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CIA 47 Israel (Uranium)
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CIA Found Israel Could Make Bomb

Soil, Air Samples Disclosed Atomic Capability in 1968

By John J. Fialka
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CIA agents, using highly sophisticated equipment, were able to determine from Israeli soil and air samples that in 1968 the country had obtained enough highly enriched uranium to make several atomic bombs.

The identification of the Israeli uranium was believed to be the first hard evidence that sizable quantities of a bomb-grade material had somehow been diverted from one of the five nations then in the nuclear "club."

According to several government sources, the CIA then brought the FBI into the case and a top-secret surveillance and wiretapping effort was focused on what was believed to have been the most likely source of the diversion, a company in Apollo, Pa., called the Nuclear Materials and Equipment Corp.

The wiretap was placed on the phones of Zalman M. Shapiro, the president of NUMEC. It was removed a year later, in 1969, after the FBI discovered that Shapiro was communicating with Israeli diplomats in New York through the use of an "encoded" telephone, a device which scrambles ordinary phone signals into a code which is unscrambled by a similar device on the other end.

THE TAP ENDED, according to the sources, after an unsuccessful attempt to break the code. Because the FBI was permitted a limited number of wiretaps, pressure mounted within the agency to use the NUMEC taps on a more "productive" case.

Sometime during the early 1960s a sizable quantity of uranium disappeared from the NUMEC plant, which was founded by Shapiro, a former Atomic Energy Commission chemist who had worked in the Manhattan Project, the World War II effort which developed the atomic bomb.

The major business of NUMEC was the fabrication of highly enriched uranium fuel assemblies used by U.S. nuclear submarines and surface ships. As a sideline, Shapiro developed a number of subsidiaries, including a company called ISORAD, which was operated in partnership with the Israeli Atomic Energy Commission.

According to NUMEC financial reports, the main function of ISORAD was to supply Israel with special irradiation equipment that would be used to retard spoilage in fish and fruits.

Documents recently obtained from the AEC's successor, the Department of Energy, under the Freedom of Information Act show that the AEC became increasingly concerned about security risks at NUMEC in the early 1960s because of chronic laxity of controls and the frequent presence of Israeli and other alien visitors at the plant.

ALTHOUGH SHAPIRO argued that the missing uranium was accidentally lost in the form of wastes, a massive, three-pronged investigation by the AEC in 1966 concluded that there was no known explanation that would account for the loss of 206 pounds of highly enriched uranium, an amount believed to be sufficient for at least 10 atomic bombs.

Although the CIA apparently was not involved in the 1966 investigation, the agency's curiosity became aroused later after several U.S. scientists returning from Israel warned that the Israelis appeared to be developing a nuclear weapons program based on a supply of highly enriched uranium.

At that point the agency had at its disposal a number of secret devices to detect the presence of any laboratory or processing facility working with quantities of what the nuclear trade refers to as SNM or "special nuclear material."

Some equipment was airborne. Others were small, portable instruments called "sniffers" which can signal the presence of tiny particles of highly enriched uranium in the air.

It is not clear which processes the CIA used to confirm the presence of the uranium in Israel, but two knowledgeable sources said that it was probably a type of mass spectrometer, which has the

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