

US House of Representatives Committee on Foreign Affairs:
Iran and Syria: Next Steps

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Chairwoman Ros-Lehtinen, Congressman Berman, distinguished members of the Committee, thank you for inviting me back to address this hearing on “Iran and Syria : Next Steps”.

In my short testimony today, I will focus on the nuclear dossiers of Iran and Syria. I intend to provide a snapshot of where the nuclear programs of Iran and Syria currently stand and highlight some key implications.

Let me begin by drawing on a few commonalities the two nuclear programs share. Both Iran and Syria have reneged on their nuclear non-proliferation commitments, and both have been found non-compliant with their safeguards agreements. Iran and Syria have obfuscated rather than shed light on their nuclear activities. They have engaged in a policy of concealment, limited cooperation, and stonewalling. They have disregarded requests and resolutions imposed on their respective nuclear programs. They have bought time. They have brazenly challenged the nuclear non-proliferation regime. They continue to face increasing international censure.

I shall now address the Iran and Syria cases respectively.

Iran’s nuclear program is disturbingly much further down the road today than when it was first brought before the International Atomic Energy Agency (IAEA) Board of Governors in 2003. Prior to this, Iran had already engaged in clandestine nuclear activities for close to two decades. We should not forget the long history and shroud of secrecy that continues to give serious concerns and raise unanswered questions. For the purpose of this testimony, I will use the benchmark of 2003 when the Iranian nuclear program was exposed and brought before the international community. Since then, despite numerous rounds of IAEA and UN

Security Council resolutions, Iran has continued to close the gap in reaching nuclear weapons capability.

In 2003, Iran had an enrichment plant in Natanz under construction, and had secretly conducted small scale uranium enrichment tests. The Arak heavy water reactor project was announced by Iran in late 2003, to serve as a replacement for its aging Tehran Research Reactor (TRR).

Today, Iran's Natanz plant is a fully functioning industrial-sized enrichment facility with 8000 installed IR-1 centrifuges. Since 2007, the Natanz plant has produced a total of 4100 kg (9050 pounds) of low enriched (3.5 % U-235) uranium hexafluoride or UF₆, a chemical form of uranium that is used during the uranium enrichment process. Since February 2010, Iran began enriching uranium to a higher level, at 20 % U-235¹. Two weeks ago in early June, Mr. F. Abbasi Davani, the new Head of the Iranian Atomic Energy Organization, announced that Iran will transfer its production of 20 % enriched uranium from Natanz to another facility in Fordow, near Qom², where it plans to triple production. The Fordow facility was an installation which Iran had built in secrecy without informing the IAEA until Iran was presented with evidence of its construction in September 2009³. In addition, Iran has announced that it would be constructing up to 10 new enrichment sites in the coming years, but has not provided details about its plans nor locations.

The significance of the above is several-fold. First, enriching uranium to 20% U-235 dramatically closes the step to producing high-enriched uranium, both in terms of the necessary technology mastered as well as the time needed to convert the UF₆ to bomb-grade material⁴. Second, the current stockpile of 20% enriched UF₆ at 56.7 kg (125 pounds) is set to increase at a faster rate if production triples as stated by Iran. That means that by the end of 2012 Iran can be expected to possess a 250 kg (550 pounds) stock of 20 % enriched UF₆⁵. Given current production rates⁶, Iran would have been able to produce a total of 7000-8000 kg (15400-17600 pounds) of low enriched UF₆ by end 2012. The stocks of enriched uranium, by the end of 2012, would be sufficient to produce 125-150 kg (275-330 pounds) high enriched uranium metal, if further enriched and converted.

Third, Iran's engagement in a wide range of related activities including: increasing uranium stockpiles, enlarging its enrichment capacity, and building more nuclear

facilities, demonstrate the comprehensive scope of its nuclear program. Iran's military related efforts such as studies on: special neutron sources not known to have civilian applications, high explosives with precise timing, and missile re-entry vehicle design; alongside procurement, design and manufacturing of nuclear related equipment by military entities; add a dangerous dimension. Fourth, concerns over the scope and nature of Iran's nuclear program are compounded by the fact that the jury is still out on whether all of Iran's nuclear activities are accounted for and are peaceful. The possibility of secret nuclear facilities existing in parallel, present a deeply troubling scenario.

Concerns over possible military dimensions to Iran's nuclear program continue to persist with emerging and remaining unresolved questions in this area. In spite of economical, technological and political difficulties faced, it appears that Iran is determined to, at the very least, achieve a "virtual nuclear weapon state" capability, or in other words be in a position to build a nuclear device, if it so decides. Based on present output capacity at Natanz and barring stops or slowdowns, Iran is able to generate sufficient amounts of fissile material at minimum for a nuclear device, sometime in 2012. Iran is also separately moving ahead, albeit with delay, on its heavy water reactor program that will enable production of weapons' grade plutonium sufficient for one nuclear device annually from 2014 onwards.

Syria is another case that challenges the non-proliferation regime. Syria's nuclear dossier was brought before the IAEA in 2007 when a facility in Dair Alzour, suspected to house a clandestine nuclear reactor, was destroyed by aerial bombing. The site infrastructure; characteristics of the building captured by satellite imagery before and after its destruction; procurement information; evidence of man-made uranium particles obtained from samples taken from the site during the IAEA's sole inspection visit to Dair Alzour granted by Syria under restricted parameters in June 2008; all pointed in the direction that the destroyed facility had a reactor design similar to that of a 5 MWe nuclear reactor built by the DPRK in Yongbyon.

Today, we are faced with a greater challenge to shed light on the Syrian reactor. Syrian authorities have literally covered up evidence in the immediate aftermath of the bombing by pouring concrete over the site and erecting a new building in its place. Apart from the one mentioned visit, Syria has refused to allow inspectors back to the Dair Alzour site.

So what can we make of the nuclear programs of Iran and Syria today?

We see Iran moving in the direction of becoming a nuclear weapons' capable state. As Iran continues to stockpile 20% enriched uranium and increase its enrichment capabilities, we have conversely come to know less about the scope and content of Iran's nuclear program. It has been several years since Iran has stopped implemented the Additional Protocol. Nor does Iran provide early information about the construction of new facilities which it is required under its current safeguards subsidiary arrangements. Iran continues to refuse to address questions on the military dimensions of its nuclear program. Iran has developed an ambitious nuclear program that is diffused in the nature of its distribution of sites and coordinated in its approach to achieve the capacity to field a nuclear arsenal. Its actions bear witness to a regime that intends to stay on this path.

Questions also remain concerning Syria's nuclear program. Was the destroyed reactor built at the Dair Alzour site the only clandestine nuclear facility in the country? Are the uranium particles found in Damascus and at Dair Alzour a sign of more substantial activities yet to be uncovered? Does Syria possess ready fuel for the reactor either in stock or in production? What was the nature and extent of the nuclear ties between Syria and the DPRK, and between Syria and Pakistan? Were there other players involved? The Dair Alzour reactor does not exist any longer, but the IAEA has to ensure that all nuclear material in Syria is declared and is in peaceful activities and therefore requires full cooperation and access from Syria.

When we look at the nuclear paths taken by both Iran and Syria, we need to address the serious challenges these countries pose in setting a bad precedent for potential future proliferators. Their actions continue to challenge international institutions. Their unwillingness to international requests to 'come clean' with their nuclear programs and threat to nuclear proliferation, have increased the stakes of the peaceful pursuit of nuclear energy. Instead of supporting the rights of nuclear energy for peaceful purposes that both Iran and Syria claims to defend, their actions have conversely complicated nuclear energy pursuit. Their actions reinforce the need to underscore the price to pay for rule-breakers as opposed to those that abide by their non-proliferation commitments.

Both the Iranian and Syrian nuclear dossiers have been referred to the United Nations Security Council. Iran is faced with increasing rounds of sanctions that

emphasize the cost of disregarding international resolutions. At the same time, both countries are given the opportunity to clear outstanding questions, walk a different route on their nuclear programs, and walk back the punitive measures imposed. Their refusal to do so must be accompanied by further international resolve on consequences for such actions. The international community needs to understand that its role in emphasizing the costliness of Iran and Syria's intransigence is also instrumental in shaping decision outcomes taken by these two countries. Nations should also play their part to uphold robust non-proliferation standards. In this regard, subsequent UN Security Council resolutions would benefit from provisions that would oblige member states to provide information relating to proliferation activities and nuclear programs of the two countries. It is important that the Security Council reinforces the IAEA's request for full and unimpeded access to all relevant information including claimed military sites or personnel.

When it comes to technical assessments made on pronouncing on the verdict of nuclear programs, it has to be done in an extensive and comprehensive manner that provides the best assurances required under safeguards. That standard cannot be compromised nor should it be blindsided by adjusting timetables to suit last minute promises of cooperation that are not backed up by serious follow-throughs. In the case of Syria, the IAEA should have used all inspection rights it has, including the special inspection. The special inspection option should still be pursued, or the UN Security Council could also choose to provide wider authorities to the IAEA.

The objective is ultimately to prevent the diversion of nuclear energy to nuclear weapons. Iran and Syria must be encouraged to turn a different path on their nuclear programs. This includes employing a range of tools that offer incentives and disincentives, persuasion and dissuasion. Both tracks need to be pursued as a realistic way forward. Iran and Syria must understand that they bear responsibility for the choices they make, and the consequences generated.

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¹ Iran has stated that its actual enrichment output is slightly below 20 % U-235, i.e. 19.75 U-235.

² Mr. Abbasi Davani said also that the Fordow facility will use more advanced centrifuges without specifying its type. Iran has tested more advanced centrifuges at a pilot plant in Natanz.

³ Until the announcement of Mr. Abbasi Davani, Iran has said that the Fordow facility will enrich uranium up to 5 % U-235.

⁴ To produce weapons grade uranium (90 % U-235), achieving 20 % U-235 level will in practice already accomplish 90 % of the overall enrichment work required.

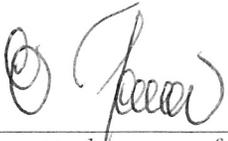
⁵ The pilot plant at Natanz has over the past few months produced 20 % enriched UF₆ at 3.9 kg (8.6 pounds) per month.

⁶ The enrichment plant at Natanz has over the past few months produced 3.5 % enriched UF₆ at 156 kg (340 pounds) per month, when operating at a capacity of 5820 out of the full 8000 centrifuges installed.

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3. Date of Committee hearing: 23 JUNE 2011	
4. Have <u>you</u> received any Federal grants or contracts (including any subgrants and subcontracts) since October 1, 2008 related to the subject on which you have been invited to testify? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Have any of the <u>organizations you are representing</u> received any Federal grants or contracts (including any subgrants and subcontracts) since October 1, 2008 related to the subject on which you have been invited to testify? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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