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IAEA Report on Iran

Centrifuge and LEU increases; access to Arak reactor denied; no progress on outstanding issues

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The International Atomic Energy Agency (IAEA) released June 5, 2009 its [latest report](#) on the implementation of NPT safeguards in Iran and the status of Iran's compliance with Security Council Resolutions 1737, 1747 and 1803.

Summary

The report includes several important findings. The first is that the number of centrifuges enriching uranium at the Natanz Fuel Enrichment Plant (FEP) has increased to 4,920 (up from 3,936) with an additional 2132 installed and operating under vacuum. **This brings the total number of centrifuges either enriching uranium or installed and ready to begin enrichment, to 7,052.** Since the last IAEA report, Iran has produced an additional 329 kg of low enriched uranium (LEU) hexafluoride, or a total of 1,339 kg of LEU hexafluoride; below we explain in more detail how this reflects a 20 percent improvement in Iran's daily rate of LEU production. Of note, the IAEA states that given increases in the number of centrifuges operating and the rate of production of LEU, improvements to "containment and surveillance measures" at the FEP are necessary.

The second issue highlighted in the report is Iran's continued refusal to allow the IAEA access to the IR-40 reactor under construction at Arak and to provide the Agency with design information for a planned reactor to be built at Darkhovin. The report notes that the IAEA has not visited the Arak reactor since August 2008 and that with the completion of the containment structure over the reactor, it is impossible to continue following progress remotely. Regarding Darkhovin, the IAEA adds that Iran is the only country with "significant nuclear activities" not implementing safeguards provisions that provide the IAEA with access to design information prior to construction.

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Finally, the IAEA notes that in addition to a small, 10 machine cascade of next-generation IR-2 centrifuges, Iran has recently installed a 10 machine IR-3 cascade and is now operating as single machines, the IR-4 centrifuge.

LEU Production Increases

During the prior reporting period, from November 18 through January 31, Iran produced approximately 171 kg of LEU hexafluoride, corresponding to an average of approximately 2.3 kg per day. In the period covered in the latest report, from February 1 through May 31, Iran produced 329 kg of LEU hexafluoride, corresponding to approximately 2.75 kg per day, or an increase of approximately 20 percent from the previous period.

Nuclear Weapon Breakout Calculations

Nuclear weapons “breakout capability” is a scenario that involves enriching LEU up to weapon-grade uranium. This could be accomplished within 3-6 months at either the Natanz facility or a [clandestine gas centrifuge facility](#). It provides a measure of Iran’s growing nuclear weapons capabilities. Whether Iran intends to pursue this approach is unknown.

Last February, [Iran accumulated enough LEU](#) to be able to enrich enough weapon-grade uranium for one nuclear weapon.

At Iran’s current rate of 2.75 kilograms of LEU hexafluoride per day, Iran would accumulate in total enough LEU to use as feed for the production of sufficient weapon-grade uranium for two nuclear weapons by the end of February 2010. If Iran were to operate all of the about 7,000 centrifuges currently enriching or under vacuum, this milestone would be achieved by mid-December 2009.

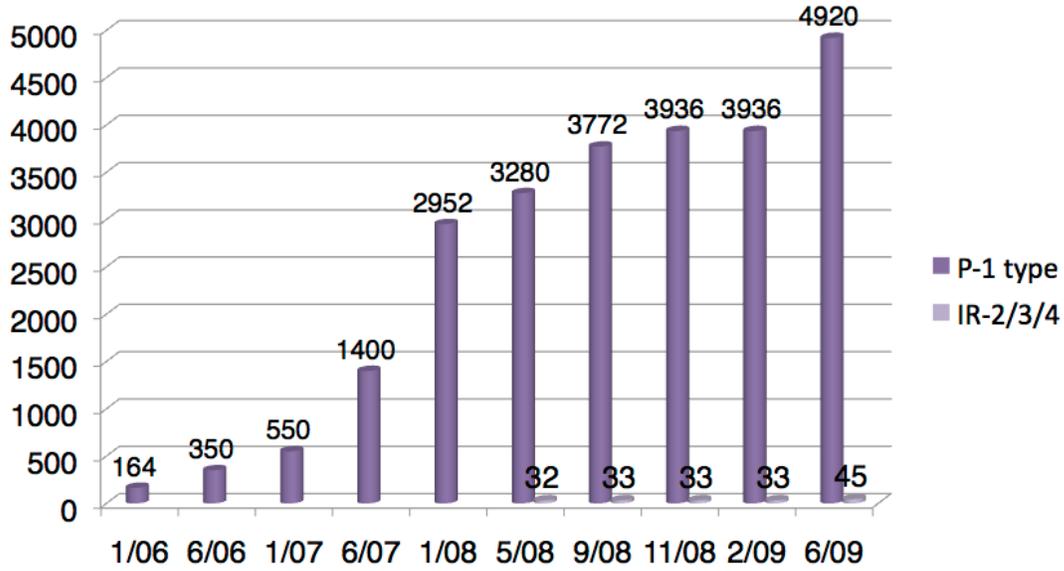
If Iran diverted this safeguarded LEU for use in a clandestine enrichment plant, the IAEA should detect the missing LEU within a few weeks. If Iran were to produce the weapon-grade uranium at Natanz, it would provoke an international crisis.

No progress on other issues

The IAEA reports no substantive progress in resolving issues about possible “military dimensions” to Iran’s nuclear program, a reference to documents, or “alleged studies” indicating weaponization related research and development.

As noted above, the IAEA has been denied access to the IR-40, a heavy water reactor under construction at Arak, and reports that Iran refuses to provide the Agency with design information for a planned reactor at Darkhovin.

Centrifuges enriching uranium at Natanz Fuel Enrichment Plant June 2009



Low enriched uranium hexafluoride Natanz FEP (cumulative, in kg)

