Latest Iran Nuclear Inspection Report Reveals Multiple Concerns

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

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ABOUT THE AUTHORS

Simon Henderson (/experts/simon-henderson)

Simon Henderson is the Baker fellow and director of the Bernstein Program on Gulf and Energy Policy at The Washington Institute, specializing in energy matters and the conservative Arab states of the Persian Gulf.

Brief Analysis

Headlines about increased stockpiles of enriched uranium are only half the story.

President-elect Joe Biden's team has indicated that he wants to return to the Joint Comprehensive Plan of Action and its numerous restrictions on Iran's nuclear activities once he takes office, but the latest report by the International Atomic Energy Agency shows that Tehran's program is moving ahead anyway. Even if the next administration does manage to reinstitute the JCPOA in some form, it will likely be a rather different accord.

A range of troubling issues surfaced in the latest quarterly report by the IAEA inspectors who monitor Iran's adherence to the 2015 JCPOA. These issues are partly a consequence of Tehran's 2019 decision to stop complying with certain limitations on its activities after the Trump administration announced its withdrawal from the accord.

Two issues stand out given the concerns they raise about potential nuclear weapons development: increased uranium enrichment and purification of plutonium from spent fuel. On the former, the report reveals that Iran's overall stockpile of enriched uranium is now 2,442.9 kilograms, almost twelve times the amount agreed to under the JCPOA. Worse, most of this stockpile has been enriched to 4.5 percent of the fissile isotope U-235—a significant step up from unenriched uranium along the path to possible weapons-grade material, and above the JCPOA limit of 3.67 percent. (For more on the technical significance of enrichment levels and isotope types, see The Washington Institute's Iran Nuclear Glossary **(https://www.washingtoninstitute.org/policy-analysis/view/nuclear-iran-a-glossary-of-terms)** .)

The report does not mention the mysterious explosion that devastated Iran's Natanz centrifuge assembly plant in July. The incident, widely attributed to an Israeli attack, is thought to have disrupted Iran's assembly of advanced IR-

2m centrifuges, which would allow it to enrich uranium even more quickly and efficiently. The absence of public information on the matter—the explosion was not mentioned in the September IAEA report either—indicates that Iran considers the incident to be security-related and therefore classified. It is unclear whether inspectors visited the damaged building.

Iran's known centrifuge facilities are the underground Fuel Enrichment Plant (FEP) and Pilot Fuel Enrichment Plant (PFEP), both at Natanz, and the Fordow plant buried deep inside a mountain. The regime has been transferring more advanced centrifuges to the FEP, though it still adheres to the JCPOA limit of 5,060 first-generation centrifuges (IR-1s) actually in use. Tehran also originally committed to the following JCPOA restriction: "For 15 years, the Natanz enrichment site will be the sole location for all of Iran's uranium enrichment related activities including safeguarded R&D." Last year, however, it dropped plans to convert Fordow to non-nuclear use and has been enriching uranium there ever since.

On the more challenging plutonium route to nuclear explosive material, the IAEA report states that Iran is not currently pursuing the original design construction of its heavy-water research reactor or reprocessing spent fuel at any declared facility. Yet it is still producing heavy water.

The report is littered with other concerns as well, in disturbing amounts that belie the almost anodyne manner in which the agency presents them. For example:

- "Iran has also continued to conduct certain enrichment activities that are not in line with its long-term enrichment and R&D enrichment plan…"
- "The Agency considered Iran's response to be unsatisfactory…"
- "The Agency informed Iran that it continues to consider Iran's response to be not technically credible…"
- "The composition of these isotopically altered particles [is] similar to particles found in Iran in the past, originating from imported centrifuge components…" (On this point, the report cites a past IAEA document revealing that the centrifuge components in question came from Pakistan, the source of Iran's IR-1 model and the provider of design information on which the IR-2m model is based.)

In sum, the report is very worrisome, especially because it came out two weeks after Iran revealed video of an elaborate tunnel network for missiles that are probably capable of carrying a nuclear warhead. Such missiles are not covered by the JCPOA, nor are Iran's numerous regional military involvements. The task facing the next administration in reaching an effectual new agreement with Tehran cannot be underestimated.

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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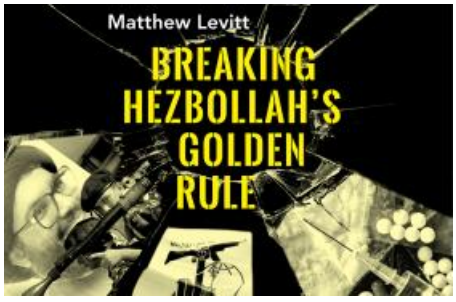

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