

W76

The NWC approved the Block 1 refurbishment plan for the W76 in March 2000. The Block 1 refurbishment of the warhead (about one quarter of all W76 warheads) will focus on the high explosive, detonators, organic materials, cables and addition of a new Acorn gas transfer system. The Block 1 refurbishment will also add a new arming firing and fusing (AF&F) system. The FPU of Block 1 will be available by the end of FY 2007, and Block 1 production is planned for completion in FY 2012. During the Block 1 production, a decision will be made to either continue Block 1 retrofits on the entire W76 stockpile, change to a Block 2 retrofit that could include other options, or stop the retrofit altogether. The Block 2 effort, if approved by the NWC, would continue from FY 2012 to FY 2022 to refurbish the remaining W76 warheads.

W80

The NWC approved the refurbishment of the W80 in the beginning of FY 2001. The Block 1 refurbishment of the warhead (about one third of the warheads in the stockpile) will focus on replacing the current gas transfer system with an Acorn design, new neutron generators, redesign of the warhead electrical system, addition of improved surety features and replacement of other associated components. The need to perform refurbishment work is driven by several factors including: age related effects that must be addressed to ensure the continued performance of the warhead, minimizing weapon movements between DoD and DOE, and infrastructure and capacities issues within the weapons complex. The FPU of the Block 1 design will be available in the second quarter of FY 2006, and Block 1 production is scheduled for completion in FY 2010. During the Block 1 production, a decision will be made to either continue Block 1 retrofits on the entire W80 stockpile, change to a Block 2 retrofit that could include enhanced surety options, or stop the retrofit altogether. The Block 2 effort, if approved by the NWC, would continue from FY 2011 to FY 2017 to refurbish the remaining W80 warheads.

B61-7/11

NNSA and DoD are working to identify refurbishment options for the aging B61-7/11 Canned Subassembly (CSA) and associated cables, connectors, some limited life components, and foam components. The study effort is expected to be completed in late FY 2002. Development Engineering will begin following Nuclear Weapons Council approval in late FY 2002. This program will use systems engineering approaches, and the planned FPU of the refurbished B61-7/11 will be in the third quarter of FY 2006. Production of these refurbished CSAs is scheduled to continue to the end of FY 2008. The plan also calls for some selective non-destructive evaluation (NDE) and screening of CSAs as a risk mitigation effort for other warheads during FY 2003 and FY 2004.

Pit Manufacturing and Certification Campaign

The reestablishment of a plutonium pit manufacturing capability, a capability that the United States has not had since the cessation of manufacturing at the Rocky Flats Plant in 1989, is a key national security challenge that the NNSA must meet. The W88 pit is a primary focus of NNSA's pit campaign because an insufficient number of W88 pits were produced to support pit surveillance activities prior to the closure of Rocky Flats.

The Pit Manufacturing and Certification Campaign is focused in the near-term on development of the manufacturing processes at Los Alamos and a certification methodology applicable to the W88 pit, with a long range goal of reestablishing the capability to manufacture all pit types within the stockpile. The program remains on track to deliver a certifiable W88 pit in FY 2003. Over the last year Headquarters and Los Alamos staffs have worked aggressively and have been able to accelerate the date for a certified pit to FY 2007.

Program Accomplishments in FY 2001/2002 include:

management reform activities.

By direction of the Nuclear Weapons Council, and in response to an Air Force requirement, the initial focus of the Advanced Concepts Program will be the Robust Nuclear Earth Penetrator (RNEP). The committees' strong and continued support for RNEP and the \$15.5 million in the President's budget is vital. As this committee's report points out, "RNEP is not a new design, it is not a low yield "mini nuke"... and it is not a significant departure from current stockpile weapons." The three-year RNEP Feasibility Study will assess the feasibility of modifying one of two candidate nuclear weapons (B61 or B83) currently in the stockpile to provide enhanced penetration capability into hard rock geologies and develop out-year costs for the subsequent production phases, if a decision is made by the Nuclear Weapons Council to proceed. This work complies with existing legislation, including section 3136 of the FY 1994 National Defense Authorization Act.

Finally, the NPR calls for a stable, adequately funded **Future-Years Nuclear Security Program (FYNSP)**. The NNSA's costs will not be reduced in the immediate future as a result of NPR, since near-term costs are driven by restoring production capabilities and revitalizing the infrastructure, not by the number of warheads in the stockpile or even the number to be refurbished. However, we do expect that cost savings from refurbishment of a smaller number of weapons will be realized beginning about FY 2010. Also, workload analysis shows that the NNSA enterprise's capacity will be stretched, approaching maximum capacity while our systems are on the process line for refurbishment, thereby limiting our ability to dismantle significant numbers of weapons over the next ten years.

A less obvious, but significant result of the NPR is the improved cooperation and coordination between the NNSA and DoD. The Nuclear Weapons Council is working, policy levels between the agencies are effective, and the DoD has offered strong support for needed programs in NNSA.

I would now like to turn to several specific programs that make up the Stockpile Stewardship Program. The continuing success of these programs will be central to our ability to continue to support and certify the stockpile in the years to come.

Stockpile Life Extension Program (LEP)

Our most important responsibility is to deliver on our commitments to our customer, the Department of Defense. The NNSA has a validated requirement from the Nuclear Weapons Council (NWC) to extend the service life of the W87, W76, W80, and B61. This requirement was revalidated by the Nuclear Posture Review. The life extension work will involve the entire weapons complex. The Kansas City Plant will manufacture the nonnuclear components; Y-12 National Security Complex will refurbish the secondaries; Savannah River Tritium Facility will supply the gas transfer systems; Sandia National Laboratory will produce the neutron generators and certify all non nuclear components. Pantex Plant will serve as the central point for all assembly and disassembly operations in support of the refurbishment work. Los Alamos and Lawrence Livermore will continue to certify the nuclear package.

W87

The life extension program on the W87 warhead was authorized by the NWC in FY 1994. The program achieved First Production Unit (FPU) in the second quarter of FY 1999. The ongoing work at Pantex enhances the structural rigidity of the warhead and is increasing the service life by 30 years. The warhead will be mated to the Minuteman III missile following deactivation of the Peacekeeper missile. The NWC accepted the refurbished W87 as a standard stockpile item in the first quarter of FY 2002. NNSA has completed work on over half of the W87 inventory and the remaining W87 stockpile will be refurbished by the first quarter of FY 2004.

W76