Iran Faces Renewed Censure at Vienna Nuclear Meeting

by Simon Henderson **(/experts/simon-henderson)**

Nov 15, 2022
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Brief Analysis

A resolution condemning Tehran's unwillingness to provide access to potential weaponization sites is an effective way to apply pressure, but also risks retaliation.

On November 16, the thirty-five-member Board of Governors of the International Atomic Energy Agency, assembled in Vienna for its quarterly meeting, will discuss a draft resolution from the United States, Britain, France, and Germany demanding IAEA access to three Iranian sites where traces of uranium have been discovered. The sites are suspected of being used for past development of nuclear weapons; Tehran claims they are not nuclear related and has repeatedly denied ever conducting weaponization work at any location.

More specifically, the IAEA is seeking explanations "for the presence of uranium particles of anthropogenic origin," meaning the particles were not natural uranium (as noted in its most recent report on Iran, discussed in detail below). This means that the samples' ratio of the two principal isotopes of uranium, U-238 and the potentially fissile U-235, were not the same as that of samples found in nature (for more on uranium ratios and other technical matters, see the author's **Iran Nuclear Explainer (https://www.washingtoninstitute.org/policy-analysis/iran-nuclear-explainer)**).

One potential explanation is that the discovered samples had been artificially enriched. When uranium is processed to contain more U-235 than normal (around 5 percent, compared to 0.7 percent in natural uranium), it can be used as fuel in nuclear reactors; when it is enriched to a much higher level (90 percent), it can be used for a nuclear weapon. The anthropogenic finding could also mean that the material had been depleted of some or all of its U-235. Yet even that would beg the question of what happened to the rest of the U-235, with the implication that it originally had more than the natural amount—i.e., that it had previously been enriched. Alternatively, depleted uranium could

come from a reactor powered by natural uranium, in a process that can produce another nuclear explosive, plutonium. The anthropogenic samples might also be traced to another country; for instance, Pakistan has sent secondhand centrifuges to Iran.

Unless these questions are resolved, they will continue to impede talks on reviving the 2015 nuclear deal. For now, Iran is demanding an end to the IAEA's investigation; it has also offered to meet agency officials in Tehran after the board meeting, but this is widely seen as a delaying tactic. In June, Iranian authorities disconnected some of the IAEA's surveillance cameras in retaliation for growing pressure on compliance issues. Western officials are concerned about how the regime might respond to the current dispute, particularly given its proven willingness to harass visiting inspectors. Unfortunately, any gap in monitoring can make it more challenging—if not impossible—to accurately assess the total quantity and enrichment level of Iran's uranium stockpiles.

A day before the draft resolution was announced, the IAEA issued its quarterly report on Iran's nuclear program. Among other findings, the agency noted that the number of advanced centrifuges in operation had increased, as had the quantity of 60 percent enriched uranium, which is a short technical step from weapons-grade material. Iran now has about eighteen times more enriched material than the maximum it committed to under the 2015 deal.

As yet, Iran does not appear to be doing significant work on casting enriched material in the form of pure uranium metal, a necessary step for making a bomb. Some weapon designs also require depleted uranium in metallic form in order to squeeze the high-enriched core into a critical mass.

Western officials argue that developing a device for delivery by a missile would take around two years, and that Iran has not yet started such work. But both of these assessments suggest a perfect knowledge of Tehran's capabilities and decisionmaking, which seems unlikely. Moreover, the regime's **recent development of large cruise missiles (https://www.washingtoninstitute.org/policy-analysis/new-iranian-warship-signals-longer-maritime-reach-more-aggressive-strategy)** would presumably remove the need for a warhead design capable of withstanding the stresses of high-speed reentry into the atmosphere—a leap that could shorten the timeframe for weaponization.

The Vienna meeting may not be decisive on any of these issues, but it is significant. Aside from adding another technical element to the diplomatic pressure on Iran, adopting the access resolution could help preserve and even enhance safeguards agreements reached with other signatories to the NPT, who may be considering how to respond to Iran's advances via their own nuclear programs.

Simon Henderson is the Baker Fellow and director of the Bernstein Program on Gulf and Energy Policy at The Washington Institute. ❖

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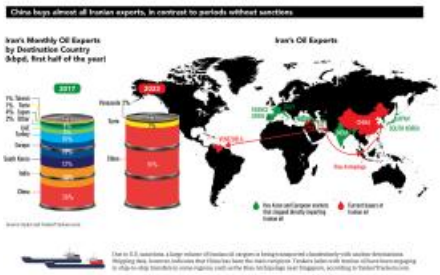

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