

AD-A152 646

DEPARTMENT OF THE ARMY JUSTIFICATION OF ESTIMATES FOR
FISCAL YEAR 1986 PR. (U) DEPUTY CHIEF OF STAFF FOR
RESEARCH DEVELOPMENT AND ACQUISITIO.. FEB 85

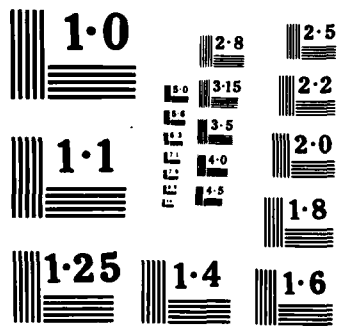
1/1

UNCLASSIFIED

F/G 15/5

NL

								END					
								FORMED					
								DTIC					



AD-A152 646

13

DEPARTMENT OF THE ARMY

JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1986

PROCUREMENT APPROPRIATIONS-CONSTRUCTION PROGRAM

SUBMITTED TO CONGRESS

FEBRUARY 1985



Part 1

DD FORMS 1391

DTIC
ELECTE
APR 22 1985
S A D

DTIC FILE COPY

This document has been approved
for public release and sale; its
distribution is unlimited.

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO. <u>10-A152646</u>	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) (in 6 parts) Department of the Army Justification of Estimates for Fiscal Year 1986, submitted to Congress February 1985, Procurement Programs, Aircraft, Missiles, Weapons & Tracked Cbt Veh., Ammunition, Other Procurement & Constr Programs		5. TYPE OF REPORT & PERIOD COVERED Army Procurement Budget Justification, FY 1986
7. AUTHOR(s) Department of the Army		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS HQDA, Office of the Deputy Chief of Staff for Research, Development, and Acquisition (DAMA-PPP-B) Washington, DC 20310		8. CONTRACT OR GRANT NUMBER(s)
11. CONTROLLING OFFICE NAME AND ADDRESS HQDA, Office of the Deputy Chief of Staff for Research, Development, and Acquisition (DAMA-AO) Washington, DC 20310		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		12. REPORT DATE February 1985
		13. NUMBER OF PAGES 295 (including all parts)
		15. SECURITY CLASS. (of this report) UNCLASSIFIED
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Army Procurement Programs Budget Justification Books covering Aircraft, Missiles, Weapons and Tracked Combat Vehicles, Ammunition, Other Procurement, Army Appropriations programs and Construction programs submitted by the Army to Congress February 1985 for Fiscal Year 1986.		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) In justification of programs requested, this document, in separate volume for each of the five Procurement Appropriations, and one separate volume for Construction Programs, provides backup data for the Army Budget submission for FY 1986. Included are Summaries of Requirements, Program and Financing Statements and Selected Data Sheets. (These volumes are unclassified).		

February 1985

FOREWORD

The DD Forms 1391 contained herein provide the justification data required to support the Fiscal Year 1986 Army Procurement Budget Estimates as submitted to Congress in February 1985. Projects for the Aircraft Procurement, Army appropriation are reflected on pages 1-8, for the Missile Procurement, Army appropriation on pages 9-12, for the Procurement of Weapons and Tracked Combat Vehicles, Army appropriation on pages 13-32, and for the Procurement of Ammunition, Army appropriation on pages 33-59.

DD Form 1391	1
1. Title	
2. Subtitle	
3. Description	
4. Remarks	
5. Date	
6. Initials	
7. Signature	
8. Remarks	
9. Date	
10. Initials	
11. Signature	
12. Remarks	
13. Date	
14. Initials	
15. Signature	
16. Remarks	
17. Date	
18. Initials	
19. Signature	
20. Remarks	
21. Date	
22. Initials	
23. Signature	
24. Remarks	
25. Date	
26. Initials	
27. Signature	
28. Remarks	
29. Date	
30. Initials	
31. Signature	
32. Remarks	
33. Date	
34. Initials	
35. Signature	
36. Remarks	
37. Date	
38. Initials	
39. Signature	
40. Remarks	
41. Date	
42. Initials	
43. Signature	
44. Remarks	
45. Date	
46. Initials	
47. Signature	
48. Remarks	
49. Date	
50. Initials	
51. Signature	
52. Remarks	
53. Date	
54. Initials	
55. Signature	
56. Remarks	
57. Date	
58. Initials	
59. Signature	
60. Remarks	
61. Date	
62. Initials	
63. Signature	
64. Remarks	
65. Date	
66. Initials	
67. Signature	
68. Remarks	
69. Date	
70. Initials	
71. Signature	
72. Remarks	
73. Date	
74. Initials	
75. Signature	
76. Remarks	
77. Date	
78. Initials	
79. Signature	
80. Remarks	
81. Date	
82. Initials	
83. Signature	
84. Remarks	
85. Date	
86. Initials	
87. Signature	
88. Remarks	
89. Date	
90. Initials	
91. Signature	
92. Remarks	
93. Date	
94. Initials	
95. Signature	
96. Remarks	
97. Date	
98. Initials	
99. Signature	
100. Remarks	



A-1

DEPARTMENT OF THE ARMY
JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1986
SUMMARY

P-1 Line No. 37

Appropriation: Procurement of Aircraft, Army

Activity 4 - Support Equipment and Facilities

<u>Location</u>	<u>Project No.</u>	<u>Project Title</u>	<u>(\$ Millions) Cost Estimate</u>	<u>Page No.</u>
Stratford Army Engine Plant Stratford, Connecticut	1868174	Waste Oil Incineration	\$.8	2
Stratford Army Engine Plant Stratford, Connecticut	1868173	Refurbish Building #19 Complex	\$3.9	5

1. Component ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA		2. Date FEB 1985	
3. Installation and Location Stratford Army Engine Plant Stratford, Conn.		4. Project Title Waste Oil Incineration		
5. Program Element	6. Category Code	7. Project Number 1868174	8. Project Cost (\$000) 780,492.00	
9. Cost Estimates				
Item	U/M	Quantity	Unit Cost	Cost (\$000)
Installation of Facilities, ie., burner assemblies, piping, pumps, filtration equipment & storage tank. Sub Total	LS	.		691,466.00
Contingency Percent (7.50%)				51,860.00
Total Contract Cost				743,326.00
Supervision Inspection & O Head (5.00%)				37,166.00
Total Request				780,492.00
Installed Equipment - Other Approp.				-0-

10. Description of Proposed Construction

A. Install a new burner assembly on each of two of the three central plant boilers in Building #2 to allow for supplementary firing of waste oil in addition to the present dual fuel (No. 6 oil and interruptible natural gas) firing capabilities. waste oil will be stored in a new 80,000 gal. storage tank to be installed between the existing 400,000 gal. storage tank and Building #48. Install all necessary piping, waste oil pumps and filtration equipment. No demolition work is required. Energy savings results from the energy contained in the waste oil, which would normally be disposed of (at a cost of \$0.30/gal). Additional savings results from reduced consumption of standard boiler fuel.

B. Estimated Annual Dollar Savings \$180,000
 Estimated Annual Energy Savings 11,782 MSTU
 Simple Amortization Period 4.2 Years

1. Component ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. Date CED 1095
3. Installation and Location Stratford Army Engine Plant , Stratford Conn.		
4. Project Title Waste Oil Incineration		5. Project Number 1868174

11. REQUIREMENTS:

Waste Oil Burner Assembly	2 Units Adequate:	0
	Substandard:	2

Project:

Install burner assemblies on 2 central plant boilers in Bldg. 2 to allow supplemental firing of waste oil.

Requirements:

This project is required to meet long range goals of energy conservation for the Army, consistent with the guidance in Executive Order 12003, 19 July 1977.

Current Operation:

Currently waste oil is disposed of off site.

Impact if not Provided:

If this project is not implemented, 11,782 MBTU/Yr. will needlessly be wasted, contrary to National goals.


David H. Carpenter, Director
Plant Engineering & Maintenance

Estimated Construction Start:	April 1986
Estimated Midpoint of Construction:	January 1987
Estimated Construction Completion:	October 1987

1. Component ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. Date FEB 1986
3. Installation and Location Stratford Army Engine Plant , Stratford Conn.		
4. Project Title Waste Oil Incineration		5. Project Number 1868174

SUPPLEMENTAL DATA

- | | |
|---|---|
| A. Estimated Annual Cost to Operate Proposed Facility | \$ 2,500 |
| B. Number of Additional Personnel Necessary to Carry Out the Function of the Proposed Facility | 0
(People) |
| C. Estimated Life-Cycle Cost to Operate and Maintain the Desired Facility | \$62,500 |
| D. Estimated Life-Cycle Cost to Operate and Maintain the Existing Facility if New Facility is a replacement | N/A |
| E. Planning and Design Data (Estimate) | |
| 1. Status | |
| a. Date Design Started | March 1985 |
| b. Per Cent Complete as of January 1, 1985 | 0% |
| c. Per Cent Complete as of October 1, 1986 | 100% |
| d. Date Design Completed | October 1986 |
| 2. Basis | |
| a. Standard or Definitive Design | Yes X No |
| b. Where Design was most Recently Used | Raymark Corporation
Stratford, Conn. |
| 3. Cost (Total) | |
| a. Production of Plans and Specs (6% Limit) | \$ 34,573 |
| b. All Other Design Costs | 0 |
| c. Total Cost = (a + b) = (d + e) | \$ 34,573 |
| d. Contract | \$ 34,573 |
| e. In House | 0 |
| 4. Construction Start Date (Planned) | April 1986
Month & Year |
| F. Equipment Associated with This Project which will be Provided with Other Appropriations. | |
| | None |

1. Component ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA		2. Date FEB 1986
3. Installation and Location Stratford Army Engine Plant Stratford, Conn.		4. Project Title Refurbish Building #19 Complex	
5. Program Element	6. Category Code	7. Project Number 1868173	8. Project Cost (\$000) \$3,921,000.00

9. Cost Estimates

Item	U/M	Quantity	Unit Cost	Cost (\$000)
Demolition Bldg. 51	sq.ft.	768	27.00	20,705.00
Additions Bldg. 19, 19B, 51 & 62	sq.ft.	28,000	87.00	2,436,000.00
Rearrangements Bldg. 19, 19A, 19B & 62	sq.ft.	14,000	55.00	770,000.00
Oil Rack	ea	300	17.00	5,100.00
Site Work (Fencing, Relocate Underground Facilities)				
Lifting Cranes	ea	misc.		150,000.00
		2	6,500.00	13,000.00
Sub Total =				3,394,805.00
Contingency Percent (10.00%)				339,480.00
Total Contract Cost				3,734,285.00
Supervision Insp. & Overhead (5.00%)				186,715.00
TOTAL REQUEST =				3,921,000.00
Installed Equipment - Other Approp.				-0-

Description of Proposed Construction

- A. Construct additions to Buildings #19, 19B & 62
- Building #19: Expansion 12,000 sq. ft.
 - Building #19B: Second Floor Addition (Control Room) 3,900 sq. ft.
 - Building #62: Expansion 9,100 sq. ft.
- B. Rearrangement of remaining Buildings #19, 19A, 19B, 62 including environmental systems:
- Building #19: Rearrange Equipment - Wiring, etc. 7,840 sq. ft.
 - Building #19A: Rework Floor - New Machine Bases 3,200 sq. ft.
 - Building #19B: Office, Lunch and Rest Rooms 2,000 sq. ft.
 - Building #62: Rearrange Equipment - Wiring, etc. 960 sq. ft.
- C. Demolish and Remove Building #51 768 sq. ft.
- Construct new Building #51 3,000 sq. ft.
- D. Building #56 - Relocate and Redesign Lifting Cranes

1. Component ARMY	2. Date FY 1986 MILITARY CONSTRUCTION PROJECT DATA
3. Installation and Location Stratford Army Engine Plant , Stratford Conn.	
4. Project Title Refurbish Building #19 Complex	5. Project Number 1868173

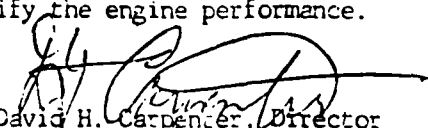
11. REQUIREMENTS: Additions and new Building 28,000 sq. ft.
Demolition of Building 768 sq. ft.
Rearrangement of Buildings 14,000 sq. ft.
Note: A building and equipment survey is required to determine if any additional work is required to be in compliance with OSHA regulations.

Project: This project will provide for a more efficient test facility to properly test engine components with precision and safety in addition to providing a proper working environment for personnel.

Requirements: This project is required to meet the long range goals of quality and energy efficient turbine engines. All construction will conform to OSHA, DOD and NFPA building construction standards.

Current Operation: These buildings are occupied and operational. Building programs must be phased, so as not to effect operation of facility.

Impact if not Provided: Non-availability of an updated microprocessor controlled test facility as required by present day and future generation gas turbine engine components will make it extremely difficult to accommodate the additional tests required and to properly certify the engine performance.


David H. Carpenter, Director
Plant Engineering & Maintenance

Estimated Construction Start: March 1986
Estimated Midpoint of Construction: December 1986
Estimated Construction Completion: October 1987

1. Component ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. Date DEC 76
3. Installation and Location Stratford Army Engine Plant , Stratford Conn.		
4. Project Title Refurbish Building 19 Complex		5. Project Number 1868173

SUPPLEMENTAL DATA

- | | |
|---|---|
| A. Estimated Annual Cost to Operate Proposed Facility | \$ 50,000 |
| B. Number of Additional Personnel Necessary to Carry Out the Function of the Proposed Facility | 0
(People) |
| C. Estimated Life-Cycle Cost to Operate and Maintain the Desired Facility | \$1,250,000 |
| D. Estimated Life-Cycle Cost to Operate and Maintain the Existing Facility if New Facility is a Replacement | N/A |
| E. Planning and Design Data (Estimate) | |
| 1. Status | |
| a. Date Design Started | January 1985 |
| b. Per Cent Complete as of January 1, 1985 | 0% |
| c. Per Cent Complete as of October 1, 1986 | 100% |
| d. Date Design Completed | January 1986 |
| 2. Basis | |
| a. Standard or Definitive Design | Yes X No |
| b. Where Design was most Recently Used | I.B.M. Corporation
Peekskill, New York |
| 3. Cost (Total) | |
| a. Production of Plans and Specs (5% Limit) | \$ 235,260 |
| b. All Other Design Costs | 0 |
| c. Total Cost = (a + b) = (d + e) | \$ 235,260 |
| d. Contract | \$ 235,260 |
| e. In House | 0 |
| 4. Construction Start Date (Planned) | March 1986 |

1. Component ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. Date SEP 1985
3. Installation and Location Stratford Army Engine Plant , Stratford Conn.		
4. Project Title Refurbish Building 19 Complex		5. Project Number 1868173

F. Equipment Associated with This Project which will be Provided From Other Appropriations.

BUILDING 19 COMPLEX - COMPONENT TESTING

Description

Refurbish Eddy Current Clutch
 Replacement of Vacuum Pumps
 Aerodynamic Piping
 Replace Switchgear (Bldg. 51)
 Control Refurbishment
 Upgrade High Pressure Air Drive
 Turbine Testway
 High&Low Temp. Air Piping
 Regenerator Test Facility
 Air Compressor, Nash Hytor
 Replace Cooling Water System
 Emission Test System
 Combustor Testway
 400 PSI Cooling Air Supply
 Replace 3 Engine Drive

DEPARTMENT OF THE ARMY
JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1986
SUMMARY

P-1 Line No. 24

Appropriation: Procurement of Missiles, Army

Activity 5 - Support Equipment and Facilities

<u>INSTALLATION</u>	<u>PROJECT NO.</u>	<u>PROJECT TITLE</u>	<u>COST ESTIMATE (MILLIONS)</u>	<u>PAGE NO.</u>
Redstone Arsenal Huntsville, Al	3862209	Modernization of Rocket Motor Loading Facility, Thiokol	\$2.7M	10

1. COMPONENT ARMY		FY 19 <u>86</u> MILITARY CONSTRUCTION PROJECT DATA		2. DATE DEC 1986	
3. INSTALLATION AND LOCATION Detroit Arsenal Tank Plant (DATP) Warren, Michigan			4. PROJECT TITLE Metrology Laboratory		
5. PROGRAM ELEMENT		6. CATEGORY CODE		7. PROJECT NUMBER 4866036	
				8. PROJECT COST (\$000) \$685.00	
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY					586.4
Architectural/Structural		SF	13,000	\$28.65	(372.4)
Mechanical		SF	13,000	7.55	(98.2)
Electrical		SF	13,000	7.31	(95.0)
Fire Protection		SF	13,000	1.60	(20.8)
Demolition of Existing Facilities		LS			32.0
Sub-Total					618.4
Contingency					30.9
Total Contract Cost					649.3
Supervision, Inspection, & Overheas (5.50%)					35.7
TOTAL REQUEST					685.0
10. DESCRIPTION OF PROPOSED CONSTRUCTION					
Construct a new Metrology Laboratory within Building #4, Detroit Arsenal Tank Plant. Preferred construction is a two (2)-story masonry structure. The walls and ceilings shall minimize temperature loss or gain and humidity migration. The environmental control equipment shall be designed for heavy duty use in this type of operation. Also included are necessary mechanical and electrical utilities for a laboratory as well as necessary fire protection. The work will include demolishing and restoring the area presently occupied by the existing Metrology Laboratory. Accessibility for the handicapped will be provided.					
11. PROJECT:					
Construct a Metrology Laboratory in bays D & E of Building #4, which will be used to calibrate gages and check fixtures required in production processes.					
REQUIREMENT:					
This project is required to provide the specified facility and conditions required for performance of the calibration and checking procedures in conformity with applicable military specifications.					

1. COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. DATE DEC 1985
3. INSTALLATION AND LOCATION Lima Army Tank Plant (LATP) Lima, Ohio		
4. PROJECT TITLE Phase II Expansion		5. PROJECT NUMBER 4865030
SUPPLEMENTAL DATA (S000) A. Estimated annual cost to operate proposed facility \$310 B. Number of additional personnel necessary to carry out the function of the proposed facility.....3.6 People C. Estimated life-cycle cost to operate and maintain the desired facility (25-year basis).\$7,750 D. Estimated life-cycle cost to operate and maintain the existing facility if new facility is a replacement..... N/A (This is not a replacement facility; it is an expansion to an existing facility). E. Planning and design data (estimate) 1. Status a. Date design started 15 December, 1983 b. Percent complete as of 1 January, 1984 0% c. Percent complete as of 1 October, 1985 N/A d. Date design completed.....7 January 1985 2. Basis a. Standard or definitive design.....No b. Design most recently used.....N/A 3. Cost (Total \$264) a. Production of plans and specs (6% limit).....242 b. All other design costs 22 c. Total cost = (a+b) = (d+e)..... 264 d. Contract 242 e. In-house 22 4. Construction start date (Planned).....12 March 1986		

1. COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 100 000
3. INSTALLATION AND LOCATION Lima Army Tank Plant (LATP)		
4. PROJECT TITLE Lima Expansion - PH II		5. PROJECT NUMBER 4865030
IMPACT IF NOT PROVIDED: An alternative to expanding facilities at LATP would be to develop Detroit Arsenal Tank Plant into a structures fabricator. However, the provisioning costs of DATP would be much higher than expanding LATP, primarily because in order to meet minimum production capacities at some fabrication stations, a significant over-facilitization would be required at others. A second alternative would be to acquire the total structures at a rate of sixty (60) per month from another vendor. Purchasing completed structures from an outside vendor would not be practical due to his high start-up costs. Partially completed structures would, in all probability have to be shuttled back and forth between the vendor and LATP for utilization of the large government facilities such as the abrasive blast and structure paint lines. The additional traffic associated with the transporting of structures would add to the extreme congestion being experienced at the present time which would also increase the production costs per unit. If this project is not approved, a vendor or another plant would be required to perform the fabrication required for structures above (90) per month. Sixty (60) per month would be shipped to the vendor or other plant for completion of this task.. The structures would have to be shipped back to LATP for processing. Without this project, this facility will have no flexibility to meet increased production schedules efficiently.		

1. COMPONENT ARMY		FY 1986 MILITARY CONSTRUCTION PROJECT DATA		2. DATE DEC 1986	
3. INSTALLATION AND LOCATION Lima Army Tank Plant (LATP) Lima, Ohio			4. PROJECT TITLE Lima Expansion - PH II		
5. PROGRAM ELEMENT	6. CATEGORY CODE 224-10	7. PROJECT NUMBER 4865030	8. PROJECT COST (\$000) \$4,400		
9. COST ESTIMATES					
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)	
PRIMARY FACILITY				\$3,972	
Enclose Section Between Receiving Dock & Flame Cut of Bldg. #147 (Edge Prep) (Section "F").	SF	48,000	66.96	(3,214)	
Safety & Medical Addition (Section "C")	SF	5,800	130.69	(758)	
Sub-Total				3,972	
Contingency (5.0%)				198	
Total Contract Cost				4,170	
Supervision Inspection & Overhead (5.5%)				230	
TOTAL REQUEST				\$4,400	
10. DESCRIPTION OF PROPOSED CONSTRUCTION					
Each element of the primary facility will consist of insulated metal walls, metal roof decking, built-up roofing and reinforced concrete floors. Each area will include interior lighting, ventilation, heating and heat recovery, and all required plumbing, electrical, telephone and fire protection equipment. Not sited on flood plain.					
11. PROJECT:					
Construction of an additional 53,800 sq. ft. of industrial production space at the Lima Army Tank Plant, Lima, Ohio.					
REQUIREMENT:					
This project is required to provide the second increment of a two-phase program to provide sufficient industrial space to permit the production of 150 Abrams Tanks per month. Adequate permanent facilities are not available to support this mission.					
CURRENT SITUATION:					
This project is required to ensure that the LATP has the capability to meet its M1 Tank production capacity objectives as dictated by the July 1977 M1 ASARC; as well as support the initial and continued M1 Abrams Tank production personnel. The existing crowded and congested areas lend to inefficiencies that could result in lower production rates rather than the desired and necessary increase.					

1. COMPONENT ARMY		FY 1986 MILITARY CONSTRUCTION PROJECT DATA		2. DATE DEC 1985	
3. INSTALLATION AND LOCATION Lima Army Tank Plant (LATP) Lima, Ohio					
4. PROJECT TITLE Polyurethane Paint (PUP) Facility				5. PROJECT NUMBER 4863014B	
SUPPLEMENTAL DATA					
				(\$000)	
A.	Estimated Annual Cost To Operate Proposed Facility:			\$149.850	
B.	Number Of Additional Personnel Necessary To Carry Out The Function Of The Proposed Facility:			0	
C.	Estimated Life Cycle Cost To Operate And Maintain The Desired Facility (25 Year Basis):			\$3,746.250	
D.	Estimated Life Cycle Cost To Operate And Maintain Existing Facility If New Facility Is A Replacement:			N/A*	
* The proposed modular booth paint line is the only feasible method of applying Polyurethane Paint (PUP) to M1 Abrams Series Tanks at LATP. The existing paint line cannot be used for Polyurethane Paint application nor can it be modified to permit the use of Polyurethane Paint (PUP). Since the existing system cannot be used for or modified to permit the performance of the functions of the proposed system, no alternative exists against which a cost differential may be derived.					
E.	Planning And Design Data:				
	1. <u>Status</u>				
	a.	Date Design Started			31 OCT 84
	b.	Percent Complete As Of 1 January 1985			15%
	c.	Percent Complete As Of 1 October 1985			100%
	d.	Date Design Completed			16 SEPT 85
	2. <u>Basis</u>				
	a.	Standard Or Definitive Design			No
	b.	Design Most Recently Used			N/A
	3. <u>Cost</u>				
					(\$000)
	a.	Production Of Plans & Specs			\$353.2
	b.	All Other Design Costs			96.8
	c.	Total Cost			450.0
	d.	Contract			400.0
	e.	In-House			50.0
	4. <u>Construction Start Date (Planned)</u>				January 1986

1. COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. DATE FEB 1986
3. INSTALLATION AND LOCATION Lima Army Tank Plant (LATP), Lima, Ohio		
4. PROJECT TITLE Polyurethane Paint (PUP) Facility		5. PROJECT NUMBER 4863014B
13. CURRENT SITUATION: PUP cannot be applied due to industrial hygiene problems associated with its application in the existing facilities. 14. IMPACT IF NOT PROVIDED: If this project is not approved, it will not be possible to apply PUP to the Abrams Tanks, since the existing vehicle final paint systems cannot be easily modified to utilize PUP, which poses an industrial hygiene problem during its application. Consequently it will not be possible to comply with the Army policy of having its "First-to-Fight" vehicles painted with PUP.		

COMPONENT ARMY		FY 19 <u>86</u> MILITARY CONSTRUCTION PROJECT DATA		2. DATE DEC 1985	
3. INSTALLATION AND LOCATION Lima Army Tank Plant, (LTP) Lima, OH			4. PROJECT TITLE Polyurethane Paint Facility		
5. PROGRAM ELEMENT		6. CATEGORY CODE		7. PROJECT NUMBER 4863014B	
				8. PROJECT COST (\$000) \$8,167.0	
9. COST ESTIMATES					
ITEM			U/M	QUANTITY	COST (\$000)
PRIMARY FACILITY					
Modular Building Paint Line			SF	27,000	\$201.00 5,427.0
SUPPORTING FACILITIES					\$1,945.0
Electrical					(340)
Water Lines					(85)
Sanitary Sewer					(102)
Steam Line					(113)
Site Preparation					(170)
Fume Incinerator					(1,135)
SUB-TOTAL					7,372.0
Contingency (5.00%)					369.0
TOTAL CONTRACT COST					7,741.0
Supervision Inspection & Overhead (5.50%)					426.0
TOTAL REQUEST					\$8,167
10. DESCRIPTION OF PROPOSED CONSTRUCTION					
This project will provide environmentally sound facilities capable of applying Chemical Agent Resistant Polyurethane Paint (PUP) to the Abrams series Main Battle Tank at the Lima Army Tank Plant.					
11. PROJECT:					
The final paint system consists of a stand alone paint booth with water wash, a curing oven and a wash and blow off facility, and a vehicle preparation area. Also included in the final paint system are computerized robots for the application of paint in a camouflage pattern. All PUP systems will be designed and constructed in compliance with applicable state and federal environmental emissions standards, and will include the installation of a fume incinerator.					
12. REQUIREMENT:					
Department of the Army message, DALO-SM2-A, dated 6 May 1983, directed that Polyurethane Paint (PUP) will be applied in a camouflage pattern not later than October 1985. This project is required at the three General Dynamics Land Systems Division locations to insure that a proper system, with appropriate capacity, is available to apply PUP to the Abrams series of tanks.					

1. COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. DATE DEC 1985
3. INSTALLATION AND LOCATION Detroit Arsenal Tank Plant, Warren, Michigan (DATP)		
4. PROJECT TITLE Polyurethane Paint Facility		5. PROJECT NUMBER 4863014A
SUPPLEMENTAL DATA (\$000) A. Estimated Annual Cost To Operate Proposed Facility \$67.710 B. Number Of Additional Personnel Necessary To Carry Out The Function Of The Proposed Facility: 0 C. Estimated Life Cycle Cost To Operate And Maintain The Desired Facility (25 Year Basis:) \$1,692.750 D. Estimated Life Cycle Cost To Operate And Maintain The Existing Facility If New Facility Is A Replacement: N/A* * The proposed modular booth paint line is the only feasible method of applying Polyurethane Paint to M1 Abrams Series Tanks at DATP. The existing paint line cannot be used for Polyurethane Paint application nor can it be modified to permit the use of Polyurethane Paint. Since the existing system cannot be used for or modified to permit the performance of the functions of the proposed system, no alternative exists against which a cost differential may be derived. E. Planning And Design Data: 1. <u>Status</u> a. Date Design Started 30 OCT 84 b. Percent Complete As Of 1 January 1985 15% c. Percent complete as of 1 October 1985 100% d. Date Design Completed 16 SEPT 85 2. <u>Basis</u> a. Standard or definitive design No b. Design most recently used N/A 3. <u>Cost (Total \$714,000)</u> (\$000) a. Production or Plans And Specs \$485.5 b. All Other Design Costs 114.5 c. Total Cost 714.0 d. Contract 664.0 e. In-House 50.0 4. <u>Construction Start Date (Planned)</u> January 1986		

1. COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. DATE DEC 1985
3. INSTALLATION AND LOCATION Detroit Arsenal Tank Plant, Warren, MI (DATP)		
4. PROJECT TITLE Polyurethane Paint Facility		5. PROJECT NUMBER 4863014A
13. CURRENT SITUATION: The vehicle painting system at the Detroit Arsenal Tank Plant is over 30 years old and does not comply with the State of Michigan Volatile Organic Compounds (VOC) emissions standards. PUP cannot be applied due to industrial hygiene problems associated with its application in the current facilities. 14. IMPACT IF NOT PROVIDED: If this project is not approved, it will not be possible to apply PUP to the Abrams tanks, since the existing vehicle final paint systems cannot be modified to utilize PUP, which poses an industrial hygiene problem during its application. Consequently it will not be possible to comply with the Army policy of having its "First-to-Fight" vehicles painted with PUP.		

1. COMPONENT ARMY		FY 19 <u>86</u> MILITARY CONSTRUCTION PROJECT DATA		2. DATE FEB 1986	
3. INSTALLATION AND LOCATION Detroit Arsenal Tank Plant (DATP) Warren, Michigan			4. PROJECT TITLE Polyurethane Paint Facility		
5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER 4863014A	8. PROJECT COST (\$000) \$6,611.0		
9. COST ESTIMATES					
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)	
PRIMARY FACILITY					
Modular Booth Paint Line	SF	12,200	214.84	\$2,621.0	
SUPPORTING FACILITIES				\$3,347.0	
Electrical				(284)	
Water				(85)	
Sewer				(57)	
Site Preparation				(85)	
EQPT Dismantling/Relocation				(567)	
Building Upgrade/Modification				(1,134)	
Fume Incinerator				(1,135)	
SUB-TOTAL				\$5,968.0	
Contingency (5.00%)				298.0	
TOTAL CONTRACT COST				\$6,266.0	
Supervision, Inspection & Overhead (5.5%)				345.0	
TOTAL REQUEST				\$6,611.0	
10. DESCRIPTION OF PROPOSED CONSTRUCTION					
This project will provide environmentally sound paint facilities capable of applying Chemical Agent Resistant Polyurethane Paint (PUP) to the Abrams Series Main Battle Tank at the Detroit Arsenal Tank Plant.					
11. PROJECT:					
The project provides funds for the removal of the existing final paint line and the installation of in-line systems for final vehicle paint. The final paint system consists of a paint booth with water wash, a curing oven and a wash and blow off facility. Also included in the final paint system are computerized robots for the application of paint in a camouflage pattern. All PUP systems will be designed and constructed in compliance with applicable state and federal environmental emissions standards, and will include the installation of a fume incinerator.					
12. REQUIREMENT:					
Department of the Army message, DALO-SMZ-A, dated 6 May 1983, directed that polyurethane paint (PUP) will be applied in a camouflage pattern not later than October 1985. This project is required at the three General Dynamics Land Systems Division locations to insure that a proper system, with appropriate capacity, is available to apply PUP to the Abrams series of tanks.					

DEPARTMENT OF THE ARMY
JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1986
SUMMARY

P-1 Line No: 28

Appropriation: Procurement of Weapons and Tracked Combat Vehicles, Army
Activity 1 - Tracked Combat Vehicles.

<u>Installation</u>	<u>Project No.</u>	<u>Project Title</u>	<u>Cost Estimate (Millions)</u>	<u>Page No.</u>
Detroit Arsenal Tank Plant, Warren,	4863014A	Polyurethane Paint Facility	6.6	14
Lima Army Tank Plant, Lima, OH	4863014B	Polyurethane Paint Facility	8.2	17
Lima Army Tank Plant, Lima, OH	4865030	Lima Expansion Phase II	4.4	20
Detroit Arsenal Tank Plant, Warren, MI.	4866036	Metrology Laboratory	.7	23
Lima Army Tank Plant, Lima, OH	4866037	Lima Production Support and Equipment Replacement Construction.	4.8	27
Mainz Army Depot (MZAD) Mainz, GE	4862006	Modernization at Mainz Army Depot	7.1	30

1. COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. DATE FEB 1987								
3. INSTALLATION AND LOCATION Redstone Arsenal, Alabama										
4. PROJECT TITLE Modernization of Rocket Loading Facility		5. PROJECT NUMBER 3862209								
11. REQUIREMENT: (Continued) REQUIREMENT: (Continued) Aug 84 will be met with these new facilities. The 10% contingency is required due to the presence of subterranean cavities in the building area. CURRENT SITUATION: Missile rocket motor production is conducted in buildings designed and built during 1938-1942 for artillery shell loading. The buildings are not production efficient for rocket motors. Also, they were designed for 1.3 hazard type propellants. The new 1.1 hazard propellant for battlefield rocket motors has more stringent safety requirements, greater wall strengths, larger spacing between buildings, and it is not compatible with the 1.3 hazard propellant. The water system has aged along with increased demands to the point that insufficient volume and pressure create an unsafe condition if an incident or fire occurs in more than one area within the facility. Present buildings have deteriorated due to age to a point where it is no longer economically feasible to continue to maintain them and sustain a safe production capability for small rocket motors. This modernization program is an extension of the effort which began in 1983 to preserve the production capability of this facility. When completed, the production facility will be capable of producing either 1.3 or 1.1 explosive hazard missile rocket motors. IMPACT IF NOT PROVIDED: The funding under this project is to provide utilities and buildings to house operations which are necessary for an economical and balanced rocket motor production facility with the capability of developing and producing small quantities of either 1.1 or 1.3 propellant hazard rocket motors. If these funds are not provided, the modernization program begun in 1983 will not be on schedule; and the ability to produce 1.1 hazard propellant rocket motors will be restricted. If this project is not approved, it will cause this command to: a. Continue to operate in a marginally unsafe condition due to insufficient water supply. b. Continue to experience high normal as well as above normal maintenance costs of buildings capable of producing only 1.3 propellant. c. Not provide the temperature and atmospheric controls required for the production of rocket motor propellant. d. Not provide for the production economies which will be achieved in buildings designed and constructed for manufacture of missile rocket motors. 12. SUPPLEMENTAL DATA: A. Estimated Design Data: (1) Status: <table border="0"> <tr> <td>(a) Date Design Started</td> <td>MAR 84</td> </tr> <tr> <td>(b) Percent Complete As Of January 1985</td> <td>35%</td> </tr> <tr> <td>(c) Percent Complete As Of October 1985</td> <td>100</td> </tr> <tr> <td>(d) Date Design Complete</td> <td>JUL 85</td> </tr> </table>			(a) Date Design Started	MAR 84	(b) Percent Complete As Of January 1985	35%	(c) Percent Complete As Of October 1985	100	(d) Date Design Complete	JUL 85
(a) Date Design Started	MAR 84									
(b) Percent Complete As Of January 1985	35%									
(c) Percent Complete As Of October 1985	100									
(d) Date Design Complete	JUL 85									

1. COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA			2. DATE FEB 1986
3. INSTALLATION AND LOCATION Redstone Arsenal Alabama		4. PROJECT TITLE Modernization of Rocket Loading Facility		
5. PROGRAM ELEMENT PPS	6. CATEGORY CODE 22645	7. PROJECT NUMBER 3862209	8. PROJECT COST (\$000) 2,700	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
<u>Primary Facility</u>				
(2) Pilot Production Process Bld	SF	10,400	153.58	2,139 (1,597)
(3) Pack and Ship Bldg	SF	2,160	104.58	(226)
(4) Water Tower	Ga	300,000	1.052	(316)
<u>Supporting Facilities</u>				
(1) Utilities and Roads	LS	-	-	185 (185)
Subtotal				2,324
Contingency (10.00%)				232
Total Contract Cost				2,556
Supervision, Inspection & Overhead (5.60%)				143
Total Request				2,699
Total Request (Rounded)				2,700
10. Description of Proposed Construction This project consists of four subprojects which are to provide modern facilities designed for rocket motor production. These production efficient buildings will replace facilities designed and built during 1938-1942 for artillery shell loading. Subprojects 2 and 3 are for buildings designed and spaced for either 1.1 or 1.3 explosive hazard while subprojects 1 and 4 provide utilities, access roads, service areas and water for the facility. 11. REQUIREMENT: 12,560 SF ADEQUATE: None SUBSTANDARD: 0,000 SF REQUIREMENT: This project is for the replacement of buildings designed for artillery shell loading and to provide facilities designed for support of rocket motor development and production of 1.3 or 1.1 hazard type propellant. The buildings are vital to the efficient production of rocket motors. These buildings are designed for 1.1 hazard class propellant and will be in accordance with that safety requirement for building construction, spacing between buildings and revetment requirements. The 1.3 and 1.1 propellants are incompatible and, therefore, cannot be processed concurrently in the same facilities. Present and future requirements for tactical rocket missile systems are requiring higher energy propellants. Safety requirements for 1.1 explosive hazard classification specified in DARCOM-R 385-10 Safety Manual 1				

1. COMPONENT ARMY	FY 19 <u>86</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE JUN 80
3. INSTALLATION AND LOCATION Detroit Arsenal Tank Plant (DATP) , Warren , Michigan		
4. PROJECT TITLE Metrology laboratory		5. PROJECT NUMBER 4866036
CURRENT SITUATION: The Quality Control Metrology Laboratory has been operating in violation of military specification requirements for this type of operation for several years. These specifications require control of temperature, humidity, and cleanliness to ensure that accuracy of measurements will not be affected by temperature or dirt. The Laboratory is housed in office type facilities with office type air conditioning. Gages and fixtures are stored on open shelving where dirt accumulates on them. Cleaning of gages and fixtures is time consuming and this condition does not meet the military specification requirements. IMPACT IF NOT PROVIDED: Failure to approve this project will result in the continued use of an inadequate, undersized, and deteriorating facility which violates military specification requirements for control of environmental conditions and requires unnecessary labor for dust removal from gages and fixtures stored in the facility. Further, the poor environmental conditions can lead to invalid calibration which in turn could cause the manufacture of improper parts for the Abrams Tank, which ultimately causes lost production time and higher product cost.		

1. COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 11 1986
3. INSTALLATION AND LOCATION Detroit Arsenal Tank Plant, Warren, Michigan		
4. PROJECT TITLE Metrology laboratory		5. PROJECT NUMBER 4866036
SUPPLEMENTAL DATA A. Estimated annual cost to operate proposed facility..... N/A* B. Number of additional personnel necessary to carry out the function of the proposed facility..... 0 C. Estimated life-cycle cost to operate and maintain the desired facility..... N/A* D. Estimated life-cycle cost to operate and maintain the existing facility if new facility is a replacement..... N/A* E. Planning and design data (estimate). 1. Status a. Date design started..... 23 December 1983 b. Percent complete as of 1 January 1985 95% c. Percent complete as of 1 October, 1986 100% d. Date design completed 16 February 1985 2. Basis: a. Standard or definitive design..... No b. Where design was most recently used 3. Cost (Total \$000) a. Production of plans and specs (6% limit)..... \$41,100 b. All other design costs..... \$71,900 c. Total cost = (a+b) = (d+e)..... \$113,000 d. Contract \$81,000 e. In-house \$32,000		

1. COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. DATE FEB 1987
3. INSTALLATION AND LOCATION Detroit Arsenal Tank Plant (DATP), Warren, Michigan		
4. PROJECT TITLE Metrology Laboratory		5. PROJECT NUMBER 4866036
SUPPLEMENTAL DATA (Continued) E. Continued 4. Construction start date (planned) July 1986 * Since both the existing and new laboratories are only rooms in an existing building, it is not possible to determine operating and maintenance costs of those facilities.		

1. COMPONENT ARMY		FY 1986 MILITARY CONSTRUCTION PROJECT DATA		2. DATE FEB 25 1986	
3. INSTALLATION AND LOCATION Lima Army Tank Plant (LATP) Lima, Ohio			4. PROJECT TITLE Lima PS & ER Construction		
5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER 4866037	8. PROJECT COST (\$000) \$3,999 +\$831		
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY:					\$3,610
Expand Flammable Storage Building		SP	14,800	76.42	(1,131)
Energy Monitoring & Control System (EMCS)		LS	1	1,303.00	(1,303)
Diagonal Road For Test Track		SY	13,000	34.77	(452)
New Test Slope		LS	1	175.00	(175)
Parking Lot At Building #322		SY	4,500	20.00	(90)
Steel Plate Storage		SY	4,300	58.00	(249)
Access Road West Of Building #186		SY	6,000	35.00	(210)
SUB-TOTAL					\$3,610
Contingency (5.0%)					180.5
Total Contract Cost					\$3,790.5
Supervision Inspection & Overhead					208.5
TOTAL REQUEST					\$3,999.0
ECP GDL-J5775R1 ADD-ON (Separate Funding)					831
1. Bump Course, including contingency & SIOH		SY	2,222	63.37	(157)
2. Stabilization Course, including contingency and SIOH.		SY	18,178	33.34	(674)
10. DESCRIPTION OF PROPOSED CONSTRUCTION					
10. DESCRIPTION OF PROPOSED CONSTRUCTION: This project will provide for the addition of 3600 sq. ft. to the existing Building #301 to provide for efficient storage of flammable and freezable materials and a 11,200 sq. ft. diked and covered area for the outdoor storage of POL material. The building addition will be a metal building similar to existing Building #301 construction. Existing Building #301 will be improved to meet DOD and NFPA Fire Protection Standards and U.S. Army Toxic & Hazardous Material Agency spill prevention measures. The implementation of an Energy Monitoring and Control System (EMCS) is required to significantly reduce the energy consumption at this facility. The system will be connected to five selected buildings to control heavy energy consuming equipment. Access roads to the test track will be repaired, and resurfaced. The test track will also be repaired. The existing sixty percent (60%) test slope will be replaced and a diagonal roadway connecting opposite corners of the test track will be built. This project also provides for the replacement of an existing deteriorated steel plate storage pad and the reconstruction of a parking lot in close proximity to Building #351. Separate ECP funding will provide a bump and stabilization cause for increased tooling requirements on the MIA.					

1. COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. DATE FEB 1986
3. INSTALLATION AND LOCATION Lima Army Tank Plant - Lima, Ohio		
4. PROJECT TITLE Lima Army Tank Plant - PS & ER Construction		5. PROJECT NUMBER 4866037
11. REQUIREMENT: POL storage does not meet DOD or NFPA requirements, and a potential exists for loss of life and/or severe environmental damage. The utilities consumption will be significantly reduced with the installation of an EMCS. It is estimated that \$625,000 per year, in FY83 dollars, is being spent needlessly on utilities due to unmonitored systems. The lack of a diagonal cross-over on the test track is causing undue disruption to production during routine maintenance operations. The concrete slope test structure is rapidly approaching an unuseable state. The steel plate storage pad is deteriorated, and is located in an area not conducive to proper production flow. Due to conversion of a remote warehouse to a production building it is necessary to reconstruct a parking lot to support the additional traffic at that location. An ECP has directed additional testing of the Turret Stabilization System on the M1A1 Main Battle Tank, scheduled for release in late 1985. Construction of the bump and stabilization courses are required to support this ECP. It will be necessary to conduct the M1A1 testing program on a waiver until this project is completed. Not sited in a flood plain. CURRENT SITUATION: POL drums are stored in an area which has been temporarily diked with sand bags. Drum storage does not comply with Army regulations. LAMP's Class IB and IIIB flammable and combustible liquids are not properly sprinklered and are located in a structure which is undersized for its intended purpose. LAMP presently manually operates all environmental conditioning equipment either continuously or without a set schedule. An EMCS System will permit this equipment to be turned off during unoccupied periods and will also provide an automatic temperature control system. Currently the test track must be shut down to perform maintenance or repairs causing interruptions to production testing. Constructing a diagonal roadway will eliminate this condition. Existing bump and stabilization courses are not of sufficient length to provide quality testing to obtain the accuracy desired. Therefore, by marrying the required bump and stabilization courses to the diagonal roadway, both conditions can be corrected without impeding production. The parking area in this project is an unpaved area which has deteriorated to the point where it has become a severe and continuous maintenance problem. The existing steel plate storage area is located on an old building foundation, obviously not designed for its current use. In addition, the site is located away from the main production facility and the excess travel distance creates an unwarranted production problem.		

1. COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. DATE FEB 1987
3. INSTALLATION AND LOCATION Lima Army Tank Plant - Lima, Ohio		
4. PROJECT TITLE Lima Army Tank Plant - PS & ER Construction		5. PROJECT NUMBER 4866037
IMPACT IF NOT APPROVED: If these projects are not implemented with respect to POL storage, the potential will continue to exist for the occurrence of a serious environmental incident. If an EMCS installation is not approved, LATP will be mandated to continue operating its energy systems in a less than efficient manner. Failure to accomplish the work on and around the test track will force the plant to continue to accept production interruptions and conduct the M1A1 testing program on a waiver, if it can be provided. <u>SUPPLEMENTAL DATA</u> A. Estimated annual cost to operate proposed facility..... \$96 B. Number of additional personnel necessary to carry out the function of the proposed facility..... 1.5 People C. Estimated life-cycle cost to operate and maintain the desired facility (25-Year Basis)..... \$2,400 D. Estimated life-cycle cost to operate and maintain the existing facility if new facility is a replacement N/A (This is not a replacement facility; it is an expansion to existing facilities). E. Planning and design data (Estimate) 1. Status a. Date design started..... May 22, 1984 b. Percent complete as of 1 January 1984..... 0% c. Percent complete as of 1 October 1985..... N/A d. Date design completed..... April 1985 2. Basis a. Standard or definitive design..... No b. Design Most recently used N/A 3. Cost (Total \$252.) a. Production of plans and specs (6% Limit)..... \$216. b. All other design costs 36. c. Total cost = (a+b) = (d+e)..... 252. d. Contract 216. e. In-House 36. 4. Construction start date (planned)..... April 1986		

1. COMPONENT ARMY		FY 1986		MILITARY CONSTRUCTION PROJECT DATA		2. DATE FEB 1986	
3. INSTALLATION AND LOCATION Mainz Germany				4. PROJECT TITLE Modernization at Mainz Army Depot			
5. PROGRAM ELEMENT		6. CATEGORY CODE 21420		7. PROJECT NUMBER 4862006		8. PROJECT COST (\$000) 7,100	
9. COST ESTIMATES							
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)
Primary Facility							6,433
Maintenance Shop				SF	21,228	194.96	(4,139)
Annex to Building 6008				SF	9,687	115.02	(1,114)
PAISI Building				LS	-	-	(1,180)
Supporting Facilities							0
Subtotal							6,433
Contingency (5.00%)							322
Total Contract Cost							6,755
Supervision, Inspection & Overhead (5.50%)							372
Total Request							7,127
Total Request (Rounded)							7,100
10. Description of Proposed Construction The primary facility to support expansion of MZAD will require dismantling of existing buildings, modification to other existing buildings, annexes and new facilities. The primary facilities work will be performed at the site of the original depot. Basic construction will be of reinforced concrete skeleton and in all cases will be site adapted to existing facilities. In addition, the project will include required utility services, emergency lighting, water purification treatment, compressed air, fire alarm and extinguishing system, partition walls and roof modifications. The hardstands and foundations will be of reinforced concrete. 11. REQUIREMENT: None ADEQUATE: None SUBSTANDARD: None PROJECT: Construction and modification of facilities at Mainz Army Depot to accommodate expanded requirements. The PAISI building will be used to house equipment for road testing of the M113 family and the Bradley Fighting Vehicle. REQUIREMENT: As the Army's Force Modernization Program continues to be implemented throughout USAREUR, the workload in depot level maintenance will also increase. This is due to the increased sophistication of the new systems, the increased equipment density within the Theater, the numerous items displaced to War Reserve or POMCUS status, and conversion to new equipment							

1. COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. DATE FEB 1985
3. INSTALLATION AND LOCATION Mainz, Germany		
4. PROJECT TITLE Modernization at Mainz Army Depot		5. PROJECT NUMBER 4862006
11. REQUIREMENT: (Continued) REQUIREMENT: (Continued) configurations. This will occur in all commodity areas. For most commodities, shipment to CONUS for repair is extremely costly. This is particularly true of Combat Vehicles which are bulky and heavy. In addition, CONUS repair requires that additional items, either end items or secondary items, be procured to increase the repair cycle float by the amount of the turn around required. The most economical approach to accomplish the expanding depot level workload for combat vehicles in USAREUR (and meet AMC's concept for depot level maintenance support in Europe) is to alter and expand the MZAD facility, thereby allowing sufficient space to overhaul/repair combat vehicles. CURRENT SITUATION: The Mainz Army Depot is a very physically constrained facility. The workload for the Weapon systems is presently being met through a subcontracting effort. The additional workload required for the repair/overhaul of the systems cannot be met without modernizing existing facilities by replacing existing temporary facilities with permanent structures and modernizing and expanding support facilities. Mainz is tasked with maintaining, at depot level, Army Combat/Tactical vehicles, missiles and Communication and Electronics in Europe. The only reasonable alternatives to utilizing Mainz is to transfer all repairable combat vehicles and components of vehicles in Europe to a CONUS depot or contractor for the repair/overhaul. These alternatives and the extremely costly maintenance float requirement for combat vehicles and components would cause the US Government to lose all benefits to be gained from existing facilities and IPE at MZAD in relation to the combat vehicle fleet. IMPACT IF NOT PROVIDED: Should this project not be approved, Mainz would be unable to satisfy the repair/overhaul requirements. Failure to provide for the OCONUS maintenance of the USAREUR combat vehicle fleet will result in a significant degradation in the combat readiness of USAREUR or require costly second destination transportation of vehicles and components and necessitates having an extensive maintenance float in Europe. This facility project is necessary to meet an imminent demand for repair/overhaul capability. Delay of the projects will require that interim inefficient (and therefore costly) means be employed to attempt to satisfy the repair/overhaul requirements. 12. SUPPLEMENTAL DATA: A. Estimated Design Data: (1) Status: (a) Date Design Started MAY 84 (b) Percent Complete As Of January 1985 40 (c) Percent Complete As Of October 1985 100 (d) Date Design Complete SEP 85 (2) Basis: (a) Standard or Definitive Design - Yes ___ No <u>X</u>		

1. COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. DATE SEP 1985								
3. INSTALLATION AND LOCATION Mainz, Germany										
4. PROJECT TITLE Modernization at Mainz Army Depot		5. PROJECT NUMBER 4862006								
12. SUPPLEMENTAL DATA: (Continued) A. Estimated Design Data: (Continued) (2) Basis: (Continued) (b) Where Design Was Most Recently Used _____ (3) Total Cost (c) = (a)+(b) or (d)+(e): (\$000) (a) Production of Plans and Specifications _____ (b) All Other Design Costs _____ (c) Total Cost _____ (d) Contract _____ (e) In-house _____ (4) Construction Start <u>JAN 86</u> month & year B. Equipment associated with this project which will be provided from other appropriations: <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left; width: 30%;">Equipment <u>Nomenclature</u></th> <th style="text-align: left; width: 20%;">Procuring <u>Appropriation</u></th> <th style="text-align: left; width: 20%;">Fiscal Year <u>Appropriated</u> <u>Or Requested</u></th> <th style="text-align: left; width: 30%;">Cost <u>(\$000)</u></th> </tr> </thead> <tbody> <tr> <td></td> <td style="text-align: center;">None</td> <td></td> <td></td> </tr> </tbody> </table>			Equipment <u>Nomenclature</u>	Procuring <u>Appropriation</u>	Fiscal Year <u>Appropriated</u> <u>Or Requested</u>	Cost <u>(\$000)</u>		None		
Equipment <u>Nomenclature</u>	Procuring <u>Appropriation</u>	Fiscal Year <u>Appropriated</u> <u>Or Requested</u>	Cost <u>(\$000)</u>							
	None									

DEPARTMENT OF THE ARMY
JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1986
SUMMARY

P-1 Line No: 131

Appropriation: Procurement of Ammunition, Army

Activity 2 - Production Base Support

<u>ARMY AMMUNITION PLANTS (AAP)</u>	<u>PROJECT NO.</u>	<u>PROJECT TITLE</u>	<u>CONSTRUCTION COST ESTIMATE (MILLIONS)</u>	<u>PAGE No.</u>
Holston AAP	5865328-15	Fire Protection Sprinkler System	.320	34
	5862439	Backup Electric Power	1.350	36
Indiana AAP	5865330-19	Convert Ship Houses to Explosive Storage	.210	38
Iowa AAP	5865333-16	Storm Drainage Improvements - Yard L	.810	40
Kansas AAP	5865329-20	Rehabilitate Raw Water Intake	.570	42
Lake City AAP	5865332-16	Enclose Warehouse Loading Docks	.930	44
Louisiana AAP	5865314-18	Replace Explosion Protection Barricade	.370	46
	5865314-21	Herbicide/Pesticide Building	.270	48
Newport AAP	5860079	Binary Component Production Facility	39.000	50
Radford AAP	5865326-14	Replace Air Compressor Building 4333	.390	52
	5865326-15	Replace Explosive Protection Barricades	2.000	54
	5865326-16	General Plant Improve- ments - Alter Building for Nitrocellulose Weighing	.520	56
Sunflower AAP	5860138	Guanidine Nitrate Shipout Facility	<u>.210</u>	58
Ammunition Production Base Construction - TOTAL			46.950 Million	

1 COMPONENT ARMY		FY 1986 MILITARY CONSTRUCTION PROJECT DATA		2 DATE FEB 85	
3 INSTALLATION AND LOCATION Holston Army Ammunition Plant, Tennessee			4 PROJECT TITLE Fire Protection Sprinkler Systems		
5 PROGRAM ELEMENT 78011A	6 CATEGORY CODE 226	7 PROJECT NUMBER (5865328-15) 69	8 PROJECT COST (\$000) 320		
9 COST ESTIMATES					
ITEM	U M	QUANTITY	UNIT COST	COST (\$000)	
Primary Facility Fire Protection Sprinkler System	LS	-	-	221 (221)	
Supporting Facilities Water, Sewer & Gas	LS	-	-	56 (29)	
Valve House/Sprinkler Alarm Sys	LS	-	-	(27)	
Subtotal				277	
Contingency (10.00%)				28	
Total Contract Cost				305	
Supervision, Inspection & Overhead (5.50%)				17	
Total Request				322	
Total Request (Rounded)				320	
Installed Equipment - Other Appropriations				(73)	
10 Description of Proposed Construction Install deluge type, dry pipe, sprinkler systems at four 3-story production buildings, 18 solvent tanks and at the Nutsche shed at Building G-3. Work includes a water supply line, valve house, and installation of sprinkler alarm systems. Existing wet pipe sprinklers located in some areas of these buildings will be removed and replaced with dry pipe deluge systems.					
11. REQUIREMENT: PROJECT: Installation of deluge-type fire protection sprinkler systems at four explosive production buildings. REQUIREMENT: This project is required to provide fire protection sprinkler systems to prevent loss of life or serious injury to workers, to minimize interruption of production, and to protect valuable production equipment and buildings in the event of a fire. CURRENT SITUATION: The operations in these buildings involve explosive recrystallization and the use of highly flammable solvents and are the most hazardous areas at this plant. Existing wet pipe sprinklers need to be replaced with rapid-acting deluge-type systems that are extremely effective in control of chemical fires. IMPACT IF NOT PROVIDED: If this project is not provided, workers will					

1. ELEMENT ARMY		FY 1986 MILITARY CONSTRUCTION PROJECT DATA			2. DATE FER 85	
3. INSTALLATION AND LOCATION Holston Army Ammunition Plant, Tennessee			4. PROJECT TITLE Backup Electric Power			
5. PROGRAM ELEMENT 78011A		6. CATEGORY CODE 226	7. PROJECT NUMBER (5862439) 70		8. PROJECT COST (\$000) 1,350	
9. COST ESTIMATES						
ITEM			U M	QUANTITY	UNIT COST	COST (\$000)
Primary Facility						963
Electric Power Substation			LS	-	-	(168)
Power Lines (34.5 KV & 13.8 KV)			LF	25,100	8.65	(217)
Auto Transfer Switches (31)			LS	-	-	(312)
Transformers (31)			LS	-	-	(266)
Supporting Facilities						258
Electric Service			LS	-	-	(258)
Subtotal						1,221
Contingency (5.00%)						61
Total Contract Cost						1,282
Supervision, Inspection & Overhead (5.50%)						71
Total Request						1,353
Total Request (Rounded)						1,350
Installed Equipment - Other Appropriations						(0)
10. Description of Proposed Construction: Purchase and install all required equipment, cables, and materials to distribute independently from the primary system, backup electric power to 31 production buildings. The work includes substations, power lines, automatic transfer switches, transformers, circuit breakers, cables, conduit, transformer platforms, and all required labor and appurtenances.						
11. REQUIREMENT: PROJECT: Construct backup electric power system for certain explosive production buildings. REQUIREMENT: This project is required to eliminate a safety hazard at this plant and allow continued operation of the plant at the existing intraline quantity distances. CURRENT SITUATION: Production buildings that have processes for acetic acid recovery, nitrolysis, acid wash, recrystallization, process storage and/or surge containment all require continuous pumping and agitation of an explosive slurry mix in various process tanks and vats. The loss of electric power at any of these buildings will cause the pumping and agitation to cease, which will result in the settling of the explosives and a consequent violation of quantity-distance requirements. As long as the agitation of the slurry mix is						

COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2 DATE FEB 85																														
3 INSTALLATION AND LOCATION Holston Army Ammunition Plant, Tennessee																																
4 PROJECT TITLE Backup Electric Power		5 PROJECT NUMBER 70																														
11. REQUIREMENT: (Continued) CURRENT SITUATION: (Continued) maintained, the explosive does not settle and remains non-detonable and therefore, does not add to the total explosive load in the building to create, the safety violation. The installation of a backup power line with the capability of each building being on line in 5 seconds or less upon the loss of the normal power source will alleviate this situation and bring Holston into compliance with this safety requirement. Holston is presently operating under a safety waiver. IMPACT IF NOT PROVIDED: If this project is not provided, Holston AAP must continue to operate under a safety waiver with the continued threat of death and/or injury to production workers and the loss of costly production facilities. ADDITIONAL: An economic analysis of the proposed backup power line versus a system of standby generators has shown that the proposed project is the least costly means of providing the standby power. 12. SUPPLEMENTAL DATA: A. Estimated Design Data: (1) Status: <table style="margin-left: 80px; border: none;"> <tr> <td>(a) Date Design Started</td> <td style="text-align: right;">JAN 85</td> </tr> <tr> <td>(b) Percent Complete As Of January 1985</td> <td style="text-align: right;">00</td> </tr> <tr> <td>(c) Percent Complete As Of October 1985</td> <td style="text-align: right;">100</td> </tr> <tr> <td>(d) Date Design Complete</td> <td style="text-align: right;">OCT 85</td> </tr> </table> (2) Basis: (a) Standard or Definitive Design - Yes ___ No <u>X</u> (b) Where Design Was Most Recently Used _____ (3) Total Cost (c) = (a)+(b) or (d)+(e): (\$000) <table style="margin-left: 80px; border: none;"> <tr> <td>(a) Production of Plans and Specifications</td> <td style="text-align: right;">65.0</td> </tr> <tr> <td>(b) All Other Design Costs</td> <td style="text-align: right;">25</td> </tr> <tr> <td>(c) Total Cost</td> <td style="text-align: right;">90</td> </tr> <tr> <td>(d) Contract</td> <td style="text-align: right;">20.0</td> </tr> <tr> <td>(e) In-house</td> <td style="text-align: right;">70.0</td> </tr> </table> (4) Construction Start JAN 86 month & year B. Equipment associated with this project which will be provided from other appropriations: <table style="margin-left: 100px; border: none; width: 100%;"> <thead> <tr> <th style="text-align: left;">Equipment</th> <th style="text-align: left;">Procuring</th> <th style="text-align: left;">Fiscal Year</th> <th style="text-align: left;">Cost</th> </tr> <tr> <th style="text-align: left;">Nomenclature</th> <th style="text-align: left;">Appropriation</th> <th style="text-align: left;">Appropriation</th> <th style="text-align: left;">Or Requested</th> </tr> </thead> <tbody> <tr> <td></td> <td style="text-align: center;">None</td> <td></td> <td style="text-align: right;">(\$000) _____</td> </tr> </tbody> </table>			(a) Date Design Started	JAN 85	(b) Percent Complete As Of January 1985	00	(c) Percent Complete As Of October 1985	100	(d) Date Design Complete	OCT 85	(a) Production of Plans and Specifications	65.0	(b) All Other Design Costs	25	(c) Total Cost	90	(d) Contract	20.0	(e) In-house	70.0	Equipment	Procuring	Fiscal Year	Cost	Nomenclature	Appropriation	Appropriation	Or Requested		None		(\$000) _____
(a) Date Design Started	JAN 85																															
(b) Percent Complete As Of January 1985	00																															
(c) Percent Complete As Of October 1985	100																															
(d) Date Design Complete	OCT 85																															
(a) Production of Plans and Specifications	65.0																															
(b) All Other Design Costs	25																															
(c) Total Cost	90																															
(d) Contract	20.0																															
(e) In-house	70.0																															
Equipment	Procuring	Fiscal Year	Cost																													
Nomenclature	Appropriation	Appropriation	Or Requested																													
	None		(\$000) _____																													

1 COMPONENT ARMY	FY 19__ MILITARY CONSTRUCTION PROJECT DATA	2 DATE FEB 85
3 INSTALLATION AND LOCATION Newport Army Ammunition Plant, Indiana		
4 PROJECT TITLE Binary Component Production Facility		5 PROJECT NUMBER 18

11. REQUIREMENT: (Continued)
 IMPACT IF NOT PROVIDED: If this project is not provided, the binary chemical munition program cannot be accomplished and the more hazardous single component toxic chemical munitions must continue to be used. Additionally, we will not be able to produce the Bigeye bomb and we will continue to lack a credible chemical retaliatory capability jeopardizing much of our recent investment in improved conventional weaponry by inviting one-sided use of chemicals.

ADDITION:
 A. This project will be executed as a design-construct (turnkey) contract.
 B. The FY 86 MCA request also includes a project for binary munitions at Pine Bluff Arsenal (PN 6602 - Binary Munitions Facility)

12. SUPPLEMENTAL DATA:
 A. Estimated Design Data:
 (1) Status:
 (a) Date Design Started.....Sep 85.
 (b) Percent Complete as of January 1985..... 0
 (c) Percent Complete as of October 1985..... 0
 (d) Date Design Complete.....Dec 86
 (2) Basis:
 (a) Standard or Definitive Design - Yes..... No ...X..
 (b) Where Design was Most Recently Used N/A
 (3) Total Cost (c) = (a)+(b) or (d)+(e): (\$000)
 (a) Production of Plans and Specifications.....2,100
 (b) All Other Design Costs.....1,200
 (c) Total Cost.....3,300
 (d) Contract.....3,100
 (e) In-house..... 200
 (4) Construction Start.....Oct 85

B. Equipment associated with this project which will be provided from other appropriations:

Equipment Nomenclature	Procuring Appropriation	Fiscal Year Appropriated Or Requested	Cost (\$000)
PLANT EQUIPMENT	PAA	FY 86	9000
		TOTAL	9,000

NOTE: Newport Army Ammunition Plant (NAAP) is the preferred option, based on economic analysis, for production of the binary component QL pending Record of Decision to be made upon completion of the supplemental Environmental Impact Statement.

1 COMPONENT ARMY		FY 19__ MILITARY CONSTRUCTION PROJECT DATA		1985	
3 INSTALLATION AND LOCATION Newport Army Ammunition Plant, Indiana			4 PROJECT TITLE Binary Component Production Facility		
5 PROGRAM ELEMENT 73011A	6 CATEGORY CODE 226	7 PROJECT NUMBER (5860079) 18	8 PROJECT COST (\$000) 39,000		
9 COST ESTIMATES					
ITEM	U/M	QUANTITY	UNIT COST	COST	
Primary Facility Binary Component Production Fac				33,175 (33,000)	
Supporting Facilities				0	
Subtotal				33,175	
Contingency (10.00%)				3,318	
Total Contract Cost				36,493	
Supervision, Inspection & Overhead (5.50%)				2,007	
Total Request				38,500	
Total Request (Rounded)				39,000	
Installed Equipment - Other Appropriations				(9,000)	
10 DESCRIPTION OF PROPOSED CONSTRUCTION Rehabilitate and modernize a portion of an unused existing facility to produce a binary chemical munition component. Process to incorporate improvements for safe and efficient operation. Waste treatment equipment will be incorporated to meet environmental requirements. Existing buildings will be modified for laboratory, repair facility, and administrative area. Construct security facilities, and construct and repair roads, pavement and railroad trackage. This is to be a design-construct contract.					
11. REQUIREMENT: PROJECT: Construct alterations to and rehabilitate a portion of an unused existing facility. REQUIREMENT: This project is required to provide the capability to produce a chemical component for a binary chemical munition. CURRENT SITUATION: At the present time, the munitions required for retaliatory military chemical capability are filled with highly toxic chemical agents. The production, handling and storage, and the eventual demolition and disposal of these weapons requires very costly safety and security precautions. Replacement of the existing highly toxic weapons with the safer binary chemical munition will greatly reduce the risks involved in the production, handling, transportation and storage of the chemical weapons. Additionally, this facility will produce a binary component of the Bigeye bomb. This weapon provides a deep strike persistent agent capability that we currently don't have and is required to reestablish a credible chemical warfare deterrent.					

1 COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2 DATE FEB 85																
3 INSTALLATION AND LOCATION Louisiana Army Ammunition Plant, Louisiana																		
4 PROJECT TITLE Herbicide & Pesticide Building	5 PROJECT NUMBER 43																	
11. REQUIREMENT: (Continued) IMPACT IF NOT PROVIDED: (Continued) inadquate facility must continue to be used and the hazard to workers and to the natural environment will persist. ADDITIONAL: An economic analysis of the costs of providing herbicide & pesticide control indicates a saving of more than \$90,000/year by using government forces versus a commercial contract. The analysis included the cost of the proposed project and all labor materials and fringe benefits of government personnel. The cost of the commercial contract was obtained from actual bid prices provided by local companies regularly engaged in the business of pest and vegetation control. 12. SUPPLEMENTAL DATA: A. Estimated Design Data: (1) Status: (a) Date Design Started Nov 83 (b) Percent Complete As Of January 1985 100 (c) Percent Complete As Of October 1985 100 (d) Date Design Complete Dec 84 (2) Basis: (a) Standard or Definitive Design - Yes ___ No <u>X</u> (b) Where Design Was Most Recently Used _____ (3) Total Cost (c) = (a)+(b) or (d)+(e): (\$000) (a) Production of Plans and Specifications 11 (b) All Other Design Costs 6 (c) Total Cost 17 (d) Contract 0 (e) In-house 17 (4) Construction Start Jan 86 month & year B. Equipment associated with this project which will be provided from other appropriations: <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left;">Equipment</th> <th style="text-align: left;">Procuring</th> <th style="text-align: left;">Fiscal Year</th> <th style="text-align: left;">Cost</th> </tr> <tr> <th style="text-align: left;"><u>None</u></th> <th style="text-align: left;"><u>Appropriation</u></th> <th style="text-align: left;"><u>Appropriated</u></th> <th style="text-align: left;"><u>Or Requested</u></th> </tr> <tr> <th style="text-align: left;"><u>None</u></th> <th style="text-align: left;"><u>None</u></th> <th style="text-align: left;"><u>Or Requested</u></th> <th style="text-align: left;"><u>(\$000)</u></th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Equipment	Procuring	Fiscal Year	Cost	<u>None</u>	<u>Appropriation</u>	<u>Appropriated</u>	<u>Or Requested</u>	<u>None</u>	<u>None</u>	<u>Or Requested</u>	<u>(\$000)</u>				
Equipment	Procuring	Fiscal Year	Cost															
<u>None</u>	<u>Appropriation</u>	<u>Appropriated</u>	<u>Or Requested</u>															
<u>None</u>	<u>None</u>	<u>Or Requested</u>	<u>(\$000)</u>															

1 COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA			2 DATE FEB 85
3 INSTALLATION AND LOCATION Louisiana Army Ammunition Plant, Louisiana		4 PROJECT TITLE Herbicide & Pesticide Building		
5 PROGRAM ELEMENT 78011A	6 CATEGORY CODE 219	7 PROJECT NUMBER (5865314-21) 43	8 PROJECT COST (\$000) 270	
9 COST ESTIMATES				
ITEM	U. M.	QUANTITY	UNIT COST	COST (\$000)
Primary Facility				168
Building Construction	SF	1,800	93.10	(168)
Supporting Facilities				75
Electric Service	LS	-	-	(11)
Water, Sewer & Gas	LS	-	-	(19)
Paving, Walks, Curbs & Gutters	LS	-	-	(37)
Communication	LS	-	-	(2)
Wastewater Holding Tank	LS	-	-	(6)
Subtotal				243
Contingency (5.00%)				12
Total Contract Cost				255
Supervision, Inspection & Overhead (5.50%)				14
Total Request				269
Total Request (Rounded)				270
Installed Equipment - Other Appropriations				(0)
10 Description of Proposed Construction Construct 30'x60' building for mixing and storing herbicides & pesticides. Building to include mixing and storage areas, personnel change area with storage for contaminated clothing, and a shower and street-clothes change area. Work to include a vehicle drive-thru area for tank filling and washout, spill control provisions with collection systems and storage tank for chemical spills and wash-water, required utilities, and site work.				
11. REQUIREMENT: PROJECT: Construct herbicide & pesticide mixing and storage facility. REQUIREMENT: A safe and adequate facility is needed to mix and store herbicides and pesticides to minimize the danger to personnel engaged in those activities and to prevent damage to the natural environment. CURRENT SITUATION: Herbicide and pesticide operations are now conducted from a portion of an abandoned heavy equipment shed that is too small in area, has no spill containment facilities, lacks adequate facilities for removal and storage of contaminated clothing, has no shower facilities and does not meet local, state or federal regulations governing the handling and storage of such hazardous chemicals. IMPACT IF NOT PROVIDED: If this project is not provided, the existing				

1 COMPONENT ARMY		FY 1986 MILITARY CONSTRUCTION PROJECT DATA			2 DATE FEB 85	
3 INSTALLATION AND LOCATION Louisiana Army Ammunition Plant, Louisiana			4 PROJECT TITLE Replace Explosion Protection Barricade			
5 PROGRAM ELEMENT 78011A		6 CATEGORY CODE 226	7 PROJECT NUMBER (5865314-18) 42		8 PROJECT COST (\$000) 370	
9 COST ESTIMATES						
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)	
Primary Facility					330	
Reinforced Concrete Barricade		LF	443	329.00	(146)	
Earthwork		CY	7,125	13.20	(94)	
Demolition		LS	-	-	(90)	
Supporting Facilities					0	
Subtotal					330	
Contingency (5.00%)					17	
Total Contract Cost					347	
Supervision, Inspection & Overhead (5.50%)					19	
Total Request					366	
Total Request (Rounded)					370	
Installed Equipment - Other Appropriations					(0)	
10 Description of Proposed Construction Demolish existing deteriorated timber barricade (36' wide x 20' high x 370' long) and replace with reinforced concrete structure. All utility services and/or process piping passing through the barricade is to be provided for in the new concrete barricade.						
11. REQUIREMENT: PROJECT: Demolish existing explosion protection barricade and construct new barricade of reinforced concrete and earth. REQUIREMENT: Deteriorated explosion protection barricade requires replacement. Adequate, safe barricades are required between explosive production buildings to protect workers and the critical and expensive production facilities. CURRENT SITUATION: The existing barricade was built in the early 1940's and its age and the effects of weathering have resulted in deterioration to the extent that the barricade's structural integrity cannot be assured in the event of an explosive mishap. If the barricade collapsed, it would block the rail line to a major production area of the plant and its subsequent removal and replacement would result in loss of production output for several months. IMPACT IF NOT PROVIDED: If this project is not provided, the failure of the existing barricade in the event of an explosive incident could result in						

COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	DATE FEB 85								
3. INSTALLATION AND LOCATION Kansas Army Ammunition Plant, Kansas										
4. PROJECT TITLE Rehabilitate Raw Water Intake		5. PROJECT NUMBER 32								
12. SUPPLEMENTAL DATA: A. Estimated Design Data: (1) Status: (a) Date Design Started Nov 83 (b) Percent Complete As Of January 1985 90 (c) Percent Complete As Of October 1985 100 (d) Date Design Complete Feb 85 (2) Basis: (a) Standard or Definitive Design - Yes ___ No <u>X</u> (b) Where Design Was Most Recently Used _____ (3) Total Cost (c) = (a)+(b) or (d)+(e): (\$000) (a) Production of Plans and Specifications 20 (b) All Other Design Costs 10 (c) Total Cost 30 (d) Contract 20 (e) In-house 10 (4) Construction Start Oct 85 month & year B. Equipment associated with this project which will be provided from other appropriations: <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left;">Equipment Nomenclature</th> <th style="text-align: left;">Procuring Appropriation</th> <th style="text-align: left;">Fiscal Year Appropriated Or Requested</th> <th style="text-align: left;">Cost (\$000)</th> </tr> </thead> <tbody> <tr> <td></td> <td style="text-align: center;">None</td> <td></td> <td></td> </tr> </tbody> </table>			Equipment Nomenclature	Procuring Appropriation	Fiscal Year Appropriated Or Requested	Cost (\$000)		None		
Equipment Nomenclature	Procuring Appropriation	Fiscal Year Appropriated Or Requested	Cost (\$000)							
	None									

1 COMPONENT ARMY		FY 1985 MILITARY CONSTRUCTION PROJECT DATA			2 DATE FEB 85	
3 INSTALLATION AND LOCATION Kansas Army Ammunition Plant, Kansas			4 PROJECT TITLE Rehabilitate Raw Water Intake			
5 PROGRAM ELEMENT 78011A		6 CATEGORY CODE 841	7 PROJECT NUMBER (5865329-20) 32		8 PROJECT COST (\$000) 570	
9 COST ESTIMATES						
ITEM			U M	QUANTITY	UNIT COST	COST (\$000)
Primary Facility						494
Stone Fill-Revetment			TN	20,075	14.71	(295)
Stone Fill-Baffle Dike			TN	1,100	14.71	(16)
Stone Fill-Dike			TN	1,600	14.71	(24)
Dredging (Channel Restoration)			CY	20,000	7.95	(159)
Supporting Facilities						24
Site Improvement			LS	-	-	(24)
Subtotal						518
Contingency (5.00%)						26
Total Contract Cost						544
Supervision, Inspection & Overhead (5.50%)						30
Total Request						574
Total Request (Rounded)						570
Installed Equipment - Other Appropriations						(0)
10 Description of Proposed Construction Rehabilitate the east bank of the Neosho River north of the water intake pool to return the river back to its original flow pattern. Clear the intake pool of silt and sludge and clean clogged intake pipes. Repair the damage to the existing dam, particularly the east end that is being eroded away.						
11. REQUIREMENT: PROJECT: Rehabilitate the raw water intake at the Water Filtration Plant at Kansas AAP. REQUIREMENT: This project is required to ensure the maintenance of an adequate water supply for ammunition production operations at this AAP. CURRENT SITUATION: During the 42 years that this water plant has been operating, the channel of the Neosho River has shifted due to gradual deterioration of the east bank. The change of water flow has resulted in the silting-in of the water intake pool and subsequent clogging of the water intake pipes. The dam used to form the intake pool has also suffered erosion damage and is in need of repair. Restoration of the existing facility is the most economical means of providing an adequate water supply. IMPACT IF NOT PROVIDED: If this project is not provided, the water needed for production will eventually be cut off and the operations shut down.						

1 COMPONENT ARMY		FY 1986 MILITARY CONSTRUCTION PROJECT DATA		2 DATE FEB 85	
3 INSTALLATION AND LOCATION Iowa Army Ammunition Plant, Iowa			4 PROJECT TITLE Storm Drainage Improvements - Yard L		
5 PROGRAM ELEMENT 78011A	6 CATEGORY CODE 871	7 PROJECT NUMBER (5865333-16) 45	8 PROJECT COST (\$000) 810		
9 COST ESTIMATES					
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)	
Primary Facility					
Area Inlets w/Frame & Grate	EA	42	1,274	596 (54)	
Manhole w/Frame & Cover	EA	2	1,350	(3)	
Remove/Replace Building Drains	LS	-	-	(42)	
Demolish & Rebuild Conc Flumes	LF	9,234	40.80	(377)	
Storm Drainage Piping	LS	-	-	(120)	
Supporting Facilities					
Site Improvement (88) Demolition (45)	LS	-	-	133 (133)	
Subtotal				729	
Contingency (5.00%)				36	
Total Contract Cost				765	
Supervision, Inspection & Overhead (5.50%)				42	
Total Request				807	
Total Request (Rounded)				810	
Installed Equipment - Other Appropriations				(0)	
10 Description of Proposed Construction: Construct storm drainage facilities for Yard-L. Demolish existing drainage piping and structures where required. Work includes excavation, grading, and site work.					
11. REQUIREMENT:					
PROJECT: Construct storm drainage facilities to adequately drain Yard-L, its road net, and railroad trackage.					
REQUIREMENT: An adequate storm drainage system is needed for Yard-L.					
CURRENT SITUATION: Yard-L is an existing storage yard for inert ammunition components and related production support items. It covers approximately 1/2 square mile of area and has 3.8 miles of road net and 6.0 miles of railroad trackage. The existing system of storm drains and ditching was constructed during World War II and 40 years of erosion have resulted in the need to renovate/replace the system. At the present time, water ponds in many areas, damages stored materials and undermines the road net and the railroad trackage and foundations of structures. This project will restore the yard area with an adequate drainage system that should last for another 50 years or so.					
IMPACT IF NOT PROVIDED: If this project is not provided, the drainage problems can only get worse and damage to roads and trackage will continue to result in excessive maintenance and operating costs.					

1 COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA			2 DATE FEB 85
3 INSTALLATION AND LOCATION Indiana Army Ammunition Plant, Indiana			4 PROJECT TITLE Convert Shiphouses to Explosive Storage	
5 PROGRAM ELEMENT 78011A	6 CATEGORY CODE 226	7 PROJECT NUMBER (5865330-19) 45	8 PROJECT COST (\$000) 210	
9 COST ESTIMATES				
ITEM	U M	QUANTITY	UNIT COST	COST (\$000)
<u>Primary Facility</u>				121
Alter Shiphouses (8 EA)	SF	26,160	3.14	(82)
Access Roads	LS	-	-	(39)
 <u>Supporting Facilities</u>				 67
Storm Drainage	LS	-	-	(8)
Site Improvement	LS	-	-	(57)
Railroad Crossings & Wheel Stops	LS	-	-	(2)
 Subtotal				 188
Contingency (5.00%)				9
Total Contract Cost				197
Supervision, Inspection & Overhead (5.50%)				11
Total Request				208
Total Request (Rounded)				210
Installed Equipment - Other Appropriations				(0)
10 Description of Proposed Construction: Construct alterations to eight (8) shiphouses to convert them to explosive storage facilities. Work includes reinforcement of floors, cargo doors, access roads and turnaround pads, storm drainage, grading and site work.				
11. REQUIREMENT: PROJECT: Convert eight (8) shiphouses to explosive storage facilities and construct trailer-truck access roads. REQUIREMENT: Increased production quotas require that all available facilities be used for explosive storage, Class 1.3. Of the 238 facilities available, all but 64 are adequate and have trailer-truck access. This project will convert eight (8) of the 64 limited access rail shiphouses to Class 1.3, and provide truck access routes and reinforce the floors of the buildings to permit the use of forklift trucks to expedite loading/unloading operations. An economic analysis indicates that the conversion of the 8 shiphouses requested herein will save \$185,680 per year. CURRENT SITUATION: This plant now lacks adequate facilities for the temporary storage of the end product to meet production quotas. Additional projects will be included in future year requests for conversion of the other limited access shiphouses.				

COMPONENT ARMY		FY 1986 MILITARY CONSTRUCTION PROJECT DATA			2 DATE FER 85	
3 INSTALLATION AND LOCATION Radford Army Ammunition Plant, Virginia				4 PROJECT TITLE Replace Air Compressor - Building 4333		
5 PROGRAM ELEMENT 78011A		6 CATEGORY CODE 226		7 PROJECT NUMBER (5865326-14) 93		8 PROJECT COST (\$000) 390
9 COST ESTIMATES						
ITEM				U-M	QUANTITY	UNIT COST
<u>Primary Facility</u>						291
Building Alterations				SF	1,200	6.67 (8)
Air Compressor				EA	1	184,100 (184)
Piping, Valves & Fittings				LS	-	(22)
Electric Power (interior)				LS	-	(77)
<u>Supporting Facilities</u>						64
Electric Service				LS	-	(16)
Site Improvement (0) Demolition				LS	-	(19)
Transformer & Appurtenances				LS	-	(29)
Subtotal						355
Contingency (5.00%)						18
Total Contract Cost						373
Supervision, Inspection & Overhead (5.50%)						21
Total Request						394
Total Request (Rounded)						390
Installed Equipment - Other Appropriations						(0)
10 Description of Proposed Construction Procure and install one replacement electric motor driven air compressor with auxiliaries, piping, motor controls, power wiring, and concrete foundation. Rearrange 440 volt electric power supply substation, and procure and install replacement 12,470/2,300 volt power supply substation.						
11. REQUIREMENT: PROJECT: Furnish and install new air compressor in Building 4333 and upgrade electric power source. REQUIREMENT: This project is required to replace one of two large air compressors that serve the Cast Area of the plant. CURRENT SITUATION: Both existing air compressors were built in 1951 and have exceeded their normal life expectancy. Their worn condition is such that a major overhaul is required annually. The compressor to be replaced by this project cannot be rebored and rebuilt because of the great wear in the low-pressure cylinder. The upgrade proposed for the electric power will provide sufficient electric power to run the new compressor and for the replacement of the second compressor in a future program request. IMPACT IF NOT PROVIDED: If this project is not provided, the failure of the compressed air supply system could result in Cast Area production curtailment						

[illegible]

1 COMPONENT ARMY		FY 1986 MILITARY CONSTRUCTION PROJECT DATA			2 DATE FEB 85	
3 INSTALLATION AND LOCATION Radford Army Ammunition Plant, Virginia			4 PROJECT TITLE Replace Explosion Protection Barricades			
5 PROGRAM ELEMENT 78011A		6 CATEGORY CODE 226		7 PROJECT NUMBER (5865326-15) 92		8 PROJECT COST (\$000) 2,000
9 COST ESTIMATES						
ITEM			U M	QUANTITY	UNIT COST	COST (\$000)
Primary Facility Barricades (10)			LS	-	-	1,429 (1,429)
Supporting Facilities						380
Electric Service			LS	-	-	(51)
Site Improvement (0) Demolition (123)			LS	-	-	(123)
Utilities			LS	-	-	(206)
Subtotal						1,809
Contingency (5.00%)						90
Total Contract Cost						1,899
Supervision, Inspection & Overhead (5.50%)						104
Total Request						2,003
Total Request (Rounded)						2,000
Installed Equipment - Other Appropriations						(0)
10 Description of Proposed Construction Remove and replace barricades at ten (10) active propellant production buildings. Work includes removal and reinstallation of utilities, process piping, and duct work attached to or passing through the barricades, removal and replacement of attached roofs, floor structures, and escape chutes, and the upgrade of electrical wiring and lighting.						
11. REQUIREMENT: PROJECT: Replacement of ten (10) double-revetted, wooden, earth-filled barricades at Radford Army Ammunition Plant (AAP). This project is the seventh increment of an annual barricade replacement program at this plant. REQUIREMENT: This project is required to provide adequate, safe explosion protection barricades to enable the plant to operate within existing intraline quantity distances. CURRENT SITUATION: Most of the barricades at this plant were constructed in 1940-41 and for some time now it has been necessary to do extensive repair work each year to keep them in a structurally safe and sound condition. Because of the accelerating rate of deterioration, repair can no longer keep pace with requirements. Radford has 240 barricades at explosive production buildings that are required to maintain current and mobilization production schedules. Of this number, 142 can be maintained in satisfactory condition for						

COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA			2 DATE FEB 85
3 INSTALLATION AND LOCATION Radford Army Ammunition Plant, Virginia			4 PROJECT TITLE Alter Building for Nitrocellulose Weighing	
5 PROGRAM ELEMENT 78011A	6 CATEGORY CODE 226	7 PROJECT NUMBER (5865326-16) 94	8 PROJECT COST (\$000) 520	
9 COST ESTIMATES				
ITEM	U. M.	QUANTITY	UNIT COST	COST (\$000)
<u>Primary Facility</u>				345
Struct/Architect Alterations	LS	-	-	(114)
Plumbing, Emerg Shower, Eyewash	LS	-	-	(18)
Alcohol Piping & Appurtenances	LS	-	-	(39)
Mech Vent, Sprinklers, Valves, Pipes	LS	-	-	(124)
Elec Work, Starters, Motor Cntrls	LS	-	-	(50)
<u>Supporting Facilities</u>				128
Electric Service	LS	-	-	(24)
Site Improvement (21) Demolition (21)	LS	-	-	(42)
Utility Poles, Emerg Exits/Stairs	LS	-	-	(62)
Subtotal				473
Contingency (5.00%)				24
Total Contract Cost				497
Supervision, Inspection & Overhead (5.50%)				27
Total Request				524
Total Request (Rounded)				520
Installed Equipment - Other Appropriations				(0)
10 Description of Proposed Construction Construct structural and architectural alterations to Building 1900. Work includes modification and upgrade of all building systems (heating, lighting, ventilating, etc.), the upgrade of utilities, and the provision of necessary emergency exits and stairs.				
11. REQUIREMENT: PROJECT: Alter building 1900 for nitrocellulose weighing. REQUIREMENT: This project is required to eliminate the need to transport nitrocellulose to the Cast Area of the plant for weighing prior to premix operations. CURRENT SITUATION: The nitrocellulose (gun cotton) must now be transported to Building 4912-29 for weighing prior to going to the premix operation in Building 3650. The proposed construction will increase operational efficiency, minimize hazardous operations and effect savings of more than \$100,000 annually in transportation and labor costs. IMPACT IF NOT PROVIDED: If this project is not provided, the increase in operating efficiency, lowering of hazardous operations and the estimated dollar savings cannot be realized.				
12. SUPPLEMENTAL DATA:				

COMPONENT ARMY		FY 1986 MILITARY CONSTRUCTION PROJECT DATA			2 DATE FEB 85	
3 INSTALLATION AND LOCATION Sunflower Army Ammunition Plant, Kansas			4 PROJECT TITLE Guanidine Nitrate Ship-Out Facility			
5 PROGRAM ELEMENT 78011A		6 CATEGORY CODE 226	7 PROJECT NUMBER (5860138) 28		8 PROJECT COST (\$000) 210	
9 COST ESTIMATES						
ITEM		U M	QUANTITY	UNIT COST	COST (\$000)	
<u>Primary Facility</u>					143	
Alter Existing Building		LS	-	-	(10)	
Building Addition		SF	960	134.50	(129)	
Concrete Ramps		EA	2	1,000	(2)	
Clean-up Water Sump		EA	1	2,000	(2)	
<u>Supporting Facilities</u>					45	
Electric Service		LS	-	-	(5)	
Water, Sewer & Gas		LS	-	-	(28)	
Paving, Walks, Curbs & Gutters		LS	-	-	(4)	
Site Improvement		LS	-	-	(8)	
Subtotal					188	
Contingency (5.00%)					9	
Total Contract Cost					197	
Supervision, Inspection & Overhead (5.50%)					11	
Total Request					208	
Total Request (Rounded)					210	
Installed Equipment - Other Appropriations					(200)	
10 Description of Proposed Construction: Construct addition to Building 9015 and perform alterations to the existing building. Work to include concrete ramps, a clean-up water sump, extension of utility services, access road, and site work. 11. REQUIREMENT: PROJECT: Construct building addition. REQUIREMENT: This project is required to provide a facility for packing and shipping an intermediate chemical product that is produced here. CURRENT SITUATION: Guanidine Nitrate (GN) is an intermediate product in the manufacture of Nitroguanidine (NQ) and the basic ingredient in the manufacture of Triaminoguanidine Nitrate (TAGN). Sunflower AAP is the sole source of GN in North America and the proposed project is needed to provide a shipping facility to distribute GN to ammunition plants engaged in the the manufacture of TAGN, which is an ingredient in certain propellant formations. IMPACT IF NOT PROVIDED: If this project is not provided, the mission to produce newly developed propellants at other plants cannot be accomplished. 12. SUPPLEMENTAL DATA: A. Estimated Design Data: (1) Status:						

COMPONENT ARMY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	DATE FEB 85
3 INSTALLATION AND LOCATION Sunflower Army Ammunition Plant, Kansas		
4 PROJECT TITLE Guanidine Nitrate Ship-Out Facility		5 PROJECT NUMBER 28

12. SUPPLEMENTAL DATA: (Continued)

A. Estimated Design Data: (Continued)

(1) Status: (Continued)

(a) Date Design Started Mar 85

(b) Percent Complete As Of January 1985 0

(c) Percent Complete As Of October 1985 100

(d) Date Design Complete Aug 85

(2) Basis:

(a) Standard or Definitive Design - Yes ___ No X

(b) Where Design Was Most Recently Used

(3) Total Cost (c) = (a)+(b) or (d)+(e): (\$000)

(a) Production of Plans and Specifications 11

(b) All Other Design Costs 20

(c) Total Cost 31

(d) Contract 0

(e) In-house 31

(4) Construction Start Jan 86
month & year

B. Equipment associated with this project which will be provided from other appropriations:

Equipment	Procuring	Fiscal Year	Cost
Name/Signature	Appropriation	Appropriated	Or Requested
			(\$000)
BAG/WGT EQUIPMENT	FAA	86	200
		TOTAL	200

END

FILMED

5-85

DTIC