Q: 1. Nature of the Nuclear Reactor. Please describe in detail the nuclear reactor being built in Algeria that the Chinese and Algerians say is for peaceful purposes, focusing on the size of the reactor, the location of the reactor, the type of fuel used by the reactor, the presence or absence of a reprocessing facility, the presence or absence of power lines, and the expected completion date of the reactor.

A: The nuclear reactor under construction is located approximately 130 kilometers south of Algiers near Ain Oussera and is being built by China pursuant to a Sino/Algerian nuclear cooperation agreement. However, actual construction activity at the reactor site did not begin until April 1988. Building construction began 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, the reactor could be operational by mid-1992, assuming fuel is available and no problems are encountered in equipment installation and start-up.

Algeria and China have publicly stated that the facility under construction is a 15 megawatt heavy water research reactor that will be fueled with low enriched uranium and that it is to be used for basic research and radioisotope production. This is consistent with our understanding of
the original design specifications of the reactor.

Cooling towers at the site appear adequate to support operation of a substantially larger reactor, possibly up to 50 MWe. A 50 MWe reactor—depending on the type of fuel used—would be able to produce a significant amount of plutonium in its spent fuel (i.e., enough for at least one device per year). We are seeking to acquire details on why a 15 MW reactor would require such apparently large cooling towers. We have asked Algiers and Beijing for further information about their cooperation and about the reactor and related facilities. We understand that both parties are providing additional information to the International Atomic Energy Agency (IAEA) in support of the application of IAEA safeguards to the reactor.

believe a 15 MW reactor would be consistent with a research and radioisotope production role. We do not believe the reactor is intended to

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generate electricity. There are no turbine buildings, transformers or an electrical substation at the site.

With respect to other facilities at the reactor site, there is a deep, heavy-walled facility under construction that appears suited for high-level radioactive waste storage. Such a facility would be needed if Algeria chose to develop a reprocessing capability.
Casey Hearings
Senator Biden Question: Nuclear Reactor Issue

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Q: Funds for the Reactor. Please provide the Committee with a rough estimate of the cost of this reactor and your assessment of whether Algeria acted alone in procuring this reactor.

A: I believe it would be at least several tens of millions of dollars. We cannot rule out the possibility that China may have inflated the actual cost of the facility in order to enhance the hard currency profit that would accrue. We believe that negotiations for the reactor were conducted with China solely by Algerian officials and have no reason to believe that Algiers sought support from other governments or entities in these exchanges.
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