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OCT 12 1988

IPB:DDI

Interim Earth Penetrating Weapon

SAA 200040480000

Brie. Gen. P. F. Ravenaugh, USA, Deputy Assistant Secretary for Military Applications, W-20, OIA, [Signature]

Reference is made to your S-PMI message dated June 10, 1988, Subject "Interim Earth Penetrating Weapon direction," which requested an estimate of the costs associated with providing an Interim Earth Penetrating Warhead to the Department of Defense. The purpose of this memorandum is to provide the requested cost data which we understand will be used by the DOD in support of the Phase 3 request process.

The cost estimates presented herein are based on the workload assumptions and production schedules presented in P & P: 20-1, dated March 14, 1988, as modified by the [redacted] and SPMI schedules presented in P & P: 20-2, dated September 1, 1988.

DD (15/1)
IOE 8(3)
DD (15/1)

DD 1(3)

OE 4(3)

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AY 3 1 1989
EC. 2 8 1989

DIRECT UNIT COST
(FY 1991 DOLLARS)

TOTAL PART & TOOLING
(FY 1991 DOLLARS IN THOUS.)

Tooling	Part
4,100	1,500

With respect to methodology, the above costs include a contingency to allow for design uncertainty and estimating error and were developed by OCAD/AL based on drawings and other technical information furnished by the LNL and SNLA, and component cost data provided by the production agencies. These data represent the manufacturing costs associated with production of five new components at the Ft-LD and Kansas City Plants,



08 810-029 8/8A #

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FORMERLY RESTRICTED DATA

Unauthorized disclosure subject to Administrative and Criminal Sanctions. Handle as Restricted Data in Foreign Dissemination Section 144.6, Atomic Energy Act, 1954.

Classified by D.E. Rosson Jr. Org. WPD
Title Program Manager Date 10/6/88

AL P 1325.7
(11/87)

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Brig. Gen. P. F. Kavanaugh

File - 6111

DOD 1.5(a) disassembly of the [redacted] reacceptance of components, and reassembly of the components into an IEP Warhead configuration. It should be noted that the design costed was the more expensive, full length, hardened steel case tested in the Hellbender 4 Test rather than the less costly, steel nose/aluminum case design fielded in the first three tests. Further, you should be aware that we are actively pursuing the feasibility of field retrofitting the [redacted] to IEP Warheads. If this is practical, the cost presented above will be reduced by approximately \$9550.

DOD 1.5(a) X4
DOD 1.5(a) X4
DOE (b)(3)
DOD 1.5(a) X4
The estimated cost assignable for stockpile evaluation activities through the end of the production period is \$14.8 M in FY 1991 dollars. This assignable cost was developed from production plant input based on a NMLT/NMFT and JTA test program for the IEP Warhead determined jointly by LANL, SNL, and AL and actual cost experience from [redacted] Stockpile Evaluation program. It should be understood that the \$14.8 M includes costs for a substantial effort currently planned for execution during stockpile evaluation activities on the "Category D PAL" family

[redacted] When the IEP Warhead enters Phase 3, Stockpile Evaluation effort for those [redacted] will be rescoped to reflect the new stockpile makeup. Since JTA configurations and the test spectrum for the NMLT program are still tentative, these estimates contain a contingency for uncertainties.

The IEP Warhead will have the same LLCE requirements as does the B61-7.

E, B(3)
DOD 1.5(a) X4
While this is not an incremental cost to the IEP Warhead, we have chosen to provide it since the reservoirs will be used in support of the program. We do not believe it appropriate to include a contingency on this estimate since it is based on the actual cost of hardware in production.

Based on input from SNL, the P & S funded portion of the development cost for this activity is estimated to be \$8.0 M. The majority of these resources will be expended during warhead development in FY 1989 through 1991. This estimate was based on development costs for completely new programs rather than being tailored specifically to the IEP Warhead program. Therefore it is a conservative estimate.

61.13.5.5

Brig. Gen. P. F. Kavanaugh

-3-

Direct Dollars in Thousands

<u>Manufacturing Related</u>	<u>Stockpile Maintenance</u>	<u>Stockpile Evaluation</u>	<u>Sandia P&S</u>	<u>Total Estimate</u>
[redacted]	4,200	14,850	7,950	[redacted]

DOE b(3)

With the exception of stockpile maintenance and Sandia P & S related costs, the above estimates contain an allowance for design uncertainty. Manufacturing and Stockpile Evaluation costs are presented in FY 1991 dollars while Stockpile Maintenance and Sandia P&S costs are presented in dollars valued in the year that they are expended.

DOE b(3)

DD 1.5(a)
x4

DOE b(3)

DD 1.5(a)
x2

... please contact me or Dave Rosson of my staff, if we can provide additional information on this matter.

Original Signed By
S. J. GUIDICE

S. J. Guidice
Director
Weapon Programs Division

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