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Permit No. 3-09

4/27/65

BY LIAISON

RA  
**(NI) 117-2564**

CC: ~~X~~ENTIAL

Date: February 18, 1969  
To: Mr. William T. Riley  
Director  
Division of Security  
Atomic Energy Commission  
From: John Edgar Hoover, Director  
Subject: (b)(1)(4)(b)  
[REDACTED]  
ATOMIC ENERGY ACT

1 - Mr. DeLoach  
1 - Mr. Sullivan  
1 - Liaison  
1 - Mr. Cotter  
1 - Mr. Wacks

b7c/3

b7C/1  
Reference is made to a discussion between you and Special Agent [REDACTED] of this Bureau on February 17, 1969, regarding the captioned matter.

There are attached single copies of the report of Special Agent [REDACTED] dated February 18, 1969, at Pittsburgh, Pennsylvania, and a memorandum evaluating the sources therein. This report summarizes the results of our investigation concerning Shapiro. Our investigation is substantially completed, although we will continue to keep the Atomic Energy Commission (AEC) advised of pertinent information received from our sources concerning Shapiro's current activities.

You are requested to advise as expeditiously as possible what action will be taken by the AEC with respect to the current security clearances of Shapiro and the classified contracts held by the Nuclear Materials and Equipment Corporation. In this regard, any action taken by the AEC will not interfere with FBI investigative interests.

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 11-11-2011 BY 6889  
SCHLESINGER

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Enclosures - 2

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GROUP 1

SEE NOTE PAGE

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downgrading and  
declassification

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DOCUMENT 305

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Mr. William T. Riley

NOTE:

Classified "Secret - No Foreign Dissemination" since disclosure would jeopardize sensitive sources, with serious damage to national defense interests and inasmuch as enclosure is so classified. (C)(4)

See cover memorandum R.D. Cotter to W.C. Sullivan, same date and caption, prepared by RDC:mcg.

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FD-376 (Rev. 8-1-66)



UNITED STATES DEPARTMENT OF JUSTICE  
FEDERAL BUREAU OF INVESTIGATION

In Reply, Please Refer to

WASHINGTON, D.C. 20535

File No.

**February 18, 1969**

Director

United States Secret Service  
Department of the Treasury  
Washington, D.C. 20220

Dear Sir:

The information furnished herewith concerns an individual who is believed to be covered by the agreement between the FBI and Secret Service concerning Presidential protection, and to fall within the category or categories checked.

1.  Has attempted or threatened bodily harm to any government official or employee, including foreign government officials residing in or planning an imminent visit to the U.S., because of his official status.
2.  Has attempted or threatened to redress a grievance against any public official by other than legal means.
3.  Because of background is potentially dangerous; or has been identified as member or participant in communist movement; or has been under active investigation as member of other group or organization inimical to U.S.
4.  U.S. citizens or residents who defect from the U.S. to countries in the Soviet or Chinese Communist blocs and return.
5.  Subversives, ultrarightists, racists and fascists who meet one or more of the following criteria:
  - (a)  Evidence of emotional instability (including unstable residence and employment record) or irrational or suicidal behavior;
  - (b)  Expressions of strong or violent anti-U.S. sentiment;
  - (c)  Prior acts (including arrests or convictions) or conduct or statements indicating a propensity for violence and antipathy toward good order and government.
6.  Individuals involved in illegal bombing or illegal bomb-making.

Photograph  has been furnished  enclosed  is not available  
 may be available through \_\_\_\_\_

DECLASSIFIED  
ON 7-1-98 BY SP24JANCCZ

Very truly yours,

*J. Edgar Hoover*  
John Edgar Hoover  
Director

1 - Special Agent in Charge (Enclosure(s)) 2  
U. S. Secret Service Pittsburgh, Pa. (RM)

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Enclosure(s) 2

(Upon removal of classified enclosures, if any, this transmittal form becomes UNCLASSIFIED.)

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DATE 09-30-2008

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UNITED STATES DEPARTMENT OF JUSTICE  
FEDERAL BUREAU OF INVESTIGATION

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## Copy to:

1 - Secret Service, Pittsburgh, Pa. (RM)

Report of:  
Date:

27/16/68

Classified by 5-8-85  
Declassify on 10/10/85  
FBI File # 117-2662

(C)

Field Office File #: 97-128

Office: PITTSBURGH, PA.

Title:

DR. ZALMAN MORDECAI SHAPIRO  
~~CLASSIFIED BY 8-22-81/mesm~~

Character:

(U) INTERNAL SECURITY - ISRAEL; (Q)(S)  
ATOMIC ENERGY ACT

Synopsis:

## SUMMARY REPORT

ZALMAN MORDECAI SHAPIRO, a 48-year-old Pittsburgh, Pa., resident, is President of Nuclear Materials and Equipment Corporation (NUMEC), Apollo, Pa. Background data regarding subject and NUMEC not forth. A 1965 investigation of subject under Registration Act provisions was terminated upon decision of Assistant Attorney General that subject not required to register under Foreign Agents Registrations Act. Subject currently holds "Q" and "Secret" clearances with Atomic Energy Commission and United States Air Force respectively. Source, former NUMEC employees and others describe prior security conditions at NUMEC as substandard and stated they could furnish no logical explanation for reported large losses of nuclear materials at NUMEC. These individuals describe subject as an active supporter of Israel and a frequent visitor to that country. At SHAPIRO's home, subject met with AVRAHAM HEPNER, Scientific counselor, Israeli Embassy, and ten other men who have special skills and knowledge in scientific and technical fields, on 11/3/68. This meeting was held to assist HEPNER in gathering necessary data in those areas for Israel. Source

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Reason - FCIM II-2.4.2-243  
Date of Review 2/18/89

217,822 03/18/83  
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DATE 2/18/89  
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(S) [redacted] indicated SHAPIRO in contact with Colonel AVRAHAM ELYONI~~E~~, regarding Israeli's needs in certain unspecified areas. SHAPIRO, in connection with contact with Colonel ELYONI~~E~~, wrote USAEC for information regarding uses and sales of Plutonium 239 (PG 239) to foreign and domestic buyers. SHAPIRO's meeting with HAIMOVICH set for 2/16/69, called off because of personal emergency of SHAPIRO. Subject and wife attended dinner at Israeli Embassy, Washington, D. C., 11/26/68; stated that dinner would give him opportunity to discuss Israel's needs with Israeli Defense Minister who would also be present. Subject and wife visited Israel 11/26 to 12/12/68, and as a result, indicated he learned of many business opportunities in that country. Subject indicated he is acquainted with past and present head of Israeli AEC. Members of Israeli Internal Security Service visited SHAPIRO at NEIMIC plant. NEIMIC Vice President, OSCAR SHALOM GRAY, Yale University graduate, close associate of SHAPIRO, formerly associated with CP Fronts and certain Yale faculty members active in left wing causes. Subject interested in pro-Israeli Zionist causes. SHAPIRO has expressed belief Israel's cause worth fighting for and has indicated he may settle in that country within a few years. Close friend DAVID LEIBER LIEVENTHAL [redacted]

(S) [redacted] a frequent visitor to Israel. In 1949, subject indicated he was a member of communist front group while attending college. Physical description set out.

[redacted] (S)(u)  
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PREDICATION

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(U) Investigation was instituted at the request of the Attorney General to establish the nature and extent of ZALMAN MORDECAI SHAPIRO's relationship with the Government of Israel. This could be connected with, or in addition to, or as a result of, his association with Israeli officials and sympathizers in the United States.

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I. BACKGROUND

A. Birth

Records, Bureau of Vital Statistics, Canton, Ohio, reviewed on March 7, 1949, revealed that ZALMAN MORDECAI SHAPIRO was born May 12, 1920, at Canton, Ohio. His father and mother were listed as ABRAHAM SHAPIRO and MINNIE PINK, respectively, and their birth place was shown as Russia.

B. Education

Records of the Passaic, New Jersey, High School, examined during 1949, showed subject attended that high school from September 10, 1936, to January 28, 1938, and had attended post-graduate classes from February 11, 1938, to June 15, 1938.

Records, Johns Hopkins University, Baltimore, Maryland, examined during 1949, showed subject entered that university on September 22, 1938, and received an A.B. degree on June 2, 1942. He re-entered the university as a graduate student in the Chemistry Department October 18, 1943, and received his M.A. degree in chemistry November 5, 1945. He continued at the university as a graduate student and received his Ph.D. degree in chemistry on June 8, 1948.

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C. Employment

Investigation during 1949 disclosed subject was employed with the following organizations on the dates indicated:

<u>Place</u>	<u>Date</u>	<u>Position</u>
Passaic, New Jersey Park Department	July and August, 1931	Playground Director
Good Humor Ice Cream Corporation, Newark, New Jersey	February 27, 1938, to April 2, 1938	Salesman
Zanfel's Sportswear Shop, Passaic, N. J.	Summer Months, 1939 - 1940	Salesman
Johns Hopkins University, Baltimore, Md.	1938 - 1939	Clerical Assistant
Johns Hopkins University, Baltimore, Md.	1942 - 1947	Research Assistant (Government research)
Johns Hopkins University, Baltimore, Md.	October 1, 1946, to June 30, 1947, and from October 1, 1947 to January 31, 1948	Junior Instructor in Chemistry

[On May 24, 1968, PG T-1 advised subject was employed by Westinghouse Electric Corporation, Pittsburgh, Pa., from 1948 to 1956. During his employment with Westinghouse, he was supervisor of zirconium process development; manager, physical chemistry and chemical control; manager, chemical metallurgy and uranium oxide development; and manager, reactor design, P. W. R. Core 2.]

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The "American Men of Science" (1967), a biographical directory, showed subject as President of Nuclear Materials and Equipment Corporation (NUMEC) upon his termination of employment at Westinghouse Electric Corporation. In 1957, he was President, Nuclear De-contamination Corporation, Isotope and Radiation Enterprises, Limited, (ISORAD). X

Poors Register of Corporations, Directors and Executives, 1968, showed subject to be connected with the following corporations:

1. Nuclear Decontamination Corporation, President and Director
2. Greater Pittsburgh Capital Corporation, Director
3. NUMEC Instruments and Controls Corporation, Chairman
4. Isotope and Radiation Enterprises, Limited, Director

[On May 24, 1968, PG T-1 advised that NUMEC was incorporated in Pennsylvania on December 31, 1956, and is located at Apollo, Pa. This corporation is a producer of nuclear fuel and other materials used in nuclear power reactors. It is also active in the use of radioactive materials for radiation processing and energy production.] KZ(284)

The firm operates plants and research facilities at Apollo and Parks Township, Pa., as well as a Government-owned boron isotope separation facility at Lowiston, New York.

On June 17, 1968, a review of files concerning NUMEC located at the Office of Safeguards and Materials Management, Atomic Energy Commission (AEC), Germantown, Maryland, disclosed an intra-agency memorandum dated February 11, 1966, which concerned the "status of

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arrangements and discussions between NUMEC and foreign business organizations." The following organizations were noted:

NUMINCO - NUMEC Instrument and Controls Company, which manufactures and markets laboratory equipment and process control equipment. NUMEC owns one third of the stock; Societe d'Applications Industrielles de la Physique, a French company, owns one third; the last third is owned by a group of private investors.

ISORAD - In connection with ISORAD, by letter dated November 3, 1966, AEC furnished the FBI a summary of the foreign activities of NUMEC, which states in part that "NUMEC is a sales agent for the Government of Israel through its Ministry of Defense, Division of Supplies, 830 Third Avenue, New York 22, New York. In this connection, NUMEC has an arrangement with the Israel Atomic Energy Commission to do biological work on insect control; and assist in establishing facilities for the irradiation and preservation of citrus fruits. In this latter connection, NUMEC and the Government of Israel (represented by the Israel AEC) have formed a company in Israel called Isotopes and Radiation Enterprises, Limited (ISORAD) which is an organization to do experimental and commercial work in irradiation processing of foodstuffs and other commodities, such as medical supplies. NUMEC and the Government of Israel are equal partners in this venture."

NUMEC's foreign sales representatives were listed as follows:

Elektronucleonica of Milan, Italy

A. Johnson Company - Scandinavian representative

Renee Schurmans Company of Brussels, representative for the Common Market nations.

Other miscellaneous contacts were listed as:

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Japanese Atomic Fuel Corporation

Government of Israel - providing 2 small  
3-watt terrestrial SNAP generators.Discussions were also being held with the  
following:Spanish Government officials regarding  
food irradiationMitsubishi International of Japan  
as a possible sales representativeIn Germany - looking into purchase of  
Dow Chemicals' 30% interest in  
ALKEM, a German company.In England - exploring with International  
Research and Development, Limited,  
for manufacture and sale of a laser  
ophthalmoscope.

The April 17, 1965, issue of "Business Week," a weekly magazine, carried an article entitled, "Plutonium edges its way from weapons to peaceful use in power reactors." This article stated in part that NUMEC announced receipt of more than \$1.6-million in orders for the development and production of plutonium-bearing nuclear fuels. This order was in addition to about \$1-million worth of plutonium fuel orders placed last December. The latest orders include:

1. A three-year program for the joint U.S. Materials Research and Development Board involving development and testing of mixed plutonium oxide, uranium oxide, and zirconium oxide fuels for plutonium recycle in thermal reactors.

2. A four-year program for the U. S. Atomic Energy Commission for development and testing of plutonium oxide-uranium oxide fuels for fast breeder reactors.

3. Production of 525 fuel rods containing mixed plutonium and uranium oxides in ceramic pellet form for AEC's San Francisco operations office.

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4. Production of 800 metallic plutonium-silicon-alloy fuel rods for the Brookhaven National Laboratory.

One of NUCIC's December orders was for 530 rods of mixed plutonium and uranium oxide pellets for Westinghouse Electric Corporation to fuel a utility-owned reactor--the first such use of this fuel, according to NUCIC.

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On 5/31/68 at Pittsburgh, Pa. File # Pittsburgh 97-123  
by SA [redacted] /bac Date dictated 5/31/68

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The above information is confidential in nature and  
should not be made public without the issuance of a subpoena  
duces tecum directed to the [redacted]

[redacted] Pittsburgh, Pa.

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(u) ~~(S)~~ On May 24, 1968, PG T-1 furnished the following information:

OSCAR S. GRAY, Vice-President - Treasurer, was born in [redacted]. He is single and became associated with the corporation on April 1, 1957. He graduated from Yale College and Yale Law School and holds a B.A. degree and LL.B. degree. From 1951 until becoming associated with this organization, he was a member of the Legal Advisor's Office of the Department of State, Washington, D. C. He handles financial and legal matters for the corporation. Life insurance in the amount of \$100,000 is carried on his life for the benefit of the business. He is Secretary-Treasurer of NUNEC Instrument and Controls Corporation; and is Treasurer of Nuclear De-contamination Corporation, both subsidiaries of NUNEC.

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LEONARD P. PEKOWITZ, Vice-President, was born in [redacted] and is married. He completed his formal education in 1943 and holds a B.S. degree from the University of Minnesota; earned his Ph.D. at Rutgers University. He was employed as Assistant Chemist of Rhode Island Experiment Station from 1943 to 1944; 1944 - 1945, Chemist, Los Alamos Atomic Laboratory; 1945 - 1946, Group Leader, Analytical Chemistry, Los Alamos Atomic Laboratory. In 1947, he was employed by Knolls Atomic Laboratory; and continued there until 1957, at which time he resigned. He served as Manager of Metallurgical and Chemical Analysis, and Manager of the Chemical Laboratory. He is author or co-author of over thirty papers and scientific journals, as well as many classified publications. He is a member of the American Chemical Society, A.A.A.S., and New York Academy of Sciences. He is in charge of chemistry. Life insurance in the amount of \$100,000 is carried on his life for the benefit of the business. He is General Manager of the Niagara Division, a subsidiary of NUNEC.

JACK R. NEWMAN, formerly Secretary - General Counsel of NUNEC, was born in [redacted] is married and is a native of New York State. He is an attorney by profession and a member of the Bar of New York State.

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NEWMAN is a graduate of Cornell University, School of Industrial and Labor Relations, and also a graduate of Columbia University Law School, Class of 1959. Prior to 1960, he was associated with General Counsel for the United States Atomic Energy Commission. Since 1960, NEWMAN had been counsel for the Joint Congressional Committee on Atomic Energy. NEWMAN served as a First Lieutenant in the United States Air Force from 1955 to 1957. He was elected to his present office about November 9, 1964.

FREDERICK FORSCHER, former Vice-President of NUMEC, was born in [redacted] and is married. He holds B.S. and M.S. degrees from Princeton University and earned his Ph.D. at Columbia University. He was assistant civil engineer at Princeton University, 1946 - 1947; Instructor, Mechanics and Material, Columbia University, 1947 - 1952; Supervisor, Mechanical Metallurgy, Westinghouse Electric Corporation, 1952 - 1957. He is a member of the Princeton Engineering Society; A.S.M. - S.L.A. Metallurgical Literature Classification Committee; A.S.M.; A.I.M.E.; S.E.S.A.; and A.S.H.E. He is in charge of metallurgical life insurance in the amount of \$100,000 is carried on his life for the benefit of the business.

[On July 16, 1968, PG T-2 advised that] (X)(S64)  
FREDERICK FORSCHER terminated his employment with NUMEC during 1968 and is currently employed at Westinghouse Electric Corporation, Pittsburgh, Pa.

D. Residence

Records of the Credit Bureau, Pittsburgh, Pa., as reviewed on May 24, 1968, disclosed subject has resided with his wife, [redacted]  
[redacted] Pittsburgh, Pa., since 1956.

Subject's residence is a modest home in a middle-class neighborhood.

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E. Status of Health

Sources familiar with subject have not furnished any information to indicate subject is not enjoying good health.

F. Foreign Travel

The files of the Passport Office, U. S. Department of State (USDS) reviewed December 1, 1965, disclosed that on June 25, 1965, subject was issued Passport F-753461 for proposed two to three weeks travel to England, France, Italy, Sweden and Israel for the purpose of business. He indicated that he would take another trip abroad within the next year. The passport will expire June 24, 1968, and may be renewed for five years.

SHAPIRO was previously issued Passport 754680 on August 12, 1955, to travel to Europe for the purpose of business.

In connection with his application for passport, correspondence from Westinghouse Electric Corporation indicated that subject's trip was being made at the request of the AEC in connection with Westinghouse Electric Corporation work in the field of atomic energy.

This passport was renewed on August 25, 1958. In a letter from subject, he indicated that he would travel to Switzerland to attend the Geneva Conference and to other European countries on business.

On February 2, 1960, he was issued Passport 1871659 for purpose of travel to France and Italy, for the purpose of business.

(U) On July 16, 1968, PG T-2 advised that during the past seven years subject has visited Israel approximately three or four times a year and understood his last visit was approximately two months ago.

(U) On December 14, 1968, PG T-3 advised that subject visited Israel with his wife, EVELYN SHAPIRO, from November 28, 1968, to December 12, 1968.

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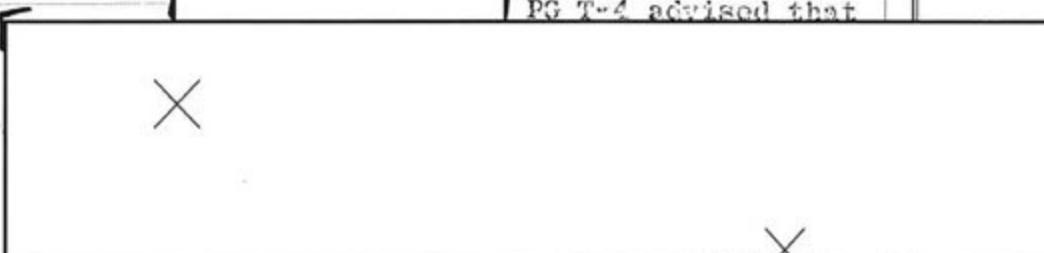
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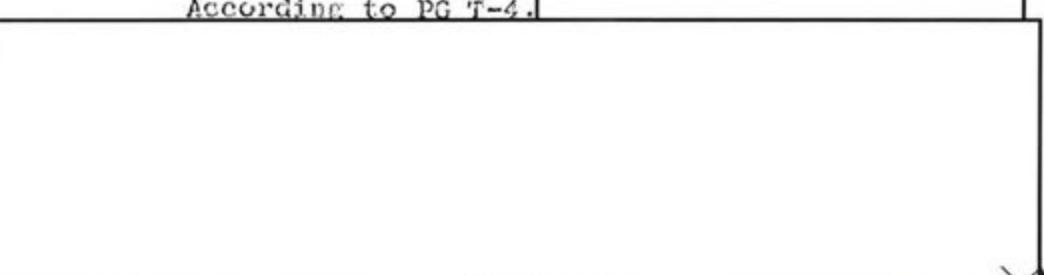
II. REGISTRATION ACT INVESTIGATION 1965

A. Predication

Investigation was instituted as the result of an undated memorandum from C. A. PALAZZOLO, Chief, Research Branch, Division of Security, AEC, disclosing that AEC had received information indicating subject and NUMEC, Apollo, Pa., have been negotiating with the Israeli AEC to establish a joint company in Israel. The company is to be known as the Israeli Numec Isotopes and Radiation Enterprises (ISORAD), Limited, and initially is to engage in the irradiation of citrus fruit. For this purpose, Cobalt 60 sources are to be imported from the United States.

(U) B. Contacts with Israeli Officials 

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Credit records, Indiana Credit Bureau, Indiana, Pa., indicate [redacted] has resided at [redacted] NUMEC, Apollo, Pa., since [redacted], and has been employed at [redacted]. He previously was employed by General Electric Corporation, Philadelphia, Pa.

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C. AEC Records (1965)

On June 9, 1965, Records, Division of Security, AEC, Germantown, Maryland, indicated that subject maintains an active "Q" clearance.

On September 29, 1965, AEC files, AEC, New York City, reflected that as of that date subject held a "Q" clearance with AEC.

The file contained a memorandum dated May 7, 1965, to HARRY A. VALSH, Director, Security and Property Management Division, New York, from C. A. PALAZZOLO, Chief, Research Branch, Division of Security Headquarters, concerning SHAPIRO. This memorandum reflects that subject and NUMEC have been negotiating with the Israeli AEC to establish a joint company in Israel to be known as ISORAD.

An AEC inspection file contained an AEC inspection report dated July 2, 1964, of the NUMEC, Administration Building, and Uranium Plants, Apollo, Pa. This report states in part that "NUMEC is a sales agent for the Government of Israel through its Minister of Defense, Division of Supplies, 830 Third Avenue, New York 22, New York." (S)(u)

"NUMEC has a contract with Chemical and Phosphates Limited, Post Office Box 1428, Haifa, Israel, for calcium-zirconium production. This contract also involves a joint program in food irradiation." (S)(u)

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PG 97-123

The inspection report also states that NUMEC has a contract with Japanese atomic firms and also contracts with the Australian Government to supply that government 330 plutonium-aluminum fuel elements. (S)(u)

The inspection report further states that NUMEC actively participates with foreign companies and foreign Governments in the field of civil nuclear energy. Further, NUMEC performs a wide range of classified and unclassified work for the AEC under various prime contracts and purchase orders. (S)(u)

The report also stated that located in the Administration Building of NUMEC, Apollo, Pa., is NUMINCO, a firm established to manufacture and market nuclear instruments and process control equipment. NUMINCO, according to this report, is owned by the Societe d'Applications Industrielles de la Physique, Paris, France, by NUMEC and by a group of private investors, each having about one-third interest. This commercial enterprise, according to this report, is completely divorced from NUMEC's AEC interests, either classified or unclassified. (S)(u)

D. Interview of Shapiro

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FEDERAL BUREAU OF INVESTIGATION

Date 6/21/66

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Dr. ZALMAN HORDECAK SHAPIRO of [redacted] that he did not have to make a statement, and that any statements that he made must be voluntary and could be used against him in a court of law. He was also advised that he had the opportunity to consult with an attorney prior to making any statements.

at [redacted] Dr. SHAPIRO advised that he was born [redacted] Ohio, and furnished the following information:

He is the President of Nuclear Materials and Equipment Corporation (NUMEC), Apollo, Pa. Approximately one year ago his company and the Government of Israel formed a company known as the Israel Numec Isotopes and Radiation Enterprises (ISORAD), Limited, on a partnership basis. NUMEC contributed one-third equity value and obtained 50% of the stock in ISORAD, and the Government of Israel owned the other 50% of the outstanding stock. The Board of Directors of ISORAD consisted of eight members, including four individuals appointed by NUMEC and four members appointed by the Israeli Government. Dr. SHAPIRO currently serves as Chairman of the Board of Directors of ISORAD. The other three members of the Board appointed by NUMEC and who are presently serving on the Board, are Pittsburgh area businessmen; namely, LEON FALK, President of a Pittsburgh re-development center; BENJAMIN ROSEN, prominent Pittsburgh realtor, and PHILLIP POWERS, past President of Western Pennsylvania Power Company who presently serves as Assistant Chairman of ISORAD.

The four Board members representing the Israeli Government occupy responsible positions in Israel, including the head of the Israel Atomic Energy Commission, head of the Research Branch of the Israel Atomic Energy Commission, and head of the Citrus Board of the Israeli Government, as well as a prominent Israeli banker. The last ISORAD Board meeting was held during October, 1965, and was attended by all the American Board members.

On 6/15/66

at Pittsburgh, Pa.

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SAs [redacted]

Date dictated 6/21/66

by [redacted]  
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Lengthy negotiations were undertaken by NUMEC with the Government of Israel for the purpose of organizing a company to undertake research in the field of atomic radiation. The radiation research was initiated with the hope that spoilage of citrus fruits in storage could be reduced by eradicating the bacteria which causes spoilage, and that irradiation would eliminate the transportation of live larvae of the Mediterranean fruit fly.

In addition to the citrus irradiation project, ISORAD is now engaged in research projects involving the irradiation of other agricultural products.

Prior to and subsequent to the formation of ISORAD, Dr. SHAPIRO and representatives of NUMEC discussed their plans relative to the organization of ISORAD with the United States Atomic Energy Commission, the Security Division of the Atomic Energy Commission, and with an individual of the United States Embassy in Israel, believed to be the United States Ambassador. Subsequent to the formation of ISORAD, news media in the United States were furnished details of the organization and plans of ISORAD.

As a result of his association with ISORAD, Dr. SHAPIRO has had business association with [redacted] b6 b7c Science Attaché, Embassy of Israel, Washington, D. C., and the Purchasing Commission of the Israeli Government in New York City. In this connection, NUMEC has sold its manufactured products to the Government of Israel after securing a license from the Export Control Division of the United States Department of Commerce.

Dr. SHAPIRO has made every effort to comply with the laws of the United States in connection with his business venture with the Israeli Government. He stated that neither he nor NUMEC has registered with the Registration Section of the United States Department of Justice, Washington, D. C., considering NUMEC's business association with the Israeli Government as a bona fide business venture. He stated that, in his opinion, he has never operated or served as an agent of the Israeli Government or any other government. His records of shipments with the Department of Commerce are open to inspection. He considered his company's association

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with the Israeli Government and ISORAD as a bona fide business venture for the sole purpose of making a profit for NUMEC. His company prior to the formation of ISORAD had unsuccessfully attempted to establish business ventures with Spain and Germany.

He stated that he desired to immediately review the statutes concerning the Registration Act of 1938 for the purpose of determining if he or his company were violating the law in any manner whatsoever. He pointed out that he had never considered the possibility that he or his company were violating the law.

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E. ~~Prosecutive Opinion~~

J. WALTER YEAGLEY, Assistant Attorney General, Internal Security Division, Department of Justice, Washington, D. C., advised the Federal Bureau of Investigation, Washington, D. C., by letter dated September 14, 1966, that because subject's company, NUMEC, of Apollo, Pa., required an export license from the Department of Commerce on its own behalf rather than that of the Israeli Government, it appears that neither subject nor his company is constituted an agent of a foreign principal under the Foreign Agents Registration Act, as amended, so as to require registration thereunder.

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III. SUBJECT'S SECURITY CLEARANCE

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On February 14, 1969, [redacted] Supervisor, Central Index File, Defense Industrial Security Clearance Office (DISCO), Columbus, Ohio, advised that records of that office revealed subject, who is President and Director of NUMEC, Apollo, Pa., and a resident of 5452 Bartlett Street, Pittsburgh, Pa., currently maintains a "Secret" clearance which was granted on December 1, 1960, by Air Research Development Command, New York, New York (now DISCO).

On January 28, 1969, O. R. SIMPSON, Assistant Director, AEC, Security Division, Richland, Washington, advised subject has an active security clearance at most of all AEC facilities in the United States, including an active "Q" clearance at Richland, Washington. He advised that subject visits numerous AEC facilities throughout the United States and has had continuing access to sensitive data at these facilities since at least 1960.

On June 4, 1958, [redacted] Central Personnel Index, Division of Security, U. S. AEC, Germantown, Maryland, advised subject was granted a "Q" clearance by Chicago AFC Office in May, 1949, terminated May, 1967; granted "Q" clearance May [redacted] which is still active.

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[REDACTED] On October 11, 1968, PG T-3 advised that currently involved in the Savannah River Project and is negotiating with the Government of South Carolina regarding the disposal of atomic waste. [REDACTED]

(U)

In connection with approved visits of a classified nature by subject to the AEC installation at Oak Ridge, Tennessee, records of that facility checked on July 8, 1968, indicate subject, between June 17, 1968, and July 18, 1967, made six visits to that facility.

The 1964 through 1967 issues of the "Nuclear Industry Magazine" contained information relating to the following projects in which NUREC had an interest:

1964

Boron plant contract  
Fish irradiators  
Hanford isotopes plant  
Hexafluoride  
Israel project  
Sefor fuel contract  
Shippingport fuel contract

1965

Food irradiators P-6  
Hawaiian fruit irradiator  
Indian Point  
Israel, cobalt-60 Shipment  
to plutonium fuel  
SNAP-25

1966

Food irradiation  
Heart pacemaker  
Scrap recovery contracts  
SNAP Generators  
Uranium contract, Sohio

1967

Medical electric equipment  
survey  
Bids for Hanford contract  
Irradiated Food Survey

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PG 97-123

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IV. INTERVIEW WITH FORMER NUMEC EMPLOYEES AND OTHERS

[On June 25, 1968, PG T-5 advised] that he is not personally acquainted with subject, however, has known of him since 1957, and has, on two occasions, visited NUMEC at Apollo, Pa.

(X)(u)

[PG T-5 advised] that subject was formerly employed at Bettis Atomic Power Division, Westinghouse Electric Corporation, Pittsburgh, Pa., and at the time of his termination to set up NUMEC, his relations with Westinghouse supervisors were believed to be other than amiable. This source was not in a position to elaborate further on this remark.

This source stated that several years ago he read an article in the "Wall Street Journal," which related to the fact that NUMEC had sustained unaccountable losses of nuclear material. He said it was rather common knowledge among those individuals acquainted with the security aspect of nuclear work that security conditions at NUMEC were substandard. [PG T-5] said that subject (X)(u) was credited with being the engineering genius behind the development and manufacturing of U-235 at NUMEC. He went on to say that NUMEC has experienced financial difficulties which, in view of their apparent progress, is not quite understandable. This source said subject is known to be interested in the stock market and reportedly has done quite well financially in stock investments. Subject, according to PG T-5, is reported to have many diversified financial investments and has maintained the reputation of placing his own interest before any company with which he is affiliated.

(X)(u)

[On July 3, 1968, PG T-6 advised] that he is not personally acquainted with subject, but has been closely associated with NUMEC and in this connection has come in contact with subject at several nuclear meetings. This source advised that during 1966, AEC conducted an investigation at NUMEC in an effort to determine the cause for a loss of quantity of enriched uranium which occurred at NUMEC apparently over a period of several years.

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(X)(S) (4) [PG T-6 advised] that following the inspection at NUMEC, an article appeared in the Paris, France, edition of the "New York Times," entitled, "U. S. Plant Loses 100 Kilos of U-235." This article was dated Washington, September 18, 1966, and was written by JOHN W. FINNEY. This source advised that the article in general stated that AEC had recently discovered that one of its industrial contractors had lost more than 100 kilograms of enriched uranium and enough to fabricate half a dozen atomic bombs.

The article indicated that the loss of this enriched uranium indicated that possibly inadequate controls were being utilized in this country in connection with nuclear materials. (X)(S) (4)

[PG T-6 advised] that following aforementioned news article, the Congress of the United States held hearings in Washington, D. C., and AEC promoted several meetings in connection with the problems of safeguards in nuclear materials management. At approximately the same period of time, an Ad Hoc Advisory Panel was established and during March, 1967, disseminated a lengthy report on the safeguarding of special nuclear materials, which was followed by the formation of the Division of Nuclear Materials Safeguard.

[Following this action by AEC subject, according to PG T-6] in an effort to improve security (X)(4) conditions at NUMEC, hired a former AEC inspector.

(4) (X) [PG T-6 advised] that NUMEC frequently sends individuals and groups of atomic scientists from NUMEC to other countries to assist these countries in the field of atomic energy.

(4) (X) [PG T-6 advised] that three or four years ago a group of atomic scientists from NUMEC were reported to have visited Israel for the purpose of assisting that country in their development of atomic energy.

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PG 97-123

(u) ~~(S)~~ According to PG T-2, Westinghouse Electric Corporation of Pittsburgh, who has had contracts with NUMEC to handle its nuclear scrap, were invariably advised by NUMEC that Westinghouse had overestimated the amount of nuclear materials in the scrap. This source advised that it was common knowledge that Westinghouse's estimates were generally reliable and accurate. PG T-2 speculated that over a period of several years, NUMEC was, therefore, in a position to accumulate a considerable amount of nuclear materials for which there was no accounting as far as the official records were concerned.

(u) ~~(S)~~ On July 16, 1968, PG T-2 advised that the primary work of NUMEC is the manufacture of fuel for nuclear reactors and to reprocess fuel scraps left over after manufacture.

(u) ~~(S)~~ PG T-2 advised that NUMEC also receives material from other firms for recovery of nuclear materials through its recovery and reprocessing machinery. PG T-2 stated that an attempt in September, 1961, was made by NUMEC to effect a material balance, i.e., determine if all material being reprocessed was being accounted for. This balance was not obtainable, PG T-2 related, because the methods and processes being utilized by NUMEC were not thorough enough. After a new processing method was installed which entailed the use of additional filters, PG T-2 stated the losses were reduced considerably and a savings to the company resulted.

(u) ~~(S)~~ PG T-2 pointed out some of the firms that dealt with NUMEC would dispute NUMEC figures on the amount of material recoverable and stated as recovered by NUMEC. This source said litigation was initiated by some firms so their material would be either recovered or the firms would receive cash to compensate for their losses due to NUMEC's poor processes.

(u) ~~(S)~~ PG T-2 pointed out the two materials used in reactors, uranium and plutonium, are obtained from AEC installations for use in the various products and the nuclear materials left over on recovery from scraps and waste must be returned to the AEC establishment. A penalty is imposed on the firm if the nuclear material is not returned within a set period of time, usually 60 days. PG T-2 related, The failure to reprocess and recover materials quickly, efficiently and thoroughly,

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PG 97-123

(u) (S) [PG T-2] said resulted in financial losses to NUMEC, which [PG T-2] advised he heard reached over \$500,000.

(u) (S) [PG T-2] added that subject is an active supporter of Israel; has traveled there frequently; and has produced at least one large food irradiator for that country. This source pointed out subject has directed that all profits from NUMEC vending machines, candy, cigarettes, food, soft drinks, etc., would be used for CARE packages to Israel.

[On August 13, 1968, PG T-2 advised that] (S) (u) in discussing the shortages of enriched uranium at NUMEC over a five year period, that this source learned from a NUMEC employee that in 1966 the AEC conducted an inspection of the NUMEC facilities. [PG T-2] (S) (u) also learned from this employee who was in a position to establish a reason for large losses, that he was unable to explain the shortages. Employee advised [PG T-2] (S) (u) he had no reason to suspect that subject or any employee of NUMEC stole the material, but no logical explanation could be offered by the employee.

(S) (u) [PG T-2] also related that an incident was brought to his attention by another NUMEC employee which involved the inventory of nuclear materials in the NUMEC vault. This second employee advised [PG T-2] (S) (u) that he was instructed to inventory the contents of the vault and after completing the task, gave his figures to a supervisor. The supervisor questioned the figures, asserting there should be more materials than the employee reported and when employee refused to change his figures, the superior discarded the inventory and had another employee recount the materials.

(u) (S) [PG T-2] also related that a fire occurred in the NUMEC vault approximately four years ago. [PG T-2] (S) (u) related that some nuclear materials and records were destroyed, but the exact losses were never ascertained. This source also pointed out that the AEC has inspected and inventoried NUMEC more frequently than average due to shortages arising at the plant.

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PG 97-123

On December 18, 1968, [redacted]

[redacted] advised that [redacted]

[redacted]  
He stated that NUMEC was a fifty per cent owner of a corporation known as ISORAD and the other fifty per cent was owned by the State of Israel. This corporation was organized for the purpose of experimenting and the production of radiation techniques. He stated that the use of radioisotopes was to be developed by this corporation for various purposes, including the inspection of the shelf life of oranges in Israel.

[redacted]  
It would also be used for the radiation of fruit flies which, it was hoped, would develop in the destruction of fruit flies in Israel; \$25,000 was invested by NUMEC and \$25,000 was invested by the State of Israel in order to organize ISORAD. NUMEC got back most of the \$25,000 by selling to ISORAD a radiator developed by NUMEC. He added that ISORAD never accomplished anything beyond the experimental stage and experiments were conducted in Israel for the above stated purposes. He added that NUMEC was a totally independent corporation, of which the subject was President until April 17, 1967, when it was acquired by the Atlantic Richfield Corporation. He stated that the subject is a Vice-President of Arco Chemical Company, a division of Atlantic Richfield Corporation.

[redacted] continued that ISORAD had no personnel assigned to duty in the United States and had no building sites in the United States. Certain Israeli persons would have titles in ISORAD and conducted the above stated experiments in Israel.

[redacted] went on to say that the subject was very friendly with Israeli Scientific Attachments at the Israeli Embassy in Washington, D. C., both professionally and on a social basis. He did not recall

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the names of any of the Israeli personnel with whom the subject was in association.

On November 22, 1968, DALE NIELSEN, Lawrence Radiation Laboratory (LRL), Livermore, California, advised that about three years earlier, he had partial responsibility for a project in the Special Materials Group (SMG) involving a research and development contract with SHAPIRO's firm, NUMEC, for the processing of nuclear material. SHAPIRO and his firm had been a source of concern to NIELSEN because LRL furnished NUMEC special nuclear material for processing and the firm had been unable to satisfactorily account for quantities of such material. NIELSEN noted that accountability is strict because of the cost, and toxicity of this substance. Past experience with processes of the type conducted by NUMEC had established average percentages of loss to be expected, but the firm rather consistently reported losses in excess of these criteria.

On January 17, 1969, [REDACTED] SMG, LRL, advised that for a period of about two and one-half years beginning four years earlier, he had been directly involved with the contract between LRL and NUMEC under which the firm processed nuclear material. During this time, he had occasion to meet with SHAPIRO at LRL on two or three occasions and met him at his company on a number of occasions.

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Certain aspects of the performance of NUMEC under the contract had been unsatisfactory, particularly in the area of health standards expected of the firm in handling toxic materials, regarding routine handling and safeguarding of classified information furnished the company and regarding unexplained loss of nuclear material.

Under the contract, NUMEC was furnished highly sensitive information in the secret classification concerning operations at LRL. [REDACTED] had no reason to think that such information had ever been compromised in any manner through the actions of anyone in the firm. He did note, however, that security procedures in handling such information had been unsatisfactory and felt this would enhance the possibility of inadvertent compromise.

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(U) **V. CONTACT WITH ISRAELI OFFICIALS**

(S)(u)

Meeting At SHAPIRO  
Residence November 3, 1968

(S)(u)

(U) PG T-3 advised on November 3, 1968, that a meeting was held at SHAPIRO's home, Pittsburgh, Pa., on that date, which was attended by Dr. AVRAHAM HERMONI, Israeli Scientific Counselor, Washington, D. C., and persons named below. PG T-3 advised that, among other things discussed at this meeting, it was brought out that Israel needs information regarding image intensifier tubes; information concerning the over-all field of reliability and failure rates of certain manufactured products including any studies completed in this field; information concerning the training of personnel in the operation of pressurized water reactors, including the placement of such personnel in a training program in the Westinghouse Electric Corporation (WEC) at Pittsburgh, Pa.

(S)(S)(u)

In addition to the items mentioned above, PG T-3 advised on November 8 and 9, 1968, that HERMONI was also interested in a personnel detection device manufactured by WEC. According to this source, SHAPIRO also indicated on November 8, 1968, that Israel is also seeking information regarding water poisoning, especially how bacteriological or radiological poison would effect specific chemicals in a water system. PG T-3 was not able to furnish any additional data regarding specific items mentioned by HERMONI and others at the meeting but SHAPIRO, according to this source, indicated each person at the meeting was given a specific assignment to obtain information needed by Israel and should furnish the information to HERMONI either orally or in writing. SHAPIRO also expressed the hope that persons at the meeting who were given assignments by HERMONI will be patient and productive as HERMONI is probing in many fields and Israel needs the information on an urgent basis.

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PG 97-123

PG T-3 advised on November 3, 1968, that the following persons attended the meeting at SHAFIRO's home on that date, and during the morning of November 3, 1968, Special Agents of the FBI observed these individuals enter SHAFIRO's residence at Pittsburgh, Pa. Background data concerning these individuals was obtained, in part, from "American Men of Science - a Biographical Directory," (1967 Edition) which will be referred to as AMS.

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Dr. WALTER JUDA — On December 3, 1968, it was established that WALTER JUDA is President of the Prototech Division, Bolt, Beranek, and Newman, Inc., 50 Moulton Street, Cambridge, Mass. He was born [REDACTED] at [REDACTED] Germany and became a United States citizen in [REDACTED]

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[REDACTED] He currently resides at [REDACTED] Lexington, Mass., is married and has four children. AMS indicates JUDA was a lecturer at Harvard University, was a Consultant at the Oak Ridge National Laboratory 1950-54. The Prototech Division, mentioned above, is engaged in chemical research, their main area of interest being fuel cells and air pollution. It is noted PG T-3 advised on November 3, 1968, that JUDA would stay at SHAFIRO's residence over night and visit NUMIC on November 4, 1968.

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Dr. BENJAMIN F. MILLER -- On October 30, 1968, records of the Personnel Office, University of Pennsylvania, Philadelphia, Pa., reflected that Dr. BENJAMIN F. MILLER is an Associate Professor in Surgical Research at the school. According to these records he was born September 10, 1907 at Pittsburgh, Mass., and currently resides at Philadelphia, Pa. He is married to JUDITH WINTERSTEIN MILLER and they have four children. MILLER attended Harvard Medical School receiving an M.D. Cum Laude in 1933. He has been employed in various clinics and hospitals in New York, Chicago, Washington, D. C., Cambridge, Mass., and Cincinnati, Ohio.

(U) [ ]

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[ ] JOSEPH LEMPERT ... This reflects that LEMPERT was born July 3, 1913, at North Adams, Mass.; was educated at Massachusetts Institute of Technology (MIT) and Stevens Institute (US); is married and has three children; and lives at 140 Spring Grove Road, Pittsburgh, Pa. LEMPERT has been employed at NEC since 1936 in various capacities at different NEC installations; he is presently employed at NEC Research and Development Center; that his special fields include x-rays, electronic beams, electronic welding and x-ray image intensification. [ ] PG T-5 advised on January 21, 1969, that LEMPERT received a Department of Defense (DOD) "Secret" clearance through Defense Internal Security Clearance Office, (DISCO), Columbus, Ohio, on November 19, 1958.

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[ ] was born [ ] and indicates [ ] obtained a PhD degree in Chemistry in 1948 from John Hopkins University. Pittsburgh Credit Bureau records reflect [ ] resides at [ ]

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[REDACTED] Pittsburgh, Pa., with his  
Chemistry at the University of Pittsburgh since  
1964; that he was employed at the Aberdeen Test  
Grounds, Maryland in the past. While at  
Aberdeen he was Supervisory Chemist and Chief of  
the Physical Chemistry Section. (X) (S) (S)

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(U)

[REDACTED] was born [REDACTED] at  
Pa.; obtained BS, MS and D of Sc  
(now Carnegie Mellon University), Pittsburgh, Pa.  
He has been employee of the University of  
Pittsburgh since 1965 and is Chairman of the  
Department of Metallurgy and Materials  
Engineering at that school. Prior to coming to  
the University of Pittsburgh he was employed in  
various capacities in the Office of Naval  
Research at Washington, D. C. Pittsburgh credit  
records reflect he lives with his [REDACTED]  
and family at [REDACTED] Pittsburgh, Pa. (X) (S) (S)

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(U)

[REDACTED] was born [REDACTED] at Harrisburg,  
Pa.; obtained MA and PhD Degrees from Columbia  
University in Physical Chemistry. He has been  
employed at the University of Pittsburgh since  
1953 in the Chemistry Department and is a full  
Professor at that school at present. He was  
employed by the AEC as a Fellow and Associate in  
Chicago 1949-53. Pittsburgh credit records  
reflect [REDACTED] lives with his [REDACTED]

(X)

at [REDACTED] Pittsburgh. Records  
of the U. S. Department of State, Passport Office,  
Washington, D. C., as checked January 15, 1969,  
revealed that [REDACTED] in 1952 had a Research  
Fellowship at Rehovot, Haifa, Israel, which  
would require an eleven month stay by [REDACTED]

(X) (S) (S)

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[REDACTED] AUS indicates [REDACTED]  
 was born [REDACTED] in [REDACTED] 1940; obtained BS degree (Physics) from Massachusetts Institute of Technology in 1943. He has been employed at Cornell University, Ithaca, New York since 1949 in Engineering Physics and is now a full professor at that school. In 1962-63 he was visiting professor, Hebrew University, Israel. He is married and has three children. (X)(S)

(U) [REDACTED] was born [REDACTED] at Brooklyn, New York, received BS (1945), Duke University (MS and PhD). all degrees in Chemistry. He has been employed at Cornell University since 1947 and is now a full professor of Chemistry at that school. In connection with his field of Chemistry, [REDACTED] has been to Denmark, Israel and Australia. He was a consultant to the Brookhaven National Laboratory, 1950-56. He resides at [REDACTED], New York. (X)(S)

(U) [REDACTED] This individual was observed by Special Agents of the FBI deplaning from TWA Flight 197 from LaGuardia Airport, New York City, at the Greater Pittsburgh Airport, on November 3, 1968, at 10:20 AM. He was observed in the company of Dr. AVAURIN [REDACTED] BENJAMIN F. MILLER and subject's wife, at [REDACTED] residence. [REDACTED] entered with the above named persons at 11:00 AM, November 3, 1968. (X)(S)

(U) attended the meeting on November 3, 1968 it is pointed out that PG T-3 has advised that [REDACTED] were invited but were unable to attend. (X)(S) (U)

(U) [REDACTED] Pittsburgh Credit Bureau records reflect [REDACTED] resides with his [REDACTED] at [REDACTED] Pittsburgh, and is employed as a chemist at Carnegie-Mellon University, Pittsburgh, in industrial research. AUS indicates [REDACTED] was born [REDACTED] at [REDACTED] and obtained a BS and MS from Columbia University, New York City. He was also a visiting professor at the Israel Institute of Technology during 1961 and 1962. (X)(S)

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DR. JACOB E. COLEMAN -- According to press releases prepared by the Ford Motor Company, Detroit, Mich., COLEMAN was Director of the Scientific Laboratory for the Ford Motor Company, entering on duty with that firm in 1955. He was born [REDACTED] New York; obtained degrees from Yeshiva University (BS) and University of Pennsylvania (MS and PhD); he was employed at WEP, University of Pittsburgh and Carnegie Institute of Technology. He was a Consultant to the U. S. AEC; he was invited to the USSR by the Soviet Academy of Science in 1960 as part of a United States Department of State sponsored program. (EX-50)(X)

(U) Others who attended the meeting at SHAMIR's home on November 3, 1968, who were not among the original invitees, were the following, according to PG T-3. These persons were also observed by FBI Special Agents: (EX-50)(X)

[REDACTED] AUS indicates [REDACTED]  
[REDACTED] was born [REDACTED] [REDACTED] Germany, obtained his degrees in Electrical Engineering from Cornell University in 1944 and obtained a PhD in Physics from the same school in 1953. He has worked at WEC since 1952, now holding the post of Advisory Physicist. Pittsburgh Credit Bureau records reflect [REDACTED] lives with his wife [REDACTED] at [REDACTED] Pittsburgh.

[REDACTED] at [REDACTED] Washington, D. C., as checked Passport records, Washington, D. C., as checked January 14, 1969, reflect that [REDACTED] intended to travel to Israel, France and England in 1962 when he received his passport. These records also indicate that [REDACTED] was naturalized a United States citizen at Ithaca, New York, [REDACTED]

(U) PG T-5 advised on January 21, 1969, that [REDACTED] received a DOD "Secret" clearance through DISCO, Columbus, Ohio, January 13, 1966. (EX-50)(X)

[REDACTED] AUS indicates [REDACTED] was born [REDACTED] Germany, obtained B of S Degree from Pratt Institute, New York City, 1951, MS degree 1953 from NYU. [REDACTED] has been employed at WEC since 1950 and is presently General Manager, Pressurized Water Reactor Plant Division, Atomic Power Division, WEC. (EX-50)(X)

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PG 97-123

(U) Pittsburgh credit records reflect [ ] lives with his [ ] at [ ] Pittsburgh, Pa. It is noted [ ] was concerned regarding pressurized water reactors and the training of personnel to operate them in conjunction with this meeting. ~~(S)(S)~~

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(U) ~~105~~ With regard to this meeting, it is also pointed out according to PG T-3, discussed the water poisoning information with EMMANUEL SHAPIRO, on November 5, 1968. ~~(S)(S)(S)~~

(U) [ ] ... AMS indicates [ ] was born [ ] Colo.; obtained an AB [ ] Degree from John Hopkins (1941), Master of Engineering University of California (1943). He was visiting Professor at the Israel Institute of Technology 1966-68. The 1967-68 University of Pittsburgh Faculty and Staff Directory reflects [ ] is Professor of Environmental Health, Department of Public Health Practice, Graduate School of Public Health, University of Pittsburgh. Pittsburgh credit records reflect [ ] resides at [ ] Pittsburgh, with his [ ] that he formerly resided, year not indicated, at [ ] Haifa, Israel. ~~(S)(S)~~

(U) Contact with Colonel AVRAHAM ELONI

~~(S)(S)(S)~~ (U)

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(U) PG T-3 advised on October 10, 1968, that SHAPIRO discussed with one ELONI (phonetic) that ELONI planned to leave the United States from New York City to return to Israel on October 12, 1968. ELONI and SHAPIRO, according to this source, discussed the impending sale of United States jet fighter planes to Israel and ELONI appeared optimistic, believing the deal would go through. SHAPIRO thought the United States would hold the planes as a bargaining tool in the Israeli-Arab negotiations, and he was not optimistic about Israel's chances of getting the planes. SHAPIRO, according to this source, said he would like to celebrate

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PG 97-123

- (U) the fact that Israel obtained the planes when and if they do. ~~(S)(b)(2)~~

According to PG 97-3, SHAPIRO pointed out to source that he was working on certain problems regarding unnamed materials of interest to Israel. In connection with these materials, SHAPIRO related he had written to the United States AMC for general information regarding availability of materials for domestic and foreign uses. Source indicated SHAPIRO said he requested speedy action on his letter or sales and developmental matters depended on the AMC's reply. ~~[ ] (S)(b)(2)~~

SHAPIRO indicated, source advised, he would be in contact with MORNIE in Israel when he visits that country in November or December, 1968. According to PG-3, SHAPIRO indicated he had discussed the whole matter with AVRAHAM HERZONI and EMMANUEL BIEGAN and they are also anxious to move ahead in these matters. ~~(S)(b)(2)~~

PG T-9

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(S) According to PG T-9,

(S) PG T-9

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(S)

(C) It is pointed out AMC, Washington, D. C., made available a copy of SHAPIRO's letter to that agency. SHAPIRO's letter dated October 8, 1968, generally, made inquiry regarding availability, handling, shipping and uses of Plutonium 238 (Pu 238). His letter also specifically asked for information regarding半wave and millivolt thermoelectric generators powered by Pu 238 and the sale of ~~(S)(b)(4)~~

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PG 07-100

those items to foreign and domestic customers. ~~(S)(B)~~<sup>(u)</sup>

AEC Chairman Dr. GLENN T. SEABORG, by letter dated November 20, 1960, advised SHAPIRO that Pu 238 can be used for foreign and domestic applications; that criticality of Pu 238 is the determining factor in the use of that material in generators and other uses; that licensing by the AEC would dictate what producers would use Pu 238 in certain products for either foreign and domestic uses. ~~(S)(B)~~<sup>(u)</sup>

(U) On February 16, 1960, PG T-3 advised that subject's wife, [REDACTED] contacted AVRAHAM HIRSHONI on that date to advise that subject would be unable to meet with HIRSHONI as planned. [REDACTED] explained to HIRSHONI that a personal emergency had arisen and that subject would contact HIRSHONI and reschedule the meeting for a later date. ~~(S)(B)~~

(U) PG T-3 advised on February 16, 1960, that SHAPIRO cancelled his appointment with HIRSHONI because [REDACTED] was in difficulty.

PG T-3 related [REDACTED]

[REDACTED] according to PG T-3, has contacted [REDACTED]

(U)

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PG .97-123

(U) [Dinner at Israeli Embassy,  
Washington, D.C.] ~~(S)(C)~~

(U) PG T-3 advised on November 8, 1968, that SHAPIRO indicated that he and his wife, [redacted] would attend a dinner at the Israeli Embassy, Washington, D.C., on November 26, 1968. SHAPIRO related he had received a written invitation from the Israeli Ambassador to the United States, YA'ACHAK RUBIN, the dinner being held to honor the Israeli Defense Minister. ~~(S)(C)~~

(U) [SHAPIRO] according to PG T-3, would be able to discuss with the Defense Minister the matter of image intensifier tubes and the exact nature of Israeli problems in that field. ~~(S)(C)~~

Miscellaneous Contacts

(U) PG T-3 advised on October 6, 1968, that subject told his sister, Mrs. ALICE (GOLDSTEIN) FRIEDMAN, who was preparing to visit Israel October 10, 1968, that she should contact [redacted] (phonetic) while she is in that country and extend his greetings to [redacted]. SHAPIRO pointed out to his sister that she would find [redacted] interesting and extraordinary. SHAPIRO also advised his sister to be sure and get in touch with [redacted] (phonetic), a native of Argentina presently in Israel, who is also very interesting. ~~(S)(C)~~

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PG 97-125

On September 6, 1968, [redacted] Security  
Office, AEC, Germantown, Maryland, advised that AEC,  
New York, had recently been requested by the following  
individuals to visit NUMEC, Apollo, Pa.: (S)(u)

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

Dr. EPHRAIM BIEGUN,  
Department of Electronics,  
Israel  
born - [redacted] London 7/12/1937 (S)(u)

AVRAHAM BENDOR,  
Department of Electronics,  
Israel  
born - [redacted] Israel (S)(u)

RAPHAEL EITAN,  
Chemist,  
Ministry of Defense,  
Israel  
born - [redacted] Israel

On September 6, 1968, CIU: PALAZZOLO, supra,  
(U) advised that NUMEC Security Manager indicated that  
HERMONI and BIEGUN would visit NUMEC to discuss with  
SHAPIRO thermoelectric services; the proposed date of  
visit to be September 10, 1968. (S)(u)(S)(u)

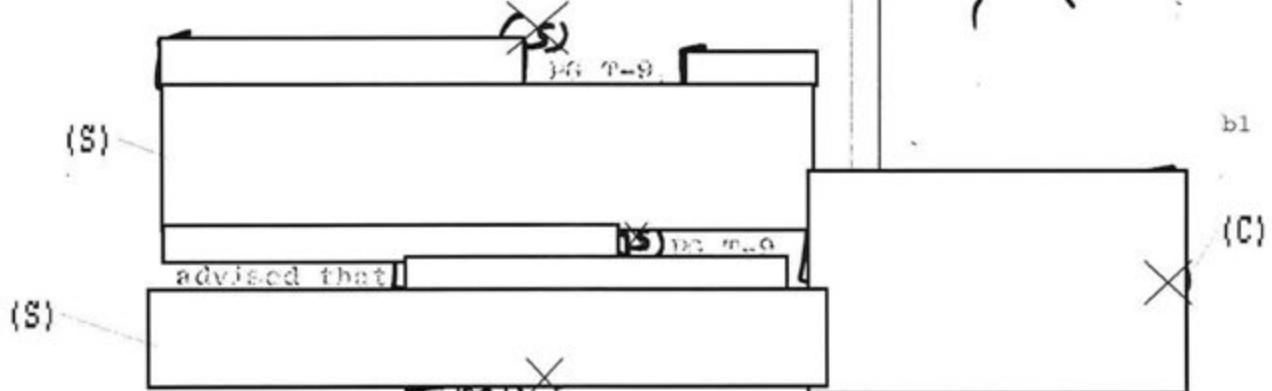
On October 7, 1968, PALAZZOLO-advised that  
(U) HERMONI, BENDOR, EITAN and BIEGUN, Israeli citizens,  
visited NUMEC September 10, 1968. (S)(u)(S)(u)

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PG T-97-123



(U) PG T-3 advised, on December 15, 1968, that on that date subject was in contact with individuals in the Pittsburgh area concerning his visit to Israel which began November 28, 1968, and ended December 12, 1968. According to PG T-3, subject informed JOSEPH SHARITZ, an attorney and long-time personal friend and business associate, that in addition to appointments with Israeli people, he attempted to conduct some NUMEC and ISCOM business. Subject indicated he had discussed several business opportunities with people in Israel.

(U) According to PG T-3, SHAPIRO also discussed his recent trip to Israel on December 15, 1968, with OSCAR GRAY, an attorney from Washington, D.C., and Vice President of NUMEC. According to this source, SHAPIRO indicated his two-week visit to Israel was hectic but it was also fruitful in that he gained a better understanding of the current political situation in Israel and in addition, was furnished information concerning several business opportunities of mutual benefit to Israel and himself. Source indicated SHAPIRO believes Israeli officials are disorganized and discouraged; that they are skeptical about receiving jet fighters from the United States; that WILLIAM SCRANTON's visit for President-Elect NIXON did not hold the authority to make any final decisions on the Middle East.

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PG 97-123 X

(U) PG T-3 [related that SHAPIRO pointed out to GRAY that Israel's immediate need is financial and at this stage the government appears to be unable to trust anyone. It was the subject's opinion that Israel is capable of building fighter planes but their lack of knowledge in the new technologies prevent them from going ahead in this field.] ~~(S)~~

(U) [SHAPIRO, according to PG T-3, pointed out to GRAY that one business proposition was of interest to him in particular. He said it involved building a testing laboratory in Israel and the Israeli Government is willing to guarantee two million five hundred thousand dollars if five hundred thousand dollars can be raised by the subject. Subject indicated he is interested in attempting to raise that last named amount. Subject also mentioned to GRAY that the Israeli Government is interested in starting an aluminum extraction facility, but this would take a two million dollar investment. SHAPIRO said this is a sound investment because an investor could get ownership of half of the extraction plant for the million dollars.] ~~(S)~~

(U) PG T-3 said subject also discussed other business opportunities, including a complete plastics industry, nuclear reactors, drilling techniques for use with diamonds. Subject indicated, however, that the most attractive deal appeared to be the laboratory, and he was going to pursue this matter further. ~~(S)~~

(U) OSCAR SHARON GRAY, a Yale University graduate, when filing a POG in connection with a government inquiry in 1969, indicated that he was on the mailing list of the Progressive Citizens of America, Student Group, formerly known as the Independent Citizens Committee ~~(S)~~

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PG 97-123

X  
of the Arts, Sciences and Professions, (ICCAPP) in 1954. GOMAY also indicated he was formerly associated with the New Haven Civil Liberties Association (NHCLA) which was headed by Yale Professor THOMAS L. JEFFERSON. (S) (U)

In 1954, GOMAY listed one Professor [REDACTED] Yale University, New Haven, Connecticut, as a reference in connection with an application for government employment. (S)(U)

It is noted in the House Committee on Un-American Activities Book (HCUA), dated December 1, 1961, the ICCAPP was cited by that Committee as a Communist Front. (X) (U)

Professor [REDACTED] was identified in 1959 by LOUIS WEINER, former Managing Editor, "Daily Worker," east coast communist newspaper, as a concealed CP member.

Professor [REDACTED] Yale University, was named as a member of several organizations which have been cited by the HCUA or the Attorney General, in accordance with Executive Order 10450, as Communist Fronts, such as, to name a few, Emergency Civil Liberties Committee; American Committee for Protection of Foreign Born; National Lawyers Guild; Communist "Peace Petition" Campaign. According to HCUA publication cited above, [REDACTED] also active in various CP cruises and activities beginning in 1953.

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PG 97-123

PG T-3 advised on December 15, 1968, that on [redacted] that date, Subject, while in contact with [redacted] a NUMEC employee, indicated that his trip to Israel gave him the opportunity to get some overdue rest. SHAPIRO pointed out to [redacted] he had no close allies while in Israel. Subject pointed out to [redacted] according to PG T-3, [redacted] that as long as the Russians remain in the Middle East, they provide an apron behind which the Arabs can hide and that nothing is going to prevent the Arabs from their continued sneak-attacks on Israel. It was the subject's opinion that the Arab nations do not intend to negotiate for peace because the Russians prefer to keep that area of the world in turmoil. Subject said that he learned in Israel that Arab guerrillas have been trained in Jordan by (U) - North Vietnamese and Chinese.

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(U) PG T-3 advised on December 21, 1968, that SHAPIRO's wife, [redacted] requested [redacted] wife of JOSEPH SWANTZ, mentioned above, to carry a package on her trip to Israel and deliver this item to [redacted] (phonetic) who is connected with Israeli Atomic Energy Commission.

(C)

PG T-9

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On September 25, 1968, PG T-8 advised that on June 16, 1968, [redacted]

(C)

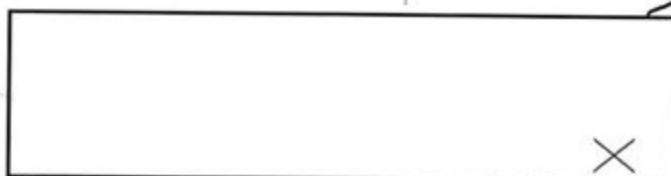
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PG 97-123

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[On April 26, 1960, PG T-10, another Government agency which conducts security investigations, advised [REDACTED] Senior Metallurgist, WEC, Pittsburgh, was contacted regarding subject. [REDACTED] pointed out that he was formerly the subject's Superior at WEC prior to the time SHAPIRO founded NUMIC. He pointed out that SHAPIRO had done quite an extensive amount of traveling abroad in connection with his work for the United States AEC while at WEC and has also traveled considerably in his present position. He said that SHAPIRO has foreign connections, including Israel, and he recalled that SHAPIRO had been an officer in the organization known as Technion, which is a group supporting the University of Israel. He said he also knew that SHAPIRO was a member of a Zionist organization, exact name not recalled.] (Ref 4) 17/11/

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PG 97-123

(U) VI. COMMENTS REGARDING SHAPIRO'S MIGRATION TO ISRAEL

PG T-3 advised on October 6, 1968, that SHAPIRO's sister, Mrs. ALEX (ZIPPORAH) SCHIFFRIN, while discussing her then impending trip to Israel, asked SHAPIRO where his property in Israel is located. According to PG T-3, SHAPIRO did not reply to the query.

PG T-3 advised on October 16, 1968, that SHAPIRO told JACK COLEMAN, then Vice President of Ford Motor Company, Detroit, Michigan, that he had given some consideration to resettling in Israel on a permanent basis. COLEMAN, who left Ford to become Group Vice President of Research and Development for the Xerox Corporation, Rochester, New York, also indicated he had given this matter some thought in the past. According to source, COLEMAN and SHAPIRO agreed that with the situation as it is in the United States, that with CHUCK C. WALLACE running for President, and the general unrest in the country, conditions here were similar to those in Germany in the 1930's.

Both also expressed the belief that if fighting became necessary, they would prefer to fight in Israel where a just cause existed, source advised.

(C) On October 26, 1968, PG T-3 advised that SHAPIRO indicated he learned of an interesting business opportunity in Israel. He said Allied Chemical Corporation (ACC), is building a chemical facility between Dimona and Arad near the Dead Sea, and ACC has encountered labor troubles; and as a result, construction has been very slow. According to source, SHAPIRO, who believes ACC may want to get out of the job, said that since Israel needs chemical facilities, the Israeli Government is offering very generous terms both as to financing and ownership of the plant. SHAPIRO indicated he believed he could raise the necessary money, and he would head a syndicate which would operate the plant.

(U) PG T-3 also related that SHAPIRO said the main product of the facility, if it is constructed, would be 60-100-tons of uranium annually with other main products including boric acid.

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itrium oxide and hydrobromic acid. SHAPIRO said he would contact one [redacted] (Theacetic), an acquaintance who has been with ACC for several years, and who will be in Israel at the same time as

(U) SHAPIRO in late 1968. (X)(X)

On December 9, 1968, it was established that [redacted] is the Chief Engineer, Specialty Chemicals Division, ACC. He resides at [redacted] New Jersey, and has been employed by [redacted] ACC since October, 1949. He has a DOD, "Secret" clearance and an AEC QX clearance. (X)(X)

(U) PG T-3 has advised that no additional information regarding the ACC doul has been obtained from SHAPIRO. (X)(X)

(U) PG T-3 advised on November 8, 1968, that SHAPIRO, while discussing the possibility of living in Israel permanently, was advised by [redacted] that he is of more value to Israel if he continues to reside in the United States where Israel's problems can be more readily resolved. (X)(X)

(U) On November 8, 1968, PG T-3 advised that on that date SHAPIRO's sister, Mrs. SCHEFRIN, mentioned above, remarked that her recent vacation in Israel was "fantastic," due to her relationship to the subject. She related that everyone in Israel knows ZALMAN SHAPIRO. (X)(X)

(U) PG T-3 advised on December 13, 1968, that on that date SHAPIRO indicated to JOSEPH SWARTZ, attorney and personal friend, that he is seriously considering the possibility of settling in Israel within the next five years. He made this comment, according to PG T-3, as a result of his recent trip to that country, having returned from Israel on December 12, 1968. With regard to this move, SHAPIRO indicated he is not positive of the type of work he would pursue should he migrate to Israel. Source indicated that SHAPIRO said he had discussed several business opportunities with people in Israel, but he had reached no conclusion in this regard. (X)(X)

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pg 97-123

VII. MISCELLANEOUS

(u) (S) [PG T-7 advised on June 5, 1968] that DAVID UZMA LOWENTHAL is a long-time personal friend of SHAPIRO. According to PG T-7, LOWENTHAL is president of Raychord Corporation, which has its facility immediately adjacent to NUMEC at Apollo, Pa. This source has pointed out that Raychord Corporation, a steel fabricating firm, occupied the same building with NUMEC prior to the time NUMEC moved to its new location on the outskirts of Apollo. This source also pointed out that LOWENTHAL is also an officer of Apollo Industries, and this company was instrumental in establishing NUMEC through the investment of a substantial amount of money when NUMEC was formed.

PG T-9

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(u) (S) [PG T-7], in addition to the information furnished above, has advised that LOWENTHAL has traveled to Israel frequently during the period [PG T-7] has been acquainted with him, which is over three years. Same source has pointed out that LOWENTHAL has been active in the United Jewish Appeal (UJA), and is one of its principal officers in the United States.

(U) PG T-3 advised on October 31, 1968, that LOWENTHAL tried but was unable to get in touch with SHAPIRO. Reason for this attempted contact was unknown to the source. (u) (S) (C)

Records of the United States Department of State, Passport Division, Washington, D. C., as revised August 1, 1968, indicated that LOWENTHAL visited Israel in 1965, 1966, and 1968. In 1966, when applying for his passport, LOWENTHAL indicated he would attend the World Zionist Congress in Israel for one month. In 1966, LOWENTHAL indicated he would be traveling in Italy, France and Israel on a UJA Study Mission.

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Passport records mentioned above also reflect that LOWENTHAL was born September 14, 1921, in Dobrzil, Poland; home address - 5721 Euclid Street, Pittsburgh, Pa.; [redacted] born in [redacted] that his parents were both born in Poland.

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Records of the Immigration and Naturalization Service, Washington, D. C., as checked July 31, 1968, reflect LOWENTHAL was awarded derivative citizenship on August 2, 1938, on the basis of his father's naturalization.

(u) [redacted] PG T-7 advised on July 3, 1968, and January 19, 1969, that a few days prior to those two dates LOWENTHAL left Pittsburgh enroute Europe and Israel. Source did not know the purpose for these two visits to Israel.

PG T-4 advised on [redacted]

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(S)

[redacted] PG T-4 [redacted]

(S)

PG T-4

(S)

X

On February 7, 1948, ZALMAN HORWICZ SHAPIRO executed a Personnel Security Questionnaire for the ANC on which he indicated that he was a member of the Independent Citizens Committee of the Arts, Sciences and Professions in 1946-1947.

The ICCASP characterized above.

(u) [redacted] In September, 1946, PG T-31 observed a list of names [redacted] X

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PG 97-123

(u) at Communist Party Headquarters headed, "Contact List." The name, Z. SHAPIRO, 951 Brooks Lane, appeared on this list.  
PG T-12 advised that he did not know the significance of this list. (X)

It is noted that subject indicated on his PG, executed on February 7, 1945, that he resided in Apartment 3-F, 951 Brooks Lane, Baltimore, Md., from 1945 to 1948.

(u)(X) In September, 1947, PG T-12 advised that the subject and his wife desired to become active in the ward clubs of the Progressive Citizens of America (PCA). According to PG T-12, the PCA in Baltimore, MD., was dominated and controlled by the Communist Party, USA. (X) (A64)

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PG 97-123

VIII. PHYSICAL DESCRIPTION

(u) (S) from [ ] PG T-1, PG T-3 and through observation of subject by  
Special Agents of the FBI in [ ] ~~BB~~

Name	J. ZALMAN MONDECAI SHAPIRO
Sex	Male
Race	White
Date of Birth	[ ]
Place of Birth	[ ] Ohio
Height	5'9"
Weight	170 pounds
Build	Slender
Eyes	Brown
Hair	Brown, graying at temples but recently dyed brown
Complexion	Medium
Scars and Marks	None Known
Characteristics	Very dark brown rimmed glasses
Peculiarities	Long thin nose, erect posture, due to dyed hair appears younger than age
Residence	Pittsburgh 17, Pa.
Marital Status	Married
Wife	[ ]
Known Relatives	[ ] date of birth [ ] Baltimore, Maryland, housewife resides [ ] Pittsburgh 17, Pa. [ ]

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PC 97-123

Father - ABRAHAM SHAPIRO,  
deceased

Mother - WINNIE SHAPIRO,  
deceased.

Sister - HIPPOLYTA SCHIFFRIN,  
born 1916, Passaic, New Jersey,  
resides 235 Lexington Avenue,  
Passaic, N. J.

First cousin of wife:

[redacted] resides Jaffa,  
Israel

[redacted] resides  
Tel Aviv, Israel

[redacted] Tel Aviv,  
Israel

Graduated 1948, John Hopkins  
University, Baltimore,  
Maryland

BA 1942

MA 1945

Ph.D. 1948

Since February, 1952, President,  
Nuclear Materials and Equipment  
Corporation, Apollo, Pa., a  
subsidiary of Atlantic  
Richfield Company of  
Philadelphia, Pa., since 1967

[redacted]

None Known  
1966055 ~ Pennsylvania

Available

American Chemical Society,  
American Association for the  
Advancement of Science,  
American Technical Society, 6325  
Forbes Street, Pittsburgh, Pa.  
Full member support of Engineering  
School,

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Education

Degrees

Employment

Social Security  
Number

Arrest Record

Drivers License  
Number

Photograph  
Organization  
Membership

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Zionist Organization of America,  
Pittsburgh, Pa. B. F. Jones  
Building Annex,  
American Society for Metals,  
American Electrochemical Society,  
American Nuclear Society

Automobiles

1966 Ford Sedan, Registration  
Number 22171B, Pennsylvania  
1969 Buick Sedan, Registration  
Number 22170B, Pennsylvania

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X

(U)

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(U)

~~SECRET - NO FOREIGN DISSEMINATION~~

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~~SECRET - NO FOREIGN DISSEMINATION~~

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UNITED STATES DEPARTMENT OF JUSTICE  
FEDERAL BUREAU OF INVESTIGATION  
Pittsburgh, Pennsylvania

In Reply, Please Refer to  
File No. 87-1234

February 10, 1968

X

Title: DR. ZALMAN MONGA'S STADING

(U) Character: IS - ISRAEL [ ](6)  
ARMED ENEMY ACT

Reference: Report of Special Agent  
[redacted] dated and  
captioned as above, at  
Pittsburgh, Pa.

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All sources (except any listed below) whose  
identities are concealed in referenced communication have  
furnished reliable information in the past.

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Young P