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Iranian Nuclear Safeguards Concerns and the Integrity of the IAEA Safeguards System

by Christopher A. Ford¹

In this issue of the ACIS papers, Assistant Secretary Ford discusses new evidence that has emerged suggesting the possible presence of undeclared nuclear material or activity in Iran, and what this information means, not just for Iran diplomacy but for the integrity of the global nuclear safeguards regime.

Over the last year and a half, many Iran nuclear-watchers have been preoccupied by the United States' maximum pressure campaign on Tehran, the Iranian regime's gradual repudiation of the nuclear limits imposed upon it by the Joint Comprehensive Plan of Action (JCPOA), and the gradual expansion of that country's fissile material production and stockpile. These are very important issues, and they highlight the growing proliferation threat from Tehran. Most observers, however, forget that Iran's expansion of its fissile material production capabilities and material stockpile was foreordained, and was in fact legitimized, under the JCPOA itself. Iran has merely sped up the clock on the expiration of many of the deal's temporary restrictions.

By its own terms, the JCPOA would *permit* Iran to do exactly what it is presently doing with its enrichment program, and more, in the coming years. None of the participants in the JCPOA have ever had a serious plan to deal with this problem, much less one that would involve actually pressuring Iran to accept enduring limits on its enrichment capacity. In fact, European diplomats staunchly resisted U.S. efforts to collaborate on such planning in late 2017 and early 2018, when Brian Hook – who is now the U.S. Special Representative for Iran – and I engaged in a long series of shuttle diplomacy engagements in hopes of securing such European cooperation. (After the Europeans' refusal to countenance placing long-term limits

on Iran's program, the United States moved to reimpose sanctions it had previously lifted or waived in connection with the JCPOA.)

Today, the United States remains committed to a diplomatic solution that meets this critical nonproliferation need. We have offered Iran the extraordinary step of full diplomatic normalization and sanctions relief if it abandons its range of provocative and destabilizing behaviors, and we are using every tool at our disposal to pressure the Iranian regime to come to the table. As committed as we are to a diplomatic solution, however, Tehran's ongoing and persistent refusal to cooperate fully with the International Atomic Energy Agency (IAEA) and to address questions about its possible undeclared nuclear material or activities doesn't exactly inspire confidence in Iran's ability to be a good-faith negotiating partner.

For many observers, the critical issue of Iran's compliance with IAEA safeguards – and its compliance with Article III of the Nuclear Nonproliferation Treaty (NPT), which requires every non-nuclear-weapon State Party to accept IAEA safeguards for the purpose of verifying the fulfillment of its NPT obligations – has been lost in the diplomatic and political noise that has surrounded the JCPOA's failures. While most pundits and foreign diplomats have been wringing their hands over JCPOA issues, worrisome new nuclear safeguards concerns have

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arisen in Iran for the first time in years. These recently reported Iranian safeguards issues deserve the world's attention: how they are handled will have huge implications not just in connection with the IAEA's "Iran file," but also for the future of the broader global nuclear safeguards system, the integrity of which is critical to international peace and security.

The issue of potential undeclared nuclear material or activities in Iran has special salience in light of the extraordinary "nuclear archive" of documents and data from Iran's former weapons program – information that the Iranian regime had secretly stashed away, but that Israel acquired in early 2018 and that the IAEA and nonproliferation experts in various countries are now analyzing. One also cannot forget that Iran has retained not just the records but also many of the scientists and technicians who were previously involved in its illegal weapons program, embedding them in an organization known by the acronym of SPND and a number of its known subordinate and affiliated entities, where they are still working on nuclear weapon-relevant dual-use technical activities. Furthermore, as we noted in the State Department's [2019 Compliance Report](#), Iran also still kept them working under the leadership of the same official who formerly ran the Iranian weapons program, Mohsen Fakhrizadeh.

Iran persists in denying that the archive even exists, while some have dismissed it as irrelevant ancient history. Others, however, have suggested that it represents a "shrink-wrapped" nuclear weapons program – inactive, but stored on the shelf, as it were – ready to be re-applied to actual weapons development and fabrication activity as soon as Supreme Leader Ali Khamenei chooses to give the order (such as when the expiration of JCPOA restrictions would have allowed Iran to accumulate enough suitably enriched material to move rapidly to fabricate a nuclear weapon). Determining what's really been going on will require full transparency and cooperation from Iran. In *this* context, the advent of new Iranian nuclear safeguards concerns suggesting the possible presence of undeclared nuclear material or activity, especially when coupled with the regime's gradual expansion of its fissile material production and stocks of enriched uranium, represents an enormous challenge for international peace and security.

I. The Safeguards System

The IAEA's global safeguards system was established more than six decades ago, inspired by President Dwight

Eisenhower's famous "Atoms for Peace" speech at the United Nations in 1953, and it has since been dedicated both to promoting the peaceful uses of nuclear energy and to ensuring that peaceful nuclear technology and materials are not diverted for military purposes – specifically, to the development of nuclear weapons. The system of IAEA safeguards has always been critical to this endeavor.

IAEA safeguards originated in connection with the emerging trade in nuclear technology that developed in the 1950s and 1960s in order to increase supplier states' confidence that the nuclear technology they provided was not diverted to support nuclear weapons programs. As time has gone by, the IAEA and its Member States have incorporated lessons learned from real-life experience with proliferation challenges in order to make the safeguards system ever more effective. That system took on a new global significance in early 1970 after the entry into force of the NPT, which requires all NPT Parties that are non-nuclear-weapon states to accept IAEA safeguards on all nuclear material in peaceful activities in their states. After discoveries about the secret nuclear weapons program undertaken by Saddam Hussein in Iraq before the 1991 Gulf War, the IAEA undertook strengthening measures to provide improved IAEA verification authorities vis-à-vis ensuring the absence of *undeclared* material and facilities.

Today, with its state of the art and *de facto* global standard represented by a combination of a Comprehensive Safeguards Agreement (CSA) and the Additional Protocol (AP) to that agreement, the IAEA safeguards system is of unsurpassed importance to monitoring nuclear activities worldwide and helping ensure that nuclear material and technology is not secretly in use for nuclear weapons work. This is what makes the current Iranian safeguards issues so worrisome, for a threat to the safeguards system anywhere is a threat to the safeguards system everywhere, especially when that threat comes from a country with Iran's woeful record over multiple decades of secretly undertaking nuclear weapons work and hiding nuclear material and activities from the IAEA.

Today, the IAEA is continuing its vital worldwide safeguards missions in the face of unprecedented challenges from the COVID-19 pandemic, which has required special focus on protective equipment to keep inspectors safe and involved the navigation of international travel quarantine policies and transportation restrictions. The United States is working closely with the IAEA, to include providing important financial assistance, to ensure

that the Agency can continue this crucial work around the world even in the present time of crisis.

When it comes to Iran, however, the biggest threat to the safeguards system is the regime in Tehran itself, which seems to be once again – or perhaps more accurately, *still* – hiding information from the IAEA. This is important not only on account of the obvious proliferation risks that continued Iranian deception helps perpetuate, but also because such deception precludes the transparency and verification that is essential to the comprehensive diplomatic solution with Iran that we continue to seek.

II. New Iranian Safeguards Problems

The first *public* signs that new safeguards difficulties had arisen in Iran came in August 2019, at which point the IAEA reported to its Board of Governors that it was seeking cooperation from Iran on unspecified matters of concern related to Iran's implementation of its CSA and AP. The world learned more details in November 2019, at which point it emerged that the Agency had detected uranium particles of anthropogenic origin (*i.e.*, originating from human activity) at a location in Iran that it had not declared to the Agency. This was reported to the IAEA's Board of Governors at a special session for that purpose on November 7, followed by a brief write-up of the matter in the IAEA's quarterly report on Iran.

In fact, however, this latest saga of Iranian safeguards deception had begun much earlier. The IAEA inspectors found these man-modified uranium particles in environmental samples collected in February 2019 during a complementary access visit at a location that Iran had not declared to the Agency. For that complementary access to have occurred, the Agency's investigation had to have actually begun earlier – perhaps in late 2018, after public allegations surfaced that Iran had been hiding material and equipment at a site in Tehran called Turqzabad, only three miles from where the infamous “nuclear archive” had been stored.

While the IAEA continues to evaluate Iran's latest explanation for the presence of these uranium particles, it is both worrying and very telling that well over a year into the Agency's investigation into this location – and despite multiple letters of inquiry and senior-level visits from the IAEA – Iran has thus far *still* proven unable or unwilling to conclusively answer the Agency's questions about the activities that occurred there, the origin and presence of those particles at this location, and the current

whereabouts of any contaminated items that may have been their source. Iran has told a shifting, inconsistent, and incoherent array of stories to explain these sample results in some way that *doesn't* involve there potentially being nuclear material and activities still hidden in Iran. But it has failed thus far. And so the Agency's investigation continues. *For well over a year.*

At present, in part because Iran has refused to cooperate honestly with the IAEA, it is impossible to assess how much nuclear material, if any, may have been previously present at that site and is now unaccounted for. Unexplained evidence of chemically processed uranium is a central concern of the IAEA safeguards system, of course, since it potentially indicates not just activities in violation of safeguards required under Article III of the NPT, but possibly even activities in violation of Article II, the Treaty's central prohibition upon manufacturing or otherwise acquiring nuclear weapons.

And as disturbing as this is, it is rather remarkably *not* the only safeguards question the IAEA is now investigating. The first signs of additional issues began to appear in late 2019, but the world officially learned of more Iranian safeguards problems in March 2020, when IAEA Director General Grossi reported to the Board of Governors that Iran is also stonewalling the IAEA on *new* questions that have arisen about possible undeclared nuclear material or activities at *three additional locations* in Iran. Moreover, the regime in Tehran seems to have denied IAEA access to two of those sites while, as the United States noted during the Board proceedings, reportedly undertaking activities that look like sanitization – that is, the active concealment and removal of things that might allow Agency inspectors to ascertain what had been going on there. This is apparently the first case of Iran refusing verification required under the Additional Protocol. As the Director General put in recently, “This is a case of denial of access under the Additional Protocol. We never had a thing like this before.”

Many IAEA Member States recognized the gravity of the situation, speaking forcefully at the March meeting of the Board of Governors to urge Iran to improve its cooperation with the IAEA. However, it is amazing that all this Iranian obstruction of the IAEA has not received more public attention. This is the first time since the 2015 adoption of the JCPOA that questions have arisen about Iran's compliance with its IAEA safeguards obligations and potentially also Article III of the NPT. Set in the context of Iran's gradual expansion of its nuclear capabilities, its

retention of the “nuclear archive” information, and its maintenance for so long of a cadre of ready-to-reemploy experts on nuclear weapon-related technologies under Mr. Fakhrizadeh that we publicly described in the 2019 Compliance Report, this new evidence of potential undeclared material or activity and signs of Iranian safeguards deception deserves full-throated condemnation from everyone who cares about nonproliferation and the integrity of the global nuclear safeguards system.

This new evidence of safeguards concerns in Iran suggests that the Iranian regime has returned to its well-trodden prior path of nuclear lies, obstruction, and safeguards non-compliance. As the [IAEA itself summarized as early as 2003](#),

“it is clear that Iran has failed in a number of instances over an extended period of time to meet its obligations under its Safeguards Agreement with respect to the reporting of nuclear material and its processing and its use, as well as the declaration of facilities where such material has been processed and stored.”

This activity included things that in light of the current problems will sound depressingly familiar: IAEA evidence of and concerns about undeclared material, followed by a parade of convoluted and unconvincing Iranian pseudo-explanations that serve to kill time while denials of inspector access permit sites to be sanitized and evidence to be hidden.

To be sure, Iran’s sanitation efforts while delaying or refusing inspector access failed to conceal evidence from the IAEA at the Kalaye Electric facility in 2003, but they were more successful in removing signs of the previously extant facility at Lavisan-Shian and Parchin, in 2004 and 2015 respectively, before the IAEA was able to obtain samples at the sites. Recent events suggest that Iran has not stopped using this playbook.

What *is* new today that was at least somewhat less clear on the public record in the early 2000s when those Iranian safeguards violations first surfaced, however, is that we all understand the context much better. This context situates Iran’s pursuit of uranium enrichment capability at that time as the *sine qua non* engine for its past secret and illegal nuclear weapons program, which stretched all the way back to Iran’s first steps to obtain centrifuge technology from the Pakistani nuclear weapon scientist A.Q. Khan in the 1980s. As the [IAEA reported in 2015](#),

“a range of activities relevant to the development of a nuclear explosive device were conducted in Iran prior to the end of 2003 as a coordinated effort, and some activities took place after 2003.”

Thanks to revelations about the previously-secret “nuclear archive” acquired by Israel, even more is now publicly known about this Iranian nuclear weapons program, and about how disturbingly far this effort progressed before Tehran prudently suspended it under threat of U.S.-led United Nations sanctions – and perhaps more – in 2003. In light of what can now be seen in the “nuclear archive” about the nature and extent of Iran’s previous nuclear weapons effort, it is clear that Iran’s acknowledgments under the IAEA’s “roadmap” for addressing outstanding issues related to the Possible Military Dimensions of Iran’s nuclear program were grossly incomplete.

The new safeguards issues that have arisen demonstrate that significant questions still remain about what nuclear materials, equipment, and information from Iran’s past illegal nuclear weapons program remain hidden in Iran. It is possible that any such hidden nuclear material could contribute to renewed weapons R&D, should the Iranian regime make a decision to pursue such efforts, even if the quantity is “small” or the material is “old.” Investigating evidence of potential undeclared nuclear material is the core mission of IAEA safeguards inspectors. Iranian deception, denials, and non-cooperation in the face of such evidence and in reply to Agency access requests must be viewed with the gravest concern.

III. A Diplomatic Challenge

All of this presents a serious diplomatic challenge for the entire international community. If Iran is allowed to refuse the IAEA access to which it is legally entitled, much less to continue doing so for *months* without repercussions, a dangerous message may be sent to all other states with safeguards obligations that those obligations are, in effect, optional. Therefore, irrespective of one’s feelings about contentious JCPOA-related issues, no serious person should be unconcerned about these emerging Iranian safeguards challenges and the context in which they are embedded.

As I have long lamented in both [public](#) and [private](#) capacity, the international community has a history of overcoming its collective action problems and responding to Iranian proliferation challenges more slowly than the

rate at which such Iranian provocations have themselves developed. But the nations of the world can do better, and the current safeguards problems that have arisen in Iran provide a chance to do so. These problems must therefore not be ignored, no matter how politically inconvenient they may be for the JCPOA's most ardent defenders. It is imperative that all countries join in insisting that Iran change course and start cooperating fully and completely with the IAEA in order to resolve all these concerns.

And despite these challenges, there does remain a viable path forward to a peaceful and equitable solution with Iran. As Secretary Pompeo has long made clear, and as I and others have echoed, we believe it possible, and indeed highly desirable, to reach a negotiated settlement that imposes enduring constraints on Iran's nuclear program, and that reins in a range of malign Iranian behaviors that imperil regional peace and security. In return, we are willing to offer the Islamic Republic of Iran what no U.S. Administration ever has before: full normalization of diplomatic relations, including the exchange of Ambassadors, and full sanctions relief, if it agrees to a comprehensive deal.

This is no pipe dream. Indeed, I would think that the Iranian regime today – crippled by U.S. sanctions and its own corruption and economic incompetence, feared and detested by so many of its own people, bankrupting itself on foreign adventurism and destabilizing and costly missile proliferation, and now suffering tremendously from the COVID-19 pandemic – has every reason to sit down with us to work out such an answer.

What no one needs – including Iran – is for safeguards concerns to linger and complicate this diplomatic challenge still further. For the sake of keeping alive the possibility of a diplomatic solution, for the sake of the integrity of the safeguards system, and for the sake of international peace and security, Iran must immediately come clean and truly cooperate with the IAEA. If Iran continues to refuse, the international community must stand shoulder-to-shoulder in support of the IAEA, including by imposing renewed international sanctions until Tehran provides such cooperation and finally establishes the basis for international confidence that Iran is no longer preserving elements of its past nuclear weapons program.

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