

Summary of Report: *Breaking Up and Reorienting Iran's Nuclear Weapons Program*¹

Iran's Nuclear Archive Shows the 2003 Restructuring of its Nuclear Weapons Program, then called the Amad Program, into Covert and Overt Parts

By David Albright, Olli Heinonen, and Andrea Stricker

Documentation seized by Israel from the Iranian “Nuclear Archive” shows that in mid-2003, Iran was making decisions about how to decentralize and disperse the elements of its nuclear weaponization program, the Amad Plan and its key subproject Project 110, which included nuclear warhead development and production. The Amad Plan intended to build five nuclear warhead systems for missile delivery and possible use in preparation for an underground nuclear test; an actual test would require a decision to proceed. The program was also partially designed to have its own independent uranium mining, conversion, and enrichment resources. The documentation indicates that Iran's nuclear weaponization efforts did not stop after 2003, following a so-called “halt order” of the Amad program.

In a 2007 declassified National Intelligence Estimate (NIE), the United States (incorrectly assessed with high confidence) that “in fall 2003, Tehran halted its nuclear weapons program.” Based on the information in the archives, Iran's nuclear weapons program did not come to a complete halt, but continued after 2003 in a more limited, dispersed fashion. Moreover, the 2007 NIE also incorrectly asserted that Iran had not re-started its nuclear weapons program as of mid-2007, albeit with only moderate confidence. However, there is a lack of evidence that the program has ever been fully halted, even up to today.

Background

Iran was operating a sophisticated, well-structured nuclear weapons program in 2003, when the IAEA, backed by Western governments, started to uncover secret Iranian nuclear facilities and activities, including Iran's violations under its safeguards agreement concluded pursuant to its obligations under the Nuclear Non-Proliferation Treaty (NPT). Fearful of U.S. military strikes following the 2003 U.S.-led invasion of Iraq, and confronted with revelations about its wholesale deception and concealment related to its IAEA safeguards commitments and intense international condemnation, the Iranian regime decided to become significantly more open about its principal fuel cycle activities, which were being systematically exposed by the IAEA anyway. However, Iran decided to reduce and conceal more thoroughly its structured nuclear weapons efforts aimed at the development and production of nuclear weapons. At the time of this decision, current Iranian president Hassan Rouhani was the national security advisor to Supreme Leader Ayatollah Khamenei and had emerged as the public face of Iran's new “openness” to the IAEA about its formerly secret nuclear fuel cycle activities. Yet, the nuclear weapons program was carefully hidden and restructured for the future, and some elements of it were presented as part of the civilian program. Iran subsequently launched an international campaign, which duped several U.S. analysts and members of the media, to deny that it ever had a nuclear weapons program, a subterfuge it has maintained until today.

¹ The full version of the report is available at: <http://isis-online.org/isis-reports/detail/breaking-up-and-reorienting-irans-nuclear-weapons-program/8> or <https://www.fdd.org/analysis/2018/10/29/breaking-up-and-reorienting-irans-nuclear-weapons-program/>

The archive contains new information about the restructuring of the Amad program during the summer of 2003, including Project 110. Project 110's work was being divided into two parts: a covert part with a secret structure and goals whose activities had no ostensible civilian cover story, and an overt, research-oriented program centered at universities whose activities had plausible civilian or non-nuclear military applications.

New Revelations

The archive documentation shows that in mid-2003, Iran began holding a series of eight meetings to make decisions about how to decentralize and disperse vital elements of the Amad program. These meetings in August and September 2003, were in preparation for the so-called "halt order," and at a time when the IAEA was asking to go to additional, suspect Iranian nuclear sites including military ones. Highlights of the minutes of the meetings appear to show the thoughts of the participants on how the overt and covert activities should be divided.

Dr. Fereidoun Abbasi-Davani urged, "We should make a distinction between 'overt' and 'covert' activities." Abbasi-Davani was responsible, along with Majid Shariari, for deploying a specially developed neutron detector array outside of the high explosive chamber in Taleghan 1 at the Parchin military site. It measured the neutron emissions from a neutron initiator made from uranium and deuterium for a nuclear weapon.

A Dr. Majid (unknown if Majid Shariari) stated, "Overt activities are those that could be explained as part of something else, and not as part of the project, so that we would have an excuse for them." A Dr. Masoud stated, "Neutrons' research could not be considered 'overt' and needs to be concealed. We cannot excuse such activities as defensive. Neutron activities are sensitive and we have no explanation for them." Dr. Mohammed-Mehdi Hadavi (a Ministry of Defense official) noted, "Let there be no mistake, the amount of personnel in the overt and covert parts will not decrease. The structure will not become smaller and every subproject will supervise both its overt and covert parts." Dr. Masoud also stated, "Development of methods and facilities could be considered overt – all other explorations should be covert."

Post-AMAD Activity

- **Dr. Fereidoun: 'We should make a distinction between "overt" and "covert" activities.'** [9/3/2003]
- **Dr. Majid: 'Overt activities are those that could be explained as part of something else, and not as part of the project, so that we would have an excuse for them.'** [9/1/2003]
- **Dr. Masoud: 'Neutrons' research could not be considered "overt" and needs to be concealed. We cannot excuse such activities as defensive. Neutron activities are sensitive and we have no explanation for them.'** [9/3/2003]
- **Dr. Mohammad-Mehdi: 'Let there be no mistake, the amount of personnel in the overt and covert parts will not decrease. The structure will not become smaller and every sub-project will supervise both its overt and covert parts.'** [9/6/2003]
- **Dr. Masoud: 'Development of methods and facilities could be considered overt – all other explorations should be covert.'** [9/7/2003]

Figure. Minutes translated by Israel from the Project 110 technical committee meetings. The figure comes from a slide deck provided by Israel.

A document in the archive lays out the new outline for Project 110. The work would be divided in two: covert (secret structure and goals) and overt (regular structure). The covert operations are directed towards the completion of the existing timetable of building nuclear weapons. In order to do so, the operations were divided into two types of work: contaminating and non-contaminating work.

The contaminating work would occur “after the non-contaminating work.” The timetable for the work mentioned in the document is not known, but it signifies nonetheless that the goal of the new organization was to finish ultimately building nuclear weapons.

A fundamental criterion for whether Project 110 work would be put into a covert or overt category was whether it involved “contaminating” work, which could leave “identifiable traces.” At the time, the Iranian officials would have been well aware of the power of the IAEA’s environmental sampling to detect minute traces of nuclear materials at its secret fuel cycle facilities. Moreover, “the members’ attention will be focused on the portability, in order for us to stay clear both of espionage and to leave no identifiable traces.” The portability was ostensibly for the ease of moving the work quickly, if needed, in order to avoid detection.

The overt part of the program would “prepare and develop the foundation; therefore it was planned and proposed to establish two university centers under the names ‘Institute for Applied Physics’ and ‘Center for Shock and Explosion Technology Research.’ Moreover, it is necessary to use the Chemical Engineering and Material Center at the Malek Ashtar University.” The document continued (spelling mistakes corrected), “Both centers mentioned above will not be linked with 110 and will belong administratively to the new institute or the university. However, because of the depth of the coordination, their supervisor needs to be appointed in accordance to 110’s executor.” This suggests that the projects would have continuity through their leadership, but plausible deniability as to their connection to Project 110. Several Iranian universities have an Institute for Applied Physics, and the name would provide a good civilian cover for activities sponsored by the successor organization to Project 110 envisioned by the leadership.

The meetings and planning continued. In a document dated October 25, 2003, written by Mohsen Fakhrizadeh, the longtime head of Iran’s nuclear weapons program, Fakhrizadeh stated, “The general aim is to announce the closure of Project Amad...special activities will be carried out under the title of scientific [knowhow] development”).

Significantly, Fakhrizadeh’s statement of Iran’s intention to continue nuclear weaponization activities occurred nine days after National Security Advisor Rouhani told the IAEA that a decision had been taken to provide the IAEA, in the course of the following week, with a full disclosure of Iran’s past and present nuclear activities. Yet, Iran’s disclosure turned out to be partial, omitting information about past and ongoing nuclear weapons work. Iran also decided that it would take dramatic steps to hide its past nuclear weapons work from the IAEA.

The new information in the Iranian atomic archive provides a more complete picture of the transformation of the Amad program into successor organizations that were intended to continue to pursue nuclear weapons work in a more covert, dispersed manner. The information in the archives confirms and adds significantly to the documentation gathered over many years by the IAEA from member states. It suggests that the IAEA and US intelligence community, as

exemplified by the 2007 NIE, has underestimated the extent of Iran's post-2003 nuclear weapons work. The existence and maintenance of an archive related to nuclear weapon design and manufacturing is not compatible with Iran's legally binding nuclear nonproliferation commitments. The documentation indicates that Iran may have had and still has until now undeclared nuclear activities. It is therefore essential that the IAEA Board of Governors requests the Secretariat to verify the existence of the documents, their contents, and related equipment to ensure that all nuclear material and activities have indeed been declared to the IAEA, and all non-peaceful activities have been terminated and relevant capabilities dismantled.