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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE February 2003	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide/BA 3							R-1 ITEM NOMENCLATURE Counterproliferation Support PE 0605160D8Z			
COST <i>(In Millions)</i>	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	Cost to Complete	Total Cost
Total Program Element (PE) Cost	1.764	1.729	1.882	1.960	2.020	2.055	2.358	2.406	Continuing	Continuing
Nuclear Matters/P476	1.764	1.729	1.882	1.960	2.020	2.055	2.358	2.406	Continuing	Continuing

(U) A. Mission Description and Budget Item Justification

(U) BRIEF DESCRIPTION OF ELEMENT

(U) The U.S. nuclear deterrent posture is the most visible and critical element of U.S. military capabilities used to deter aggression and coercion. Therefore, nuclear weapons receive special consideration because of this political and military importance and because of the destructive power of a nuclear weapon and the potential consequences of an accident or unauthorized act. The Nuclear Matters Program provides the capability to conduct technical assessments and to develop policy recommendations on complex and vital national issues. The Nuclear Matters program provides analysis and assessments of issues associated with the stockpile size and composition, safety, reliability, security, use control, survivability, transportation, command and control, maintenance, storage, emergency response, and enduring stockpile sustainability.

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(U) **Project Number and Title: P476 Nuclear Matters**

(U) **PROGRAM ACCOMPLISHMENTS AND PLANS**

(U) **FY 2002 Accomplishments:**

(U) Analyses and Assessments: These provided the basis for preparation of the Nuclear Weapons Council (NWC) Chairman's Annual Report to Congress, the DoD-DOE Annual Surety Report to the President, and the Annual Certification Report to the President. These products provided technical policy recommendations to the President, Secretary of Defense, Secretary of Energy, and the Chairman of the NWC on key nuclear weapon issues. The actions of the Congressionally directed Panel to Assess the Safety, Reliability, and Security of the United States Nuclear Stockpile were facilitated leading to key policy and technical recommendations. The Office of Nuclear Matters, under its responsibilities as OSD sponsor, sustained the continuing contributions of the Joint Advisory Committee on Nuclear Weapons Surety (JAC). (\$ 0.543 million)

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(U) Nuclear Weapons Council: Efficiently managed the operations of the Joint DoD-DOE Nuclear Weapons Council (NWC), as directed by law, and the activities of the supporting NWC Staff, the NWC Standing and Safety Committee (NWCSSC), the Compartmented Advisory Committee (CAC), and the Action Officer Group. Conducted assessment of DoD and NNSA site security and transportation improvements in response to the September 11, 2001, terrorist attack. Conducted research and framed technical issues for the NWC members and staff concerning the evolution of the nuclear weapons complex and infrastructure in view of Presidential decision to resize the strategic stockpile. Facilitated decision to proceed with Phase 6.2 and 6.2A on a Robust Nuclear Earth Penetrator study (RNEP). Conducted assessment to identify trends in stockpile confidence and reliability for the period 1996-2001. Conducted survey of Memoranda of Agreement between the DOE and DoD, and developed current listing identifying those agreements requiring update. Monitored activities of weapon system Project Officer Groups (POG). Conducted reviews of nuclear testing readiness and tritium production readiness. The recommendations of the Federal Advisory Committee on the End-to-End Review on nuclear command and control, and the Panel to Assess the Safety, Reliability, and Security of the United States Nuclear Stockpile(aka the Foster Panel) were initially assessed and implementation actions were identified. (\$ 0.322 million)

(U) DoD-NNSA Nuclear Weapons Requirements Process: Provided contractor Requirements Team to continue the conduct of the joint DoD-NNSA Requirements Process to integrate and prioritize the nuclear weapons-related requirements for both DoD and the National Nuclear Security Administration (NNSA) to support key decisions in the development of and the implementation of the recently conducted Nuclear Posture Review. Materials were developed and presented to the Congressionally mandated Foster Panel to report the status of the requirements process and to identify requirements-related issues. A senior level DoD/NNSA in process review of the requirements process was conducted to further enhance DoD/NNSA communication, coordination, and to identify the path forward for FY03 and beyond. A list of requirement milestones was developed and maintained to assist the senior leadership in DoD in assessing and reporting on the health of NNSA's Stockpile Stewardship Program. A \$0.300 million shortfall for this \$0.600 million requirement was offset by an end of year reprogramming in FY01. (\$0.300 million).

(U) Maintaining the Deterrent Infrastructure: Analyses were conducted on sustaining nuclear weapons safety, use control, survivability, emergency response, certification, transportation, and reliability. These efforts supported DoD oversight of DOE stockpile stewardship activities, such as nuclear weapon sustainment and revalidation, technology issues and infrastructure requirements, nuclear weapon life extension, and stockpile stewardship and maintenance. Conducted nuclear weapon accident response staff exercises. Completed update to DoD Directive 3150.1, Joint Nuclear Weapons Life Cycle Activities. Updated Nuclear Matters Executive Overview to sustain core expertise. Initiated update to DoD Directive 3150.3, Nuclear Forces Security and Survivability. (\$ 0.430 Million)

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(U) Policy and Guidance for International Obligations: Oversight and guidance was provided to activities and organizations, such as the NATO High Level Group (HLG), the Joint (SHAPE/EUCOM) Theater Surety Management Group (JTSMG), and technical exchanges with foreign nations under government-to-government agreements, such as WSSX (Russia) and STOCKTAKE (UK). WSSX. Activities included technical exchange meetings in the United States and Russia, a program management meeting in Moscow, preparations for a technical exchange at Picatinny Arsenal, NJ, coordination of U.S. proposals for projects, the continuing development of a master projects list, and completion of a U.S Procedures Document. Visited NATO nuclear capable units and reported on status to raise awareness of surety issues to the NATO HLG. Conducted planning for exercises for developing mutual understanding of issues for the safety and security of nuclear weapons for U.S./France technology exchanges. (\$ 0.169 million)

(U) **FY 2003 Plans:**

(U): Analyses and Assessments: Will provide basis for preparation of the annual Nuclear Weapons Stockpile Memorandum to the President, the Requirements and Planning Document, the Nuclear Weapons Council (NWC) Chairman's Annual Report to Congress, the DoD-DOE Annual Surety Report to the President, and the Annual Certification Report to the President. These products provide the basis for technical policy recommendations to the President, Secretary of Defense, Secretary of Energy, and Chairman of the NWC on key nuclear weapon issues. Analyses will be produced in preparation for the annual Nuclear Weapons Deployment Request to the President. Continue as the OSD sponsor for the Joint Advisory Committee on Nuclear Weapons Surety (JAC) that will assess nuclear weapon delivery system platforms and associated weapons. (\$ 0.536 million)

(U) Nuclear Weapons Council: Manage the operations of the Joint DoD-DOE Nuclear Weapons Council (NWC), as directed by law, and the activities of the supporting NWC Staff, the NWC Standing and Safety Committee (NWCSSC), the Compartmented Advisory Committee (CAC), and the Action Officer Group. Conduct research and frame technical issues for the NWC members and staff concerning the evolution of the nuclear weapons complex and infrastructure. These analyses will facilitate decisions on the refurbishment of specific weapon systems and the development of agenda items for the NWC. The development of the NNSA capability to produce and certify nuclear pits will be analyzed. Efforts will continue on the RNEP program to meet congressional requirements and to continue development activities. DoD and NNSA safety and security standards will be assessed. Ongoing actions to implement the recommendations of the Federal Advisory Committee on the End-to-End Review on Nuclear Command and Control, and the Panel to Assess the Safety, Reliability, and Security of the United States Nuclear Stockpile will be continued and additional implementation actions will be initiated. Monitor activities of weapon system Project Officer Groups (POG). (\$ 0.311 million)

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(U) DoD-NNSA Nuclear Weapons Requirements Process: Provide contractor Requirements Team to conduct the joint DoD-NNSA Requirements Process to integrate and prioritize the nuclear weapons-related requirements for both DoD and the National Nuclear Security Administration (NNSA) to support key stockpile decisions. Process includes the development and maintenance of a requirements database, quantities and schedules, the conduct of tradeoff assessments, and the development/update of the Joint DoD-NNSA Nuclear Weapon-Related Requirements List (JNWRRL) and the First Production Unit (FPU) Milestones Chart of critical stockpile activities for measuring DoD/NNSA performance. The requirements process and prioritization guidelines will be formalized, coordinated and approved by the NWC. Requirements-related issues regarding implementation of the 2001 Nuclear Posture Review and the Moscow Treaty on the reduction of warheads will also be evaluated and addressed. A \$0.274 million shortfall in this \$0.600 million requirement was offset by a \$0.300 end of year reprogramming (\$0.294 million)

(U) Maintaining the Deterrent Infrastructure: Manage implementation of Presidential initiatives on stockpile composition and quantities. Conduct assessments for the ATSD (NCB). Perform analyses on issues for sustaining nuclear weapons safety, use control, survivability, certification, transportation, and reliability. These efforts support DoD oversight of DOE stockpile stewardship activities, such as nuclear weapon sustainment and revalidation, infrastructure requirements, nuclear weapon life extension, and stockpile stewardship and maintenance. Conduct nuclear weapon accident staff exercises and identify relationship between homeland defense and nuclear accident response. Update handbooks on Nuclear Weapons Surety, Stockpile Management Information, and the Nuclear Matters Executive Overview to sustain core expertise. Initiate update of DoD-DOE nuclear weapon related MOAs/MOUs with emphasis on the 1953 Agreement for the Development, Production, and Standardization of Atomic Weapons. Continue update to DoD Directive 3150.3, Nuclear Forces Security and Survivability. Provide OSD oversight for the development of the third edition of the Nuclear Mission Management Plan (NMMP) for the sustainment of DoD nuclear weapon delivery systems and its harmonization with the NNSA Stockpile Stewardship Plan. (\$ 0.415 Million)

(U) Policy and Guidance for International Obligations: Oversight and guidance will be provided to activities and organizations, such as the NATO High Level Group, the Joint Theater Surety Management Group, U.S.-UK STOCKTAKE, and activities under the U.S.-Russia WSSX Agreement. Visit NATO nuclear capable units and report on status to raise awareness of surety issues to NATO HLG. Participate in the initiation of NATO-Russia exchanges on nuclear weapons safety and security, the identification of information to be exchanged and the conduct of an HLG symposium. Initiate ATSD (NCB) participation in NATO Defense Proliferation Group. Continue planning for exercises for developing mutual understanding of issues for the safety and security of nuclear weapons within the U.S./France technology exchanges. Participate in WSSX Joint Steering Committee and Joint Coordinating Group program management meetings in the U.S. and Russia, and plan and participate in WSSX technical interchange meetings on nuclear weapons safety and security issues, including a workshop on lightning detection and protection led by the Nuclear Matters office. Review U.S. and Russian proposed projects and consider counter-terrorism related projects, maintain list of ongoing WSSX activities, and approve WSSX project proposals. Initiate update of DoD Directive 5030.14 to affirm responsibilities of Joint Atomic Information Exchange Group (JAIEG). (\$ 0.173 Million)

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(U) FY 2004 Plans:

(U) Analyses and Assessments: Will provide basis for preparation of the annual Nuclear Weapons Stockpile Memorandum to the President, the Requirements and Planning Document, the Nuclear Weapons Council (NWC) Chairman's Annual Report to Congress, the DoD-DOE Annual Surety Report to the President, and the Annual Certification Report to the President. These products will provide the basis for technical policy recommendations to the President, Secretary of Defense, Secretary of Energy, and Chairman of the NWC on key nuclear weapon issues. These reports must reflect implementation actions for the 2001 Nuclear Posture Review. Analyses will be produced for the annual Nuclear Weapons Deployment Request to the President. Continue as the OSD sponsor for the Joint Advisory Committee on Nuclear Weapons Surety (JAC). (\$ 0.583 Million)

(U) Nuclear Weapons Council: Manage the operations of the Joint DoD-DOE Nuclear Weapons Council (NWC), as directed by law, and the activities of the supporting NWC Staff, the NWC Standing and Safety Committee (NWCSSC), the Compartmented Advisory Committee (CAC), and the Action Officer Group. Conduct research and frame technical issues for the NWC members and staff concerning the evolution of the nuclear weapons complex and infrastructure. These analyses will facilitate decisions on the refurbishment of specific weapon systems and the development of agenda items for the NWC. Life extension programs for the enduring stockpile will be closely managed into the successive phases to sustain the viability of the stockpile. Ongoing efforts on the RNEP Program will proceed into later phases of the 6X process while meeting congressional requirements. Activities to initiate or update Memoranda of Agreement between the DOE and DoD will continue. Implementation actions for the recommendations of the Federal Advisory Committee on the End-to-End Review on Nuclear Command and Control and the Panel to Assess the Safety, Reliability, and Security of the United States Nuclear Stockpile will continue. Activities of weapon system Project Officer Groups (POG) will be monitored. (\$ 0.339 Million)

(U) DoD-NNSA Nuclear Weapons Requirements Process: Provide contractor Requirements Team to conduct the joint DoD-NNSA Requirements Process to integrate and prioritize the nuclear weapons-related requirements for both DoD and the National Nuclear Security Administration (NNSA) to support key stockpile decisions. Process includes the development and maintenance of a requirements database, quantities and schedules, the conduct of tradeoff assessments, and the update of the Joint DoD-NNSA Nuclear Weapon-Related Requirements List (JNWRRL). The requirements process will be analyzed for its capability to address cost factors. The requirements process and requirements prioritization guidelines will be modified as necessary and approved by the NWC. The First Production Unit (FPU) schedule for stockpile life extension programs and other critical stockpile activities will be maintained as a tool for measuring NNSA and DoD activities in stockpile stewardship. Major changes in a NNSA schedule for a warhead life extension will be assessed for its impact on the overall requirements reflected in the JNWRRL. Actions relating to ongoing Nuclear Posture Review and Moscow Treaty implementation activities will also be evaluated and addressed. A \$0.160 million shortfall in this \$0.600 million requirement was a FY04-09 POM issue but was not considered. (\$0.320 million)

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(U) Maintaining the Deterrent Infrastructure: Manage implementation of presidential initiatives on stockpile composition and quantities. Conduct assessments for the ATSD (NCB). Perform analyses on issues for sustaining nuclear weapons safety, use control, survivability, certification, transportation, and reliability. These efforts support DoD oversight of DOE stockpile stewardship activities, such as nuclear weapon sustainment and revalidation, infrastructure requirements, nuclear weapon life extension, and stockpile stewardship and maintenance. Conduct nuclear weapon accident staff exercises and define relationships between homeland defense and nuclear accident response. Update handbooks on Nuclear Weapons Council and on Systems Nuclear Survivability to sustain core expertise. Continue update of DoD-DOE nuclear weapon related MOAs/MOUs. Initiate update to DoD Directive 3150.2 and DoD-M 3150.2, Nuclear Weapon Systems Safety and to DoD Directive 4540.5 and DoD-M 4540.5, Nuclear Weapons Transportation. Coordinate and publish update to DoD Directive 3150.3, Nuclear Forces Security and Survivability. Manage continuing implementation of presidential initiatives on stockpile composition and quantities as outlined in the 2001 Nuclear Posture Review. Perform analyses on issues for sustaining nuclear weapons safety, use control, survivability, certification, transportation, and reliability. These efforts support DoD oversight of NNSA stockpile stewardship activities, such as nuclear weapon sustainment and revalidation, infrastructure requirements, nuclear weapon life extension, and stockpile stewardship and maintenance. (\$ 0.452 Million)

(U) Policy and Guidance for International Obligations: Oversight and guidance will be provided to activities and organizations, such as the NATO High Level Group, the NATO Proliferation Group, the Joint Theater Surety Management Group, U.S.-UK STOCKTAKE, and activities under the U.S.-Russia WSSX Agreement. Visit NATO nuclear capable units and report on status to raise awareness of surety issues to NATO HLG. Participate in the ongoing NATO-Russia exchanges on nuclear weapons safety and security. Conduct U.S./France accident response exercise for developing mutual understanding of issues for the safety and security of nuclear weapons. Participate in WSSX Joint Coordinating Group and Joint Steering Committee program management meetings in the U.S. and Russia, and plan and participate in WSSX technical interchange meetings on nuclear weapons safety and security issues. Review U.S. and Russian proposed projects relating to nuclear weapons safety and security, and nuclear counter-terrorism, maintain list of WSSX activities, and approve WSSX project proposals. Update of overall WSSX agreement to potentially include counter-terrorism and chem-bio issues. Coordinate and publish update of DoD Directive 5030.14 to affirm responsibilities of Joint Atomic Information Exchange Group (JAIEG). (\$ 0.188 Million)

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(U) <u>B. Program Change Summary</u>	<u>FY2002</u>	<u>FY2003</u>	<u>FY2004</u>	<u>FY2005</u>	<u>Total Cost</u>
Previous President's Budget	1.471	1.467	1.464	1.460	Continuing
Current FY2004 President's Budget	1.764	1.806	1.919	2.027	
Total Adjustments					
Appropriated Value	1.781	1.806	0.000	0.000	
a. Congressionally Directed Undistributed Reduction	-0.017	0.000	0.000	0.000	
b. Rescission/Below-threshold Reprogramming, Inflation Adjustment	0.000	-0.181	0.00	0.000	
c. Other	0.310	-0.270	-0.160	-0.050	

Change Summary Explanation:

(U) Funding

The Nuclear Matters program element requires \$375,000 from FY04 through FY07 to remedy a shortfall caused by WHS calculations that used a FY02 baseline, which did not include a \$300,000 reprogramming action for that fiscal year. These funds are used to provide contractor support for DoD/DOE joint efforts that are designed to harmonize nuclear weapons requirements between the two Departments. Funding for this effort was approved by the USD (AT&L) and the DDRE in March 2000.

(U) C. Other Program Funding Summary

(U) NA

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(U) D. Execution

(U) For execution year (CY), provide a list of funding recipients within the following categories:

Labs/centers

Universities

FFRDC's

Contractors Science Applications International Corporation, VA - \$1.000

Other Defense Threat Reduction Agency, \$0.300; Department of Energy - \$0.319

(U) List only those entities receiving 10% or more of total funding available in the PE.

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