor plants. After these initial commitments in November of 1974, there was less urgency to contract for additional power plants for the time being. Although AEOI officials still remark that they expect American vendors to supply approximately half of their projected nuclear power plants, no further commitments have been made to this date. With the recent downturn in Iran's oil income it is quite conceivable that the original 23,000 MWe program may be stretched out over a longer period and that further orders will be deferred for a while.

The AEOI has employed six firms of consulting engineers to conduct surveys for suitable power plant sites. These have included the American firms Bechtel, Dames & Moore, Stone & Webster, and d'Apollonia. Each was given a separate sector to study along the Persian Gulf coast, the Caspian Sea coast, or the Karun River, which are the only locations in the country with sufficient water for reactor cooling. Of the two sites offered to it near Bushehr, Kraftwerk Union chose Halileh, 12 kilometers south of the small port city, for construction of Iran Plants 1 and 2. The site had previously been surveyed for a petrochemical plant, but the AEOI prevailed -- another indication of the priority the nuclear program enjoys.

The FRG subcontractor for civil engineering works, has assembled a construction crew of several thousand men and the two plants are now well under construction and on schedule. It is reported that pressure is on to complete this unit for the Crown Prince, now 16, to throw the main switch on his 21st birthday (in October, 1981).

The site for Plants 3 and 4 has been fixed on the Karun River between Ahwaz and Khorramshahr, and Framatome hopes to conclude a firm contract toward the end of 1977.

Sites on the coast of the Caspian Sea may well be chosen later in the program, because a concentration of population and industry there creates a heavy and increasing demand for electricity, but owing to Russian development-works the level of water in the Caspian is an uncertain factor. Also, to build on the Caspian Coast it would be necessary to ship large reactor components through the Soviet Union, which the GOI is reluctant to be constrained to do. The Embassy has learned that the USSR is not in favor of reactors on the Caspian.

Reprocessing -- The AEOI has no immediate plans of reprocessing but expects that it will be desirable to recycle its fuel in 15-20 years. By that time it hopes to have quite a few nuclear power plants operating, and the storage of spent fuel will become a problem which it feels it will have to solve. The GOI has an open mind towards regional, multiregional nuclear fuel reprocessing.

Research

The Atomic Energy Organization of Iran will have three research centers, each of which will have a distinctive function.

Nuclear Research Center, Amirabad, Tehran -- This is already functioning, because it was previously the Tehran University Nuclear Center and was taken over intact when the AEOI was formed. It is equipped with a 5MWe swimming pool reactor and a Van de Graaf particle accelerator and will continue to concentrate on long range nuclear research to advance the state of scientific knowledge. A new interest at the Center is controlled thermo-nuclear fusion using laser technology.

The Center's environmental research section engages in studies of air pollution and has also been involved in chemical analysis of foodstuffs and drinking water. An important aspect of the Center's work is the provision of a radiation protection service for Iran.

Radioactive Materials Research Center, Youssefabad, Tehran -- This is the rather large establishment built up by Dr. Ali Sekhavat with showmanship and royal patronage. Although the projects usually shown to visitors reflect his sometimes unorthodox ideas, it is understood that he has some quite able people. The Center's general role is seen as support for the AEOI in a wide variety of radiation uses and measurements. It is also used to analyze uranium-bearing samples submitted by prospecting teams.

Nuclear Technology Center, Esfahan -- This installation does not yet exist, but it has been suggested for \$300 million and is expected to employ 1,200 people when completed. It is to be the principal center of support for the nuclear power program and is to develop a capability to cope with problems of operating, maintaining and refueling nuclear power plants, particularly those which the operating staffs themselves cannot handle. The initial design concept has been completed by Technicatome, a subsidiary of the French AEC, and the second phase of modifying and elaborating it through detailed consultations with the AEOI has begun. Construction has started and it is hoped that it will be complete and in use by 1980. A site, twelve kilometers southeast of Esfahan has already been acquired and surveyed in detail.

The Esfahan Center will have a nuclear power plant simulator on which to train reactor operators. Studies in fluid mechanics, heat transfer, and corrosion will be carried on. There will also be an electronics/instrumentation/control section.

The metallurgy Division will serve a key function -- to study materials to be used in reactors and other facilities in which radioactive substances are manipulated. It will include a hot cell for handling highly radioactive substances, the first step toward a reprocessing facility.

Also included in the Esfahan Center will be sections for fuel fabrication, uranium chemistry, and desalination, as well as a division of water, and environmental studies. All of these divisions and sections are intended to speed the transfer to Iran of foreign nuclear technology and to develop indigenous capability to deal with any operational and maintenance problems. The center will also train Iranians in nuclear technology. In the beginning, at least, the Center will not be expected to engage in large scale production of nuclear substances or equipment, only to know how these materials are produced and handled.

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Relations with the United States

There is an existing Agreement for Cooperation for Civil Uses of Atomic Energy between the U.S. and Iran, which was signed in 1957 and amended in 1964 and covers principally research matters. IAEA safeguards were applied to the U.S.-Iran agreement by a later tri-lateral agreement.

When the Government of Iran decided to launch a nuclear power program in the course of which signing enrichment services contracts with the AEC and contemplating purchase of nuclear power plants from U.S. industry, it became necessary to negotiate a new, more inclusive bilateral agreement. A first draft of a new agreement was presented to the GOI in February, 1975, and after a round of negotiations a second was presented in May, 1975. Since that time there have been further discussions between the two governments on this subject, but the bilateral hopefully will be considered again in 1977 if Dr. Etemad visits the U.S. Although there has been some disagreement on the quantity of enriched uranium Iran would be allowed to import from the U.S. and some uncertainty about the GOI's thoughts on physical security measures, the principal point at issue has been whether the U.S. could have a veto on the right of Iran to reprocess U.S.-supplied fuel within Iran. Unfortunately, failure to sign a new U.S.-Iran bilateral has, in effect, stymied sales efforts of U.S. firms such as Westinghouse, G.E., and Combustion Engineering of nuclear power plants. As previously mentioned, American Industry is participating in various aspects of the Iranian nuclear program, such as site survey, and preparation of regulations, but the major commercial prizes of the Iranian program have thus far gone to competitors, owing to a conflict between quite justifiable American concerns about nuclear safeguards.

Relations with Other Countries

The Iranian relations with the French rest upon a June, 1974 agreement of quite general nature including practically all the peaceful uses of nuclear energy. Subsidiary agreements have been signed later covering the sale of two nuclear power plants (November, 1974) uranium enrichment (January, 1975), the Esfahan Nuclear Technology Center (May, 1975) and joint participation in foreign uranium prospecting and exploitation (November, 1975). It is understood that although the June, 1974 agreement with France obliges the latter to consider cooperation with Iran in all stages of the nuclear fuel cycle, by tacit agreement the subject of reprocessing has not yet seriously arisen. The French technique of signing a general, overall agreement first, followed only later by sub-agreements on particular areas of cooperation has the advantage of taking difficult hurdles one by one rather than attacking the whole mass of issues frontally.

Germany was the first country to sell Iran a nuclear power plant. Until the present, German participation in the Iranian nuclear program has been limited to construction of power plants and training of personnel. The German safeguards conform to the London guidelines and reportedly even go beyond them in certain areas.

Atomic energy officials of India and Iran have exchanged visits, and there appears to be considerable enthusiasm on the Iranian side for cooperation, particularly in the fields of research and training. Officials of the AEOI especially admire India's Bhabha Atomic Research Center at Trombay and would like to emulate India in developing a considerable degree of independence in the nuclear sphere.

Although there is contact between the atomic energy authorities of Iran and Pakistan, and at least one Pakistani is working in the AEOI, there is apparently little substantive cooperation between the two as yet.

Iran has signed an agreement to purchase uranium from the Republic of South Africa and it will invest in a South African uranium enrichment plant.

The AEOI has three contractual agreements with atomic authorities in the U.K. One of these involves cooperation in a program of research to be carried out at the Nuclear Research Center at Amirabad, Tehran, and the other covers research-type training of Iranians at the U.K.'s Harwell Institute. The third involves the area of reactor safety.

A few Argentinians are working in the AEOI, mainly in the regulatory field, but Iran does not have a nuclear agreement with the Government of Argentina. Dr. Etemad has visited Brazil with two of his principal officers.

Iran has sent missions of atomic energy officials to many other countries, most recently Japan, when Dr. Etemad himself headed the AEOI delegation. The AEOI has received several such officials itself, but nothing significant has evidently developed from these other contacts.

Relations with International Organizations

Iran has been an active member of the International Atomic Energy Agency (IAEA) for some years.

Together with the American Nuclear Society, the European Nuclear Society, and the Japan Atomic Energy Authority, the AEOI sponsored an international Conference on Transfer of Nuclear Technology held at Shiraz/Persepolis on April 10-14, 1977. In the light of President Carter's statement on energy policy, especially relating to reprocessing of nuclear fuel and fast breeder reactors, the conference turned out to what will probably have been a historic forum for interchange of views between nuclear supplier nations and Third World countries.

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