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ACTION EA-06

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Dept. of State, RPS/IPS, Margaret P. Grafeld, Dir.  
( ) Release (X) Excise ( ) Deny ( ) Declassify  
Date 5/11/07 Exemption (b) (1)

INFO OCT-01 SS-14 ISO-00 SP-02 INR-05 OES-02 PM-03  
NSC-05 NSCE-00 DODE-00 CIAE-00 ACDA-07 ERDA-05  
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R 310945Z MAY 77  
FM AMEMBASSY TAIPEI  
TO SECSTATE WASHDC 3738

S E C R E T SECTION 1 OF 2 TAIPEI 3158

LIMDIS

E.O. 11652: GDS  
TAGS: MNUC, TW  
SUBJECT: US TECHNICAL TEAM VISIT

REF: (A) STATE 117288, (B) STATE 110964, (C) TAIPEI 2607,  
(C) STATE 100536

SUMMARY: U.S. NUCLEAR TEAM VISITED ROC OFFICIALS 25-27  
MAY TO INITIATE DISCUSSIONS ON REORIENTATION OF ROC NUCLEAR  
RESEARCH PROGRAM IN ACCORDANCE WITH RECENT US-ROC AGREEMENTS.  
ROC OFFICIALS WERE COOPERATIVE AND INDICATED WILLINGNESS TO  
TAKE ALL STEPS NECESSARY TO ASSURE COMPLIANCE WITH AGREE-  
MENTS. TRR IS SHUT DOWN FOR MAINTENANCE AND WILL REMAIN SO  
PENDING APPROVAL FOR RESTART. ROC IS AGREEABLE TO TRANSFER  
OF SPENT FUEL OUT OF COUNTRY; U.S. TO WORK OUT DETAILS. BOTH  
ROC AND U.S. WILL CONSIDER WAYS OF IMPROVING TRR SAFEGUARDS  
IN CONSULTATION WITH IAEA. ROC WILL PREPARE PLUTONIUM FOR  
TRANSFER TO U.S. BY END OF JUNE. U.S. TO LOOK INTO BEST  
SHIPPING MODE. ROC WILL PREPARE DESCRIPTION OF PROPOSED  
REORIENTED PROGRAM AND SUBMIT TO U.S. ABOUT MID-JUNE.  
THIS WILL INCLUDE PROPOSAL FOR DISMANTLING AND/OR  
ALTERNATE USES OF PU PROCESS LINE. ROC WILL DISMANTLE  
PROCESS LINE WHICH WAS FABRICATED TO SEPARATE U-233 FROM

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IRRADIATED THORIUM. DR. CHIEN, DIRECTOR INER PLANNING  
VISIT U.S. ABOUT MID-JUNE AND WILL VISIT WASHINGTON AND  
U.S. NATINAL LABORATORY FOR FURTHER DISCUSSION THESE

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STATE DEPT. DECLASSIFICATION REVIEW  
 Retain Class'n  Change to \_\_\_\_\_  
 Declassify in part and excise as shown  
EO 12958, 25X(6)( ) ( ) FOIA (b)(1)  
 Declassify After US ROC agreements published  
 With concurrence \_\_\_\_\_ (nbt)(obtained)  
IPS by Healy Date 5/11/07

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MATTERS, AND FOR PROGRAM DISCUSSIONS RESPECTIVELY.  
END SUMMARY.

1. U.S. TECHNICAL TEAM (G.F. HELFRICH, ERDA; J. MENZEL, ACDA; R. ADAMS, ANL; R. WYMER, ORNL; R. SIMMONS, AMEMBASSY) MET WITH ROC OFFICIALS ON 25-27 MAY TO DISCUSS IMPLEMENTATION OF AGREEMENT

25x6  
FOIA (u) (i)

REGARDING REORIENTATION OF ROC NUCLEAR RESEARCH AND DEVELOPMENT PROGRAMS. ROC OFFICIALS WERE MOST COOPERATIVE AND SEEMED EXTREMELY DESIROUS OF TAKING ALL NECESSARY STEPS TO ASSURE COMPLETE COMPLIANCE WITH THE AGREEMENTS IN THE NOTES.

2. VISIT STARTED WITH COURTESY CALL ON FRED CHIEN, VICE MINISTER OF FOREIGN AFFAIRS. U.S. TEAM LEADER HELFRICH EXPRESSED HIS PLEASURE [ ] PROVIDED A FOUNDATION UPON WHICH TO BUILD FRAMEWORK OF CONTINUED COOPERATION AND ASSISTANCE TO ROC NUCLEAR POWER PROGRAM. HE EMPHASIZED THAT TEAM VISIT WAS EXPLORATORY, AND RESULTS WOULD HAVE TO BE REFERRED TO WASHINGTON FOR CONSIDERATION. HE THEN REVIEWED RECENT ENERGY AND NUCLEAR POLICY DEVELOPMENTS IN U.S. AND POINTED OUT THAT WE ALSO WERE REORIENTING AND RESTRUCTURING OUR NUCLEAR PROGRAM. IN RESPONSE TO COMMENT BY DCM POPPLE, [ ] CONTINUED RELUCTANCE OF ROC TO MAKE [ ]

FOIA (u) (i)  
25x6

[ ] HE SUGGESTED THAT TEAM CONSULT WITH INER OFFICIALS AS TO WHAT, IF ANY, TYPE OF GENERAL STATEMENT MIGHT BE MADE ABOUT REORIENTATION OF THEIR RESEARCH ACTIVITIES. HE ALSO STRESSED THE ADVERSE EFFECT ON MORALE OF PERSONNEL AT INER IF THERE IS TOO LONG A PAUSE IN THEIR

FOIA (u) (i)  
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ACTIVITIES.

3. TEAM NEXT MET WITH DAVID CHU, PRESIDENT, AND BRUCE CHU, VICE-PRESIDENT OF TAIPOWER, AND WITH VICTOR CHENG OF CAEC. AFTER SOME GENERAL REMARKS ON DEVELOPMENTS IN U.S., TEAM LEADER EMPHASIZED IMPORTANCE OF REORIENTATING INER PROGRAM TO BE MORE DIRECTLY SUPPORTIVE OF NEEDS OF TAIPOWER'S NUCLEAR POWER PROGRAM, AND THIS WOULD REQUIRE ACTIVE SUPPORT OF TAIPOWER. CHU NOTED THAT THEY WERE ALREADY GETTING SOME DIRECT SUPPORT FROM INER AND WERE DISCUSSING OTHER ACTIVITIES WITH THEM. HE EXPRESSED INTEREST IN HEAVY WATER

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REACTOR FEASIBILITY STUDY (THIS IS FIRST TIME TAIPOWER OFFICIALS HAVE EXPRESSED INTEREST IN THIS CONCEPT WHICH HAS BEEN THE MAJOR THRUST OF INER'S PEACEFUL USES' RESEARCH PROGRAM) AND ASKED WHAT U.S. VIEWS MIGHT BE ON SUCH AN EFFORT. HE WAS ADVISED THAT THIS WAS ONE CONCEPT BEING STUDIED AS AN ALTERNATIVE TO THE PLUTONIUM BREEDER BUT THAT THERE HAD BEEN NO FINAL DECISION ON IT YET.

4. FOLLOWING THESE MEETINGS, TEAM MET WITH INER OFFICIALS BOTH IN TAIPEI AND AT INER, AND TOURED SOME OF THE FACILITIES INCLUDING THE TRR, FUEL FABRICATION PLANT, HOT LAB, PLUTONIUM LAB AND APPLIED CHEMISTRY LABS. SIGNIFICANT DISCUSSIONS WERE CONFINED TO CAEC SECRETARY-GENERAL VICTOR CHENG, INER DIRECTOR DR. CHIEN CHI-PENG AND INER DEPUTY DIRECTORS LI, LIU AND WU. (OTHER PERSONNEL AT THE INSTITUTE HAD APPARENTLY NOT BEEN ADVISED OF THE COMMITMENTS IN THE EXCHANGE OF NOTES INCLUDING EVEN THE RETURN OF THE PLUTONIUM.) HELFRICH EMPHASIZED, IN ORDER TO AVOID ANY POSSIBLE MISUNDERSTANDING, THAT TEAM WAS NOT PREPARED TO MAKE FINAL COMMITMENT ON ANY MODALITIES.

FOIA (b) (1)  
(u) (1)

THE RESULTS OF DISCUSSIONS, HE SAID, WOULD HAVE TO BE REFERRED BACK TO WASHINGTON FOR FINAL DECISION, AND HE WAS NOT OPTIMISTIC ABOUT EARLY RESOLUTION.

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5. FOLLOWING MAJOR ITEMS WERE DISCUSSED WITH INER OFFICIALS:  
(A) RESEARCH PROGRAM - INER PRESENTED TEAM WITH PRELIMINARY DRAFT DOCUMENTS DESCRIBING THE MAJOR ACTIVITIES AND PROGRAMS THEY PROPOSED TO CONTINUE OR INITIATE IN LINE WITH THE CONDITION OF THE NOTE. THESE INCLUDED HEAVY WATER REACTOR DEVELOPMENTS, WR FUEL DEVELOPMENT, URANIUM

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RECOVERY FROM PHOSPHATE, THORIUM SEPARATION FROM MONAZITE SANDS, THORIUM-URANIUM-233 SEPARATION, AND OTHER RESEARCH. AFTER REVIEWING THESE, TEAM PROVIDED COMMENTS ON TECHNICAL MERITS OF PROPOSED ACTIVITIES AND ALSO NOTED SEVERAL THAT SEEMED TO BE QUESTIONABLE.

INER WILL REVISE AND EXPAND THESE DOCUMENTS BASED ON DISCUSSIONS, AND FORMALLY SUBMIT THEM TO U.S. TEAM ALSO SUGGESTED SEVERAL OTHER AREAS, PRIMARILY NON-NUCLEAR, WHICH MIGHT BE OF INTEREST TO INER AND AGREED TO ARRANGE FOR MORE DETAILED DISCUSSIONS DURING FORTHCOMING VISIT OF DR. CHIEN TO U.S.

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(B) TRR SPENT FUEL - 118 SPENT FUEL RODS (APPROXIMATELY 5 KG PU) WERE MEASURED BY IAEA, TRANSFERRED TO DRY STORAGE AND THEN SEALED BY IAEA. GROC IS AGREEABLE TO TRANSFER OF SPENT FUEL OUT OF COUNTRY AND WOULD NOT OBJECT TO U.S. CONTACTING CANADA TO DISCUSS LATTER'S WILLINGNESS TO ACCEPT FUEL. GROC ALSO VOICED QUESTION OF HOW TRANSFER WOULD BE FUNDED SINCE IT HAD NOT BUDGETED FOR IT. TEAM NOTED THAT U.S. HAD NOT BUDGETED EITHER BUT THIS COULD BE ADDRESSED AFTER DEFINITIVE COST ESTIMATES WERE AVAILABLE. TEAM AGREED

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THAT U.S. WOULD EXPLORE QUESTIONS OF CASK AVAILABILITY, SHIPPING COSTS, CANADIAN WILLINGNESS TO ACCEPT FUEL, U.S. ACCEPTANCE OF IT, ET CETERA, AND ADVISE ROC. TEAM ALSO AGREED TO CONSIDER WHAT WOULD BE A REASONABLE INVENTORY OF SPENT FUEL TO BE RETAINED AT REACTOR DURING NORMAL OPERATION PENDING COOLING AND RETRANSFER.

(C) TRR SAFEGUARDS - TEAM POINTED OUT THAT U.S. DID NOT INTEND TO GET INVOLVED DIRECTLY IN SAFEGUARDS INSPECTION ACTIVITIES, BUT WOULD WORK WITH INER AND IAEA TO IMPROVE EFFECTIVENESS OF IAEA SAFEGUARDS AT TRR. IT WAS NOTED THAT PRESENT IAEA SYSTEM DOES NOT PROVIDE QUANTITATIVE INFORMATION ON NUMBER OF FUEL ELEMENTS GOING INTO OR OUT OF REACTOR SINCE IT DOES NOT REFLECT WHAT IS INSIDE REFUELING MACHINE. TEAM AGREED THAT U.S. WOULD LOOK INTO AVAILABILITY AND SUITABILITY OF BUNDLE COUNTER FOR THIS PURPOSE. INER PROPOSED AND WILL CONSIDER, AS INTERIM MEASURE, POSSIBILITY OF MODIFYING OPERATING PROGRAM TO RESTRICT USE OF REFUELING MACHINE TO SPECIFIED TIME PERIODS WHEN IAEA INSPECTORS COULD BE PRESENT. AT OTHER TIMES THEY WOULD HAVE IT SEALED.

(D) PLUTONIUM - ABOUT MID-MARCH, INER HAD STARTED TO DISSOLVE THE U.S.-PROVIDED PLUTONIUM TO RECOVER AMERICIUM FOR USE IN SMOKE DETECTORS. WORK WAS STILL IN PROGRESS. IT WAS AGREED THAT THIS IS CONSIDERED INCONSISTENT WITH THE CONDITIONS OF OUR NOTE, AND THEY WILL STOP DISSOLUTION OF

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THE REMAINING OXIDE, PROCESS WHAT HAS BEEN DISSOLVED, CONVERT IT BACK TO OXIDE AND PREPARE IT FOR SHIPMENT BY 30 JUNE. U.S. WILL INVESTIGATE VARIOUS MODES OF TRANSPORTATION TO INCLUDE MILITARY AIRCRAFT. INER WAS AGREEABLE TO COMPENSATION IN FORM OF CREDIT TO BE APPLIED AGAINST FUTURE DELIVERIES OF ENRICHED URANIUM FOR RESEARCH REACTORS. U.S. WILL DETERMINE APPROPRIATE CREDIT AND ADVISE ROC.

(E) PLUTONIUM LABORATORY - TEAM POINTED OUT IT COULD SEE NO NEED TO RETAIN PLUTONIUM PROCESS LINE. INER WILL EXPLORE VARIOUS POSSIBILITIES, INCLUDING REMOVAL OF EQUIPMENT AND STORAGE UNDER IAEA SEAL OR USE IN OTHER ACTIVITIES,

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AND ALTERNATIVE USES OR DISMANTLING GLOVE BOX LINE. PROPOSAL WILL BE SUBMITTED FOR U.S. CONSIDERATION WITH THE PROGRAM PROPOSAL PACKAGE BY MID-JUNE.

(F) THORIUM - U-233 CONVERSAION - TEAM POINTED OUT THAT ANY WORK ON SEPARATION OF U-233 (EVEN DENATURED MATERIAL) WOULD BE INCONSISTENT WITH NOTE AND MUST BE STOPPED. INER AGREED AND WILL DISMANTLE PROCESS LINE THAT HAD BEEN PREPARED FOR INSTALLATION IN HOT LAB. SENSITIVE EQUIPMENT WILL BE STORED UNDER IAEA SEALS. INER WOULD LIKE TO CONTINUE THORIUM FUEL DEVELOPMENT AND UTILIZATION AND WILL TRY TO PREPARE PROGRAM THAT DOES NOT INVOLVE SEPARATION OF U-233.

(G) IAEA - VICTOR CHENG AGREED WITH U.S. APPROACHING ROMETSCH ON CONFIDENTIAL BASIS TO DISCUSS RECOMMENDED MANNER OF ADDING NON-U.S. MATERIALS AND FACILITIES TO INVENTORY LIST OF US-ROC BILATERAL AGREEMENT, IMPROVED SAFEGUARDS MEASURES AT TRR, IAEA WITNESSING OF PLUTONIUM WEIGHING AND PACKING FOLLOWED BY IAEA SEALING OF SHIPPING CONTAINERS, AND APPLICATION OF IAEA SEALS ON SENSITIVE EQUIPMENT FROM PLUTONIUM AND U-233 PROGRAMS.

(H) GENERAL - AN EARLY STATEMENT WHICH WOULD, IN EFFECT, SANCTION RESUMPTION OF INER ACTIVITIES--EXCLUSIVE OF TRR OPERATION--WAS URGENTLY REQUESTED BY VICTOR CHENG. THE GENERAL FORM OF A STATEMENT WHICH COULD BE MADE UNDER CONTROLLED CONDITIONS TO NRC, CONGRESS, AND OTHERS ABOUT ROC'S CHANGING INER PROGRAM DIRECTIONS WAS APPROVED BY CHENG AND CHIEN. THERE WERE DISCUSSIONS OF FURTHER ASSIGNMENT OF PERSONNEL FROM INER TO VARIOUS U.S. FACILITIES TO WORK IN NEW PROGRAM AREAS OPENED UP BY THE REDIRECTED INER.

6. INER DIRECTOR CHIEN IS PLANNING TO ATTEND ANS MEETING IN NEW YORK JUNE 11-15 AFTER WHICH HE HOPES TO VISIT VARIOUS ERDA FACILITIES. TEAM INVITED HIM TO VISIT WASHINGTON FOR FURTHER DISCUSSION OF ITEMS COVERED DURING

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VISIT AND FOR REVIEW OF ERDA PROGRAMS IN BOTH NUCLEAR AND  
NON-NUCLEAR FIELDS. HE WILL ALSO VISIT ORNL, ANL, AND  
HEDL FOR DISCUSSION OF PROGRAMS AT THOSE INSTALLATIONS. IT  
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WAS AGREED THAT ERDA WOULD COORDINATE AND ARRANGE FOR THESE  
VISITS.  
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