Nuclear development in South Africa illustrates the connection between nuclear power and nuclear weapons. Largely through its atomic energy program South Africa has acquired the capability to make nuclear weapons.

"With a plentiful supply of natural uranium and its own separation plant, South Africa can produce all the weapons-grade uranium it wants. This capability strengthens South Africa's position militarily, diplomatically and economically. When the inevitable showdown comes in southern Africa, Pretoria can threaten ultimate disaster unless it gets its way."

Congressman Les Aspin, D-Wis., 1976

South Africa's Nuclear Weapons Capability

South Africa has the capability to make and deliver nuclear weapons, and might have produced enough bomb-grade material for a dozen small nuclear bombs. It controls vast uranium deposits and has an advanced mining and refining industry. South Africa is one of a few countries which operates its own enrichment plant. It has a sizeable community of scientists, technicians and engineers familiar with nuclear technology. A research reactor now in operation is fueled with weapons-grade uranium, which was supplied by the United States until 1976. When the large nuclear station at Koeburg is completed South Africa will have available larger quantities of weapons-grade material.

The South African military has the ability to deliver a nuclear payload. Its air force has a number of British, French, and Italian-made attack aircraft which could carry nuclear bombs. In addition many of its military and civilian transports could be converted into long-range bombers. Finally, Israel has supplied South Africa with the nuclear-capable Jericho missile.

Has South Africa Tested a Nuclear Bomb?

In October, 1979 the United States announced that a satellite report indicated a probable nuclear explosion on September 22 in the South Atlantic near South Africa. A South African bomb test is widely suspected, though denied by the Pretoria government. Evidence for the explosion includes a double-flush of light and ripple in the ionosphere characteristic of a nuclear test as well as the presence of a South African naval task force in the same area. In addition, radiation fallout was detected in New Zealand shortly afterwards.

Two years before, the Soviet Union had informed the United States that South Africa was preparing to test an atomic device in the Kalahari Desert. U.S. intelligence sources confirmed the allegation, and diplomatic arm-twisting followed which apparently stopped the preparations under way at the time.

The atomic bomb might be used against "loud-mouthed Afro-Asian states."

Dr. A. Visser, member, South African Atomic Energy Board, 1966

Why Would South Africa Want Nuclear Weapons?

In a crisis, South Africa might use nuclear weapons against neighboring states or black South Africans. It could also threaten their use to prevent other nations from imposing sanctions on South Africa or aiding those in opposition to its government.

South Africa and the Non-Proliferation Treaty.

South Africa has refused to become a party to the Nuclear Non-Proliferation Treaty, which went into effect in 1970 and is the most visible evidence of international concern for the spread of nuclear weapons. The NPT prohibits nuclear weapons powers from assisting or encouraging other states to manufacture or obtain nuclear weapons. Nations without nuclear weapons must agree not to obtain them, and to accept international inspection of their facilities. Nuclear weapons states, in return, promise cooperation in civilian nuclear development. By March, 1979, 106 nations were parties to the NPT.

In November, 1977, shortly after the threat of an atomic bomb test, an attempt was made at the U.N. to stop all nuclear cooperation with South Africa. The United States vetoed the resolution and a weaker one was passed that merely requires nations not to aid South Africa in the development or manufacture of nuclear weapons. This actually allows opportunity for cooperation in almost all aspects of nuclear development.

In December, 1974 the U.N. General Assembly adopted by a vote of 131 to 0 a resolution to consider and request the continent of Africa as a nuclear-weapons free zone. South Africa did not take part in the vote.

Disarmament Program, American Friends Service Committee, 1501 Cherry Street Philadelphia, PA 19102 • (215) 241-7177
South Africa and Uranium

The South African government hopes to gain powerful political and economic advantages from the vast uranium resources under its control. Including those to be found in the occupied territory of Namibia, South Africa commands the second largest uranium reserves among Western bloc nations.

The United States and Great Britain first approached South Africa shortly after World War II to get uranium for their nuclear weapons program. In return, they helped South Africa establish a uranium mining and refining industry, which gave the country its start in nuclear-related technology. Much of South Africa's uranium has been extracted from ore which also contains gold, and the combination of these two valuable resources has provided a powerful boost to the mining industry and to the South African economy.

Uranium mining at the huge Rossing mine in Namibia began in 1976 under the management of a British-based corporation, Rio Tinto Zinc. A number of other corporations, including U.S. based Union Carbide and Utah Mining, have done extensive prospecting in nearby areas of Namibia.

The United Nations, supported by a ruling of the World Court, has declared that South Africa's continued presence in Namibia is illegal. The World Court has also upheld a U.N. decision that foreign firms operating in the territory were doing so illegally. But, in defiance of the U.N. and the World Court, Britain and France are receiving Namibian uranium, and British, American, French, and West German firms all have operations in Namibia.

"We ascribe our degree of advancement today, in large measure, to the training and assistance so willingly provided by the USA during the early years of our nuclear program." - Dr. A.J.A. Roux, Pres., South African Atomic Energy Board, 1976

U.S. - South Africa Nuclear Links

The United States is one of several countries that has helped South Africa with nuclear technology and training. In 1957 as part of President Eisenhower's "Atoms for Peace" program, the U.S. and South Africa signed agreements to cooperate on nuclear research and power.

In the early 1960's the SAFARI-1 research reactor, built by Allis-Chalmers, an American company, was set up at Pelindaba, and the U.S. supplied the reactor with highly-enriched uranium fuel. In 1976 fuel shipments to SAFARI-1 were stopped because of South Africa's refusal to accede to the NPT, but the U.S. commitment to supply an initial load of fuel to the Koeberg reactor is still pending before the Nuclear Regulatory Commission.

Many American companies have contributed to South Africa's nuclear capabilities. An IBM computer is in use at Pelindaba, and two computers sold by the Foxboro Corporation of Massachusetts play a critical role in the enrichment process at Valindaba. U.S. Nuclear, Gulf Oil, Texas Nuclear, Gulf General Atomic, Eilow International, Beckman Instruments, and Kern-McGee are among the other U.S. corporations which have participated in South Africa's nuclear development.

Other Western nations are also providing aid. The Koeberg station is being built by France, and West Germany has played a leading role in developing South Africa's uranium enrichment technology.

The long history of cooperation with the United States and some European countries has provided South Africa with a pool of highly-trained nuclear physicists and engineers. The SAFARI-1 reactor is the main training facility for South African nuclear technicians. The uranium mining industry and related facilities have also provided many training opportunities. Approximately 95 South Africans have participated in nuclear research at U.S. Government facilities; others have received training at American universities. Nuclear experts from the U.S., West Germany and other Western countries have worked and taught in South Africa.

Although the U.S. ended uranium imports for its military program in 1967, it resumed importing for commercial use in 1975. Though the U.S. is the world's largest producer of uranium, it is also the West's largest consumer, and may become a net importer during the 1980's. It could become more dependent on South African uranium, thereby increasing U.S. links with apartheid.

Why We Should Be Concerned

• The spread of nuclear weapons to more and more nations increases the chances of nuclear war. South Africa, under increasing internal and external pressure to end the brutal apartheid system, might use nuclear weapons against neighboring nations or even its own people.

• The United States and other Western countries are responsible for providing essential nuclear technology and training to South Africa despite South Africa's refusal to sign the Nuclear Non-Proliferation Treaty.

What We Can Do

1) Demand that the United States end all nuclear cooperation with South Africa. Call for the prohibition of sales of nuclear fuel and the provision of nuclear technology and training by the U.S. government and American companies. Write:

   Secretary Edmund Muskie
   Department of State
   Washington, D.C. 20520

   President Jimmy Carter
   The White House
   Washington, D.C. 20500

   Secretary Samuel J. Chilc
   Nuclear Regulatory Commission
   Washington, D.C. 20555

   Also write to your Congresspersons. Include facts from this sheet and from other sources if you desire.

2) Help prevent U.S. financing of and participation in South Africa's nuclear development. Take action to end U.S. bank loans to South Africa and operations of American countries in nuclear-related areas in South Africa. Join the many thousands who are removing their money from banks and companies with operations in South Africa and redeposit or reinvest it elsewhere.

3) Find out more about South Africa's nuclear policy and development.

   • show the film, "South Africa: the Nuclear File," at a local school, church or community organization. Call your local American Friends Service Committee for details.

   • write us for more information. Two of our resources, published by NARMIC, are more in-depth: "Nuclear South Africa," and a piece about nuclear exports, "Marketing the Nuclear Nightmare."

4) For more information contact AFSC. You can order additional copies of this flyer. $4.00/100 copies.

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