

UNCLASSIFIED

XAP

RELEASED IN FULL

BENTEL JOHN A
75 SEOUL 6608

SECRET

SECRET

PAGE 01 SEOUL 06608 01 OF 02 261025Z
12

ACTION SS-25

INFO OCT-01 ISO-00 SSO-00 NSCE-00 /026 W

077368

O P 260935Z AUG 75
FM AMEMBASSY SEOUL
TO SECSTATE WASHDC IMMEDIATE 2383
INFO AMEMBASSY OTTAWA PRIORITY
AMEMBASSY PARIS PRIORITY
AMEMBASSY TAIPEI PRIORITY
AMEMBASSY TOKYO PRIORITY
USMISSION IAEA VIENNA
SECRET SECTION 1 OF 2 SEOUL 6608
EXDIS

DECAPTIONED

TOKYO FOR HENOCH

E.O. 11652: XGDS-

TAGS: EPIN ETRD NMUC TECH PARM KS HA TH CH
SUBJECT: ROK NUCLEAR FUEL REPROCESSING PLANS
REF: (A) STATE 195214 (B) SEOUL 6495

BEGIN SUMMARY: IN ACCORDANCE AGREEMENT BETWEEN AMBASSADOR AND MINISTER OF SCIENCE AND TECHNOLOGY (PARA 4 REF B) ERDA SCIREP HENOCH MET AUG 25 WITH PRESIDENT YUN AND VICE PRESIDENT CHOO OF KOREA ATOMIC ENERGY RESEARCH INSTITUTE (KAERI) TO DISCUSS REPROCESSING LABORATORY WHICH KAERI HAS PURCHASED FROM FRANCE AND CONDITIONS UNDER WHICH PURCHASE MIGHT BE CANCELLED. KOREANS, WHO SHOWED SOME RESENTMENT AT WHAT THEY APPARENTLY REGARDED AS INTERFERENCE WITH LEGITIMATE KOREAN ASPIRATION TO ACQUIRE TECHNOLOGY IN ONE OF FEW AREAS OF NUCLEAR FIELD FEASIBLE FOR ROK, PROVIDED FOLLOWING INFORMATION IN RESPONSE TO SPECIFIC QUESTIONS:

1. FRENCH PURCHASE REPRESENTS LABORATORY COMPLEX DESIGNED TRAIN KOREAN NUCLEAR SCIENTISTS AND TECHNICIANS IN FUEL ELEMENT

SECRET
SECRET

PAGE 02 SEOUL 06608 01 OF 02 261025Z

FABRICATION, SPENT FUEL REPROCESSING TECHNOLOGY, AND WASTE MANAGEMENT. WHILE SMALL AMOUNTS OF PLUTONIUM WILL BE SEPARATED OUT OF SPENT FUEL, LABORATORY IS TRAINING FACILITY, NOT A PRODUCTION OR PILOT PLANT.

2. JUSTIFICATION FOR THIS FACILITY IS NEED FOR QUALIFIED, TRAINED KOREAN EXPERTS TO SUPPORT NUCLEAR POWER PROGRAM, KOREA'S ONLY ENERGY DEVELOPMENT EFFORT.

3. U.S. HAS MADE IT CLEAR IN TWO INSTANCES (1972 KOREAN APPROACH TO NUCLEAR FUELS SERVICES AND GE FOR A KOREA-JAPAN-U.S. REPROCESSING FACILITY, AND MORE RECENT DISCUSSIONS BETWEEN STATE/AEC/ERDA AND KAERI REPS RELATIVE TO TRAINING OF PERSONNEL IN REPROCESSING TECHNOLOGY) THAT THE U.S. WAS NOT EXPORTING REPROCESSING TECHNOLOGY. KOREANS THEREFORE HAVE SOUGHT TO OBTAIN IT

SECRET

UNITED STATES DEPARTMENT OF STATE
REVIEW AUTHORITY: CHARLES E LAHIGUERA
DATE/CASE ID: 20 MAY 2005 200403745

UNCLASSIFIED

PAGE 1

1963-93 Country Files
LOT 950037 BOX 1

UNCLASSIFIED

ENTEL JOHN A
5 SEOUL 6608

SECRET

LSEWHERE.

. KOREANS BELIEVE THAT A MULTI-NATIONAL RE-PROCESSING APPROACH WILL PROVE FEASIBLE AND WANT TO PARTICIPATE ON TECHNICALLY QUALIFIED BASIS - NOT AS COOLIES. THEREFORE, THEY NEED TRAINING.

. KOREANS ARE NOT WILLING TO ACCEPT TRAINING COURSES IN FACILITIES ABROAD OR PAPER STUDIES. THEY WANT OWN LABORATORY.

. LABORATORY WILL BE SAFEGUARDED BY A TRIPARTITE AGREEMENT WITH IAEA. IF U.S. IS STILL CONCERNED ABOUT DISPOSITION OF PLUTONIUM, ROX WILL CONSIDER US SAFEGUARDS INVOLVEMENT.

. CANCELLATION OF FRENCH PURCHASE WOULD INVOLVE BOTH FINANCIAL PENALTY AND SERIOUS LOSS OF FACE.

1. KOREANS WOULD BE PLEASED BY VISIT OF US NUCLEAR TEAM TO REVIEW THEIR R&D EFFORT. SUCH A VISIT COULD ESTABLISH RELATIONSHIPS ON WHICH TO DEVELOP POSSIBLE JOINT VENTURE SHOULD U.S. BE INTERESTED. END SUMMARY.

.. KOREANS WOULD NOT VOLUNTEER A DESCRIPTION OF FRENCH

SECRET

SECRET

PAGE 03 SEOUL 06608 01 OF 02 261025Z

FACILITY. THEY MAINTAINED THAT SINCE U.S. HAS NOT AGREED TO DISCUSS REPROCESSING IN THE PAST, IT IS PRESUMPTUOUS OF U.S. TO EXPECT TO INTERROGATE KOREANS IN DETAIL ON PRIVATE ARRANGEMENT WITH FRENCH.

FOLLOWING PARAS CONTAIN INFORMATION ELICITED IN RESPONSE SPECIFIC QUESTIONS.

2. FRENCH PACKAGE WILL COMPRISE FUEL FABRICATION, FUEL REPROCESSING, WASTE DISPOSAL AND ANALYTICAL LABORATORIES. FACILITY WILL BE LOCATED AT UNDISCLOSED SITE APART FROM SAERI.

3. FUEL FABRICATION LABORATORY WILL BE EQUIPPED WITH POWDER HANDLING EQUIPMENT, WELDING MACHINES, LATHES, COMPACTING MACHINES, HIGH-FREQUENCY POWER SUPPLY, RADIOGRAPHIC AND METALLOGRAPHIC EQUIPMENT. IT WILL HAVE CAPACITY TO PRODUCE A FEW KILOGRAMS PER DAY OF FUEL PINS.

4. REPROCESSING LABORATORY WILL INCLUDE ONE HOT CELL COMPRISED OF SEVERAL COMPARTMENTS. THERE WILL BE AN IRRADIATED PIN MEASURING FACILITY, DECLADING, SOLVENT EXTRACTION, AND MIXER-SETTLER EQUIPMENT, AND AREA FOR COLD EXPERIMENTATION OUTSIDE HOT CELL. LABORATORY WILL BE ABLE TO HANDLE ONE TO TEN KILOGRAMS PER DAY OF SPENT FUEL. SINCE IT IS NOT BEING BUILT TO PROCESS FUEL BUT AS AN EDUCATIONAL TOOL, THROUGHPUT HAS NO REAL SIGNIFICANCE. IT IS EXPECTED TO OPERATE ONLY ABOUT 30 TO 40 DAYS PER YEAR. IT WILL BE DESIGNED WITH MANY VALVES FOR HIGH DEGREE OF FLEXIBILITY IN SAMPLING PRODUCT AT MANY PROCESS STAGES.

SECRET

NNN

SECRET

PAGE 2

UNCLASSIFIED

UNCLASSIFIED

VENTEL JOHN A
5 SEUL 6608

SECRET

SECRET

PAGE 01 SEUL 06608 02 OF 02 261048Z

10

ACTION SS-25

INFO OCT-01 ISO-00 SSO-00 NSCE-00 /026 W

077651

Y P 260935Z AUG 75

FM AMEMBASSY SEOUL

TO SECSTATE WASHDC IMMEDIATE 2384

INFO AMEMBASSY OTTAWA PRIORITY

AMEMBASSY PARIS PRIORITY

AMEMBASSY TAIPEI PRIORITY

AMEMBASSY TOKYO PRIORITY

USMISSION IAEA VIENNA

SECRET SECTION 2 OF 2 SEUL 6 03

EXDIS

TOKYO FOR HENoch

5. WASTE HANDLING LABORATORY DESIGN NOT YET DEFINED. PURPOSE IS TO HANDLE AND TO TRAIN PEOPLE IN HANDLING RADIOACTIVE WASTE PRODUCTS AFTER ANALYSIS.

6. ANALYTICAL LABORATORY WOULD OCCUPY MORE SPACE THAN ALL OF THE REST OF THE FACILITY. NO DETAILS WERE PROVIDED.

7. ENTIRE FACILITY IS EXPECTED TO COST ABOUT \$35 MILLION INCLUDING FEES, INSTRUCTION, SAFEGUARDS AND PERSONNEL TRAINING PROGRAMS. ABOUT HALF TOTAL COST WILL GO FOR HARDWARE FOR FUEL AND REPROCESSING LABORATORIES. THE KOREANS EXPECT OBTAIN SOME SPENT FUEL FROM FRENCH AND ALSO PLAN TO OBTAIN SOME BY IRRADIATING FUEL SAMPLES IN THEIR TRIGA REACTOR.

8. KOREANS ARE CONVINCED THAT NUCLEAR POWER IS ONLY SOLUTION TO FUTURE ENERGY REQUIREMENTS. NO OTHER ENERGY R&D IS BEING CONDUCTED. KAERI IS PURSUING PROGRAM PURPOSEFULLY DIRECTED AT DEVELOPING INDIGENOUS CAPABILITY IN AS MANY NUCLEAR TECHNICAL AREAS AS

SECRET

SECRET

PAGE 02 SEUL 06608 02 OF 02 261048Z

APPEAR REASONABLY ACHIEVABLE. ON THIS BASIS, THEY EXCLUDED NUCLEAR REACTOR DESIGN AND URANIUM ENRICHMENT PROCESS DEVELOPMENT, AND SELECTED FUEL FABRICATION AND REPROCESSING AND WASTE DISPOSAL AS AREAS WHERE THEY COULD DEVELOP SUFFICIENT TECHNICAL COMPETENCE TO PARTICIPATE WITH OR COMPETE WITH OTHER NUCLEAR INDUSTRIAL COUNTRIES.

KAERI AND BURNS AND ROE HAVE RECENTLY FORMED KABAR, A JOINT VENTURE BY MEANS OF WHICH KOREANS EXPECT TO DEVELOP AN ARCHITECT ENGINEERING CAPABILITY, AND ARE PLANNING TO DEVELOP PROJECT MANAGEMENT AND COMPONENT MANUFACTURING WHERE FEASIBLE. KORI I IS ABOUT 90 PERCENT U.S. - 20 PERCENT KOREAN BUILT; THEY HOPE TO TURN THE SITUATION AROUND IN TEN YEARS.

9. TO DEVELOP TECHNICAL CAPABILITY IN FUEL REPROCESSING,

SECRET

PAGE 3

UNCLASSIFIED

UNCLASSIFIED

ENDEL JOHN A
5 SEOUL 6608

SECRET

KOREANS NEED IN-COUNTRY FACILITIES WHERE ENGINEERS AND
TECHNICIANS CAN ACTUALLY WORK WITH HARDWARE AND MATERIALS.
LEAPER STUDIES OR TRAINING PROGRAMS IN OTHER COUNTRIES
WILL NOT SUFFICE TO RAISE KOREAN TECHNICIANS TO LEVEL
OF EXPERIENCE OF SOPHISTICATED NUCLEAR COUNTRIES.

KOREANS HAVE NO ILLUSIONS ABOUT A LARGE MULTI-NATIONAL
PLANT BEING LOCATED IN KOREA, NOR DO THEY PARTICULARLY
WANT IT WHERE IT IS LOCATED; BUT THEY DO WANT TO PARTICIPATE
IN A MEANINGFUL, TECHNICAL FASHION, AND NOT AS "COOLIES."

2: DR. YUN ATTENDED ARGONNE SCHOOL OF REACTOR
TECHNOLOGY AND DR. CHOO GRADUATED FROM MIT. EVERYONE
IN KOREA'S NUCLEAR PROGRAM HAS BEEN US-EDUCATED.

OTHERS HAVE A PERSONAL PREFERENCE AND KAERI HAS A
PROGRAMMATIC PREFERENCE FOR DOING BUSINESS WITH U.S.
KOREANS SPEAK ENGLISH, NOT FRENCH, AND THINK AMERICAN.
HOWEVER, THEY ARE VERY "MISSION ORIENTED" AND IF THEY
CAN'T GET WHAT THEY WANT FROM THE U.S., THEY WILL GO
WHERE THEY HAVE TO, TO GET IT.

1. KOREANS ARE NOT WILLING TO ACCEPT ANYTHING LESS
THAN A LABORATORY IN KOREA OF KIND PURCHASED FROM FRENCH. THEY
WOULD BE PLEASED WITH A CLOSE US RELATIONSHIP SO THAT THE U.S.
WOULD BE ASSURED THAT THEY ARE NOT CHEATING. THEY
QUESTION WHETHER THE U.S. CAN IMPOSE A POLICY ON
KOREA WHICH FORBIDS KOREA ENTRY INTO A LEGITIMATE

SECRET

SECRET

PAGE 03 SEOUL 06608 02 OF 02 261048Z

BUSINESS ASPECT OF NUCLEAR POWER; AN ASPECT IN WHICH,
FOR EXAMPLE, JAPAN IS VERY HEAVILY INVOLVED.

2 WITH REGARD TO STATUS OF FRENCH PURCHASE, KOREANS
INDICATED THAT IN ADDITION TO FINANCIAL PENALTY FOR
CANCELLATION, THEY WOULD ALSO SUFFER
SERIOUS LOSS OF FACE.

3. KOREANS ALSO STATED THAT THEY WOULD BE
PLEASED TO HOST VISIT FROM SMALL TEAM OF US NUCLEAR
EXPERTS WHO COULD REVIEW THE TECHNICAL QUALITY AND
PROGRAMMATIC BALANCE OF THEIR R&D EFFORT. SUCH A
VISIT WOULD ENABLE THE U.S. TO BEGIN TO ESTABLISH
CLOSER RELATIONSHIPS WITH KAERI PEOPLE WITH A VIEW
TOWARD US/ROK COLLABORATION IN A JOINT VENTURE OF
THIS TYPE, SHOULD U.S. SELECT THAT COURSE OF ACTION
IN THE INTEREST OF ASSURING THAT SAFEGUARDS ARE
MAINTAINED.

SNEIDER

SECRET

NNN

PAGE 4

UNCLASSIFIED

**NATIONAL
SECURITY
ARCHIVE**

This document is from the holdings of:

The National Security Archive

Suite 701, Gelman Library, The George Washington University
2130 H Street, NW, Washington, D.C., 20037

Phone: 202/994-7000, Fax: 202/994-7005, nsarchiv@gwu.edu