

The Path towards Strengthened Safeguards: Experiences in Iraq, South Africa, and North Korea

This video series is a collection of dialogues centered on the immense role played by the IAEA, and in particular how the Agency supports nuclear nonproliferation through the practice of safeguards. This current update is a chronicle of events during the 1990s, Iraq, South Africa, and North Korea, that led to the development of the Additional Protocol.

7.3 Experiences in Iraq, South Africa and DPRK

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Rich: The experiences in Iraq, SA and DPRK... In Iraq it became absolutely clear that no set of proposals for strengthened safeguards made any sense if they didn't include steps to make sure - to provide a high level of assurance - of the absence of undeclared activities at declared locations, at places that the Agency knew about. Now, the reason that Iraq pointed so much to the importance of that, is that all elements of the Iraqi nuclear weapons program had their beginnings at Tuwaitha, the nuclear research center south of Baghdad. Of course this was a location that the Agency knew about. Agency's access prior to the UNSCR 687 inspections was limited to four specific locations at Tuwaitha. There was the IRT-6000 reactor, a zero power so-called Osirak-2 reactor, an away-from-reactor fresh fuel store, and a very small pilot fuel fabrication facility. Those were the four specific locations inspectors had access to. And this was a huge place with hundreds of buildings.

In 1981, the Israelis destroyed with aerial bombardment a large 40 MW Osirak 1 reactor that the French were building there. They did so believing that it was the Iraqi intention to use that reactor to produce Pu for a weapons program. The Iraqi response to this was to build two amazing things – an earthen berm around the whole huge research complex, so when you approach Tuwaitha, the first thing you see is this huge 30-35 meter high berm that surrounds the place. There were military kinds of installations on top of it, like anti-aircraft guns and other sorts of things. Then, surrounding the whole of Tuwaitha¹ was a set of concentric towers with wires strung between them. All of this was intended for, if the Israeli attack came in very low, that it was intended to keep that from happening again. It really is quite a sight the first time you come there. Those Iraqi can move some dirt I tell you.

But the Iraqi inspection experience was formative in development of strengthened safeguards in a variety of ways. I've already mentioned the importance of assuring the absence of undeclared nuclear material at declared locations. There was a tremendous amount of equipment that supported their clandestine nuclear program. Much of this equipment was dual-use, but not all. And so it certainly taught the lesson of Iraq – if you're going to pay attention to the completeness of their nuclear material declaration, you need to pay attention to their procurement kinds of activities and the kinds of equipment they're trying to get their hands on. The importance of access to individuals – to be able to talk to people that were involved in the program, certainly that was another major lesson in Iraq.

¹ <http://isis-online.org/isis-reports/detail/development-of-the-al-tuwaitha-site-what-if-the-public-or-the-iaea-had-over/9#images>