

Libya Adds New Pieces to Its Nuclear History

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The International Atomic Energy Agency (IAEA) issued a report Sept. 12 indicating that Libya did not provide a full picture of its past nuclear fuel cycle procurement efforts following its renunciation of nonconventional weapons in December 2003. The omissions, however, did not point to any attempt to maintain a weapons-related capability and were only important for uncovering the timeline of Libya's contacts with the nuclear smuggling network led by Pakistani nuclear official Abdul Qadeer Khan and other avenues Tripoli pursued to obtain nuclear weapons.

Indeed, the agency has concluded its investigations into Libya's former nuclear weapons programs. IAEA Director-General Mohamed ElBaradei stated in a Sept. 22 statement to the agency's 35-member Board of Governors on the status of verification efforts that the IAEA "is now able to implement safeguards in Libya in a routine manner."

Heralding Libya's reversal on its nonconventional weapons programs as a model to be followed by other countries, Secretary of State Condoleezza Rice met with Libyan leader Moammar Gaddafi Sept. 5. She told reporters the same day that the shift in U.S.-Libyan relations "demonstrates that when countries are prepared to make strategic changes in direction, the United States is prepared to respond." She was the first secretary of state to visit Tripoli since 1953.

Libya Provides New Information on Procurement

The Sept. 12 report suggests that Libya initially did not fully disclose to the agency all of its procurement efforts for technology needed to develop nuclear weapons. It states that, since the agency's last report on Libya's nuclear programs in August 2004, the IAEA received "additional information" regarding Libya's efforts to acquire fuel cycle technology. Specifically, this additional information related to efforts by Libya to obtain gas centrifuge technology for uranium enrichment earlier than it had previously admitted and design information it received related to nuclear fuel fabrication and plutonium reprocessing.

Uranium enrichment and spent fuel reprocessing are the two paths that might be taken to develop a nuclear weapon. Uranium enrichment increases the concentration of the fissile isotope uranium-235 in uranium hexafluoride gas to low levels to power a nuclear reactor or high levels for potential weapons purposes. Reprocessing allows the separation of plutonium from spent nuclear fuel for use in nuclear weapons or reactors.

Although the remaining elements of Tripoli's nuclear program were dismantled and removed by the United Kingdom and the United States in 2004, the IAEA has continued its efforts to piece together the history of Libya's clandestine nuclear acquisition efforts.

Earlier Contacts With Khan Network

In regard to Tripoli's centrifuge procurement efforts, the agency highlights that Libya's contact with the Khan nuclear smuggling network began about a decade earlier than previously admitted. According to a February 2004 IAEA report, Libya initially told the agency that it made a decision in

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1995 to “reinvigorate” its nuclear activities and pursue a uranium-enrichment program with Khan’s assistance.

After the agency received information from members of the Khan network that did not coincide with Libya’s explanations, Libya provided an updated timeline in 2007 and 2008 of its uranium-enrichment procurement efforts. Tripoli admitted that it established contact with Khan in 1984, who offered to sell Libya gas centrifuge technology. Libya told the agency that, at that time, Tripoli felt that it did not have the scientific and industrial capacity to pursue a uranium-enrichment program and did not pursue a deal with Khan.

Libya held discussions with Khan again between 1989 and 1991, which led to an agreement for the transfer of P-1 centrifuge technology from Pakistan. The P-1 centrifuge design developed by Khan was based on a design by the European nuclear conglomerate URENCO, where Khan was once employed during the 1970s. According to the report, Libya ultimately decided to opt out of a deal for the delivery of complete centrifuges, believing that “the information provided by Mr. Khan was not commensurate with what Libya paid for it.” Khan also sold the P-1 centrifuge to Iran for its uranium-enrichment program (see page 33).

It was not until 1995, the original date Libya cited as its contacts with Khan, that Libya concluded deals with Khan that resulted in the delivery of centrifuge technology.

Libya Received Reprocessing Plant Designs

In addition to discussing Libya’s earlier contacts with the Khan network, the report notes that during the mid-1980s Tripoli acquired German-origin microfiche documents providing “a substantial amount of design information” regarding a fuel fabrication lab, reprocessing facilities, and a nuclear waste treatment plant.

The documents referenced the engineering companies that carried out the design work. Staff from the companies involved told the IAEA that the engineers on the design projects were told that their work was secret and that the facilities were intended for a “hot and dry climate.” A senior official close to the IAEA confirmed during a Sept. 15 background briefing that the companies involved were German.

Libya claimed that it never received any equipment in connection with the facility designs. The agency’s findings were consistent with Libya’s claim.

However, the IAEA did express concern that some related documentation was missing. The agency assessed that the documentation in the microfiches left out information “related to core and sensitive parts of the projects,” stating that it will continue to investigate the matter “in Libya and elsewhere in a more routine manner.”

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