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MEMORANDUM FOR MR. DENIS CLIFT
OFFICE OF THE VICE PRESIDENT

Subject: South African Nuclear Development --
New York Times Comment

You asked for an assessment of John Burns' April 30 article in the New York Times on South African intentions to build nuclear weapons. I am attaching a memorandum prepared by the Bureau of Intelligence and Research on this subject.

Peter Tarnoff

Attachment:

As stated:

Drafted: S/S:FWisner:babs
5-3-77/23126

NODIS REVIEW	
Cal. A -	Caption removed, transferred to O/FADRC
Cal. B -	Transferred to O/FADRC with additional access controlled by S/S
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Reviewed by:	Elijah Kelly Jr.
Date:	5-7-86

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New York Times Article on South African
Nuclear Developments

The article by John Burns in the April 30th New York Times reports that a "growing number of analysts" believe that South Africa intends to build nuclear weapons and that the pilot enrichment plant at Valindaba (near Pretoria) is producing "weapons-grade" (highly enriched) uranium. According to the article, South African officials acknowledge that the pilot plant could be used to produce such material but maintain that a weapons program would require a "much bigger" plant than even the commercial facility that is scheduled for completion in 1986--which itself will be an order of magnitude larger than the Valindaba facility.

The Valindaba plant is currently in operation. We have only limited information about its capabilities but believe that it could produce enough highly enriched uranium to sustain a small nuclear weapons program. We estimate that the plant could be adapted to produce enough material for a weapon in a few months of operations--i.e., in less time than we estimate would be required to complete the design of an explosive device and related research.

The plant is not subject to international safeguards. The South Africans have indicated that they have no intention of submitting it to inspection even though they have said that they intend to allow international inspection at the planned commercial-scale plant.

Although there have been rumors over the last few years of a South African nuclear weapons program, only recently have we received the first substantive indications that South Africa may be actively developing a nuclear weapons capability. According to a sensitive clandestine report of December 1976, South Africa is conducting "criticality" experiments in a facility adjacent to the pilot enrichment plant; such experiments could be weapons related. There is in fact an isolated, highly secured facility at Valindaba that would be suitable for such experiments.

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A decision by South Africa to undertake research into the fabrication of a nuclear device might be only in the nature of contingency planning because the initial phases of such research are relatively inexpensive and yet time-consuming. If South Africa decided to produce a nuclear device, however, it could develop the technical capability to do so within the next two years or so.

We are in general agreement with the opinion of some observers quoted in the Times article that the political and psychological climate in South Africa would support the development of nuclear weapons. Although South Africa's military capabilities are significantly greater than any of its neighbors even without nuclear weapons, South Africa long has had a siege mentality which might affect its view of what constitutes adequate defense. Its sense of isolation and insecurity has been intensified by the shrinking of its buffer areas, concern over Rhodesia, uncertainty about the intentions of the new US administration, and apprehension about relations with the West generally. The convergence of these concerns has heightened Pretoria's fear that it may have to "go it alone." In these circumstances, we suspect that Pretoria may be considering the development of a nuclear weapons capability.

We have no information to further illuminate the report in the article of an agreement between South Africa and Israel on nuclear cooperation. There is no intelligence information available to support any suspicion that Israel and South Africa may be cooperating in the development of nuclear weapons.

Drafted: INR/STA:ALocke;JSiegel

Clearance: INR/STA:LFinch
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