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United States Department of State

Washington, D.C. 20520

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MEMORANDUM FOR MR. WILLIAM F. SITTMANN

SUBJECT:

Algerian Nuclear Program

Pursuant to your memorandum of April 25, the Nuclear Sub-PCC of the PCC on Non-Proliferation met to evaluate available information on the Algerian nuclear program and discuss options for dealing with it. An analysis of the Algerian program and a description of the options that the USG is pursuing and considering is attached.

J. Stapleton Roy Executive Secretary

Attachment:

As Stated.

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UNITED STATES DEPARTMENT OF STATE REVIEW AUTHORITY: DONALD A JOHNSTON DATE/CASE ID: 20 APR 2004 200102166

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The Algerian Nuclear Program: Analysis Objectives and Options

The Algerian Program

Algeria's nuclear program is fairly rudimentary. The first of central facilities are two research reactors. these, supplied by Argentina and operational since 1989, is a 1 megawatt (thermal) research reactor located on the southwestern outskirts of Algiers. It is subject to IAEA safeguards.

The second reactor -- the focus of current concern -- is located near Ain Oussera, approximately 130 kilometers south of Algiers, and is in a mid-to-late stage of construction. being built with Chinese assistance under a 1983 agreement for cooperation between China and Algeria. Both China and Algeria have publicly described it as a 15 MW heavy-water, low enriched uranium-fueled research reactor to be used for basic research and radioisotope production. Ground work for the reactor had begun by April 1988, with building construction beginning in 1989. By early 1991 the reactor building, which is similar to a number of early generation reactor buildings, was nearing external completion. Based on the rate of construction united States Department

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encountered in equipment installation and start-up, the reactor could be operational by mid-1992. There is also a deep, heavy-walled facility under construction at the reactor site that appears suited to provide options for a future reprocessing capability, waste storage, or research applications such as recovery of radioisotopes. The site was defended by AAA and early warning radar from mid-January to mid-March 1991.

At the present

A 15 mw (thermal) low enriched

uranium-fueled reactor would be consistent with Algeria's stated plans to use it for research and radioisotope production. Use of low-enriched uranium fuel (3 percent) would reduce or complicate the reactor's potential to produce fissile material. However, the cooling towers at the site appear adequate to support operation of a substantially large reactor, possibly up to 50 MWT.

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In response to U.S. inquiries, senior Algerian government officials have said that they have no plans to develop a nuclear weapons capability, that Algeria is pursuing nuclear research for purely peaceful purposes, and that the Ain Oussera reactor in particular is purely for peaceful purposes. Algeria has also said that it intends to approach the IAEA to discuss application of safeguards to the reactor. On the other hand, recent press reporting in Algiers makes it clear that at least some major political parties in Algeria favor the development of a nuclear weapons capability. If Algeria were to embark on a nuclear weapons development program, we judge that it would require significant foreign assistance.

U.S. Objectives and Options

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The fundamental U.S. objective is to ensure that Algeria's nuclear program is devoted exclusively to peaceful uses and will be fully subject to IAEA safeguards. To this end we have encouraged Algeria: (1) To begin consultations with the IAEA as soon as possible to ensure that safeguards are applied to the Ain Oussera reactor promptly; (2) to take additional steps to ensure that its entire nuclear program is peaceful in nature and fully subject to international safeguards; and (3) to adhere to the NPT as a tangible demonstration of its commitment to the peaceful uses of nuclear energy and a





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willingness to submit all its nuclear facilities to international safeguards.

The U.S. has also encouraged the IAEA to offer to visit the Ain Oussera facility well before its completion.

With respect to specific proposals for alternative measures (other than, or in addition to, safeguards) that may be necessary to deal with Algeria's nuclear program, the Department of Defense has circulated a paper proposing that, if the Algerian reactor turns out to be larger than 15mwt,

This proposal will be addressed by a PCC in due course.

To reinforce direct U.S. diplomatic pressure on Algeria (and China), we have sought to enlist seven other countries -France, the UK, Germany, Italy, Spain, Portugal and Japan -- to exert influence on Algeria to ensure that the Algerian nuclear program is devoted exclusively to peaceful purposes and is fully safeguarded, and to encourage Algeria to begin safeguards discussions with the IAEA as soon as possible to dispel any concerns about Algeria's nuclear intentions.



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A subsidiary-U.S. objective is to develop additional information regarding Algeria's nuclear capabilities and intentions. We have approached the seven countries noted above with information currently available to us and have requested that they supplement it to whatever extent possible. We have made these approaches in diplomatic channels and, in parallel, in intelligence channels.