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E.O. 12065: ROS-2, 3, 4 6/13/2000 (NIMETZ, M.T.) STATE/T

TAGS: PARM, TECH, MNUC, PK, GW

SUBJECT: PAKISTAN'S NUCLEAR PROGRAM

1. (S) FOR BONN: DEPARTMENT HAS COMPLETED A REVIEW OF
TECHNICAL AND INTELLIGENCE INFORMATION ON THE STATUS OF
PAKISTAN'S NUCLEAR PROGRAM. A SUMMARY OF THE RESULTS OF
THIS STUDY WERE PRESENTED TO THE UK, FRANCE, NETHERLANDS,

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CANADA AND AUSTRALIA DURING BILATERAL DISCUSSIONS. EMBASSY IS REQUESTED TO PROVIDE THE INFORMATION CONTAINED IN PARA 3 AS A SECRET NON-PAPER TO APPROPRIATE SENIOR MFA AND BMFT OFFICIALS.

2. (S) IN ADDITION, EMBASSY IS REQUESTED TO PROVIDE APPROPRIATE FRG OFFICIALS WITH INFORMATION IN PARA 4, WHICH DETAILS OUR UNDERSTANDING OF RECENT COMMERCIAL COOPERATION BY PRIVATE GERMAN FIRMS WITH PAKISTAN'S UNSAFEGUARDED ENRICHMENT AND REPROCESSING PROGRAMS. DURING THIS LATTER PRESENTATION, EMBASSY SHOULD THANK THE FRG FOR ITS PAST COOPERATION IN THIS TYPE OF EXCHANGE OF INFORMATION ON EXPORT CONTROL ACTIVITIES AND SHOULD STRESS THAT WE ARE PROVIDING THIS INFORMATION AS PART OF OUR ON-GOING EFFORTS TO CONTROL THE EXPORT OF SIGNIFICANT ITEMS TO PAKISTAN'S UNSAFEGUARDED SENSITIVE ACTIVITIES. EMBASSY SHOULD STRESS THE EXTREME SENSITIVITY OF THIS INFORMATION.

3. (S) CURRENT ASSESSMENT OF PAKISTAN'S NUCLEAR PROGRAM. WE HAVE RECENTLY COMPLETED A REVIEW OF OUR INFORMATION ON THE NATURE AND STATUS OF PAKISTAN'S NUCLEAR PROGRAM AND HAVE CONCLUDED THAT ADDITIONAL ATTENTION SHOULD BE GIVEN TO PAKISTAN'S EFFORTS TO CONSTRUCT AN UNSAFEGUARDED REPROCESSING FACILITY, THE "NEW LABORATORIES," NEAR PINSTECH.

IN ADDITION, THE EVIDENCE INDICATES THAT PAKISTAN IS CONTINUING TO PURSUE A NUCLEAR WEAPONS DEVELOPMENT PROGRAM. RECENTLY, AVAILABLE INFORMATION HAS HEIGHTENED OUR CONCERNS ABOUT PAKISTANI EFFORTS TO ACQUIRE FISSILE MATERIAL FOR THIS PROGRAM FROM REPROCESSING, ALTHOUGH URANIUM ENRICHMENT OFFERS PAKISTAN A ROUTE TO FISSILE MATERIAL THAT IS UNOBSTRUCTED BY IAEA SAFEGUARDS.

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THE GOPI'S URANIUM ENRICHMENT EFFORT PRESENTLY CONSISTS OF A SMALL PILOT PLANT, WHICH HAS BEEN ASSEMBLED AT SIHALA, AND A LARGER, PRODUCTION-SCALE FACILITY WHICH IS UNDER CONSTRUCTION AT KAHUTA. WE BELIEVE THE SIHALA FACILITY IS NOT LARGE ENOUGH TO PRODUCE WEAPONS QUANTITIES OF HIGHLY ENRICHED URANIUM. THE MOST SIGNIFICANT RECENT DEVELOPMENT AT THE TEST CASCADE AT SIHALA HAS BEEN THE ADDITION OF PERIMETER SECURITY AROUND WHAT WE BELIEVE ARE THE BUILDINGS ASSOCIATED WITH THE TEST CASCADE. THE KAHUTA PLANT IS DESIGNED TO HOUSE SEVERAL THOUSAND CENTRIFUGES. AN INITIAL SECTION OF THE PLANT (E.G. 1000 CENTRIFUGES) COULD BE OPERATIONAL IN 1981 AND COULD PRODUCE SUFFICIENT FISSILE MATERIAL FOR A SINGLE NUCLEAR EXPLOSIVE DEVICE WITHIN ONE TO THREE YEARS AFTER START-UP. WHEN COMPLETELY OPERATIONAL, PROBABLY BY THE MID-1980'S, THE PLANT COULD PRODUCE ENOUGH HIGHLY ENRICHED URANIUM FOR SEVERAL NUCLEAR DEVICES PER YEAR. WORK AT THE KAHUTA SITE IS CONTINUING. ALTHOUGH ELECTRICITY HAS BEEN BROUGHT INTO THE COMPLEX, JUDGING FROM THE GENERAL LEVEL OF PROGRESS FOR THE OVERALL SITE, WE HAVE NO REASON TO BELIEVE THAT OPERATION OF CENTRIFUGE CASCADES HAS BEGUN. SIGNIFICANT PHYSICAL CHANGES AT THE SITE INCLUDE A SECURITY PERIMETER WHICH HAS BEEN CONSTRUCTED AROUND THE PRODUCTION AREA, CAMOUFLAGE MARKINGS PAINTED ON THE ROOFS OF THE PROCESS BUILDINGS, AND A GENERAL UPGRADE OF THE AIR DEFENSE SYSTEMS AROUND THE SITE.

THE PAKISTANIS HAVE BEEN ACTIVELY PURCHASING PARTS AND EQUIPMENT FOR THEIR ENRICHMENT PROGRAM FROM A NUMBER OF COUNTRIES THROUGH DUMMY COMPANIES USING FALSE END-USE STATEMENTS. ALTHOUGH IT NOW APPEARS THAT CONCERTED EFFORTS BY WESTERN SUPPLIERS MAY HAVE SIGNIFICANTLY SLOWED PAKISTAN'S CLANDESTINE SHOPPING ACTIVITIES, THESE EFFORTS HAVE BY NO MEANS DETERRED THE PAKISTANIS FROM FURTHER SHOPPING.

IT NOW APPEARS THAT PAKISTAN IS OBTAINING MATERIALS, COM-
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PONENTS AND EQUIPMENT FOR ITS URANIUM ENRICHMENT PROGRAM FROM A NUMBER OF EUROPEAN FIRMS THROUGH INTERMEDIARIES IN OUBAI AND KUWAIT WORKING WITH PAKISTANI FIRMS FRONTING FOR THE GOVERNMENT OF PAKISTAN. NEVERTHELESS, IN LIGHT OF INDICATIONS OF CONTINUING DIFFICULTIES THE PAKISTANIS ARE ENCOUNTERING IN THEIR ENRICHMENT ENDEAVORS, WE HAVE FAIRLY HIGH CONFIDENCE THAT SUFFICIENT HEU FOR AN INITIAL PAK NUCLEAR DEVICE COULD NOT BE AVAILABLE FROM THE KAHUTA FACILITY FOR TWO OR MORE YEARS.

WE HAVE MUCH GREATER UNCERTAINTY ABOUT PLUTONIUM AVAILABILITY. IT NOW APPEARS POSSIBLE THAT THE PAKISTANIS HAVE MADE MORE PROGRESS IN THE AREA OF REPROCESSING THAN WE PREVIOUSLY BELIEVED. REPROCESSING OF SPENT FUEL MAY WELL GIVE THE GOP SUFFICIENT FISSILE MATERIAL FOR A NUCLEAR DETONATION BEFORE ITS ENRICHMENT PROGRAM DOES SO.

WE BELIEVE THERE ARE FOUR FACILITIES CAPABLE OF REPROCESSING SPENT FUEL CURRENTLY OPERATIONAL OR UNDER CONSTRUCTION IN PAKISTAN. TWO ARE REPORTEDLY LOCATED INSIDE PINSTECH, ONE IS ADJACENT TO PINSTECH AND KNOWN AS THE "NEW LABORATORIES", AND THE LAST IS THE CHASMA FACILITY.

INSIDE PINSTECH THERE IS A LABORATORY-SCALE REPROCESSING FACILITY LOCATED IN THE BASEMENT AND A SECOND SOPHISTICATED ANALYTICAL LABORATORY LOCATED ON AN INTERMEDIARY FLOOR ALSO REPORTEDLY CAPABLE OF REPROCESSING. WE BELIEVE THAT THE BASEMENT FACILITY HAS AT LEAST ONE SMALL SHIELDED CELL WHICH HAS BEEN IN EXISTENCE FOR A NUMBER OF YEARS. AN ARTICLE PUBLISHED IN 1971 BY PAKISTAN DESCRIBED THIS FACILITY AND SUGGESTED THAT IT COULD BE EXPANDED. WE BELIEVE THAT PAKISTAN MADE A DECISION NOT TO EXPAND IT AND INSTEAD DECIDED TO BUILD ANOTHER, LARGER FACILITY NEXT TO

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PINSTECH CALLED THE "NEW LABORATORIES." THE US HAS RECEIVED A FEW REQUESTS FROM PAKISTAN FOR REPROCESSING-RELATED MATERIAL OR EQUIPMENT (E.G. URANIUM-235 AND PLUTONIUM STANDARDS) DESIGNATED SPECIFICALLY FOR THE NEW LABORATORIES. THE PAKISTANIS HAVE NOT, TO OUR KNOWLEDGE, OPENLY REFERRED TO THE NEW LABORATORIES BEFORE THESE REQUESTS WERE RECEIVED. OUR INFORMATION INDICATES THAT THE NEW LABORATORIES HAS AT LEAST ONE SHIELDED CELL (4 M LONG BY 2.5 M WIDE BY 3 M HIGH) WHICH COULD BE USED TO REPROCESS IRRADIATED FUEL FROM THE KANUPP REACTOR.

WE DO NOT YET HAVE SUFFICIENT INFORMATION TO MAKE A FINAL ESTIMATE OF THE NEW LABS' CAPACITY OR COMPLETION DATE, HOWEVER, THE FOLLOWING PRELIMINARY OBSERVATIONS HAVE BEEN MADE, WHICH DIFFER SIGNIFICANTLY FROM OUR EARLIER ASSES-

MENT. WORK ON THE NEW LABS HAS CONTINUED THROUGH THE FIRST PART OF THIS YEAR. ALTHOUGH THE BUILDING APPEARS TO BE EXTERNALLY COMPLETE, IT IS NOT POSSIBLE TO DETERMINE PRECISELY WHEN IT WILL BEGIN OPERATION. THE FACILITY MAY BE COMPLETED AS EARLY AS THE SECOND HALF OF 1980 OR BY THE BEGINNING OF 1981. WE ESTIMATE THAT THE FACILITY WOULD BE CAPABLE OF SEPARATING BETWEEN 10 AND 20 KILOGRAMS OF PLUTONIUM PER YEAR IF PAKISTAN ACQUIRES THE NECESSARY REPROCESSING EQUIPMENT. OUR INFORMATION INDICATES THAT THE DESIGN OF THE NEW LABS ANTICIPATED THE CONSTRUCTION OF HOT CELLS FOR REPROCESSING, ROOMS FOR GLOVEBOXES, A ROOM FOR PLUTONIUM STORAGE, AND A SPECIAL VENTILATION SYSTEM. MOST SIGNIFICANTLY, THE PLAN INVOLVED THE USE OF MIXER-SETTLERS, A DISASSEMBLY MACHINE, DISSOLVER TANKS AND INTERCELL TRANSPORTATION CASKS. THUS, SHOULD THE NEW LABS BECOME FULLY OPERATIONAL BY MID-1980, PAKISTAN CONCEIVABLY COULD SEPARATE SUFFICIENT PLUTONIUM FROM SPENT KANUPP REACTOR FUEL FOR ITS FIRST NUCLEAR DEVICE BY EARLY 1981. THIS ESTIMATE IS BASED ON THE VOLUME OF THE ONE KNOWN HOT CELL AND ON THE ASSUMPTION THAT PAKISTAN ACTUALLY ACQUIRES THOSE

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ITEMS WHICH WERE PLANNED FOR THE FACILITY. WHILE WE ARE REASONABLY CERTAIN ABOUT THE VOLUME OF THE CELL, WE HAVE NO CONCLUSIVE EVIDENCE TO CORROBORATE PAK ACQUISITION OF THE EQUIPMENT REQUIRED TO MAKE THE FACILITY FULLY OPERATIONAL.

WE DO NOT BELIEVE THE CHASMA FACILITY IS LIKELY TO BE COMPLETED BEFORE THE MID-1980'S.

WE ALSO BELIEVE THAT THE PAKISTAN URANACE FACTORY AT THE WAH ARSENAL IS ATTEMPTING TO PURCHASE RADIATION MONITORING EQUIPMENT. THIS TYPE OF ACTIVITY REINFORCES OUR BELIEF THAT PAKISTAN IS USING THE WAH ARSENAL TO CONDUCT ITS RESEARCH AND DEVELOPMENT ON A NUCLEAR EXPLOSIVE DEVICE.

4. (S) EXPORT CONTROL INFORMATION

-- WE HAVE REASON TO BELIEVE THAT THE GERMAN COMPANY SEIFERT RICH AND CO. MAY PROVIDE PAKISTAN URANACE FACTORY WITH RADIATION MONITORING EQUIPMENT. SINCE THIS TYPE OF PURCHASE WOULD BE UNUSUAL FOR A CONVENTIONAL URANACE

FACTORY, WE WOULD BE INTERESTED IN ANY INFORMATION YOUR GOVERNMENT MAY HAVE CONCERNING THE POSSIBLE EXPORT OF THIS TYPE OF EQUIPMENT TO THIS FACILITY.

-- WE HAVE REASON TO BELIEVE THAT THE GERMAN FIRM LUWA SMS, WHICH IS ASSOCIATED WITH THE SWISS FIRM LUWA AG, HAS BEEN ACTIVELY WORKING WITH THE PAKISTAN ATOMIC ENERGY COMMISSION. LUWA SMS AND THE FIRM KLEIN, SCHANZLIN AND

BECKER HAVE PROVIDED A RADIOACTIVE WASTE SYSTEM FOR THE NEW LABS REPROCESSING FACILITY WHICH IS BEING CONSTRUCTED NEAR THE MAIN PINSTECH BUILDING. WE BELIEVE THAT THIS

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REPROCESSING FACILITY WILL NOT BE PLACED UNDER IAEA SAFEGUARDS.

-- WE HAVE REASON TO BELIEVE THAT THE FIRM INDUSTRIE-ANGLAGEN VERTRIEB GMBH (IAVG) HAS SHIPPED SIGNIFICANT AMOUNTS OF EQUIPMENT WHICH PAKISTAN IS USING TO BUILD ITS UNSAFEGUARDED CENTRIFUGE FACILITY. WE BELIEVE THAT THESE SHIPMENTS INVOLVE MILLIONS OF DOLLARS WORTH OF EQUIPMENT AND ARE BEING SENT TO KUWAIT AND DUBAI TO HIDE THE INTENDED END USE OF THE EQUIPMENT.

-- WE HAVE REASON TO BELIEVE THAT TWO GERMAN COMPANIES HAVE BEEN WORKING FOR A FEW YEARS TO BUILD A UF6 FACILITY IN PAKISTAN. WE BELIEVE THAT THE FACILITY IS IN THE DERA GHAZI KHAN AREA AND THAT THE EQUIPMENT WHICH HAS BEEN PROVIDED IS BEING USED TO DISSOLVE YELLOW-CAKE, GENERATE H2 FOR REDUCING U308 TO U02, PRODUCE F2 AND THEN PRODUCE AND TRAP UF6. WE ALSO BELIEVE THAT PAKISTAN MAY REQUEST THE FIRM LEYBOLD-HERAEUS TO START UP THE FACILITY.

-- WE HAVE REASON TO BELIEVE THAT THE FIRM LEYBOLD-HERAEUS IS CONTINUING TO SHIP CENTRIFUGE-RELATED EQUIPMENT TO PAKISTAN VIA KUWAIT.

-- WE HAVE REASON TO BELIEVE THAT THE FIRM HANS WELLSCHMILLER, WHICH WE PREVIOUSLY MENTIONED TO YOU, HAS PROVIDED PAKISTAN'S NEW LABS REPROCESSING PLANT WITH A SIGNIFICANT AMOUNT OF ASSISTANCE WHICH HAS INCLUDED INSTALLATION OF A PNEUMATIC TRANSFER SYSTEM AND REPROCESSING-RELATED EQUIPMENT FOR A HIGH LEVEL WASTE CONDITIONING CELL.

-- WE ALSO HAVE REASON TO BELIEVE THAT THE FOLLOWING TYPES OF DUAL-USE EQUIPMENT HAVE BEEN PROVIDED TO PAKISTAN'S ENRICHMENT, REPROCESSING OR EXPLOSIVES PROGRAMS BY GERMAN COMPANIES. THIS TYPE OF EQUIPMENT REQUIRES AN EXPORT LICENSE IN THE U.S. IF THE COMPANY KNOWS OR HAS REASON TO

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KNOW THAT IT WILL BE USED IN A SENSITIVE NUCLEAR FACILITY OR ACTIVITY. WE WOULD BE PARTICULARLY INTERESTED IN ANY INFORMATION THESE COMPANIES MAY HAVE CONCERNING THE PROGRESS WHICH HAS BEEN MADE BY PAKISTAN IN ITS CONSTRUCTION OF THESE UNSAFEGUARDED FACILITIES.

- MANDRELS OEHIN AND KOEHLER GMBH AND CO
- COMPUTERIZED NUMERICAL CONTROL EQUIPMENT FRESTAL AG
- NUMERICAL CONTROL JIGS CARLOWITZ AND CO.
- SPECTROMETERS ADVANCED TECHNICAL SERVICES
- INDUCTION AND MELTING FURNACE LEYBOLD-HERAEUS

5. (S) FOR LONDON: EMBASSY IS REQUESTED TO PROVIDE APPROPRIATE UK OFFICIALS WITH THE TEXT OF THE NON-PAPER AND EXPORT CONTROL INFORMATION (PANAS 3 AND 4) WHICH HAS BEEN GIVEN TO THE FRG. THE EMBASSY SHOULD NOTE THE SENSITIVITY OF THIS INFORMATION AND MENTION THAT WE WILL SHARE THIS TYPE OF INFORMATION WITH THE UK AS PART OF OUR MUTUAL EFFORTS TO STUDY POSSIBLE MECHANISMS TO CONTROL GREY AREA AND DUAL-USE NUCLEAR EXPORTS. CHRISTOPHER

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