



Returning Iran to Compliance with the JCPOA

Diplomats from China, France, Germany, Russia, the United Kingdom, Iran and the United States have been meeting in Vienna for months to resolve the Iranian nuclear crisis. The delegations are attempting to negotiate the revival of the Iran nuclear deal, known formally as the Joint Comprehensive Plan of Action (JCPOA). The core bargain of the deal can still be revived — an exchange of sanctions relief for significantly constraining Iran’s nuclear program — but there is little time as Iran’s program marches forward. In late August, the EU provided a "final proposal" to resolve the issue in a way intended to be acceptable with all parties' known positions. Iran requested some changes. After review, the United States identified several areas of concern with the Iranian changes to the "final" document. Should it be accepted, below are Iran’s JCPOA obligations, the status of those obligations and the steps needed to restore the deal’s nuclear limits.

	Allowed under the JCPOA	Status report: September 7, 2022	Steps to take
Uranium stockpile and fuel	<ul style="list-style-type: none"> Stockpile of uranium gas kept under 300 kg or about 202 kg of uranium by weight. Uranium enrichment capped at 3.67% Uranium-235 (U-235). Russia provided 20% enriched fuel plates for Tehran Research Reactor (TRR). 	<ul style="list-style-type: none"> The IAEA count an Iranian stockpile of some 3,800 kilograms (8,370 pounds) of enriched uranium. The IAEA confirms an enrichment level of 5% Uranium 235 at Natanz. 	<ul style="list-style-type: none"> Excess stockpile can be shipped out or blended down. Iran shipped out 11,000 kg of uranium in 2015. Cease and desist R&D on uranium metal production. The knowledge gained, however, cannot be unwound.
Centrifuges	<ul style="list-style-type: none"> Operate 5,060 of Iran’s old IR-1 centrifuges in 30 cascades at Natanz. Fordow converted to stable isotope production facility with assistance from Russia. 1,044 IR-1 centrifuges in 2 cascades will remain at Fordow. 	<ul style="list-style-type: none"> Iran has begun enriching uranium with the first and second of three cascades of their advanced IR-6 centrifuges at its underground plant at Natanz. These cascades may enrich uranium to up to 60% fissile purity. The IR-6 is the most advanced model centrifuge and is not authorized by the JCPOA. This level of enrichment is a short technical step away from a weapons-grade 90%. Another IR-6 cascade in Fordow has started enriching to up to 20%. 	<ul style="list-style-type: none"> Dismantle and store advanced centrifuges. The knowledge gained from R&D, however, cannot be unwound. Stop enriching uranium at Fordow. Return Fordow to a strictly peaceful research facility.
Arak heavy water reactor (activities related to reprocessing)	<ul style="list-style-type: none"> Removed the calandria from the reactor and filled it with concrete. China to modify Arak with the United States. No reprocessing activity. Limit of 130 metric tons of heavy water. 	<ul style="list-style-type: none"> Iran has not reverted Arak to its original threatening design. All natural uranium pellets and fuel assemblies remain in storage. Stockpile of heavy water above limit. 	<ul style="list-style-type: none"> Resume work with China and the UK to modify the Arak reactor so it does not pose a proliferation threat. Ship excess heavy water to Oman.
Nuclear inspectors	<ul style="list-style-type: none"> Provisionally apply the Additional Protocol. On-line enrichment monitors were installed. 	<ul style="list-style-type: none"> President Raisi wants the International Atomic Energy Agency to drop a long-standing investigation into nuclear particles found at four sites it had not disclosed to inspectors. 	<ul style="list-style-type: none"> Apply the Additional Protocol. Answer remaining IAEA queries about three locations in Iran.