



HOW DENIAL AND  
DECEPTION ARMED ISRAEL

Did Israel steal U.S. weapons-grade uranium,  
and did it have help from U.S. citizens?

*STEALING THE ATOM BOMB:  
HOW DENIAL AND DECEPTION ARMED ISRAEL*

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Israel's Influence: Good or Bad for America?

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# My NUMEC Research

- Started with whistleblower response in 1977
- Records from FBI, CIA, NRC, DOE, GAO via FOIA
- Interviewed people from NUMEC, NRC, Congress
- Published historical accounts & contemporary press accounts
- Records of Congressional investigation (Udall)
- Records of CIA Tel Aviv station chief (Hadden)
- Recently declassified uranium enrichment data

# Israel's Nuclear Program

- Nahal Soreq research reactor – US Atoms for Peace
- Dimona
  - Natural uranium, heavy water reactor (1965 startup)
  - Sole product was plutonium for bombs
  - France provided reactor & fuel reprocessing plant
- LAKAM
  - Israeli Intelligence agency
  - Headed by Binyamin Blumberg and then Rafi Eitan
  - Covert operations for nuclear program (material & info)
  - Befuddled Dimona inspectors sent by Kennedy & Johnson
- RAFAEL, Ministry of Defense, Weizmann Institute, etc.
- First weapons ready @ 1967 Six-Day War

# Dimona



# NUMEC Timeline

- 1956 - Ernest David Bergmann asked USG for help
- 1956 - David Lowenthal visited Israel
- 1957 - Lowenthal and Zalman Shapiro founded NUMEC, opened uranium plant in Apollo, PA
- 1960 - NUMEC began processing HEU for US Navy
- 1964 - Oak Ridge learned uranium was missing
- 1965 - AEC audit: 178 kgs lost; 94 kgs could not be found
- 1966 - NUMEC borrowed to pay \$2.2 M for missing HEU
- 1967 - ARCO bought NUMEC and repaid loans

# Apollo Plant & Office



## NUMEC Timeline, cont.

- 1968 - Inventory difference grew to 287 kgs
- 1968 - Four spies visited NUMEC (false credentials)
- 1970 - Shapiro left NUMEC for Kaweck-Berylco;
- 1971 - AEC denied his security clearance upgrade & found Shapiro uncleared job at Westinghouse
- 1971 - B&W bought NUMEC from ARCO
- 1978 - Apollo uranium operations ended
- 1992 - Decommissioning of Apollo plant completed
- 2016 - \$400M cleanup of waste burial pit continues

# The AEC Audit of 1965

- 178 kgs of HEU was gone from Apollo plant
- 94 kgs unexplained – 6 atom bombs (NRC)
- No FBI investigation – AEC said none needed
- Various explanations offered, none sufficed
- AEC found no evidence of diversion but did not seriously look
- AEC chairman Seaborg: what good would it do to admit HEU had been stolen?



# Zalman Shapiro's Associations

- ZOA officer and awardee; considered immigration to Israel
- NUMEC funder David Lowenthal was next-door neighbor, Sonneborn alum, confidant of Meir Amit & prime ministers
- Ernst David Bergmann co-director of ISORAD
- LAKAM directors (Binyamin Blumberg, Rafi Eitan)
- LAKAM agents in US (Hillel Aldag, Joseph Eyal, Avraham Hermoni, Jeruham Kafkafi)
- Mossad (Meir Amit, Rafi Eitan)
- Shin Bet (Avraham Bendor, Ephraim Biegun)
- Military Intelligence (Avraham Eylonie)
- Israeli metallurgist at NUMEC (Dr. Bernard Cinai)
- Board of Governors, Israeli Intelligence Heritage Center

# 1968 in Desert near Dimona

- CIA collected environmental samples to detect first plutonium production
- CIA Station Chief John Hadden sampled the flora; told others about it; took his kids along
- CIA found HEU near Dimona in 1968
- Nuclear Forensics: HEU had US origin
  - 97.7% enrichment unique to AEC's Portsmouth plant
  - 97.7% HEU only used to fuel US naval reactors
  - NUMEC processed naval reactor fuel at Apollo
- Helms reactivated FBI investigation in 1968

UNITED STATES GOVERNMENT

Memorandum

~~SECRET~~

TO : DIRECTOR, FBI (117-2564)

DATE: 9/11/68

SAC, WFO [REDACTED] (P) b7c/4

~~CONFIDENTIAL~~

SUBJECT: [REDACTED]  
ATOMIC ENERGY ACT

APPROPRIATE AGENCIES  
AND FIELD OFFICES  
ADVISED BY ROUTING  
SLIP (S) OF [REDACTED]  
DATE 7/9/82

ReWFOlet 8/5/68.

Classified by 5665L/DK/9  
Declassify on: OADR 4-25-85

On 9/6/68, [REDACTED] Security Office, AEC,  
Germantown, Md., advised that the AEC Security Office in  
NYC had contacted him that date to advise of the requested  
visit on 9/10/68, to NUMEC, Apollo, Pa., by the following:

AVRAHAM HERMONI, Scientific Counselor,  
Israeli Embassy, Washington, D. C.;

Dr. EPHRAIM BEIGON, Dept. of Electronics,  
Israel, born 7/15/32, in London;

ABRAHAM BENDOR, Dept. of Electronics,  
Israel, born 7/7/28, in Israel;

RAPHAEL EITAN, Chemist, Ministry of  
Defense, Israel, born 11/23/26, in Israel.

[REDACTED]

- 2 - Bureau
- 2 - Pittsburgh [REDACTED]
- 1 - WFO

REC # 117-2564-72  
b7c/4

2 SEP 13 1968

(3) b7c/1

~~SECRET CONFIDENTIAL~~ NAT. INT. SEC.

6 OCT 1 1968 U.S. Savings Bonds Regularly on the Payroll Savings Plan

Class. & Ext. By: [REDACTED]  
Reason: [REDACTED]  
Date of Review: [REDACTED]

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
EXCEPT WHERE SHOWN  
OTHERWISE

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OTHERWISE

- Avraham Hermoni
- Ephraim Biegun
- Abraham Bendor
- Rafael Eitan

## September 1968 Israeli Spymasters Visited NUMEC

- Hermoni, Eitan, Bendor, Biegun met with Shapiro
- Said they wanted Pu-238 power source for surveillance equipment
- Other possible reasons for their visit:
  - New tactics after ARCO purchase of NUMEC
  - Maybe they took some HEU home
  - Plumbat affair – 200 tons of yellowcake diverted
  - Shapiro arrived in Israel at same time as yellowcake
  - Shapiro gathering of brain trust in November

# Conran the Whistleblower

- 1975 - ERDA withheld NUMEC information from Conran
- 1976 - Duckett briefed NRC about CIA's conclusion
- 1977 - Conran wrote open letter to Carter & Udall
- Mattson headed Conran task force
- Udall and Dingell investigations
- Extensive press coverage
- Frustrated, Congressmen attacked NRC's Gossick
- FBI and CIA withheld information from NRC
- CIA withheld information from FBI
- Neither CIA nor FBI were technically competent
- 1978 - Brouhaha blew over

# 1980 Eyewitness Account

- NUMEC employee statement to NRC (labor dispute)
- NRC alerted FBI who interviewed employee & others
- Employee knew a lot of details about the plant
- Recalled unusual nighttime shipment in 1965
- Shapiro was there that night
- Canisters were those used for HEU
- Armed man ordered employee off dock
- Shipping manifest indicated Israel
- Boss threatened employee next day
- Others confirmed details of eyewitness account
- Containers could easily house HEU; no inspection
- FBI ended its investigation

## What Various People Concluded

- J. Edgar Hoover – Remove Shapiro’s clearances & classified contracts
- Ramsey Clark – Authorized FBI wiretaps after HEU discovered
- John Mitchell – Deny Shapiro’s security clearance upgrade
- Edward Levi – Investigate diversion & Federal agency coverup
- Griffin Bell – Based on CIA documents, more investigation warranted
- Glenn Seaborg – Conspired to coverup; what good to admit diversion; find Shapiro new job; Portsmouth HEU
- James Connor – Something happened; nothing can be done about it
- Morris Udall – If deciding under penalty of death, diversion occurred
- NRC (2009) – Can’t say diversion did not occur or material recovered
- Peter Stockton – Shapiro did it . . . I’m damned sure it happened

## What Various People Concluded, cont.

- Henry Myers – Israel made nukes from HEU by 1967
- Victor Gilinsky – Evidence points to Israeli operation
- Richard Helms – We did the job and avoided political pitfalls
- Lyndon Johnson – Don't tell anyone what Duckett thinks
- Carl Duckett – Israel had HEU bomb & HEU came from Portsmouth
- John Hadden – Treasonous act was committed and covered up
- Zbigniew Brzezinski (2015) – Something did transpire; explosive, controversial, “give it back?”
- Jessica Mathews (2015) – 1979 Israel/Egypt peace agreement would be upset by NUMEC scandal
- Avner Cohen – Helms & Laird convinced of diversion; wondered if Hermoni lied in denying diversion by Shapiro
- Seymour Hersh – No diversion but “sensitive mission conducted for Israel”



# Conclusions

- Portsmouth HEU near Dimona proved there was diversion
- Evidence pointed only to NUMEC, not other HEU processors
- NUMEC apparently created for diversion and technology transfer
- LAKAM had motive, capability and opportunity to divert HEU
- Eitan was audacious & recently implied involvement in diversion
- Shapiro had connections with and allegiance to Israel
- FBI followup with eyewitness was deficient
- FBI & CIA technically inept & snubbed NRC assistance
- Shapiro lost clearances but was not prosecuted (in part due to nature of the FBI's evidence)
- No declassified evidence that CIA or president involved in diversion
- Justice investigated and did not prosecute AEC, FBI or CIA
- Whether diversion happened or not, it could have

# Policy Implications

- AEC covered up initial investigation
- Johnson ignored advice to block Israeli bomb
- FBI did not look into diversion until too late
- FBI information withheld from NRC
- FBI & CIA feared Israel's pushback
- CIA information withheld from NRC and FBI
- Ford expressed interest and Levi investigated but trail was cold
- Nixon's deal with Meir – Nuclear Opacity
- Taxpayers are footing cleanup bill \$400 M

# NUMEC Not Alone

- Others in US assisted Israel's nukes
- LAKAM & Eitan managed some of them
  - Arnon Milchan
    - Richard Kelly Smyth
    - Arthur Biehl
  - Jonathan Pollard
  - Zalman Shapiro
- Others
  - Raymond Fox
  - Training at national labs

# Deeper Understanding

- Dual loyalties frustrate safeguards, everywhere
- Documents undeservedly classified for 50 years frustrate American democracy
- Israel lobby impedes frank assessment of Israel
- Nuclear Opacity (Ambiguity) impedes progress toward WMD-free Middle East
- America has double standard for nuclear proliferation in Middle East