Iran and the IAEA: verification and monitoring under the JCPOA

On 16 January 2016, IAEA Director General Yukiya Amano announced that Iran had completed the necessary preparatory steps to start implementation of the Joint Comprehensive Plan of Action (JCPOA). This ushers in a new phase in the relations between the IAEA and Iran, and represents the start of an increased effort of the IAEA’s verification and monitoring activities in Iran.

The JCPOA was agreed last July between Iran and China, France, Germany, Russia, the United Kingdom, the United States and the European Union, the so called E3/EU+3. The IAEA, which is not party to the JCPOA, is undertaking a wide range of verification and monitoring of nuclear-related commitments set out in the document.

In the JCPOA, Iran has committed to reduce by about two-thirds the number of its enrichment centrifuges and not to enrich uranium above 3.67% uranium-235. It has also agreed to provisionally implement the additional protocol, a legal agreement granting the IAEA broader access to information and locations in a State, beyond declared nuclear facilities and materials. This increases the IAEA’s ability to verify the peaceful use of all nuclear material in that State.

Under the JCPOA, Iran has also agreed to implement voluntary nuclear-related commitments — known as ‘transparency measures’ — which include enhanced access for IAEA inspectors to uranium mines and mills, and continuous surveillance of centrifuge manufacturing and storage locations (see figure below for an overview of Iran’s key nuclear commitments and their timing under the JCPOA). These measures go beyond the scope of the Additional Protocol and will help the Agency to better understand Iran’s nuclear activities.

Higher commitment

As a result of the implementation of the JCPOA, IAEA resources devoted to verification and monitoring in Iran have increased considerably (see chart above). For instance, remote surveillance systems (see article, page 22) are now transmitting 25% more images and nuclear data to the IAEA each day as before the implementation.

KEY COMMITMENTS OF IRAN UNDER THE JCPOA

- No low enriched uranium (LEU) enriched above 3.67%
- LEU stocks limited to 300kg
- No uranium enrichment at the Fordow fuel enrichment plant
- No new enrichment facilities
- No new heavy water reactors
- Excess heavy water exported
  FOR 15 YEARS
- IAEA access to uranium mines and mills
  FOR 25 YEARS
- Comprehensive Safeguards Agreement, Additional Protocol, Modified Code 3.1

FOR 8-10 YEARS
- No advanced centrifuges
- Limited centrifuge R&D
- Limited number of centrifuges at the Natanz fuel enrichment plant

FOR 20 YEARS
- IAEA surveillance of centrifuge manufacture
of the JCPOA, and almost twice as many as before 2014, when the IAEA started the verification and monitoring of an interim framework, the Joint Plan of Action, that was agreed between Iran and the E3+3 in 2013.

The number of IAEA personnel devoted to verification and monitoring in Iran has increased by almost a quarter since last year, and has more than doubled since before 2014.

Implementation of verification and monitoring by the IAEA under the JCPOA will require additional expenses of €9.2 million per year. The IAEA’s budget devoted to these activities is 2.3 times higher than before the implementation of the JPA.

“While much work lies ahead, the IAEA has the expertise and experience to do the job,” said Tero Varjoranta, Deputy Director General and Head of the Department of Safeguards. The combination of Iran’s CSA, additional protocol and the nuclear-related commitments under the JCPOA represent a clear net gain from the verification viewpoint.

IRAN AND IAEA SAFEGUARDS: KEY DATES

- **1974**: Iran’s Comprehensive Safeguards Agreement (CSA) enters into force
- **2003**: Additional Protocol (AP) Signed and implemented voluntarily
- **2006**: Framework for Cooperation signed by IAEA and Iran
- **2013**: Joint Plan of Action (JPA) agreed by E3+3 and Iran
- **2015**: Road-map for the clarification of all outstanding issues signed by IAEA and Iran
- **2016**: Joint Comprehensive Plan of Action (JCPOA) agreed by E3/EU+3 and Iran
- **2016**: IAEA reports the final assessment of all outstanding issues