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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)										DATE February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide/BA 3								R-1 ITEM NOMENCLATURE Nuclear Matters PE 0605160D8Z			

<i>COST (In Millions)</i>		FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	Cost to Complete	Total Cost
Total Program Element (PE) Cost		1.470	1.764	1.806	1.919	2.027	2.064	2.103	Continuing	Continuing
Nuclear Matters/P476		1.470	1.764	1.806	1.919	2.027	2.064	2.103	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 within the Office of the Secretary of Defense 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. Consequently, senior level OSD officials give the highest attention and priority to nuclear weapons issues. The Nuclear Matters Program provides the capability to conduct technical assessments and to develop policy recommendations for the Assistant to Secretary of Defense for Nuclear and Chemical and Biological Defense Programs (ATSD (NCB)), the Under Secretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) and the Secretary of Defense on complex and vital national issues. The implementation of Quadrennial Defense Review (QDR) and the Nuclear Posture Review (NPR) recommendations necessitate in-depth assessments to support our national Strategic Policy of nuclear deterrence and for the resolution of issues pertaining to the sustainment of the nuclear weapons stockpile. The Office of the Deputy Assistant Secretary to the Secretary of Defense for Nuclear Matters executes this program element in collaboration and in coordination with the National Security Council, Office of the Undersecretary of Defense for Policy, the Joint Staff, the Military Services, U.S. Strategic Command, U.S. European Command, the Department of Energy and the National Nuclear Security Administration, the Congress, and with NATO, and Allied governments to provide guidance for - and oversight of - a wide variety of nuclear weapons activities. For these responsibilities, 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 2001 Accomplishments:**

(U) Recurring Obligations: Analyses and assessments 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 annual Nuclear Weapons Deployment Request to the President was executed. 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). (\$ 0.420 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), the Nuclear Weapons Requirements Planning Group (NWRWG) and the Action Officer Group. Implemented NWC Revitalization Plan. Conducted research and framed technical issues for the NWC members and staff concerning the evolution of the nuclear weapons complex and infrastructure. These analyses facilitated decisions on the refurbishment of the TRIDENT missile system, cruise missile weapon systems and strategic bombs under the NWC Procedural Guideline for the Phase 6.X Process. Initiated feasibility study on Hard and Deeply Buried Targets. Monitored activities of weapon system Project Officer Groups (POG) (\$ 0.300 million)

(U) DoD-NNSA Nuclear Weapons Requirements Process: Provided 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 decisions in a requirement-rich and resource-constrained environment. An Initial Prioritized List of DoD requirements was developed and provided to the NNSA. A protocol was established for the process that also broadened the scope of requirements to include NNSA requirements for DoD. A Joint DoD-NNSA Nuclear Weapon-Related Requirements List (JNWRRL) was produced. A concept for the prioritization of requirements was developed, which included the enhancement and maintenance of a requirements database, quantities and schedules associated with requirements, and the conduct of tradeoff assessments. Support and coordination were provided to the NNSA in preparation of an NNSA report to the Congress on the requirements process. (\$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. Provided OSD oversight for the development of the second 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. Sponsored JAC assessment on DoD/DOE Physical Security of Nuclear Weapons. Conducted nuclear weapon accident response staff exercises. Completed and published updated DoD Instruction 5030.55, Joint AEC-DoD Nuclear Weapons Development Procedures. Completed update to DoD Directive 3150.1, Joint Nuclear Weapons Development Studies and Engineering Projects (\$ 0.310 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 Congressionally approved technical exchanges with foreign nations such as WSSX (Russia) and STOCKTAKE (UK). WSSX activities included exchange meetings in Vienna and California, the coordination of U.S. proposals for projects and the development of a master project list. 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. (\$ 0.140 million)

(U) FY 2002 Plans:

(U) Recurring Obligations: 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. (\$ 0.543 million)

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(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. Studies will continue on Hard and Deeply Buried Targets to meet congressional requirements. DoD and NNSA safety and security standards will be assessed. Following survey, Memoranda of Agreement between the DOE and DoD requiring update will be identified and update actions will be initiated. 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 assessed and implementation actions will be initiated. Monitor activities of weapon system Project Officer Groups (POG) (\$ 0.322 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 development/update of the Joint DoD-NNSA Nuclear Weapon-Related Requirements List (JNWRRL). The requirements process and prioritization guidelines will be formalized, coordinated and approved by the NWC. A First Production Unit (FPU) schedule for stockpile life extension programs will be developed as a tool for measuring NNSA activities in stockpile stewardship. (\$0.300 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 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 and the MOU for “safe havens” of NNSA nuclear weapon movements on DoD installations. Coordinate and publish update to DoD Directive 3150.1, Joint Nuclear Weapons Development Studies and Engineering Projects. Initiate update to DoD Directive 3150.3, Nuclear Forces Security and Survivability in view of 9-11 event. 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. (\$ 0.430 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 and Joint Steering Committee 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 100 Russian proposed projects, update list of projects and approve WSSX project proposals. Initiate update of DoD Directive 5030.14 to affirm responsibilities of Joint Atomic Information Exchange Group (JAIEG) (\$ 0.169 Million)

(U) **FY 2003 Plans:**

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(U) Recurring Obligations: 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). (\$ 0.500 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. The development of the NNSA capability to produce and certify nuclear pits will be analyzed. The ongoing effort on Hard and Deeply Buried Targets 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 (\$ 0.312 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 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 will be maintained as a tool for measuring NNSA activities in stockpile stewardship. Major changes in a NNSA schedule for a warhead will be assessed for its impact on the overall requirements reflected in the JNWRRL. (\$0.495 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 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. Complete MOU for “safe havens” of NNSA nuclear weapon movements on DoD installations. 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. 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. 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 in view of Nuclear Posture Review. 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. (\$ 0.330 Million)

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(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 meetings in the U.S. and Russia, and plan and participate in WSSX technical interchange meetings on nuclear weapons safety and security issues. Review Russian proposed projects for counter-terrorism projects, update list of projects and approve WSSX project proposals. Initiate update of overall 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). (\$ 0.169 Million)

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(U) <u>B. Program Change Summary</u>	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	<u>Total Cost</u>
President's FY 2001 Budget Submission	1.483	1.471	1.467	Continuing
Delta	-0.013	0.310	0.613	
FY 02 Amended President's Budget Submission	1.470	1.781	2.080	Continuing
Appropriated Value	1.483	1.781	0.000	
Adjustments to Appropriated Value				
a. Congressionally Directed Undistributed Reduction	0.000	-0.017	0.000	
b. Rescission/Below-threshold Reprogramming, Inflation Adjustment	-0.013	0.000	0.000	
c. Other	0.000	0.000	-0.274	
Current FY 2003 Budget Submission	1.470	1.764	1.806	Continuing

Change Summary Explanation:

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(U) **Funding:** When the Nuclear Matters funding line was created in FY1997 for the Office of the Deputy Assistant Secretary for Nuclear Matters within the Office of Assistant Secretary of Defense for Nuclear and Chemical and Biological Defense Programs (ATSD(NCB)), it was placed for administrative purposes under a Counterproliferation Program program element already existing under the ATSD(NCB). Through the Defense Reform Initiative (DRI), the Counterproliferation Program and its program element were moved to the Defense Threat Reduction Agency, while the Office of Nuclear Matters was moved to the Director, Defense Research and Engineering. As a result, funds for Nuclear Matters were transferred from PE0605160D8Z to PE0605160BR in FY1999. Under an agreement with Washington Headquarters Services, these funds were transferred to PE065160D8Z in OSD in FY2000 to continue the efforts of the Nuclear Matters Program.

(U) **C. Other Program Funding Summary**

(U) NA

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