



Comments on the April 20, 2015 IAEA Report on the Status of Iran's Compliance with the Joint Plan of Action

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Newly Produced 3.5 Percent Low Enriched Uranium (LEU)

One of the commitments Iran has made under the Joint Plan of Action (JPA) is to convert all newly produced LEU hexafluoride (UF_6) into to oxide form (U_3O_8). If the material is in oxide form it would require additional processing, namely reconversion to hexafluoride form, before it could be further enriched.

Since the JPA entered into force, Iran has produced 3,444 kilograms (kg) of 3.5% LEU hexafluoride. As of [April 20, 2015](#), Iran fed a total of 2,720 kilograms 3.5 percent LEU hexafluoride into the conversion process at the Enriched UO_2 Powder Plant (EUPP). However, the same amount was reported as being fed into the conversion process in February 2015, which means no additional LEU has been fed into the EUPP since February. Therefore, Iran still possesses about 8,350 kg of 3.5% LEU hexafluoride, of which 724 kg is "newly produced" and has to be converted to oxide. Thus, Iran remains behind in processing newly produced LEU hexafluoride into oxide form.

Part of the reason may be that the EUPP has worked poorly and has been unable to produce enriched uranium oxide product. It has thus far produced only intermediate uranium products. The most recent report provides additional information on the amount of uranium in intermediate forms between hexafluoride form and the final LEU oxide product. The LEU is ending up as ammonium diuranate (ADU) rather than oxide. ADU is the last intermediate product before oxide, and thus the last stage of oxide production appears technically defective in some manner. The P5+1 have evidently accepted that the processing of the LEU hexafluoride into ADU meets the objective of the interim deal under the JPA.

Processing Near 20 percent LEU oxide into Tehran Research Reactor (TRR) Fuel Elements

Additionally, Iran has pledged to put 60 kg of near 20% U_3O_8 (uranium mass) into the fuel fabrication processing line to make fuel elements for the Tehran Research Reactor by the end of June 2015. It should be remembered that less than half of this LEU has ended up in fuel elements.

Iran pledged to use 25 kg of this LEU (uranium mass) in the July 2014 extension agreement and completed processing that amount in late 2014. In the November extension agreement, Iran pledged to process by the end of June an additional 35 kg of near 20 percent LEU oxide. So far, according to the IAEA's most recent report, Iran has processed only a total of 40.2 kg since July 2014, or about 15 kilograms of the 35 kilograms pledged for processing under the second extension agreement, leaving 19.8 kg left to put into the fuel fabrication line by the end of June. So far, under the second extension agreement, Iran has processed the near 20 percent LEU at an average rate of 3.3 kg per month. It now needs to process the remaining 19.8 kg at an average rate of 7.9 kg per month in order to meet the end-of-June deadline.

So, like the newly produced 3.5 percent LEU, Iran is having a difficult time processing the near 20 percent oxide. Likely the reason in both cases is that Iran is encountering technical problems.