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No Evidence of Any Crime?

# Lost Uranium Mystery

By Thomas O'Toole

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Documents released yesterday by the federal government reveal persisting suspicions that triggered three investigations in the last 11 years to see if uranium was diverted from a Pennsylvania factory to Israel for nuclear weapons production.

The first investigation was directed in 1966 by the now defunct Atomic Energy Commission and the last two by the Federal Bureau of Investigation, in 1969 and in 1976. All three investigations sought to find out if weapons-grade uranium was ever smuggled to Israel from a factory in Apollo, Pa., operated by the Nuclear Materials and Equipment Corp. (NUMEC) and owned by a man named Zalman Shapiro who had known nuclear business interests in Israel.

Each time, the federal investigators cleared NUMEC and Shapiro of any conspiracy to divert uranium to Israel or anywhere else. But each time Shapiro was cleared, fresh suspicions emerged to trigger a fresh investigation.

The latest FBI investigation, which took more than a year and was turned over to the White House no more than two months ago, concludes there are no grounds to prosecute Shapiro for any crime "because there is no evidence of any crime."

In documents that cover the investigations of 1966, 1969 and 1976, one internal memo in 1967 to then AEC Chairman Glenn Seaborg is repeatedly quoted. The memo says: "It cannot be said unequivocally that theft or diversion has not taken place, but the most probable explanation is that NUMEC consistently underestimated its plant process losses and that the difference between actual and estimated losses was passed on from completed jobs to new jobs."

When investigators exhumed a burial pit outside the NUMEC factory looking for the missing uranium, they found fewer than 10 pounds of the 206 pounds that were lost. The following 1966 telephone conversation between Curtis Nelson and James Haycock of the AEC was transcribed:

"Are they still digging up there?" Nelson asks.

"No, they've completed that," Haycock replies.

"Didn't turn out to be so rich after all, did it?" Nelson says.

"It's quite evident they've understated the amount of loss they've had in both the atmosphere and the river," Haycock goes on. "In addition, NUMEC has finally agreed they'll have to admit they used material from one contract to another. They hesitate to make this admission because their contracts said they were not to do it but with the amount of material being unaccounted for, then it's necessary to look at these transfers between contracts."

These are some of the things that emerge from 32 volumes of documents declassified by the Department of Energy yesterday on the three investigations of NUMEC.

In 1966, NUMEC was unable to account for 206 pounds of weapons-grade uranium that had been in its possession for more than two years. The uranium had gone to NUMEC from the Oak Ridge National Laboratory for fabrication into fuel elements for nuclear submarines and the Rover nuclear rocket engine then under development.

The documents show that at first the Atomic Energy Commission and the Central Intelligence Agency suspected the uranium might have been stolen by the Chinese because nuclear debris left in the atmosphere by the first Chinese atomic test in 1964 resembled in content the uranium missing from the NUMEC factory.

Once the AEC concluded that China had its own source of weapon-grade uranium, the investigation turned on concerns that Zalman Shapiro had close business ties to Israel and that he routinely shipped nuclear fuel components overseas.

"The concern has been expressed," the AEC staff wrote in a May 10, 1966, memo, "that uranium could theoretically have been diverted by a mechanism of overshipping and understating the true quantities on the transfer document."

Shapiro's firm had a contract to build two nuclear generators for Israel. Shapiro was half-owner with the Israeli government of Isorad, a company based in Israel that made equipment to preserve foods by nuclear radiation. In a letter to the then FBI director, J. Edgar Hoover, the AEC asked if Shapiro should not register himself as a foreign agent. The FBI replied that he did not have to.

AEC documents show concern over his employment of an Israeli metallurgist. They also show that Shapiro employed two Argentinian chemists, two Japanese technicians and a Dutch plant manager. The AEC investigation also noted that between 50 and 60 aliens from a dozen countries visited Shapiro's Apollo factory every year.

As the AEC deepened its investigation, it checked shipping documents and weights of every order NUMEC had filled overseas. Out of 59 shipments it found one discrepancy. NUMEC had shipped cylinders of uranium to West Germany that were 26 pounds short.

The AEC even seized two shipments of uranium NUMEC was sending to France and analyzed them to see if their weight and uranium content conformed to the orders and shipping documents. The AEC found that they were almost identical.

Still unsatisfied, the AEC conducted interviews with 37 people, including 23 NUMEC employees, 12 former employees and two engineers with Westinghouse Electric who had worked with NUMEC on the contract where 134 pounds of uranium were missing.

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