

NODS-00-13-15 S/AS(2)



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SAA 200165350000  
**OUTGOING TELEGRAM**

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INFO OCT-01 ISO-00 /001 R

DRAFTED BY EA/ROC: DGBROWN/OES/NET: DCOOPER/ACDA: IRLWILLIAMSO  
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L/DEA: RSLOAN  
S/S-O: MRLIND

**DEPT OF STATE APPEALS REVIEW PANEL (ARP)**

FOIPA/PA	Mandatory Review
<input checked="" type="checkbox"/> Release	<input type="checkbox"/> Declassify
<input type="checkbox"/> Excise	<input type="checkbox"/> Declassify in Part
<input type="checkbox"/> Deny	<input type="checkbox"/> Class. Ret/Renew

Exemptions  
ARP Action Cert JAK Date 7/13/04

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FM SECSTATE WASHDC  
TO AMEMBASSY TAIPEI PRIORITY  
INFO WHITE HOUSE PRIORITY

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E.O. 11652: XGDS-3  
TAGS: MNUC, PARM, TW  
SUBJECT: THE TAIWAN RESEARCH REACTOR  
REF: TAIPEI 7634

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW	
1ST REVIEW DATE: <u>5/1/03</u>	DETERMINATION [CIRCLE NUMBER(S)]
AUTHORITY: <input type="checkbox"/> AOC <input type="checkbox"/> AIC <input type="checkbox"/> ADD	1. CLASSIFICATION RETAINED
NAME: <u>Bureau</u>	2. CLASSIFICATION CHANGED TO
2ND REVIEW DATE: <u>5/7/03</u>	3. <input checked="" type="checkbox"/> CONTAINS NO DOE CLASSIFIED INFO
AUTHORITY: <u>IPR</u>	4. COORDINATE WITH
NAME: <u>IPR</u>	5. CLASSIFICATION CANCELLED
	6. CLASSIFIED INFO BRACKETED
	7. OTHER (SPECIFY):

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1. DEPARTMENT AND OTHER CONCERNED WASHINGTON AGENCIES  
HAVE REVIEWED THE ROC'S REQUEST TO RESUME OPERATION OF  
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STATE DEPT. DECLASSIFICATION REVIEW

Retain Class'n  Change to \_\_\_\_\_

Declassify in part and excise as shown

12958, 25X ( ) ( ) ( )

Declassify  After \_\_\_\_\_

With concurrence DOE (not obtained)

IPS by galy Date 10/16/03

STATE DEPT. DECLASSIFICATION REVIEW

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12958, 25X (6) (8) ( )

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IPS by galy Date JUL 9 2002

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THE TRR AND DECIDED TO PROPOSE PROCEDURES DESCRIBED BELOW WHICH, WITH ROC AGREEMENT, WOULD PERMIT RESUMED OPERATION OF THE REACTOR.

2. THE EMBASSY SHOULD CALL ON THE FOREIGN MINISTRY AT AN APPROPRIATELY HIGH LEVEL (EITHER MINISTER SHEN OR VICE MINISTER CHIEN) TO CONVEY OUR RESPONSE TO OUTSTANDING ROC REQUEST RE TRR START-UP AND SHOULD MAKE THE FOLLOWING POINTS:

-- I HAVE BEEN INSTRUCTED TO CONVEY MY GOVERNMENT'S RESPONSE TO REQUESTS FROM CAEC SECRETARY CHENG AND INER DIRECTOR CHIEN TO RESUME OPERATION OF THE TRR. MY GOVERNMENT REGRETS ANY INCONVENIENCE THAT MAY HAVE BEEN CAUSED BY THE DELAY OF OUR RESPONSE WHICH WAS NECESSITATED BY THE COMPLEXITIES AND IMPORTANCE OF THE ISSUE.

-- MY GOVERNMENT IS PREPARED TO AGREE TO THE PROMPT RESUMPTION OF THE OPERATION OF THE TRR PROVIDED THAT WE SHARE A COMMON UNDERSTANDING ON THE SPECIFIC MEASURES TO BE TAKEN IN IMPLEMENTATION OF OUR EXCHANGE OF NOTES IN MARCH/APRIL/MAY 1977, WHICH MAKES THE RESUMED OPERATION OF THE REACTOR CONTINGENT ON MUTUAL AGREEMENT CONCERNING THE DISPOSITION OF SPENT FUEL, ADEQUATE SAFEGUARDS MEASURES AND AN ACCEPTABLE RESEARCH PROGRAM.

-- MY GOVERNMENT'S UNDERSTANDINGS ON THESE POINTS ARE SET FORTH IN AN AIDE MEMOIRE (SEPTEL) WHICH I WILL LEAVE WITH YOU. BRIEFLY THEY ARE AS FOLLOWS:

-- SPENT FUEL DISPOSITION: THE ROC WOULD COOPERATE IN MAKING THE PRACTICAL AND FINANCIAL ARRANGEMENTS FOR THE

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TRANSFER OF SPENT TRR FUEL TO A SITE OUTSIDE TAIWAN TO BE DESIGNATED BY THE U.S. FOR STORAGE OR ULTIMATE DISPOSAL. IN THE INTERIM, ALL COOLED SPENT FUEL WILL BE TEMPORARILY PLACED IN DRY STORAGE AT INER UNDER IAEA INSPECTION AND SEALS. THE NUMBER OF IRRADIATED FUEL RODS IN THE REACTOR'S COOLING POND WILL BE KEPT TO A MINIMUM CONSISTENT WITH SAFE PRACTICE.

-- SAFEGUARDS: THE ROC WOULD COOPERATE WITH THE IAEA TO ENSURE THAT THE MOST EFFECTIVE SAFEGUARDS PROCEDURES ARE APPLIED ON A CONTINUING BASIS TO THE TRR AND RELATED FACILITIES. AS A FIRST STEP, THE ROC WOULD ARRANGE WITH THE IAEA THAT, EXCEPT IN EMERGENCY CIRCUMSTANCES, FUEL WILL BE LOADED AND UNLOADED ONLY IN THE PRESENCE OF IAEA INSPECTORS. IN ADDITION, AS MENTIONED IN OUR EXCHANGE OF NOTES, THE U.S. WILL CONTINUE TO BE AFFORDED UNLIMITED ACCESS TO ALL ROC NUCLEAR FACILITIES UPON REQUEST.

-- RESEARCH PROGRAM: MY GOVERNMENT HAS REVIEWED THE RESEARCH PROGRAM PRESENTED BY INER DIRECTOR CHIEN AND, WITH TWO EXCEPTIONS WHICH REQUIRE FURTHER DISCUSSION, HAS NO OBJECTION TO THE SPECIFIC TOPICS PROPOSED THEREIN. THE FIRST EXCEPTION IS THAT WE ARE NOT PREPARED TO AGREE TO ANY CHEMICAL ANALYSIS OF SPENT FUEL SAMPLES UNLESS WE HAVE MUTUALLY AGREED ON DEFINITIONS DISTINGUISHING SUCH CHEMICAL ANALYSIS FROM REPROCESSING. THE SECOND EXCEPTION IS THAT HEAVY WATER REACTOR (HWR) DEVELOPMENT WORK SHOULD BE LIMITED TO PAPER STUDIES UNTIL WE HAVE CONSULTED FURTHER AND AGREED ON WAYS OF DEALING WITH THE PROLIFERATION CONCERNS CURRENTLY ASSOCIATED WITH NATIONAL HWR DEVELOPMENT PROGRAMS.

-- AS INER DIRECTOR CHIEN IS AWARE, WE HAVE BEEN CONSIDERING OTHER RESEARCH ACTIVITIES WHICH MIGHT BE UNDER-

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TAKEN AT INER, IN THE CONTEXT OF OUR MUTUAL INTEREST IN ALTERNATIVE NUCLEAR FUEL CYCLES THAT OFFER PROSPECTS BOTH FOR EXPANDING FUEL RESOURCES AND REDUCING PROLIFERATION RISKS.

-- WE BELIEVE THAT INER SHOULD CONTRIBUTE TO ONGOING U.S. AND CANADIAN EFFORTS AIMED AT DEVELOPING A SUITABLE LOW ENRICHED URANIUM (LEU) FUEL FOR USE IN REACTORS SUCH AS THE TRR. IF THIS PROVES REASONABLY PRACTICABLE, THE TRR SHOULD BE CONVERTED TO OPERATE ON LEU FUEL. OF COURSE, IF THESE EFFORTS DEMONSTRATE TO OUR MUTUAL SATISFACTION THAT SUCH CONVERSION IS NOT REASONABLY PRACTICABLE, CONVERSION OF THE REACTOR WOULD NOT BE REQUIRED.

-- AS CONVERSION OF THE TRR FROM NATURAL TO LEU FUEL HAS NOT PREVIOUSLY BEEN MENTIONED IN DISCUSSIONS BETWEEN OUR GOVERNMENTS, I WOULD LIKE TO STATE WHY WE BELIEVE INER SHOULD UNDERTAKE AND IMPLEMENT SUCH A CONVERSION PROJECT. CONVERSION TO LEU FUEL WILL SIGNIFICANTLY REDUCE THE AMOUNT OF PLUTONIUM IN TRR SPENT FUEL. CONVERSION WILL, THUS, REDUCE THE CONCERN OF SKEPTIC, INCLUDING SOME MEMBERS OF OUR CONGRESS AND THE U.S. NUCLEAR REGULATORY COMMISSION, ABOUT THE PROLIFERATION RISK OF OPERATING THIS TYPE OF REACTOR.

INER PARTICIPATION IN THE WORK OF DEVELOPING A SUITABLE LEU FUEL FOR USE IN THE TRR WILL REPRESENT A CONTRIBUTION BY THE ROC TO THE WORLD-WIDE SEARCH FOR MORE PROLIFERATION RESISTANT FUEL CYCLES. FINALLY, CONVERSION OF THE REACTOR TO LEU FUEL SHOULD INCREASE THE FLUX LEVEL OF THE REACTOR AND, THUS, MAKE IT AN EVEN MORE VERSATILE RESEARCH TOOL.

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-- THE USG IS NOW UNDERTAKING A DETAILED STUDY OF THIS CONVERSION CONCEPT WITH THE CANADIAN AUTHORITIES WHO HAVE CONVERTED A SIMILAR REACTOR FROM NATURAL TO ENRICHED URANIUM FUEL. AFTER THIS STUDY IS COMPLETED, WHICH WE EXPECT TO BE NO LATER THAN MARCH, WE PROPOSE TO HOLD AN EARLY MEETING BETWEEN OUR TECHNICAL EXPERTS TO REVIEW THE CONCEPT. THE USG IS PREPARED TO SUPPLY THE REQUIRED QUANTITIES OF LOW ENRICHED URANIUM, PURSUANT TO THE US/ROC AGREEMENT FOR COOPERATION.

-- IF, AFTER CONSIDERING THESE POINTS YOUR GOVERNMENT CONCLUDES THAT IT SHARES THE UNDERSTANDINGS SET FORTH IN THE AIDE MEMOIRE, MY GOVERNMENT WOULD AGREE TO THE PROMPT RESUMPTION OF TRR OPERATION IN ITS PRESENT

CONFIGURATION, USING NATURAL URANIUM FUEL, FOR AN INTERIM PERIOD OF UP TO TWO YEARS, PENDING ITS CONVERSION AS SOON AS POSSIBLE TO OPERATE ON APPROXIMATELY 20 PER CENT ENRICHED FUEL, IF SUCH CONVERSION IS REASONABLY PRACTICABLE. IF CIRCUMSTANCES BEYOND THE CONTROL OF THE ROC DELAY CONVERSION BEYOND TWO YEARS, THE REACTOR MAY CONTINUE TO OPERATE FOR A FURTHER INTERIM PERIOD TO BE MUTUALLY AGREED.

-- I WOULD LIKE TO POINT OUT THAT OUR SCIENTISTS STATE THAT THE WORK OF CONVERTING THE REACTOR TO USE LEU FUEL MAY REQUIRE IT TO BE SHUT DOWN FOR MODIFICATION. THE PERIOD DURING WHICH THE REACTOR MIGHT BE SHUT DOWN WOULD BE DETERMINED TO A LARGE EXTENT BY THE TIME REQUIRED FOR DECAY OF RADIOACTIVITY RESULTING FROM REACTOR OPERATION. HENCE, OUR SCIENTISTS HAVE SUGGESTED THAT YOUR SCIENTISTS CONSIDER WHETHER IT MIGHT BE EVEN MORE EXPEDITIOUS AND MINIMIZE DOWN-TIME OF THE REACTOR TO PROCEED DIRECTLY WITH ANY REACTOR MODIFICATION NECESSARY FOR CONVERSION TO LEU FUEL IN ORDER TO TAKE

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ADVANTAGE OF THE LOW RADIATION LEVELS NOW EXISTING AS A RESULT OF THE REACTOR NOT HAVING OPERATED DURING THE PAST FEW MONTHS. AS WE HAVE INDICATED, WE SHOULD HAVE THE RESULTS OF THE U.S.-CANADIAN STUDY BY NO LATER THAN MARCH AND HOPEFULLY SOONER. HOWEVER, THE CHOICE OF WHETHER OR NOT TO OPERATE THE REACTOR FOR AN INTERIM PERIOD ON THE EXISTING NATURAL URANIUM FUEL IS ONE FOR YOUR GOVERNMENT TO MAKE.

3. IN ADDITION TO THESE REMARKS ON THE OPERATION OF THE TRR, THE EMBASSY SHOULD MAKE THE FOLLOWING ADDITIONAL POINTS:

-- EARLIER THIS YEAR, WE REACHED AN AGREEMENT WHICH HAS PLACED OUR NUCLEAR RELATIONSHIP ON A MORE STABLE BASIS. OUR WILLINGNESS TO AGREE TO THE RESUMPTION OF TRR OPERATION IS, OF COURSE, BASED UPON THE PREMISE THAT YOUR GOVERNMENT WILL ADHERE TO ITS NON-PROLIFERATION POLICIES AND TO THE VARIOUS AGREEMENTS AND UNDERSTANDINGS TO WHICH IT IS A PARTY, INCLUDING COMMITMENTS TO AVOID ACTIVITIES IN SENSITIVE AREAS OF THE NUCLEAR FUEL CYCLE SUCH AS REPROCESSING, ENRICHMENT, HEAVY WATER PRODUCTION AND PLUTONIUM HANDLING. ANY FUTURE UNCERTAINTIES IN THIS RESPECT WOULD NOT ONLY REQUIRE A REVERSAL OF OUR ATTITUDE ON TRR OPERATION BUT WOULD UNDERMINE THE BASIS OF ANY CONTINUING COOPERATION WITH YOUR NUCLEAR POWER PROGRAM AND JEOPARDIZE OUR OVERALL BILATERAL RELATIONS. IT IS IMPORTANT THAT OFFICIALS AND SCIENTISTS WORKING ON NUCLEAR MATTERS IN TAIWAN CLEARLY UNDERSTAND THIS POINT.

-- SECOND, WE ANTICIPATE THAT MEMBERS OF THE NUCLEAR REGULATORY COMMISSION OR CONGRESS WILL, PERHAPS DURING CONSIDERATION OF THE NEXT NUCLEAR EXPORT TO THE ROC,

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INQUIRE ABOUT THE RESUMED OPERATION OF THE REACTOR. WE WOULD LIKE YOU TO AUTHORIZE US TO MAKE A STATEMENT FOR THE PUBLIC RECORD CONCERNING THE TRR IF ASKED. SUCH A STATEMENT MIGHT BE ALONG THE FOLLOWING LINES:

BEGIN ILLUSTRATIVE TEXT: IN LINE WITH ITS COMMITMENT TO NON-PROLIFERATION, THE ROC GOVERNMENT HAS DECIDED TO TERMINATE ANY RESEARCH WORK AT THE TRR WHICH MIGHT INVOLVE PROLIFERATION RISKS, TO REMOVE TRR SPENT FUEL FROM TAIWAN TO PERMANENT STORAGE SITES ABROAD, TO COOPERATE FULLY WITH THE IAEA IN MAINTAINING EFFECTIVE INTERNATIONAL SAFEGUARDS ON THE REACTOR, AND TO WORK WITH THE U.S. TOWARDS THE EARLY CONVERSION OF THE TRR TO OPERATION ON LEU FUEL WHICH WILL NOT RESULT IN THE GENERATION OF SIGNIFICANT QUANTITIES OF PLUTONIUM. END ILLUSTRATIVE TEXT. ALTERNATIVELY, YOU MAY WISH TO MAKE A PUBLIC STATEMENT INCORPORATING THESE POINTS.

-- FINALLY, MY GOVERNMENT HAS ASKED ME TO STRESS THE IMPORTANCE WE PLACE UPON PROMPTLY IMPLEMENTING POINT ONE OF OUR EXCHANGE OF NOTES CONCERNING THE PLACEMENT OF ALL PRESENT AND FUTURE ROC NUCLEAR MATERIALS, EQUIPMENT AND FACILITIES UNDER THE SAFEGUARD PROVISIONS OF THE OS/ROC AGREEMENT FOR COOPERATION. DURING THE VISITS OF DR. CHENG TO WASHINGTON AND SUBSEQUENTLY TO VIENNA IN OCTOBER AND NOVEMBER, WE PROPOSED A PROCEDURE INVOLVING AN EXCHANGE OF LETTERS BETWEEN CAEC AND DOE AND A JOINT NOTIFICATION TO THE IAEA. WE WISH TO CARRY OUT THIS JOINT NOTIFICATION IN JANUARY. MY GOVERNMENT WOULD ACCORDINGLY APPRECIATE RECEIVING YOUR GOVERNMENT'S VIEWS ON THIS PROPOSED PROCEDURE AS SOON AS POSSIBLE. VANCE

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