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STATE FOR S/NIS, PM/RNP, PM/NE AND EUR/ISCA;
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REF(S): (A) MOSCOW 16348 AND PREVIOUS

- (B) MOSCOW 9507 AND PREVIOUS
 - (C) MOSCOW 15155 AND PREVIOUS
- (D) MOSCOW 9632 (E) MOSCOW 14218
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- 1. CONFIDENTIAL ENTIRE TEXT.

UNITED STATES DEPARTMENT OF STATE
REVIEW AUTHORITY: FRANK H PEREZ
CLASSIFICATION: CONFIDENTIAL REASON: 1.4(B), 1.4(D), 1.4(H)
DECLASSIFY AFTER: 14 JUL 2014
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SUMMARY

2. THE POTENTIAL FOR DIVERSIONS AND/OR THEFTS OF RUSSIAN NUCLEAR WEAPONS MATERIALS IS THE SUBJECT OF A CONTINUING STREAM OF REPORTS AND COMMENTARIES IN THE RUSSIAN AS WELL AS FOREIGN PRESS. WHILE THIS HIGH-LEVEL OF ATTENTION CAN SERVE AS A CATALYST FOR PROMOTING MUCH NEEDED IMPROVEMENTS IN RUSSIAN SYSTEMS OF CONTROL, ACCOUNTABILITY AND PHYSICAL PROTECTION OF NUCLEAR MATERIALS, IT COULD ALSO BE COUNTERPRODUCTIVE IF GOR OFFICIALS REACT TOO DEFENSIVELY AND LET PRIDE OR DOUBTS OF U.S. MOTIVES UNDERMINE PROSPECTS FOR COOPERATION IN THIS CRITICAL AREA. TO ENGAGE THE GOR IN AN EFFECTIVE EFFORT TO IMPROVE THE SECURITY OF NUCLEAR MATERIALS, CAREFUL ATTENTION MUST THEREFORE BE PAID TO PRESENTATION AS WELL AS TO THE CONTENT OF PROPOSALS AND STATEMENTS (SEE PARA 16 FOR SPECIFIC EMBASSY SUGGESTIONS). IN ADDITION, BECAUSE ACCESS TO AND RESPONSIBILITY FOR NUCLEAR MATERIALS IS SPREAD CONFIDENTIAL

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AMONG A NUMBER OF GOR MINISTRIES AND ORGANIZATIONS AND
INTERNAL COORDINATION IN THIS AREA IS WEAK, THE USG
SHOULD CONTINUE TO PURSUE MULTIPLE AVENUES FOR
COOPERATION WITH THE GOR. END SUMMARY.

DENIALS AND ACCUSATIONS

3. ARTICLES, COMMENTARIES AND TESTIMONY BY WESTERN OFFICIALS CARRIED IN U.S. AND OTHER WESTERN MEDIA ON THE THREAT POSED BY THE POTENTIAL FOR THE ILLICIT SALE OR THEFT OF RUSSIAN NUCLEAR WEAPONS OR THEIR COMPONENTS HAVE LED TO CONSIDERABLE MEDIA ATTENTION BEING FOCUSED ON THIS ISSUE WITHIN RUSSIA. NUMEROUS SENIOR GOR OFFICIALS HAVE RECENTLY STEPPED FORTH WITH STRONG DENIALS THAT ANY SUCH PROBLEM EXISTS. ON JULY 4, MOSCOW TV ANCHORMAN SERGEY DORENKO SUMMED UP THE SENTIMENTS OF MANY RUSSIAN NUCLEAR AND DEFENSE OFFICIALS ON THE "DETAILS" PROGRAM BY OBSERVING "RUSSIAN STATE BODIES ARE SKEPTICAL ABOUT THE AMERICAN WORRIES. (FEDERAL COUNTERINTELLIGENCE CHIEF) SERGEY STEPASHIN SAID TODAY THAT IF THE AMERICAN (FBI DIRECTOR FREEH) FAILS TO PRODUCE DOCUMENTS AND CONTINUES WITH HIS EFFORTS BASED ON CONJECTURES, THE

RUSSIAN OPPOSITION WILL BE ABLE TO ACCUSE U.S. BODIES OF AN ATTEMPT TO SEIZE CONTROL OF RUSSIAN NUCLEAR INSTALLATIONS. HONESTLY SPEAKING, THESE ATTEMPTS TO IMPOSE THEIR HELP UPON US IN CONTROLLING NUCLEAR SITES ARE SO VIGOROUS THAT NOT ONLY THE OPPOSITION, PERHAPS, WILL BE ABLE TO MAKE SUCH ACCUSATIONS."

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PAGE 04 MOSCOW 19996 01 OF 06 141553Z 4. DORENKO'S COMMENT THAT NOT ONLY THE OPPOSITION MAY ACCUSE THE U.S. OF DUPLICITY IN ITS DESIRE TO "HELP" RUSSIA CERTAINLY APPLIES TO OFFICIALS AT THE MINISTRY OF ATOMIC ENERGY (MINATOM) . IN A JUNE 16 STATEMENT CARRIED BY INTERFAX, MINATOM DEPUTY MINISTER LEV RYABEV STATED THAT "REPORTS OF THE OUTFLOW OF NUCLEAR MATERIALS FROM RUSSIA HAVE THE SOLE GOAL OF PROVING THAT THE PRESENCE OF NUCLEAR WEAPONS IN RUSSIA IS DANGEROUS TO THE WORLD COMMUNITY AND THAT RUSSIA SHOULD BE RELIEVED OF THIS BURDEN." THE FEDERAL COUNTERINTELLIGENCE SERVICE (FSK) HAS ITS SHARE OF DOUBTERS AS WELL. IN A JUNE 22 INTERVIEW CARRIED BY ITAR-TASS, FSK SPOKESMAN ALEKSANDR MIKHAILOV STATED THAT REPORTS APPEARING IN THE WEST ALLEGING THE THEFT AND SMUGGLING OF NUCLEAR MATERIALS FROM RUSSIA ARE NOT AIMED AT PREVENTING NUCLEAR PROLIFERATION, BUT ARE INTENDED TO PROMOTE THE IDEA OF "PLACING THE RUSSIAN NUCLEAR ARSENAL UNDER WESTERN CONTROL."

5. IN ADDITION TO LAUNCHING "COUNTERATTACKS"
QUESTIONING THE TRUE MOTIVES BEHIND U.S. AND WESTERN
EXPRESSIONS OF CONCERN OVER THE POSSIBLE THEFT OR
DIVERSION OF NUCLEAR MATERIALS, GOR OFFICIALS HAVE
BEEN QUICK TO COME FORTH WITH "INFORMATIVE" INTERVIEWS
WHICH UNDERSCORE THE CARE AND SAFETY OF RUSSIAN

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NUCLEAR PROGRAMS. IN AN INTERVIEW CARRIED IN THE MILITARY NEWSPAPER "KRASNYA ZVEZDA" ON JULY 2, FOR EXAMPLE, DEPUTY COMMANDER OF THE RUSSIAN STRATEGIC MISSILE FORCES COL. GEN. VLADIMIR KRIVOMASOV REPEATEDLY STRESSED THE SAFETY, RELIABILITY AND SECURITY OF RUSSIAN MISSILE FORCES WITHOUT EVER

EXPLICITLY RESPONDING OR EVEN REFERRING TO REPORTS OF THEFT OR DIVERSION. THE ONLY MENTION KRIVOMASOV MADE OF THE U.S. WAS WHEN HE COMMENTED THAT THE LEVEL OF SAFETY, SECURITY AND PREPAREDNESS IN THE RUSSIAN STRATEGIC MISSILE FORCES IS "IN NO WAY INFERIOR" TO THE LEVEL IN AMERICA.

WHILE FBI DIRECTOR FREEH'S RECENT SUCCESSFUL VISIT TO MOSCOW ALLAYED THE CONCERNS OF FSK CHIEF STEPASHIN AND INTERIOR (MVD) MINISTER YERIN OVER THE USG'S MOTIVATION AND INTENTIONS IN RAISING THE ISSUE OF NUCLEAR THEFTS (REF F), MANY GOR OFFICIALS --ESPECIALLY THOSE IN MINATOM AND AT NUCLEAR RESEARCH AND PRODUCTION FACILITIES -- REMAIN EXTREMELY SENSITIVE ON THIS ISSUE. A STRONG DESIRE FOR SECRECY AND A TENDENCY TO DENY THAT ANY UNPLEASANT OR UNEXPECTED EVENTS EVER OCCUR (SUCH AS NUCLEAR THEFTS OR ACCIDENTS) IS A LEGACY OF THE SOVIET NUCLEAR PROGRAM WHICH STILL EXERTS A GREAT INFLUENCE OVER MANY OFFICIALS AND SCIENTISTS IN RUSSIA'S NUCLEAR INDUSTRY. UNFORTUNATELY, THE INITIAL RESPONSE OF MANY RUSSIAN NUCLEAR OFFICIALS TO OFFERS BY FOREIGNERS TO ASSIST CONFIDENTIAL

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RUSSIA WITH PROBLEMS IS FREQUENTLY TO TAKE OFFENSE AT
THE IMPLICATION THAT A PROBLEM EXISTS AND THAT RUSSIAN
NUCLEAR EXPERTS ARE IN NEED OF ANY "HELP." ARTICLES
BY AND INTERVIEWS WITH NUCLEAR INDUSTRY OFFICIALS AND
SCIENTISTS APPEAR FREQUENTLY IN THE PRESS AND
GENERALLY CONTAIN REBUTTALS TO (REAL OR PERCEIVED)
AFFRONTS TO THE SAFETY AND INTEGRITY OF RUSSIA'S
NUCLEAR COMPLEXES.

PROBLEMS AT RUSSIAN NUCLEAR CENTERS

7. NOT ALL OF THE PRESS COVERAGE IN THE RUSSIAN MEDIA HAS SUPPORTED THE NOTION THAT RUSSIAN NUCLEAR MATERIALS ARE WELL PROTECTED AGAINST THEFT OR DIVERSION. SEVERAL NEWSPAPER ARTICLES AND TELEVISION INTERVIEWS HAVE RECENTLY FOCUSED ON THE FINANCIAL PROBLEMS FACING RUSSIA'S LEADING NUCLEAR WEAPONS DESIGN AND PRODUCTION FACILITIES. AT THE TWO LEADING INSTITUTES -- NUCLEAR WEAPON DESIGN FACILITY ARZAMAS-16 AND NUCLEAR MATERIALS PRODUCTION FACILITY CHELYABINSK-65 -- SALARIES HAVE NOT BEEN PAID IN OVER

THREE MONTHS. IN A JULY 6 INTERVLEW CARRIED ON TELEVISION AS WELL AS ON INTERFAX, ARZAMAS-16 LABOR UNION CHIEF IVAN GRADOBITOV WARNED THAT "UNREST IS MOUNTING" DUE TO UNPAID WAGES AND DETERIORATING LIVING/WORKING CONDITIONS. RECENT ARRESTS OF WORKERS FROM CHELYABINSK-65 FOR STEALING PLATINUM AND URANIUM ADD TO THE PERCEPTION THAT THE FISCAL CRISIS COULD LEAD TO A SECURITY CRISIS AS WORKERS ARE FORCED TO LIVE FOR MONTHS WITHOUT PAY.

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8. THE FUNDING SITUATION IS COMPLICATED EVEN MORE BY
THE FACT THAT MINATOM'S MILITARY AND CIVILIAN
PRODUCTION FACILITIES ARE COMBINED AND CIVILIAN
NUCLEAR POWER PLANTS HAVE BEEN UNABLE TO PAY THEIR
NUCLEAR FUEL BILLS FOR MANY MONTHS (REF B).

WHILE

THE EXISTENCE OF THESE FINANCIAL DIFFICULTIES DOES NOT NECESSARILY MEAN THAT NUCLEAR THEFTS WILL OCCUR, THE POTENTIAL FOR SUCH THEFTS TO OCCUR IS CLEARLY GREATER WHEN WORKERS ARE LAID OFF OR NOT PAID AND MORALE IS LOW.

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ADMISSIONS AMONG THE DENIALS

9. AT THE SAME TIME THAT GOR OFFICIALS HAVE BEEN DENYING THAT ANY NUCLEAR WEAPONS OR DIRECT-USE NUCLEAR

UNCLASSIFIED MATERIAL HAVE BEEN DIVERTED, THEY HAVE BEEN ADDRESSING THE MANY SPECIFIC REPORTS OF NUCLEAR THEFTS THAT HAVE APPEARED IN THE PRESS BY ADMITTING THAT SOME THEFTS AND ATTEMPTED THEFTS HAVE OCCURRED. GOR OFFICIALS ARE DIVIDED IN THEIR DENIALS, HOWEVER, WITH DIFFERENT ACCOUNTS PROVIDING WILDLY DIFFERENT STATISTICS ON NUCLEAR THEFTS. IN HIS JUNE 16 STATEMENT CITED EARLIER, MINATOM DEPUTY MINISTER RYABEV STATED FLATLY THAT THERE HAD BEEN TEN CASES INVOLVING THE THEFT OF URANIUM OVER THE PAST 18 MONTHS. OF THOSE TEN CASES, HE CONTINUED, NINE INVOLVED ONLY "DEPLETED" URANIUM WHICH CANNOT BE USED FOR MAKING NUCLEAR WEAPONS. RYABEV WENT ON TO CONTRADICT THE MANY GOR OFFICIALS WHO MAINTAIN THAT NO THEFT OF DIRECT-USE WEAPONS MATERIAL HAS EVER OCCURRED IN RUSSIA BY ANNOUNCING THAT THE REMAINING CASE OF THEFT REPRESENTED THE ONLY INSTANCE IN WHICH MATERIALS USEABLE FOR MAKING A BOMB

10. THE FIGURES ON NUCLEAR THEFTS PRESENTED BY DEPUTY CONFIDENTIAL

MATTER OF THE PERSON OF THE PE

ADDED HOWEVER, THAT 1.5 KILOGRAMS OF HEU "IS INSUFFICIENT FOR MAKING A BOMB."

HAVE BEEN STOLEN. RYABEV EXPLAINED THAT 1.5 KILOGRAMS OF HIGHLY ENRICHED URANIUM-235 (HEU) HAD BEEN STOLEN FROM THE "LUCH" RESEARCH CENTER OUTSIDE OF MOSCOW. HE

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INTERIOR MINISTER YEGOROV IN HIS JULY 4 STATEMENTS
WERE BOTH MORE OPTIMISTIC AND GLOOMIER THAN THOSE
PRESENTED BY RYABEV. YEGOROV'S FIGURES WERE MORE
OPTIMISTIC IN THAT HE CATEGORICALLY DENIED THAT ANY
THEFTS OF MATERIAL USEABLE IN NUCLEAR WEAPONS HAD
OCCURRED IN RUSSIA. HE WAS MORE PESSIMISTIC, HOWEVER,
IN HIS ACCOUNTING OF THE TOTAL NUMBER OF THEFTS
REGISTERED, STATING THAT "ABOUT 50" HAD BEEN
REGISTERED DURING THE SAME 18 MONTH PERIOD DURING
WHICH RYABEV STATED ONLY 10 HAD OCCURRED.

REPORTS IN THE PRESS CONTINUE

11. UNOFFICIAL ACCOUNTS OF THEFTS OF NUCLEAR MATERIAL CONTINUE TO APPEAR IN THE PRESS. PRESS REPORTS RELATED TO THE ARRESTS OF PERSONS IN ST. PETERSBURG ON SUSPICION OF ATTEMPTING TO BLACKMARKET STOLEN ENRICHED (ALTHOUGH NOT WEAPONS GRADE) URANIUM (REF A) STILL SURFACE ON OCCASION, ALTHOUGH FROM THE CONTENT OF THE REPORTS IT IS IMPOSSIBLE TO DETERMINE IF MORE ARRESTS

ARE OCCURRING OR IF THE SAME OLD STORY IS BEING REHASHED IN THE NEWS. IN LATE JUNE, VARIOUS REPORTS THAT POLICE IN MOLDOVA HAD SEIZED STOLEN COBALT-60 OF RUSSIAN ORIGIN APPEARED IN THE RUSSIAN PRESS, WITH THE QUANTITY OF MATERIAL SEIZED REPORTED ALTERNATELY AS 60 GRAMS AND 1,078 BARS WITH REPORTED VALUES RANGING FROM USD 20 THOUSAND TO USD 1.6 MILLION.

12. MORE RECENTLY, A JULY 1 STORY CARRIED IN THE SEGODNYA (TODAY) NEWSPAPER REPORTED THE CONFISCATION OF 60 GRAMS OF WEAPONS-GRADE PLUTONIUM OF RUSSIAN CONFIDENTIAL

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PAGE 04 MOSCOW 19996 03 OF 06 141554Z ORIGIN IN GERMANY. ON JULY 6, ITAR-TASS CARRIED A REPORT THAT THE FSK HAD RECOVERED 5.5 KILOGRAMS OF URANIUM THAT HAD BEEN STOLEN FROM THE "MAYAK" (CHELYABINSK-65) FEDERAL NUCLEAR CENTER. IN VARIOUS VERSIONS OF THIS REPORT, THE RECOVERED URANIUM WAS DESCRIBED AS DEPLETED URANIUM-238, NATURAL URANIUM-238, AND LOW ENRICHED URANIUM-238. JULY 7. REPORTS OF ARRESTS FOR THE THEFT OF NUCLEAR MATERIALS FROM CHELYABINSK-70 BEGAN TO APPEAR IN THE PRESS. THESE REPORTS APPEAR TO SUPPORT CHELYABINSK-70 DUMA REPRESENTATIVE YURI BERCENOV'S CONTENTION IN HIS JUNE 28 INTERVIEW IN WHICH HE STATED THAT THE UNBEARABLE COMBINATION OF LOW SALARIES, PAY CHECKS THAT ARRIVE MONTHS LATE, A NEAR HALT TO SCIENTIFIC RESEARCH AND FEAR OF IMPENDING LAYOFFS RESULTS IN A SITUATION IN WHI CH IT IS DIFFICULT TO GUARANTEE THE SAFETY OF THE DANGEROUS MATERIALS AND SYSTEMS WITH

WHICH THE SCIENTISTS WORK ON A DAILY BASIS.

______ MOVING FORWARD AMID CONFUSION

13. EMBASSY COMMENT AND RECOMMENDATIONS: THE STATEMENTS CITED ABOVE REPRESENT ONLY A SAMPLING OF

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THE CONTINUING STREAM OF OFTEN CONFLICTING AND FREQUENTLY UNSUPPORTED STORIES, CLAIMS AND DENIALS

WHICH CONTINUE TO APPEAR IN THE RUSSIAN PRESS.

DESPITE THE OBVIOUS LACK OF AGREEMENT AMONG THE MANY
GOR AND MEDIA COMMENTATORS, SOME LESSONS AND
IMPLICATIONS FOR THE U.S. ARE CLEAR. WHILE IT REMAINS
UNCLEAR EXACTLY HOW MUCH AND WHAT TYPES OF NUCLEAR
MATERIALS HAVE ALREADY BEEN DIVERTED, THE POTENTIAL
FOR SUCH DIVERSION CLEARLY EXISTS. GIVEN THE NATURE
OF THIS PROBLEM, ONE OR A FEW CASES OF DIVERSION COULD
HAVE SERIOUS INTERNATIONAL REPERCUSSIONS.

14. BECAUSE THE SYSTEM OF NUCLEAR MATERIAL CONTROL WHICH THE GOR INHERITED FROM THE FORMER SOVIET UNION IS BASED ALMOST EXCLUSIVELY ON A COMBINATION OF PERSONAL ACCOUNTABILITY AND PHYSICAL PROTECTION, THE IMPACT OF LOW MORALE AT NUCLEAR FACILITIES ON THE LEVEL OF SECURITY IS EVEN MORE PRONOUNCED. FOR THIS REASON, U.S. EFFORTS TO ASSIST THE GOR IN THE ESTABLISHMENT OF MORE MODERN SYSTEMS OF MATERIALS CONTROL AND ACCOUNTABILITY (MC&A) ARE PARTICULARLY TIMELY AND IMPORTANT. AT THE SAME TIME, CONTROL OVER -- AND RESPONSIBILITY FOR THE SAFEGUARDING OF --NUCLEAR MATERIALS IN RUSSIA IS SPREAD ACROSS A NUMBER OF MINISTRIES AND ORGANIZATIONS (INCLUDING THE MINISTRIES OF ATOMIC ENERGY, DEFENSE, EDUCATION, SCIENCE AND EMERGENCY SITUATIONS AS WELL AS THE ACADEMY OF SCIENCES AND THE STATE NUCLEAR AND CONFIDENTIAL

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RADIATION SAFETY AUTHORITY). THE U.S. NEEDS TO PURSUE
MULTIPLE AVENUES FOR COOPERATION IN ORDER TO TACKLE
THIS ISSUE EFFECTIVELY.

THE ORGANIZATION WITH THE LEGAL RESPONSIBILITY TO SERVE AS THE GOR'S OVERALL COORDINATOR ON MC&A AND PHYSICAL PROTECTION (PP) IS GOSATOMNADZOR (GAN). WHILE COOPERATION WITH GAN COULD THEREFORE HELP TO IMPROVE COORDINATION THROUGHOUT RUSSIA, THE FACT REMAINS THAT GAN IS A REGULATORY BODY RATHER THAN AN OPERATIONAL NUCLEAR FACILITY.

15. IN RECENT MONTHS, MOST GOR OFFICIALS WITH RESPONSIBILITY OVER NUCLEAR MATERIALS HAVE BECOME

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HIGHLY SENSITIZED TO THE ISSUE OF CONTROLLING AND PROTECTING NUCLEAR MATERIALS. UNFORTUNATELY, THE IMMEDIATE REACTION OF MANY OFFICIALS TO STATEMENTS THAT THEFTS HAVE OCCURRED OR MAY OCCUR IN THE FUTURE IS TO BECOME DEFENSIVE, DENYING THAT A PROBLEM EXISTS AND DEFENDING THE INTEGRITY AND EFFECTIVENESS OF THEIR ORGANIZATIONS. GIVEN SUCH A REACTION, USG PERSONNEL ATTEMPTING TO ENGAGE THE GOR IN PROJECTS DESIGNED TO LESSEN THE RISK OF THEFTS MUST TREAD SOFTLY.

16. CARE SHOULD BE EXERCISED IN THE FORMULATION OF BOTH PUBLIC STATEMENTS AND PROPOSALS FOR COOPERATION WITH RUSSIAN ORGANIZATIONS ON NUCLEAR MATERIAL CONFIDENTIAL

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PAGE 04 MOSCOW 19996 04 OF 06 141554Z CONTROL. STATEMENTS TO THE EFFECT THAT "THE USG WANTS TO HELP RUSSIA DEAL WITH THIS PROBLEM" CAN BE COUNTERPRODUCTIVE BY CAUSING GOR OFFICIALS TO GO ON THE DEFENSIVE AND FOCUS ON PRIDE OVER SUBSTANCE. CONTRAST, SUGGESTIONS THAT THE USG AND GOR COOPERATE TO REDUCE THE THREAT OF NUCLEAR PROLIFERATION IN THE POST COLD WAR WORLD ARE GENERALLY GREETED FAVORABLY, AS ARE PROPOSALS FOR JOINT SCIENTIFIC RESEARCH INTO PROBLEMS ASSOCIATED WITH THE ACCOUNTING AND CONTROL OF NUCLEAR MATERIALS. BASED ON THE EXPERIENCES OF SEVERAL U.S. GROUPS THAT HAVE ALREADY PROPOSED PROGRAMS OF COOPERATION IN THIS AREA (REFS C, D AND E), THE PRESENTATION OF PROPOSALS CAN HAVE A MAJOR IMPACT ON THE MOOD AND COURSE OF THE SUBSEQUENT DISCUSSIONS AND ULTIMATELY EVEN DETERMINE THE SUCCESS OR FAILURE OF THE EFFORT. END EMBASSY COMMENT AND

RECOMMENDATIONS.

ENDING NOTES ON TERMINOLOGY ------

 FOR PERSONS UNFAMILIAR WITH NUCLEAR TERMINOLOGY, THE DESIGNATION OF NUCLEAR MATERIALS CAN BE QUITE CONFUSING. SOME OF THE CONFUSION IN THE PRESS OVER

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THE PROLIFERATION RISK POSED BY THEFTS AND DIVERSION OF NUCLEAR MATERIALS CAN BE TRACED TO THE SPECIALIZED AND OFTEN IMPRECISE LANGUAGE EMPLOYED TO DESCRIBE NUCLEAR MATERIALS. THE MATERIALS WHICH POSE THE GREATEST PROLIFERATION RISK ARE THOSE WHICH ARE GENERALLY DESCRIBED AS "WEAPONS GRADE" OR "DIRECT USE" MATERIALS. TERMS SUCH AS "ENRICHED" SOUND OMINOUS, BUT NO NOT NECESSARILY IMPLY THAT THE MATERIAL COULD BE USED TO CONSTRUCT A WEAPON. IN PRESS REPORTS AND INTERVIEWS, THE USE OF IMPRECISE TERMS CAN BE USED TO MANIPULATE THE "SPIN" OF THE STORY BY EITHER ACCENTUATING OR DENIGRATING THE RISK POSED BY THEFTS OR DIVERSIONS OF NUCLEAR MATERIALS.

18. WHEN SPEAKING OF URANIUM, IN THE U.S. "DIRECT USE" OR "WEAPONS GRADE" GENERALLY REFER TO URANIUM IN WHICH THE U-235 ISOTOPE CONTENT IS 90 PERCENT OR HIGHER. IN CONTRAST, "REACTOR GRADE" URANIUM GENERALLY CONTAINS LESS THAN 6 PERCENT U-235. THE TERM "ENRICHED URANIUM" CAN BE PARTICULARLY CONFUSING. WHEN URANIUM IS MINED, THE RESULTING "NATURAL URANIUM" CONTAINS APPROXIMATELY 99.3 PERCENT U-238 (AN ISOTOPE NOT DIRECTLY USEFUL AS FUEL IN EITHER BOMBS OR NUCLEAR REACTORS), 0.7 PERCENT U-235 (THE "FISSILE" ISOTOPE OF URANIUM THAT CAN BE USED AS FUEL IN BOMBS OR REACTORS) AND A MINUTE AMOUNT OF U-234 (A RARE FISSILE ISOTOPE OF URANIUM WHICH CAN BE USED IN NUCLEAR WEAPONS). ALL URANIUM USED IN CIVILIAN POWER REACTORS, RESEARCH CONFIDENTIAL

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REACTORS AND BOMBS IS "ENRICHED" IN ORDER TO INCREASE
THE CONTENT OF U-235. "LOW ENRICHED URANIUM" (LEU)
GENERALLY CONTAINS LESS THAN 20 PERCENT U-235. MOST
NUCLEAR REACTORS USED IN CIVILIAN POWER PLANTS USE LEU
WITH 3.5 TO 6 PERCENT U-235. THE TERM "HIGHLY
ENRICHED URANIUM" (HEU) IS MORE PROBLEMATIC. IN
NONPROLIFERATION CIRCLES, HEU HAS COME TO MEAN ANY
URANIUM WITH MORE THAN 20 PERCENT U-235. IN CONTRAST,
MANY WEAPONS SCIENTISTS (PARTICULARLY IN RUSSIA)
RESTRICT THEIR USE OF THE TERM HEU TO APPLY ONLY TO
URANIUM WITH 90 PERCENT OR MORE U-235. A THIRD,
ALTHOUGH SELDOM USED, TERM "MEDIUM ENRICHED URANIUM"
(MEU) CAN BE USED TO DESCRIBE URANIUM WITH BETWEEN 20
AND 90 PERCENT HEU.

19. WHEN REFERRING TO REPORTS OF STOLEN URANIUM,

RUSSIAN OFFICIALS HAVE RECENTLY BEGUN CALLING ALL NON-WEAPONS GRADE URANIUM "URANIUM-238." THIS TERM IS NOT TECHNICALLY INCORRECT SINCE ALL URANIUM CONTAINS AT LEAST SOME PORTION U-238 AND ANY HEU ENRICHED TO 50 PERCENT U-235 OR LESS CONTAINS MORE U-238 THAN U-235. NONETHELESS, THE TERM URANIUM-238 CAN BE MISLEADING SINCE PURE U-238 IS NOT DIRECTLY USEFUL IN THE BUILDING OF BOMBS. THE USE OF THE TERM URANIUM-238 TO DESCRIBE STOLEN MATERIALS APPEARS TO HAVE RESULTED FROM THE NEGATIVE (AND OFTEN INCORRECT) PUBLIC PERCEPTION THAT ANY "ENRICHED" URANIUM CAN BE USED TO MAKE WEAPONS. ARTICLES IN RUSSIA AND ELSEWHERE HAVE MADE THE MISLEADING JUMP FROM THE FACT THAT ENRICHED URANIUM WAS REPORTED STOLEN TO THE CONCLUSION THAT THE THIEVES COULD USE THE MATERIAL TO MAKE A BOMB. FOR CONFIDENTIAL

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PRACTICAL PURPOSES, ONLY HEU ENRICHED TO 90 PERCENT
U-235 OR HIGHER CAN BE USED TO MAKE A BOMB. WHILE IT
IS THEORETICALLY POSSIBLE TO CONSTRUCT A BOMB USING
HEU ENRICHED TO ONLY 60 OR 70 PERCENT, TO ACTUALLY
CONSTRUCT SUCH A DEVICE WOULD BE VERY DIFFICULT EVEN
FOR EXPERIENCED NUCLEAR WEAPONS DESIGNERS. FOR A
NATION OR OTHER GROUP ATTEMPTING TO ASSEMBLE THE
MATERIALS AND EQUIPMENT TO BUILD ITS FIRST WEAPON, 60
PERCENT HEU WOULD BE USEFUL ONLY BECAUSE IT IS EASIER
TO ENRICH URANIUM WITH 60 PERCENT U-235 TO THE
REQUIRED WEAPONS LEVEL THAN IT IS TO ENRICH URANIUM
WITH A LOWER U-235 CONTENT.

20. INFORMATION CONCERNING THE EXACT TYPE OF URANIUM STOLEN OR DIVERTED IS GENERALLY VERY DIFFICULT TO ERIVE FROM PUBLISHED REPORTS BECAUSE THE TERMS HEU, LEU AND URANIUM-238 DO NOT HAVE EXACT MEANINGS UNLESS ADDITIONAL DESCRIPTIVE INFORMATION IS PROVIDED. SOME MINATOM OFFICIALS HAVE EVEN ADOPTED THEIR OWN SPECIFIC DEFINITION OF "WEAPONS GRADE" OR "DIRECT USE" URANIUM WHICH CONFUSES THE ISSUE FURTHER. IN RECENT CONVERSATIONS AND MEETINGS WITH ESTOFF, MINATOM CHIEF FOR WEAPONS LABS TSYRKOV AS WELL AS MINATOM CHIEF FOR NUCLEAR MATERIAL PRODUCTION MIKERIN HAVE STATED THAT THEY USE THE TERM "WEAPONS URANIUM" ONLY WHEN THE

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ACTION OES-09

INFO LOG-00 ACDA-17 ACDE-00 AID-01 AMAD-01 CEQ-00 CIAE-00 CIP-01 COME-00 CTME-00 CFE-00 OASY-00 DODE-00 EB-01 EUR-01 H-01 TEDE-00 INR-00 IO-16 L-01 ADS-00 NRRC-00 NSAE-00 OIC-02 OMB-01 PA-01 PM-00 PRS-01 P-01 SNP-00 SP-00 SSO-00 SS-00 STR-01 TRSE-00

TST-00 T-00 USIE-00 EPAE-00 SNIS-00 NISC-02 SSD-01 PMB-00 G-00 /059W

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FM AMEMBASSY MOSCOW

TO SECSTATE WASHDC 4953

INFO WHITEHOUSE WASHDC

DIRFBI WASHDC

NRC WASHDC

DOE WASHDC

AMEMBASSY BONN

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STATE FOR S/NIS, PM/RNP, PM/NE AND EUR/ISCA; DOE FOR OTA/THB, IS-40, S-1 AND PO-70; NRC FOR OIP; WHITEHOUSE FOR OSTP (VON HIPPLE) AND NSC GOTTEMOELLER)

E.O. 12356: DECL: OADR

TAGS: KNNP, TRGY, MNUC, ETTC, RS

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RUSSIAN PERSPECTIVES AND SENSITIVITIES

URANIUM IN QUESTION WAS SPECIFICALLY CREATED AND FORMULATED FOR WEAPONS USE. UNDER THIS VERY RESTRICTIVE DEFINITION, THE HEU COMMONLY USED IN RUSSIAN RESEARCH AND INDUSTRIAL REACTORS IS NOT "WEAPONS" URANIUM EVEN THOUGH IT FREQUENTLY CONTAINS 93 PERCENT OR MORE U-235 AND COULD BE USED DIRECTLY IN THE CONSTRUCTION OF A NUCLEAR WEAPON.

21. PLUTONIUM IS A MAN-MADE ELEMENT THAT DOES NOT EXIST IN NATURE AND CAN ONLY BE PRODUCED AS A RESULT OF A NUCLEAR REACTION. NONPROLIFERATION EXPERTS GENERALLY AGREE THAT PLUTONIUM REPRESENTS A MUCH GREATER NUCLEAR WEAPONS PROLIFERATION RISK THAN URANIUM BECAUSE EVEN "CIVILIAN REACTOR GRADE" PLUTONIUM CAN BE USED TO CREATE A NUCLEAR WEAPON.

ALSO, PLUTONIUM

IS HIGHLY TOXIC AND EXHIBITS A STRONG TENDENCY TO CONCENTRATE IN BONES, WHERE IT CAN LEAD TO CANCER AND OTHER DISEASES. FOR THESE REASONS, ANY THEFT OR DIVERSION OF PLUTONIUM COULD HAVE SERIOUS CONSEQUENCES.

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22. THERE ARE A LARGE NUMBER OF ADDITIONAL NUCLEAR MATERIALS WHICH HAVE A VARIETY OF CIVILIAN AS WELL AS MILITARY USES. URANIUM AND PLUTONIUM, HOWEVER, ARE THE MOST COMMON INGREDIENTS IN A RECIPE FOR NUCLEAR WEAPONS. PICKERING

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