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UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

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APR 21 1966

Mr. John T. Conway
Executive Director
Joint Committee on Atomic Energy
Congress of the United States

Dear Mr. Conway:

Attached is a report of the April 1966 inspection visit to the Dimona reactor site in Israel. The sensitivities of the Israeli Government to the occurrence of these visits prompts the requirement that the information thereon, and even the fact that the visit took place, be given limited dissemination as Secret, Defense Information.

The basic conclusion of the team is that, although there is a bare possibility that the reactor may have been operated to produce about 3 kilograms of plutonium since the time of the last visit in January 1965, the most probable conclusion is that the reactor was operating as a research reactor, it had experienced some difficulties in its initial operation but is being used for rather exotic physics experiments at the present time. Further, the team concluded that there is no evidence of any nuclear weapons research and development work being conducted at the Dimona site.

Sincerely yours,

Howard C. Brown, Jr.
Assistant General Manager
for Administration



Enclosure:
Trip Report



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April 13, 1966

# PRELIMINARY REPORT OF THE VISIT TO ATOMIC ENERGY SITES IN ISRAEL MARCH 31 TO APRIL 4, 1966

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The following preliminary report has been prepared by the three-man team which visited Israel from the evening of March 31 to the morning of April 4, 1966. The information which follows does not represent all that was learned, nor is it intended to present completely checked information.

The observations result from visits to Weizmann Institute, Nahal Sorek, Dimona, the phosphate strip mines southeast of Arad and from discussions with the responsible Israeli staff members and individual researchers at each site. We were given complete access to facilities and information; all questions were answered frankly and without hesitation.

I. CONCLUSIONS

1. Before presenting summary information, let us first state our unanimous conclusion that there was no evidence that Israel is or intends to produce nuclear weapons materials in the facilities which we have seen. The one repeating member on the team thinks that there is more evidence to support this conclusion this year than last, to wit:

   a. The Dimona site has been opened to research personnel from Weizmann; programs are tied by objectives as well as personnel to Weizmann and Nahal Sorek. Some research projects at Dimona are supported, via Weizmann and Nahal Sorek, with funds from various agencies of the US Government.

   b. There is no chemical reprocessing capability at Dimona; no facilities have been built nor are they planned, according to our conferees. There is no hot analytical capability equal to a reprocessing plant requirement.

   c. The waste disposal tanks will not be used for the storage of liquid wastes and have not yet been used for hot material because of fear of spread of radioactive material by bombing or sabotage executed by the United Arab Republic.

   d. There is no capability in installed equipment for producing Pu metal in any appreciable quantity. Research on the Pu supplied by the French (150 gm. in 1963) is of a very basic

nature, not of particular value as development for production of Pu metal for weapons parts. Metal production capability is at the very small scale of 25 gm. batches.

e. The irradiation of the uranium fuel in Dimona, although not yet above an average irradiation of approximately 433 megawatt days per tonne of uranium (MWD/MTU), will be carried to as high a burnup as possible, to all observable evidence. Their irradiation objectives of at least 1200 MWD/MTU, probably 1500 MWD/MTU, preferably 3000 MWD/MTU, will not produce Pu that is particularly useful for nuclear weapons.

f. The reactor has not been pushed to completion and full power operation at its design power of 26 MWT with any urgency. During the 15 months since the last visit, the fuel exposure has been increased only from an average irradiation level of 211 MWD/MTU on January 28, 1965, to 433 MWD/MTU on March 29, 1966. Of this accumulation, 100 MWD/MTU was accumulated by March 1, 1965, which ended the period of acceptance test at power prescribed by the contract with the French. During one full year after March 1, 1965, the reactor operated for a total of 739 MWD (reactor plant factor of 7.8%) for test and personnel training at 2 MWT to 8 MWT. Much time was consumed by repairs and alterations.

g. There is no evidence that diversion of the uranium inventory at Dimona occurred. The team accounted for all of the uranium at the Dimona site, both by examination of what were almost surely the original records and by partial piece count. The records showed that 40.96 tonnes of uranium had been received in canned slugs (17.56 tonnes) and uranium hydroxide concentrate (20.40 tonnes) from France; and 3.0 tonnes of domestic concentrate from the Haifa pilot plant. By now, all uranium is either in slug or metal ingot form; visual check as accurate as possible in a short time leads us to believe the fuel inventory check of the Israeli records. We visited almost all buildings on the site (all that we asked to see by random

selection) and observed no additional uranium.

h. French technicians, approximately 25 in number at the time of the 1965 visit, were at the Dimona site in decreasing numbers "until the end of the year" (i.e., 1965). Their presence on the site, with their intimate knowledge of all facilities, mitigates against diversion or deviation from the pattern which we observed.

i. The removal of Dr. Mannes Pratt as Director of Dimona because of stated dissent in the scientific ranks, and his urgent replacement with Mr. Joseph Tulipman, indicates that mounting confusion existed. Further, the budget (April 1, 1966 - April 1, 1967) for Dimona at $10,000,000 includes possibly about $5,000,000 for a research program, which, to our view, is fundamental in character.

j. The chemical plant for converting uranium concentrates to metal is again shut down after a period of operation which ended in November 1965. The metal slug manufacturing plant operates now at only about 10 per cent of capacity to improve yield and for the production of developmental fuel.

2. There is the possibility that the team may have been deliberately deceived, but it is believed that this is unlikely. However, prudence suggests that we list the following reservations:

a. We have no knowledge of the existence of other sites for a reactor or chemical plant, but neither are we in a position to determine whether such exist. It is important that intelligence sources maintain a constant surveillance of the entire country to determine whether such a plant or plants exist or are being built. In this connection, the disposition or shipment of the irradiated fuel discharged from the reactor should be determined as conclusively as possible (see item II.6).

b. We could learn nothing about the 80-100 tonnes of uranium concentrate purchased from Argentina. Although we are

convinced that this uranium has not been delivered to the Dimona site and that the personnel there, including the new manager, Mr. Tulipman, know nothing about it, it could be a supply of uranium that has been or could in the future be run through the reactor between our visits and not be detected so long as the indicated reactor utilization is low.

3. As a result of the above consideration, we should possibly be concerned if, after another year has elapsed, the reactor continues to have a low operating efficiency. If this is the case next year, the survey team should demand very concrete evidence to explain its failure to operate at design power.

II. SUMMARY OF POLICY DISCUSSIONS AND CONCLUSIONS

1. The Israelis are very concerned about the possibility of a UAR preventive strike against their atomic energy establishments, particularly Dimona. This is because Nasser in a recent speech asserted that something should be done to destroy Israel's nuclear weapons potential.

2. Dr. Amos De-Shalit (Prime Minister's representative for this visit) suggested that Israel would agree to have open inspection by multinational teams or established agencies such as EURATOM or NATO who have no tie with the UAR.

3. They will not agree to IAEA inspection because they are convinced that information developed by IAEA inspectors would be available to the UAR from the file in Vienna even though inspecting teams had no UAR members. Further, it is Israeli opinion, apparently, that safeguards inspections require the filing of sufficiently detailed plans and operating data to be useful to the UAR in case of war or for sabotage. (This should be checked in detail with IAEA)

4. The security forces around Dimona now include two military posts plus triple fences, one of which is maintained at lethal voltage.

5. Because of their concern about the immediate possibility of a preventive strike on Dimona, the Israelis are requesting that

the French arrange to take the 23 fuel assemblies (113 slugs) as soon as possible. This is to remove readily dispersible radioactive fuel from the easily destroyed cooling canal in the Dimona reactor building.

6. De-Shalit will discuss with the Prime Minister the possibility of the US witnessing the loading and shipment of radioactive fuel to France. The agreement of the French may be required. Possibly after preliminary discussions between the United States and Israel (and the French, if required) to reach tentative agreement, Israel might formally offer to allow US representatives, or perhaps a multilateral team of Israeli designation, to witness fuel shipment. This possibility should be pursued very soon through diplomatic channels informally, in the opinion of the team.

7. There is increased concern about maintaining secrecy concerning this year's visit to Dimona. De-Shalit said that the Israelis think that Nasser's reference to destruction of Israel's nuclear capability came as a result of the leak that occurred following our team's visit in 1965.

8. De-Shalit was not aware of the circumstances which led to the US confirmation of the 1965 visit. During the 1966 team visit, he was informed of the involvement of Eban in a conversation with John Finney which resulted in a direct call to a member of the 1965 visiting team.

9. It is the team's opinion that Israel wants to establish an open inspection of their nuclear facilities, including Dimona. The Israelis are aware of the advantages to be gained by the removal of suspicion which surrounds their nuclear program (according to De-Shalit), that an open inspection, which does not at the same time give detailed information concerning their sites to the UAR, will serve to reduce the potential of a UAR preventive strike. It should be noted that this suggestion for open inspection comes

only from De-Shalit without a statement that he had been asked by the Prime Minister to open such a discussion; therefore, it could be that it is only De-Shalit's idea and not that of the Government of Israel.

10. We suggest that there may be a new or possibly heretofore unrecognized possibility to place Israel's nuclear program under a multilateral surveillance, and that this should be explored as soon as possible.

III. FACTS AND OBSERVATIONS

1. The team was received in the same manner as in the past, with possibly even more attention given than last year to the maintenance of secrecy. Dr. Amos De-Shalit was asked by the Prime Minister to be our host and met us at the airport with Mr. Samuel (Shmuel) Avi-ad, Ministry of Defense, who was our constant escort.

2. We visited these sites and saw the following principals during our stay:

| | Time | Site | Principals |
|---|---|---|---|
| Thursday, Mar. 31 | 10:30 p.m. | Airport | De-Shalit<br>Avi-ad |
| Friday, Apr. 1 | 9:30 a.m. | Weizmann Institute | De-Shalit<br>Dr. Shnior Liffson, Dir.<br>Dr. Ebriam Kachowski, Biochemist |
| | 2:30 p.m. | Nahal Sorek | Dr. Shimon Yiftah, Dir., Site<br>Mr. Pelah, Dir., Reactor Div. |
| | 10:00 p.m. | Party at private home | Mr. Joseph Tulipman, Dir., Dimona<br>Eddie Strickler, Mgr., Desalting Proj. under Gen. Tsur<br>Mr. Adar, Engr. for Reactor of Proposed Desalting Project |
| Saturday, Apr. 2 | 8:00 a.m./ 6:45 p.m. | Dimona | Mr. Joseph Tulipman and Dimona staff |
| Sunday, Apr. 3 | 8:00 a.m. | Helicopter to Arad | Mr. Levi, Engr. for Proposed Phosphate Works & Oron<br>Mr. Barnoy, Geol. and Mining Engr. |
| | 10:15 a.m. | Helicopter to Jerusalem | |

| Time | Site | Principals |
|---|---|---|
| 5:30 P.M. | Hotel Accadia | Winfred du Clerq, Actg US Science Attache |
| 6:15 P.M. | Casbah Restaurant | Dinner & meeting with Tulipman & De-Shalit |
| 10:30 - 11:15 P.M. | Car | Discussion Team Member A with De-Shalit |
| 11:30 P.M. | Hotel Accadia | du Clerq |

Nahal Sorek

3. Yiftah at Nahal Sorek is the AEC representative on the Joint Desalination Committee. He reports that the remarks of Perez, Deputy Minister, recently concerning the desirability of seeking other suppliers of reactor-desalting combinations has some sound basis since natural uranium reactors as built by Canada or proposed by Britain may be best for Israel. We understand that there have been contacts between the Israelis and Canada and the UK concerning the possible use of their reactors for desalting.

4. The AMF-built swimming-pool reactor at Nahal Sorek has operated satisfactorily for the last 15 months at about 2 to 2.5 Mw. Fuel will be returned to the United States next year; they are thinking of trying to increase reprocessing batch size to reduce processing charges by combining fuel with a country like Denmark, Sweden or Norway. This is very probably the source of a rumor that Israel was negotiating with Norway for processing at the Kjeller pilot plant (which is not capable of reprocessing Israeli fuel).

5. The radioisotope production cell block and radioisotope laboratories, seen last year in an early state of construction, are nearing completion. Two cells, each approximately 14' x 14' x 14' to 16' high containing a track-mounted 1/2 ton chain hoist, and shielded by four feet of normal concrete (~1000 to 10,000 curies)

are as yet unequipped. The building and cells will be used to produce short-lived target produced radioisotopes for immediate use in research and medicine in Israel, a requirement now being met using equipment housed in temporary wooden buildings at Nahal Sorek. No long-lived fission products will be isolated here.

The cells are large enough for a very small radiochemical separation plant (really of no consequence if for natural uranium). This obviously is not the intended use, however.

6. A new chemistry building (for general nuclear chemistry) is being constructed, but will not be finished for another year.

7. The site employs about 500 people and is about at equilibrium size. It is open to all research use in Israel and has many visiting foreigners who come for training and research. They have research contracts with National Institutes of Health, Wright-Patterson Air Force Base, EURATOM. They are also working with NUMEC in the evaluation of industrial isotope utilization.

8. Their large 30,000 curie cobalt source is being used for studies on nitric acid production via radiation and extensively for food sterilization and insect control research.

Dimona

9. The 26-Mw reactor has operated only for training or has been shut down for most of the past 15 months. The MWD/MTU accumulation is reported herein for the period from January 1, 1965, through March 30, 1966. The total megawatt days per tonne of uranium accumulated on the first core was 433 MWD/tonne averaged across the whole core of 835 slugs (in 167 fuel elements).

10. On January 30, 1966, 33 fuel elements were discharged from the center zone of the reactor at an average burnup of 530 MWD/MTU and a peak burnup of 800 MWD/MTU.

11. Dr. Thieburger, physicist for the reactor, has drawn up a discharge plan which divides the reactor into roughly five annular zones

within which flux is roughly the same. The reactor will be discharged in batches of about 30 to 35 fuel elements each as the metallurgically safe burnup level is reached. The visual examination of fuel irradiated to 650 MWD/MTU (peak) has revealed no distortion. The 800 MWD/MTU (peak) slugs will be examined in several months. The next batch probably will run to 1000 MWD/MTU; and each successive batch may be increased to obtain maximum fuel exposure. This plan of exposing to the highest possible burnup within metallurgical limits will make Pu less acceptable for weapons use.

12. The 33 fuel rods, plus two discharged prior to our 1965 visit and one discharged on July 22, 1965 (total, 36 fuel rods, 180 slugs), were all in evidence in the fuel storage ponds.

| | No. Slugs |
|---|---|
| a. Thirteen full rods were unassembled in the racks ---------- (Cerenkov radiation was observed, assuring that these were active elements) | 65 |
| b. Twenty-three elements had been disassembled before our count. Counted in slug storage, had Cerenkov radiation. | 113 |
| | 178 |
| c. Two slugs had been sent to metallurgical examination ---------- | 2 |
| | 180 |

13. The total uranium balance across the plant is as follows:

| | | Slugs | Metric Tonnes U |
|---|---|---|---|
| Input: | From France, 1963 | 1200 | |
| | From France, 3/65 | 678 | |
| | Subtotal | 1878 | 17.56 |
| | From France, 12/63 | | 10.0 |

| | Slugs | Metric Tonnes U | Comments |
|---|---|---|---|
| From France, 3/65 | | 10.4 | |
| Haifa, 1963 | | 1.4 | |
| Haifa, 1965 | | 1.6 | |
| | | 40.96 | |
| Balance: | | | |
| REACTOR BUILDING | | | |
| In reactor | 835 | 7.81 | Reactor at 26 MWT |
| In pool | 178 | 1.66 | Counted |
| Stored (reactor bldg.) | 891 (good) | 8.32 | Not observed |
| | 7 (rejects) | 0.07 | " " |
| URANIUM METAL BUILDING (#3) | | | |
| Stored Ingots | 108 | 8.64 | Observed |
| Stored Slag | - | 1.12 | " |
| PROCESS BUILDING (#5) | | | |
| Stored Ingots | | 1.68 | Counted |
| Small pieces to complete | | 0.14 | Observed |
| Scraps | | 0.35 | " |
| Material in the line | | 1.85 | " |
| Fabricated Slugs (good) | | 4.40 | Counted |
| Fabricated Slugs (rejects) | | 1.77 | " |
| HOT LABS | 4 | 0.04 | Not observed |
| COLD LABS | | 0.50 | " " |
| WASTE | | 1.48 | " " |
| LOSSES | | 1.15 | " " |
| TOTAL | | 40.98 | |

14. France supplied additional metal slugs as indicated. The total of 20.4 tonnes of concentrate from France probably came as one shipment, but was delivered from some other storage area to Dimona at two different times.

15. No one at Dimona, nor any of the others in attendance, know or professes to know of the whereabouts of the 80 to 100 tonnes of Argentine concentrate. Tulipman knows nothing and acted as though it was the first time he had heard of it when asked.

16. As a consequence of our review of records and charts, and a partial count (coupled with a "lift" test) of uranium in the plant, we are confident that we know where all of the uranium in the Dimona plant is located, and that there has been no diversion. We walked through most of the storage spaces and shop buildings on the site selected at random and detected no evidence of other stocks of uranium.

17. Chemical reprocessing facilities do not exist on the Dimona site and, according to Mr. Tulipman, there are no plans to build such facilities. The team inspected the room in the Filtration and Decontamination Building earlier designated as a possible location for a 1-kg.-per-day reprocessing pilot plant. The room is used for storage of contained phase air filters and other supplies. The room is approximately 20 feet wide by 40 feet long and possibly 18 feet high - too small to enclose hot cells of any consequence.

18. There is no analytical chemical capability in the Hot Laboratory building of sufficient scale and shielding to provide support for a chemical reprocessing plant.

19. In the Pu wing of the Hot Laboratory building, there is no area or equipment devoted to the purification of Pu and its reduction to metal other than a small glove boxed system for producing 20 to 25 gm. metal buttons used in fundamental research on plutonium metallurgy.

20. The total quantity of Pu available for research is 150 gm.; about 50 gm. are in use, the remainder in storage. This Pu was supplied to Israel by France, as reported last year.

21. The low level waste evaporator has not yet been used for radioactive waste solutions from the plant. During the year, relatively poorly conducted tracer level experiments were run to determine decontamination factors available from the evaporator.

They have observed factors of $10^5$ this year. As reported last year, the evaporator is shielded by only 18 inches of normal concrete, not satisfactory for the concentration of high level wastes from a chemical processing plant.

22. The three buried waste tanks have not been used (12 meters earth cover) and will not be used for liquid waste storage (Tulipman) because of fear of sabotage or bombing that would spread radioactive material.

23. Tulipman says that Dimona wastes will be stored only in solid form and buried. These low-level wastes, reduced to concentrated form, will be incorporated in concrete (unlikely) or asphalt. The facilities to do this have yet to be conceived, designed and built.

24. A new burial ground and a small solid waste disposal building are being constructed.

25. A new dormitory is being constructed near the main gate ultimately for the purpose of housing visiting scientists, but probably to be occupied initially by army security forces assigned to protect Dimona. The library and dormitory (shown on the earlier site plan between the hotel and cold lab.) has not been built yet, but will be undertaken during the next year.

26. There are no foreigners at the Dimona site. The last of the French technicians left "at the end of the year."

27. There are 1200 people employed at the Dimona site of which 150 are engineers and scientists.

28. We visited the Instrument Shop, the Maintenance and General Shop, the Main Stores Building and looked into the three small auxiliary storage sheds.

29. A railroad now in construction will soon reach the town of Dimona, probably will not be extended to the reactor site. It will be extended to the Arad phosphate mines and the presently operating

mine and beneficiation plant at Oron.

30. The chemical cycle in Building 3 (Metal Conversion Building) operated this year to convert 10.4 tonnes of concentrate from France and 1.6 tonnes of concentrate from Haifa to metal ingots. All of the concentrates now available to Dimona have been converted to metal ingots or canned slugs and the plant is not operating. It has been shut down since November 1965. Some special metal reduction for a new experimental chromium-uranium alloy is done in very small quantities (Lavi still in charge). There is sand on the floors and some of the mechanical equipment is unlubricated and rusting.

31. The Fuel Fabrication Plant operated to produce enough slugs for at least one additional core of Israeli-manufactured fuel and sufficient metal for two additional core loadings. The plant continued to operate at about 10 per cent capacity to improve manufacturing techniques.

Arad, Site of Proposed Phosphate Plant

32. We were flown by army helicopter from Tel Aviv to Arad on Sunday morning. We were met by Mr. Levi, process engineer for the proposed 165,000-tonne $P_2O_5$ plant, and Mr. Barnoy, geologist and mining engineer, both of whom were present last year. We landed on a level site in the middle (guarded for our protection by a hurriedly-moved-in army squad) of the intended site of the phosphate plant. Construction of the plant has not been started, and will not be until urgently needed foreign capital can be raised. Mr. Levi is not aware that a uranium circuit is planned for the plant, but Tulipman who was (and may still be) in charge of plans for phosphate production, told us that a uranium recovery circuit would eventually be included, even though the necessary process is not yet developed.

IV. PERSONNEL AND POLITICAL OBSERVATIONS

1. Dr. Bergmann has resigned; his resignation has been accepted as of June 1, 1966.

   Replacement:

   a. Dr. Dostrousky - as Secretary General (a new post) reporting to Eban; from Dr. Amos De-Shalit (Weizmann).

   b. Another from water project - name not caught or remembered; from Joseph Tulipman, Manager of Dimona site.

2. Joseph Tulipman, new Director of Dimona, replacing Dr. Mannes Pratt, former Deputy Director of Department of Economic Planning; recently returned from 6-week course at Harvard (Advanced Business for Executives); in charge of planning for phosphate development, copper mines, petroleum, replaced Pratt in January 1966 after many of scientific staff at Dimona had left or threatened to leave. Dr. Mannes Pratt is completely out of atomic energy program; may receive a new post in the Ministry of Economic Development or may become a private consultant.

3. Concern about secrecy - as anticipated, the Israelis are very concerned about a possible leak which again might draw Nasser's attention to the reactor. Shmuel Avi-ad, our escort from the Ministry of Defense (replacing Moshe Gilboa, who is on assignment for Youth Corps activities in London), first expressed their official concern. De-Shalit, on our last evening (Sunday) after I.P.O. (symphony orchestra) concert, drove one member of team to hotel along to explain and discuss this point. During this discussion, it was quite obvious that De-Shalit was not familiar with the circumstances leading to the US confirmation of the visit of January 1965. De-Shalit knew nothing of the John Finney situation on TV and subsequent comment by Eban; further, was not aware that the confirmation was not intentional on the part of the United States and that it came as a result of a series of penetrating questions from Finney which

were touched off by comments by Eban after a TV appearance.

4. Dr. Amos De-Shalit - Physicist at Weizmann; former head of Department of Nuclear Physics; former member of Israeli AEC under Bergmann (and one who resigned with other AEC members several years ago - from du Clerq).

a. De-Shalit says that it is his opinion that his government has long recognized that it cannot develop weapons to the displeasure of either US Jews who contribute heavily to Israel's support or, more particularly, the US Government.

b. Further, he observes that Israel is greatly concerned that Nasser has personally stated in recent speeches that the Israeli bomb threat must be stopped and the Jews annihilated (this quote should be checked). The Israelis fear that there may be an unannounced large strike at Dimona; a new army base exists there and the US Acting Science Attache says that he thinks some of the HAWK missiles recently obtained by Israel are located in the vicinity. Previously, other Arab leaders have made such threats, not Nasser. The Israeli Government thinks that the leak and US confirmation may have touched off this recent strong Nasser statement.

c. The Israelis will not agree to IAEA inspection of the Dimona and other sites because of their certainty that the information obtained by inspectors, selected from any country, would become available to the Arab bloc (from De-Shalit). Such information which must include capacity, potential, sources of uranium and even experimental programs, can be used against Israel, even if only for adverse propaganda used to stir the Arab league countries with potent bomb-scare stories.

d. However, De-Shalit stated that Israel is willing to have another multilaterial agency which does not have any tie to UAR countries, such as EURATOM, NATO or others, inspect regularly Israel's

nuclear facilities. This should be explored fully soon.

It will not do, for openers, to try to negotiate with the Israelis on accepting IAEA inspection because they will not accept; such negotiation may break off discussions that could lead to a much more satisfactory arrangement than the present unstable, annualized bilateral inspection, with all of its potential for embarrassing both parties, and containing the certainty of its own termination via a situation that will cause reciprocating bitterness.

e. As a personal opinion, De-Shalit said that he thought that Israel will gain materially by such open inspection, both to reduce the effect of UAR criticism, and to diminish the world suspicion of Israel.

f. The team thinks that the United States might gain by shedding its role of secret surveyor of Israeli facilities. Other countries, particularly the UAR, would be more convinced by known and possibly advertised inspections by an agency or group of nations rather than the United States.

5. The Israelis are so concerned about the possibility that either bombs may be dropped on or placed in the reactor storage pool at Dimona that they are making arrangements to ship the irradiated fuel elements stored in the reactor canal to France as soon as the French can arrange for carriers. Thirty-three full assemblies from the hottest of five zones in the reactor were discharged on February 1, 1966.

6. At the suggestion of the US team, De-Shalit agreed that it might be possible to have the United States (possibly multilateral) witness the loading of this fuel for shipment to France. He will discuss this possibility with the Prime Minister on April 4, 1966. French concurrence may be required.

The team further suggested that this be implemented by an offer by Israel rather than a request from the United States. If such an offer is to be made, preliminary considerations as to requirements for witnessing this and subsequent fuel shipments should be formulated. Some preliminary discussions are desirable with Israel and, after these, with Israeli agreement, joint discussions with France (if necessary).