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DEPARTMENT OF THE ARMY JUSTIFICATION OF ESTIMATES FOR
FISCAL YEARS 1988/1 (U) DEPUTY CHIEF OF STAFF FOR
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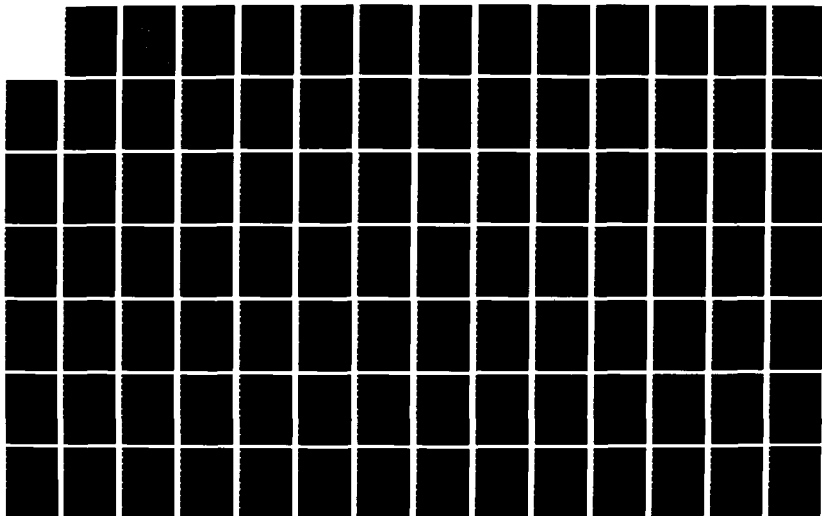
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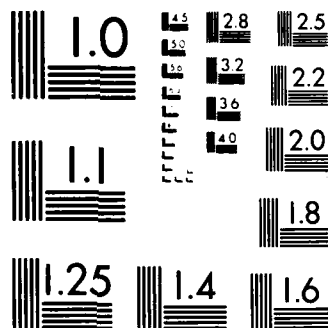
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

DEPARTMENT OF THE ARMY

JUSTIFICATION OF ESTIMATES FOR FISCAL YEARS 1988/1989

PROCUREMENT APPROPRIATIONS-CONSTRUCTION PROGRAM

SUBMITTED TO CONGRESS

JANUARY 1987



DD FORMS 1391

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DEPARTMENT OF THE ARMY
Office of the Deputy Chief of Staff
for
Research, Development and Acquisition

DEPARTMENT OF THE ARMY
JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1988/1989

FY 1988 - PRODUCTION BASE SUPPORT

P-1 Line No: 32

APPROPRIATION: Procurement of Missiles, Army

<u>Installation</u>	<u>Project No.</u>	<u>Project Title</u>	<u>Cost Estimate (\$000)</u>	<u>Page No.</u>
Redstone Arsenal, Alabama	8822290-1	Modernization, Propellant Deaeration	1.250	2
Redstone Arsenal, Alabama	8822290-2	Modernization, Small Motor Finishing	1.850	6

Accession For	
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Unannounced	☐
Justification	
By _____	
Distribution /	
Availability Codes	
Distribution /	
Dist _____	
A-1	



1. COMPONENT ARMY	FY 19 88	MILITARY CONSTRUCTION PROJECT DATA		2. DATE JAN 1987
3. INSTALLATION AND LOCATION REDSTONE ARSENAL--MICOM Alabama		4. PROJECT TITLE Modernization Propellant Deaeration (K)		
5. PROGRAM ELEMENT Production B	6. CATEGORY CODE 222 90	7. PROJECT NUMBER TEMP 2209-1	8. PROJECT COST (\$000) 1,250	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY Propellant Deaeration		SF	3,150	292.00 (920)
SUPPORT FACILITIES				147
Electric Service		LS	--	-- (14)
Water, Sewer & Gas		LS	--	-- (16)
Steam, Chilled Water & Heat Dist		LS	--	-- (38)
Paving, Walks, Curbs & Gutters		LS	--	-- (31)
Site Imp(48)Demo()		LS	--	-- (48)
SUBTOTAL				1,067
CONTINGENCY PERCENT (10.00%)				107
TOTAL CONTRACT COST				1,174
SUPERVISION, INSPECT & OVHD (5.60%)				66
TOTAL REQUEST				1,240
TOTAL REQUEST (ROUNDED)				1,250
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10. Description of Proposed Construction				
This project provides a propellant deaeration building for efficient production of solid rocket motors. It replaces facilities which were designed in 1938-1942 for making artillery shells.				
11. REQUIREMENT: 3,150 SF ADEQUATE: SF SUBSTD: 0 SF PROJECT : This project is for the replacement of a building that provides the mechanical air removal from propellant prior to its casting into rocket motors. It also provides a support area for the clean up of equipment used in the casting process. The building is designed for 1.1 hazard class propellant and complies with intraline building spacing and revetment protection safety requirements.				

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION REDSTONE ARSENAL--MICOM Alabama		
4. PROJECT TITLE Modernization Propellant Deaeration (K)		5. PROJECT NUMBER TEMP 2209-1
REQUIREMENT : This facility is required in close proximity to the rocket motor casting operation. It provides a preparation area for both propellant and equipment to assure quality of the product, cleanliness of equipment and safety during the casting process. The current facility has deteriorated to a point where it is no longer feasible to repair it to meet safety and efficiency standards. The newer 1.1 hazard class propellants required for present and future tactical rocket motors demand higher safety standards and are not compatible with current 1.3 hazard class propellants. Increased safety requirements for 1.1 class propellants specified in AMCR 385-100 will be met with the new facility. CURRENT SITUATION : Rocket motor manufacturing and loading is now being performed in buildings designed for artillery shell loading in 1938-1942. Some additional facilities were provided in the late 1950's. They were designed for 1.3 hazard type propellants. The new 1.1 hazard type propellant has more demanding building safety requirements, greater spacing between buildings, and is not compatible with present 1.3 hazard type propellant. The present building has deteriorated to a point where it is no longer economically feasible to maintain it to sustain a safe production capability for small rocket motors. IMPACT IF NOT PROVIDED : If not provided the current facility will require extensive above normal maintenance and will require evaluation for safety waivers to remain a useful production facility. Production efficiencies resulting from balanced production line capacity will not be realized. Ultimately the current facility will not be able to provide the temperature and atmospheric controls necessary to produce 1.1 class propellant. ADDITIONAL : This project is part of a modernization program begun in 1985 to provide upgrade the government owned capability to produce small rocket motors. New		

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION REDSTONE ARSENAL--MICOM Alabama														
4. PROJECT TITLE Modernization Propellant Deaeration (K)		5. PROJECT NUMBER TEMP 2209-1												
rocket systems require that 1.3 class facilities be replaced by facilities capable of housing 1.1 class operations. THOMAS D. REESE Major General, USA Commanding <table border="0"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>OCTOBER</td> <td>1987</td> <td>INDEX: 1555</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>JULY</td> <td>1988</td> <td>INDEX: 1590</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	OCTOBER	1987	INDEX: 1555	ESTIMATED MIDPOINT OF CONSTRUCTION:	JULY	1988	INDEX: 1590	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623
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ESTIMATED MIDPOINT OF CONSTRUCTION:	JULY	1988	INDEX: 1590											
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623											

1. COMPONENT ARMY	FY 19⁸⁸ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION REDSTONE ARSENAL--MICOM Alabama		
4. PROJECT TITLE Modernization Propellant Deaeration (K)		5. PROJECT NUMBER TEMP 2209-1

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY	35
	(\$000)
B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY.....	4
	(PEOPLE)
C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY.....	1000
	(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....	(\$000)
E. PLANNING AND DESIGN DATA (ESTIMATE)	
1. STATUS	
a. DATE DESIGN STARTED.....	JUL 84
b. PERCENT COMPLETE AS OF JANUARY 15 1987..	100
c. PERCENT COMPLETE AS OF OCTOBER 1 1987..	100
d. DATE DESIGN COMPLETED.....	DEC 86
2. BASIS	
a. STANDARD OR DEFINITIVE DESIGN YES X NO	
b. WHERE DESIGN WAS MOST RECENTLY USED:	
3. COST (TOTAL - \$000)	
a. PRODUCTION OF PLANS AND SPECS	
b. ALL OTHER DESIGN COSTS.....	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	
d. CONTRACT.....	
e. IN HOUSE.....	
4. CONSTRUCTION START DATE (PLANNED).....	OCT 87

1. COMPONENT ARMY	FY 19 88	MILITARY CONSTRUCTION PROJECT DATA		2. DATE JAN 1987
3. INSTALLATION AND LOCATION REDSTONE ARSENAL Alabama		4. PROJECT TITLE Modernization Small Motor Finishing (S)		
5. PROGRAM ELEMENT	6. CATEGORY CODE 222 90	7. PROJECT NUMBER TEMP 2209-2	8. PROJECT COST (\$000) 1,850	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY				
Small Motor Finishing Building	sf	4,200	355.95	(1,495)
SUPPORT FACILITIES				
Electric Service	LS	--	--	(29)
Water, Sewer & Gas	LS	--	--	(18)
Steam, Chilled Water & Heat Dist	LS	--	--	(12)
Paving, Walks, Curbs & Gutters	LS	--	--	(39)
SUBTOTAL				
				1,593
CONTINGENCY PERCENT (10.00%)				159
TOTAL CONTRACT COST				1,752
SUPERVISION, INSPECT & OVHD (5.60%)				98
TOTAL REQUEST				1,850
TOTAL REQUEST (ROUNDED)				1,850
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10. Description of Proposed Construction				
This building provides small motor finishing operations for 1.1 and 1.3 hazard classification solid rocket motors. Safety requirements in AMCR 385-100 will be met. Building will be heated and air conditioned.				
11. REQUIREMENT: 4,200 SF ADEQUATE: 0 SF SUBSTD: 0 SF PROJECT :				
This building is needed for finishing operations for 1.1 motors loaded, cured, and assembled elsewhere in this line.				

1. COMPONENT ARMY		FY 1988 MILITARY CONSTRUCTION PROJECT DATA		2. DATE JAN 1987													
3. INSTALLATION AND LOCATION REDSTONE ARSENAL Alabama																	
4. PROJECT TITLE Modernization Small Motor Finishing (S)				5. PROJECT NUMBER TEMP 2209-2													
REQUIREMENT : This facility is the only means to support 1.1 low smoke/minimum smoke rocket motors in the north plant. CURRENT SITUATION : Solid rocket motors are being manufactured in modified buildings designed for artillery shell loading during 1938 to 1942 (1.3 hazard class propellants). 1.1 propellants are more demanding in safety requirements and are not compatible with 1.3 propellants. Continued impacts of safety constraints have made work arounds for 1.1 propellants unfeasible. IMPACT IF NOT PROVIDED : Safety requirements cannot be met for small rocket motors. THOMAS D. REESE Major General, USA Commanding <table> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1988</td> <td>INDEX: 1575</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1988</td> <td>INDEX: 1605</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> </table>						ESTIMATED CONSTRUCTION START:	APRIL	1988	INDEX: 1575	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623
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ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605														
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623														

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION REDSTONE ARSENAL Alabama		
4. PROJECT TITLE Modernization Small Motor Finishing (S)	5. PROJECT NUMBER TEMP 2209-2	

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY	150
	(\$000)
B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY.....	(PEOPLE)
C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY.....	3750
	(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....	(\$000)
E. PLANNING AND DESIGN DATA (ESTIMATE)	
1. STATUS	
a. DATE DESIGN STARTED.....	JUL 84
b. PERCENT COMPLETE AS OF JANUARY 15 1987..	100
c. PERCENT COMPLETE AS OF OCTOBER 1 1987..	100
d. DATE DESIGN COMPLETED.....	DEC 86
2. BASIS	
a. STANDARD OR DEFINITIVE DESIGN YES NO X	
b. WHERE DESIGN WAS MOST RECENTLY USED:	
3. COST (TOTAL - \$000)	
a. PRODUCTION OF PLANS AND SPECS	
b. ALL OTHER DESIGN COSTS.....	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	
d. CONTRACT.....	
e. IN HOUSE.....	
4. CONSTRUCTION START DATE (PLANNED).....	APR 88

DEPARTMENT OF THE ARMY
JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1988/1989

FY 1988 - PRODUCTION BASE SUPPORT

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 (\$000)</u>	<u>Page No.</u>
Mainz Germany	882006	Facilitization at Main Army Depot	1.050	10

FY 1989 - PRODUCTION BASE SUPPORT

Mainz Germany	882006	Facilitization at Main Army Depot	5.300	13
Lima Army Tank Plant	~~882006~~ 892006	PSEER Constrcution	6.000	17

1. COMPONENT ARMY		FY 19 88		MILITARY CONSTRUCTION PROJECT DATA		2. DATE JAN 1987	
3. INSTALLATION AND LOCATION MAINZ Germany				4. PROJECT TITLE Facilitization at Mainz Army Depot			
5. PROGRAM ELEMENT		6. CATEGORY CODE 000 00		7. PROJECT NUMBER TEMP G882006		8. PROJECT COST (\$000) 1,050	
9. COST ESTIMATES							
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY Main Steam & Condensate Lines (Gonsenheim)				LF	2,080	453.85	944 944)
SUPPORT FACILITIES							
SUBTOTAL							944
CONTINGENCY PERCENT (5.00%)							47
TOTAL CONTRACT COST							991
SUPERVISION, INSPECT & OVHD (6.50%)							64
TOTAL REQUEST							1,055
TOTAL REQUEST (ROUNDED)							1,050
INSTALLED EQUIPMENT-OTHER APPROP							0)
10. Description of Proposed Construction							
Installation of steam and condensate main lines to include excavation of ground, installation of the piping, and restoration of areas including by-works.							
11. REQUIREMENT: ADEQUATE: SUBSTD: PROJECT : Installation of new steam and condensate lines at the Gonsenheim facility. This project will preclude the need to purchase replacement small individual boilers for facilities not located near to existing steam lines. REQUIREMENT : Because some facilities at the Gonsenheim site are not located next to existing steam lines, they require small individual boilers for steam supplies. The existing boiler plant has sufficient capacity to support these facilities but requires some new steam and condensate return lines.							

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987									
3. INSTALLATION AND LOCATION MAINZ Germany											
4. PROJECT TITLE Facilitization at Mainz Army Depot		5. PROJECT NUMBER TEMP G882006									
CURRENT SITUATION : Facilities not located near to existing steam lines require individual boilers for steam supply. Connection to the existing central boiler is the most economically favorable solution. IMPACT IF NOT PROVIDED : Failure to provide this project will require a larger life-cycle cost for providing steam to facilities not located near to the existing steam distribution system. WILLIAM S. LITTLEFIELD COL Commander <table> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL 1988</td> <td>INDEX: 1575</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER 1988</td> <td>INDEX: 1605</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL 1989</td> <td>INDEX: 1623</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL 1988	INDEX: 1575	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER 1988	INDEX: 1605	ESTIMATED CONSTRUCTION COMPLETION:	APRIL 1989	INDEX: 1623
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ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER 1988	INDEX: 1605									
ESTIMATED CONSTRUCTION COMPLETION:	APRIL 1989	INDEX: 1623									

1. COMPONENT ARMY	FY 19⁸⁸ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION MAINZ Germany		
4. PROJECT TITLE Facilitization at Mainz Army Depot		5. PROJECT NUMBER TEMP G882006

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY (\$000)

B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY..... (PEOPLE)

C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY..... (\$000)

D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... (\$000)

E. PLANNING AND DESIGN DATA (ESTIMATE)

1. STATUS

a. DATE DESIGN STARTED.....	sep 86
b. PERCENT COMPLETE AS OF JANUARY 15 1987..	35
c. PERCENT COMPLETE AS OF OCTOBER 1 1987..	100
d. DATE DESIGN COMPLETED.....	oct 87

2. BASIS

a. STANDARD OR DEFINITIVE DESIGN	YES X	NO
b. WHERE DESIGN WAS MOST RECENTLY USED:		

3. COST (TOTAL - \$000)

a. PRODUCTION OF PLANS AND SPECS	
b. ALL OTHER DESIGN COSTS.....	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	
d. CONTRACT.....	
e. IN HOUSE.....	

4. CONSTRUCTION START DATE (PLANNED)..... apr 88

1. COMPONENT ARMY	FY 19 89 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1987
3. INSTALLATION AND LOCATION MAINZ Germany		4. PROJECT TITLE Facilitization at Mainz Army Depot		
5. PROGRAM ELEMENT	6. CATEGORY CODE 000 00	7. PROJECT NUMBER TEMP G892006	8. PROJECT COST (\$000) 5,300	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY				
Maintenance Preparation Complex (Gonsenheim)	SF	26,550	119.20(	4,722 3,165)
Light Veh Inspection Facility (Mombach)	SF	9,920	92.44(	917)
Chem/POL/Acid Storage Building (Gonsenheim)	SF	11,828	54.13(	640)
SUPPORT FACILITIES				
SUBTOTAL				
CONTINGENCY PERCENT (5.00%)				
TOTAL CONTRACT COST				
SUPERVISION, INSPECT & OVHD (6.50%)				
TOTAL REQUEST				
TOTAL REQUEST (ROUNDED)				
INSTALLED EQUIPMENT-OTHER APPROP				
10. Description of Proposed Construction The primary facility to support combat vehicle maintenance at MZAD will require dismantling of existing buildings and erection of new facilities. 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.				

REQUIREMENT :	ADEQUATE:	SUBSTD:
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 configurations. This will occur in all commodity areas. For most		

1. COMPONENT ARMY	FY 19⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION MAINZ Germany		
4. PROJECT TITLE Facilitization at Mainz Army Depot		5. PROJECT NUMBER AMP G892006
REQUIREMENT : (CONT).. 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 facilitize the MZAD site, thereby providing sufficient space to overhaul/repair combat vehicles. CURRENT SITUATION : The Mainz Army Depot is a very physically constrained facility. The workload required for the repair/overhaul of new systems cannot be met without modernizing the existing depot 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 project		

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION MAINZ Germany														
4. PROJECT TITLE Facilitization at Mainz Army Depot		5. PROJECT NUMBER LMP G892006												
will require that interim inefficient (and therefore costly) means be employed to attempt to satisfy the repair/overhaul requirements. WILLIAM S. LITTLEFIELD COL Commander <table border="0"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1990</td> <td>INDEX: 1666</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1990</td> <td>INDEX: 1690</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1991</td> <td>INDEX: 1709</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1990	INDEX: 1666	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1990	INDEX: 1690	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1991	INDEX: 1709
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ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1990	INDEX: 1690											
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1991	INDEX: 1709											

1. COMPONENT ARMY	FY 19⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION MAINZ Germany		
4. PROJECT TITLE Facilitization at Mainz Army Depot		5. PROJECT NUMBER TEMP G892006

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY (\$000)

B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY..... (PEOPLE)

C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY..... (\$000)

D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... (\$000)

E. PLANNING AND DESIGN DATA (ESTIMATE)

1. STATUS

a. DATE DESIGN STARTED.....	DEC 86
b. PERCENT COMPLETE AS OF JANUARY 15 1988..	100
c. PERCENT COMPLETE AS OF OCTOBER 1 1988..	100
d. DATE DESIGN COMPLETED.....	DEC 87

2. BASIS

a. STANDARD OR DEFINITIVE DESIGN	YES	NO
b. WHERE DESIGN WAS MOST RECENTLY USED:		

3. COST (TOTAL - \$000)

a. PRODUCTION OF PLANS AND SPECS	
b. ALL OTHER DESIGN COSTS.....	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	
d. CONTRACT.....	
e. IN HOUSE.....	

4. CONSTRUCTION START DATE (PLANNED)..... apr 90

1. COMPONENT ARMY		FY 19 89 MILITARY CONSTRUCTION PROJECT DATA		2. DATE Jan 1987	
3. INSTALLATION AND LOCATION Lima Army Tank Plant Ohio			4. PROJECT TITLE PSEK Construction		
5. PROGRAM ELEMENT		6. CATEGORY CODE		7. PROJECT NUMBER 6037 893067	
				8. PROJECT COST (\$000) 6,000	
9. COST ESTIMATES					
ITEM			U/M	QUANTITY	COST (\$000)
PRIMARY FACILITY					5,413
1. Water Main System Upgrade			LS	- - -	(1,339)
2. Lighting System Upgrade					(1,900)
3. Addition to Bldg. 317			SF	21,800	99.72 (2,174)
SUPPORT FACILITIES					
SUBTOTAL					5,413
CONTINGENCY PERCENT (5.0%)					270
TOTAL CONTRACT COST					5,683
SIOH (5.6%)					313
TOTAL REQUEST					6,001
TOTAL REQUEST ROUNDED					6,000
10. Description of Proposed Construction					
Upgrades water main system capacity by replacement of inadequate piping and fixtures, separating domestic and fire water supply systems, and expanding existing water system to provide fire protection to production support buildings throughout the installation. Upgrades lighting system in the main production building by providing emergency lighting, replacement of existing light fixtures, and corrects electrical power factor.					

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Lima Army Tank Plant Ohio		
4. PROJECT TITLE PSER Construction		5. PROJECT NUMBER 8930-0007
Provides addition to existing building #317. New construction will be insulated metal roof and walls and reinforced concrete floor. Requires heating and ventilation systems, exhaust system, electrical, plumbing, telephone, and fire sprinkler systems. Includes vehicle wash booth, overhead cranes, and locomotive service pit.		
II. REQUIREMENT Project: Upgrades water main system and electrical lighting to correct OSHA, NFPA, and DOD Safety deficiencies. Completes plant fire loop to provide 150 p.s.i. for fire protection. Improves lighting in production area and provides emergency lighting for egress from production building during power failure. Consolidates maintenance area for plant support equipment and upgrades battery and corrosives storage area. Requirement: ATP expansions during FY85 to present have added production space. Water system has not expanded with the rest of the facility and is in violation of NFPA codes which specify that domestic and fire water systems be separate. Electrical lighting provides inadequate illumination to the production floor with no means of emergency lighting to illuminate egress routes from the production area. Space to maintain plant support equipment and vehicles is inadequate. These vehicles include forklifts, diesel and gasoline powered trucks, and a locomotive. Batteries are maintained for rebuild and/or recharge and exchange for electrical powered vehicles. Corrosives are stored for maintenance operations. Current Situation: The current water system does not meet NFPA codes. Piping and fixtures are inadequate to meet fire protection requirements. Domestic and fire water systems are combined and are "dead end" systems with only a single source of water. The electrical lighting system requires maintenance and relamping to provide adequate light to the production floor. No emergency		

1. COMPONENT ARMY	FY 19⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Lima Army Tank Plant Ohio		
4. PROJECT TITLE PSER Construction		5. PROJECT NUMBER 893067037
lighting exists. Maintenance for plant vehicles is done at various locations throughout the plant and outside on hardstands. battery storage and corrosive storage areas are in violation of OSHA, NFPA, and DOD Safety codes. Impact If Not Provided: Plant will remain in violation of OSHA, NFPA, and DOD Safety codes. The water system will require extensive maintensnce to remain useful. Water for fire protection will not be available at sufficient pressures.. Lighting will remain inadequate. ELTON J. MINNEY LTC, OrdC Commanding		

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Lima Army Tank Plant Ohio		
4. PROJECT TITLE PSER Construction		5. PROJECT NUMBER 873017 ~~6027~~
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY		
		(\$000)
B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY.....		
		(PEOPLE)
C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY.....		
		(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....		
		(\$000)
E. PLANNING AND DESIGN DATA (ESTIMATE)		
1. STATUS		
a. DATE DESIGN STARTED.....		DEC 86
b. PERCENT COMPLETE AS OF JANUARY 15 1988..		100
c. PERCENT COMPLETE AS OF OCTOBER 1 1988..		100
d. DATE DESIGN COMPLETED.....		DEC 87
2. BASIS		
a. STANDARD OR DEFINITIVE DESIGN	YES	NO
b. WHERE DESIGN WAS MOST RECENTLY USED:		
3. COST (TOTAL - \$000)		
a. PRODUCTION OF PLANS AND SPECS		
b. ALL OTHER DESIGN COSTS.....		
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....		
d. CONTRACT.....		
e. IN HOUSE.....		
4. CONSTRUCTION START DATE (PLANNED).....		APR 89

DEPARTMENT OF THE ARMY
JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1988/1989

FY 1988 - PRODUCTION BASE SUPPORT

APPROPRIATION: Procurement of Ammunition, Army

ACTIVITY 2 - Production Base Support

<u>Army Ammunition Installation</u>	<u>Project No.</u>	<u>Project Title</u>	<u>Cost Estimate (\$000)</u>	<u>Page No.</u>
Louisiana Army PT, Louisiana	5885314-13	Replacement Repl Bridge & Trestles	1.250	23
Kansas Army Plant, Kansas	5885329-21	New 700 Line Steam Gen Plant	.560	26
Louisiana Army PT, Louisiana	5882800-18	Intrusion Alarm System	1.900	29
Holston Army PT, Tennessee	5885328-17	Addition Overfire Systems	.800	33
Indiana PT, Indiana	5885330-15	Additon Shiphse/ Roads PHS IV	.440	36
Holston Army PT, Tennessee	5882439D	Modernization MOD Bldg N-3 for A-5 Drying	1.700	41
Louisiana Army PT, Louisiana	5885314-21	Replacement Repl Barricades, Area D	.590	44
Milan Army Plant, Tennessee	588317-19	Cond & Stg Fac Area ZZ	.540	47
Radford Army PT, Virginia	5885326-16	Replacement Replacement (5) Barricades	1.000	50
Radford Army PT, Virginia	5882700-2	Replacement Replace Barricades at Explosive Op	.540	53
Twin Cities Army PT, Minnesota	5882800-8	Modernization Igloo Storage	2.600	56

DEPARTMENT OF THE ARMY
JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1988/1989

FY 1988 - PRODUCTION BASE SUPPORT
(Cont'd)

APPROPRIATION: Procurement of Ammunition, Army

ACTIVITY 2 - Production Base Support

<u>Army Ammunition Installation</u>	<u>Project No.</u>	<u>Project Title</u>	<u>Cost Estimate (\$000)</u>	<u>Page No.</u>
Lone Star Army PT, Texas		Modernization Chem Lab Rehabilitation	.550	59
Ravenna Army PT, Ohio		Modernization Intru Alarm Sys/ Locks/Hasps	2.600	64
Votunteer Army PT, Tennessee	5882800	Modernization Security Fencing	.740	68
Lake City Army Ammo Plant Missouri	2800-07	Security Improvements	1.150	72

1. COMPONENT ARMY	FY 19 88 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1987
3. INSTALLATION AND LOCATION LOUISIANA ARMY AMMUNITION PT Louisiana		4. PROJECT TITLE Mobil Group 1 REPLACEMENT REPL BRIDGE & TRESTLES		
5. PROGRAM ELEMENT	6. CATEGORY CODE 860 30	7. PROJECT NUMBER TEMP 5314-13	8. PROJECT COST (\$000) 1,250	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY BRIDGES & TRESTLES	LS	--	--	1,082 (1,082)
SUPPORT FACILITIES				
SUBTOTAL				1,082
CONTINGENCY PERCENT (10.00%)				108
TOTAL CONTRACT COST				1,190
SUPERVISION, INSPECT & OVHD (5.50%)				65
TOTAL REQUEST				1,255
TOTAL REQUEST (ROUNDED)				1,250
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10. Description of Proposed Construction				
Replace four wooden highway bridges. New bridges will be concrete or concrete boxed culverts as appropriate. Bridges will meet AASHO capacity rating of HS 20-44. PReplace eight rawooden railroad trestles. New trestles will be steel or concrete as appropriate. Trestles will meet COOPER E45 rating per TM 5-370.				
11. REQUIREMENT: 25 MI ADEQUATE: 6 MI SUBSTD: 19 MI PROJECT : THIS PROJECT IS TO PROVIDE REPLACEMENT FOR FOUR BRIDGES AND EIGHT TRESTLES INCLUDING HEADWALLS, WING WALLS, AND APPROACH AS NECESSARY TO PROVIDE STRUCTURES WITH APPROPRIATE LOAD CARRYING CAPABILITY.				

1. COMPONENT ARMY	FY 19 ⁸⁸ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION LOUISIANA ARMY AMMUNITION PT Louisiana														
4. PROJECT TITLE Utilization Group I REPLACEMENT REPL BRIDGE & TRESTLES		5. PROJECT NUMBER TEMP 5314-13												
REQUIREMENT : EXISTING BRIDGES AND TRESTLES ARE WOOD STRUCTURES OF 1941-42 VINTAGE. THESE UNITS ARE DECAYING. INSPECTIONS BY THE CONSULTING FIRM OF AILLET, FENNER, JOLLY AND MCCLELLAND, INC AND FESA SHOW THAT THERE IS ADVANCED STAGES OF DECAY IN THE MAIN STRUCTURE AND THE PILING. CURRENT SITUATION : LOAD CARRYING CAPACITY ON EXISTING STRUCTURES HAS BEEN REDUCED. EACH STRUCTURE WILL BE REVIEWED ANNUALLY AND LOAD CARRYING CAPACITY ADJUSTED ACCORDING TO THE SAFE LOADING CAPACITY. IMPACT IF NOT PROVIDED : FAILURE TO APPROVE THIS PROJECT WILL RESULT IN BRIDGES AND TRESTLES FAILING TO THE POINT THEY ARE UNSAFE TO CROSS. IF A BRIDGE OR TRESTLE FAILS IT MAY ELIMINATE ACCESS TO THE SECTION OF THE INSTALLATION WHICH THAT STRUCTURE SERVES. ADDITIONAL : AN ECONOMIC ANALYSIS FORMAT B HAS BEEN SUBMITTED. GARY F. ANDREW LTC, OrdC COMMANDING <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>MAY</td> <td>1988</td> <td>INDEX: 1580</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>MAY</td> <td>1989</td> <td>INDEX: 1627</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>JUNE</td> <td>1990</td> <td>INDEX: 1674</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	MAY	1988	INDEX: 1580	ESTIMATED MIDPOINT OF CONSTRUCTION:	MAY	1989	INDEX: 1627	ESTIMATED CONSTRUCTION COMPLETION:	JUNE	1990	INDEX: 1674
ESTIMATED CONSTRUCTION START:	MAY	1988	INDEX: 1580											
ESTIMATED MIDPOINT OF CONSTRUCTION:	MAY	1989	INDEX: 1627											
ESTIMATED CONSTRUCTION COMPLETION:	JUNE	1990	INDEX: 1674											

1. COMPONENT ARMY	FY 19⁸⁸ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION LOUISIANA ARMY AMMUNITION PT Louisiana		
4. PROJECT TITLE Mobilization Group 1 REPLACEMENT REPL BRIDGE & TRESTLES		5. PROJECT NUMBER TEMP 5314-13

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY	4,000
	(\$000)
B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY.....	
	(PEOPLE)
C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY.....	\$100,000
	(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....	
	(\$000)
E. PLANNING AND DESIGN DATA (ESTIMATE)	
1. STATUS	
a. DATE DESIGN STARTED.....	010885
b. PERCENT COMPLETE AS OF JANUARY 15 1987..	100
c. PERCENT COMPLETE AS OF OCTOBER 1 1987..	100
d. DATE DESIGN COMPLETED.....	301287
2. BASIS	
a. STANDARD OR DEFINITIVE DESIGN YES NO	
b. WHERE DESIGN WAS MOST RECENTLY USED:	
NOT USED	
3. COST (TOTAL - \$000)	
a. PRODUCTION OF PLANS AND SPECS	
b. ALL OTHER DESIGN COSTS.....	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	
d. CONTRACT.....	
e. IN HOUSE.....	
4. CONSTRUCTION START DATE (PLANNED).....	300388

1. COMPONENT ARMY	FY 19 88 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1987
3. INSTALLATION AND LOCATION KANSAS ARMY AMMUNITION PLANT Kansas		4. PROJECT TITLE NEW 700 LINE STEAM GEN PLT		
5. PROGRAM ELEMENT	6. CATEGORY CODE 821 22	7. PROJECT NUMBER TEMP 532921	8. PROJECT COST (\$000) 560	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY Steam Generating Plant	LS	--	--	505 (505)
SUPPORT FACILITIES				
SUBTOTAL				505
CONTINGENCY PERCENT (5.00%)				25
TOTAL CONTRACT COST				530
SUPERVISION, INSPECT & OVHD (5.50%)				29
TOTAL REQUEST				559
TOTAL REQUEST (ROUNDED)				560
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10. Description of Proposed Construction				
Construct a new metal boiler house in 700 Area complete with new boilers and related equipment.				
11. REQUIREMENT: 27,000,000 MB ADEQUATE:				
PROJECT : MB SUBSTD: 0 MB				
Construct new boiler house, 700 Area.				
REQUIREMENT :				
This project is required to replace the old 1941-42 steam generating system with system of high energy, multiple pass, steam generators capable of producing a total of 27,000,000 BTU per hour. Project to include all ancillary equipment.				

1. COMPONENT ARMY	FY 19 ⁸⁸ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION KANSAS ARMY AMMUNITION PLANT Kansas														
4. PROJECT TITLE NEW 700 LINE STEAM GEN PLT		5. PROJECT NUMBER TEMP 532921												
CURRENT SITUATION : This old boiler house and steam generating equipment is deteriorated to a condition which is no longer feasible to repair. IMPACT IF NOT PROVIDED : If not replaced the aging system will continue to require prohibitive maintenance costs to remain in service. System failure results in insufficient process steam to sustain production. /S/ CHARLES T. WALLSCHLAEGER CHARLES T. WALLSCHLAEGER LTC, OrdC Commanding <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1988</td> <td>INDEX: 1575</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1988</td> <td>INDEX: 1605</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1988	INDEX: 1575	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623
ESTIMATED CONSTRUCTION START:	APRIL	1988	INDEX: 1575											
ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605											
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623											

1. COMPONENT ARMY	FY 19⁸⁸MILITARY CONSTRUCTION PROJECT DATA	2. DATE APR 1987
3. INSTALLATION AND LOCATION KANSAS ARMY AMMUNITION PLANT Kansas		
4. PROJECT TITLE NEW 700 LINE STEAM GEN PLT		5. PROJECT NUMBER TEMP 532921

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY (\$000)

B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY..... (PEOPLE)

C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY..... (\$000)

D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... (\$000)

E. PLANNING AND DESIGN DATA (ESTIMATE)

1. STATUS

a. DATE DESIGN STARTED.....	Mar 86
b. PERCENT COMPLETE AS OF JANUARY 15 1987..	70
c. PERCENT COMPLETE AS OF OCTOBER 1 1987..	100
d. DATE DESIGN COMPLETED.....	Mar 87

2. BASIS

a. STANDARD OR DEFINITIVE DESIGN	YES	NO
b. WHERE DESIGN WAS MOST RECENTLY USED:		

3. COST (TOTAL - \$000)

a. PRODUCTION OF PLANS AND SPECS	
b. ALL OTHER DESIGN COSTS.....	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	
d. CONTRACT.....	
e. IN HOUSE.....	

4. CONSTRUCTION START DATE (PLANNED)..... Apr 88

1. COMPONENT ARMY	FY 19 88 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1987
3. INSTALLATION AND LOCATION LOUISIANA ARMY AMMUNITION PT Louisiana		4. PROJECT TITLE MobilGroup 1 Intrusion Alarm System		
5. PROGRAM ELEMENT	6. CATEGORY CODE 880 40	7. PROJECT NUMBER TEMP 2800-1B	8. PROJECT COST (\$000) 1,900	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY Intrusion Detection System, Area	BX	49	3383	1,658 (1,658)
SUPPORT FACILITIES				
SUBTOTAL				1,658
CONTINGENCY PERCENT (10.00%)				166
TOTAL CONTRACT COST				1,824
SUPERVISION, INSPECT & OVHD (5.50%)				100
TOTAL REQUEST				1,924
TOTAL REQUEST (ROUNDED)				1,900
INSTALLED EQUIPMENT-OTHER APPROP				(70)
10. Description of Proposed Construction Project will provide intrusion detection system for 49 magazines in Area L-3. Each magazine will be equipped to provide a signal to guard headquarters by multiplexed equipment which will monitor over hardwire and fiber optic cable. Primary electrical power and an external light will be provided to each igloo.				
REQUIREMENT : 49 BX ADEQUATE: 0 BX SUBSTD: 174 BX				
AR 190-11, Para 3-13 requires magazines to be equipped with intrusion detectors if not under continuous surveillance by approved means. This project upgrades security protection for sensitive munitions storage. This				

1. COMPONENT ARMY	FY 19 <u>88</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION LOUISIANA ARMY AMMUNITION PT Louisiana		
4. PROJECT TITLE Mobilization Group 1 Intrusion Alarm System		5. PROJECT NUMBER TEMP 2800-1B
REQUIREMENT : (CONT).. project is required to prevent unauthorized entry of individuals in the sensitive storage areas for purpose of theft, sabotage, or other similar criminal acts. CURRENT SITUATION : Current need is being met by alternative measures allowed by AR 190-11. SECURITY IS CURRENTLY ACCOMPLISHED BY MEASURES REQUIRED IN THE ABSENCE OF AN IDS SYSTEM. CURRENTLY, A GUARD CHECKS EACH IGLOO; HOWEVER, APPROXIMATELY TWO HOURS IS REQUIRED TO MAKE A FULL INSPECTION. THIS MEANS THAT AN INTRUSION CAN GO UNDETECTED FOR APPROXIMATELY 2 HRS. CURRENT OPERATION IS UNDER WAIVER PWS-SMCLA-1-84. IMPACT IF NOT PROVIDED : If this project is not approved, compliance with AR 190-11 cannot be achieved. ADDITIONAL : SPECIFIC MOBILIZATION REQUIREMENT: THIS SCOPE OF WORK IS A CURRENT REQUIREMENT TO COMPLY WITH REFERENCES IN PARA 11.M AN EXEMPTION TO THE REQUIREMENTS OF AN ECONOMIC ANALYSIS IS REQUESTED IN ACCORDANCE WITH PROVISIONS OF AR 11-28, PARA 1-3D(3). REGULATIONS WHICH SUPPORT THIS REQUEST ARE LISTED IN PARA 11.M.		

1. COMPONENT ARMY	FY 19 <u>88</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION LOUISIANA ARMY AMMUNITION PT Louisiana														
4. PROJECT TITLE Mobilization Group 1 Intrusion Alarm System	5. PROJECT NUMBER TEMP 2800-1B													
PROVISIONING OF THESE FACILITIES HAS BEEN DIRECTED BY GOVERNMENT; THEREFORE, PROPER IDS FACILITIES MUST ACCOMPANY THE DIRECTIVE. /S/ GARY F. ANDREW GARY F. ANDREW LTC, ORDC COMMANDING <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1988</td> <td>INDEX: 1575</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1988</td> <td>INDEX: 1605</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1988	INDEX: 1575	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623
ESTIMATED CONSTRUCTION START:	APRIL	1988	INDEX: 1575											
ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605											
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623											

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1987
3. INSTALLATION AND LOCATION LOUISIANA ARMY AMMUNITION PT Louisiana		
4. PROJECT TITLE Mobilization Group 1 Intrusion Alarm System		5. PROJECT NUMBER TEMP 2800-1B
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY (\$000) B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY..... (PEOPLE) C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY..... (\$000) D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... (\$000) E. PLANNING AND DESIGN DATA (ESTIMATE) 1. STATUS a. DATE DESIGN STARTED..... OCT 86 b. PERCENT COMPLETE AS OF JANUARY 15 1987.. 100 c. PERCENT COMPLETE AS OF OCTOBER 1 1987.. 100 d. DATE DESIGN COMPLETED..... DEC 86 2. BASIS a. STANDARD OR DEFINITIVE DESIGN YES NO X b. WHERE DESIGN WAS MOST RECENTLY USED: N/A 3. COST (TOTAL - \$000) a. PRODUCTION OF PLANS AND SPECS b. ALL OTHER DESIGN COSTS..... c. TOTAL COST (c) = (a)+(b) OR (d)+(e)..... d. CONTRACT..... e. IN HOUSE..... 4. CONSTRUCTION START DATE (PLANNED)..... APR 88		

1. COMPONENT ARMY	FY 19 ⁸⁸ MILITARY CONSTRUCTION PROJECT DATA		2. DATE JAN 1987	
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT Tennessee		4. PROJECT TITLE Addition Overfire Air Systems		
5. PROGRAM ELEMENT	6. CATEGORY CODE 821 10	7. PROJECT NUMBER TEMP 5328-17	8. PROJECT COST (\$000) 800	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY OVERFIRE AIR SYSTEMS	LS	--	--	719 (719)
SUPPORT FACILITIES				
SUBTOTAL				719
CONTINGENCY PERCENT (5.00%)				36
TOTAL CONTRACT COST				755
SUPERVISION, INSPECT & OVHD (5.60%)				42
TOTAL REQUEST				797
TOTAL REQUEST (ROUNDED)				800
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10. Description of Proposed Construction Install overfire air systems on Boilers #4, #5, and #6, Building #8, Area A; and on Boiler #4, Building #200, Area B (Steam Plants). Each system will consist of an air mover (fan), piping, nozzles, and controls to provide independent operation for each stoker fired boiler. A steam turbine driver will be installed on the overfire air fan of Boiler #4, Bldg 200 as an energy saving measure. Because of equipment peculiarities, the energy saving measure is only economical on Boiler #4. This is the last of an ongoing program to install overfire air on each of the Holston AAP stoker fired boilers.				
11. REQUIREMENT: MB ADEQUATE: MB SUBSTD: 0 MB PROJECT :				

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987									
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT Tennessee											
4. PROJECT TITLE Addition Overfire Air Systems		5. PROJECT NUMBER TEMP 5328-17									
PROJECT : (CONT).. This project is to install overfire air systems on four steam boilers at Holston AAP and to add a steam turbine driver on one system. REQUIREMENT : This project is required to reduce air pollution (visible stack emissions), to improve efficiency of boiler operations, and in one case (Boiler 4) to save energy. CURRENT SITUATION : Presently insufficient overfire air results in incomplete combustion of fuel (coal); thereby increasing fly ash load on electrostatic precipitators that result in air pollution. Based on evaluation of existing overfire air systems the advantages are; reduced carbon carryover; reduced particle dust loading in precipitator hoppers; reduced probability of fire in fly ash silos and increased boiler efficiency. IMPACT IF NOT PROVIDED : Particulate emissions will occasionally exceed allowable EPA limitations at loads between 80 and 100 percent boiler capacity. Also, boiler efficiency will not be improved if this project is not funded. /S/ JAMES F. BALD, JR JAMES F. BALD, JR LTC, OD Commander <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL 1988</td> <td>INDEX: 1575</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>JANUARY 1989</td> <td>INDEX: 1616</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>OCTOBER 1989</td> <td>INDEX: 1650</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL 1988	INDEX: 1575	ESTIMATED MIDPOINT OF CONSTRUCTION:	JANUARY 1989	INDEX: 1616	ESTIMATED CONSTRUCTION COMPLETION:	OCTOBER 1989	INDEX: 1650
ESTIMATED CONSTRUCTION START:	APRIL 1988	INDEX: 1575									
ESTIMATED MIDPOINT OF CONSTRUCTION:	JANUARY 1989	INDEX: 1616									
ESTIMATED CONSTRUCTION COMPLETION:	OCTOBER 1989	INDEX: 1650									

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1987 JAN
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT Tennessee		
4. PROJECT TITLE Addition Overfire Air Systems		5. PROJECT NUMBER TEMP 5328-17

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY	UNK (\$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.....	UNK (\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....	NA (\$000)

E. PLANNING AND DESIGN DATA (ESTIMATE)

1. STATUS

a. DATE DESIGN STARTED.....	NOV 85
b. PERCENT COMPLETE AS OF JANUARY 15 1987..	95
c. PERCENT COMPLETE AS OF OCTOBER 1 1987..	100
d. DATE DESIGN COMPLETED.....	NOV 86

2. BASIS

a. STANDARD OR DEFINITIVE DESIGN	YES	NO	X
b. WHERE DESIGN WAS MOST RECENTLY USED: HOLSTON			

3. COST (TOTAL - \$000)

a. PRODUCTION OF PLANS AND SPECS	45
b. ALL OTHER DESIGN COSTS.....	45
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	45
d. CONTRACT.....	45
e. IN HOUSE.....	

4. CONSTRUCTION START DATE (PLANNED).....

APR 88

1. COMPONENT ARMY	FY 19 88 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1987
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana		4. PROJECT TITLE MobilGroup 1 Addition Shiphse/Rds-Phase IV		
5. PROGRAM ELEMENT	6. CATEGORY CODE 421 81	7. PROJECT NUMBER TEMP 5330/15	8. PROJECT COST (\$000) 440	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY Shiphse/Rds-Phase IV	SF	35,369	7.04(	396 396)
SUPPORT FACILITIES				
SUBTOTAL				396
CONTINGENCY PERCENT (10.00%)				20
TOTAL CONTRACT COST				416
SUPERVISION, INSPECT & OVHD (5.50%)				23
TOTAL REQUEST				439
TOTAL REQUEST (ROUNDED)				440
INSTALLED EQUIPMENT-OTHER APPROP				(16)
10. Description of Proposed Construction				
Phase IV will provide for the building of access roads, the purchase of one portable ramp and the reinforcing of floors to sixteen (16) rail shiphouses.				
11. REQUIREMENT: 155,283 SF ADEQUATE: 81,712 SF SUBSTD: 73,571 SF PROJECT : To convert sixteen (16) limited access Rail shiphouses to prime explosive storage locations. REQUIREMENT : Access roads are needed for trailer truck access to existing shiphouses that have only rail access, for end-product storage requirements. CURRENT SITUATION : Currently, the shiphouses are loaded in two stages. First, by manual transfer of propellant from an intraplant trailer to a rail jitney car and then by manual transfer from the jitney car into the shiphouse. Direct				

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana														
4. PROJECT TITLE Mobilization Group 1 Addition Shipse/Rds-Phase IV		5. PROJECT NUMBER TEMP 5330/15												
CURRENT SITUATION : (CONT).. trailer access eliminates one transfer operation. Floor reinforcement is required for forklift transfer of goods. IMPACT IF NOT PROVIDED : Failure to provide this project will necessitate the continued costly manipulating and rewarehousing of explosive inventories. Additional hiring of material handling personnel will be required to keep up with the rate of Class 1.3 storage turnover and more people than necessary will be exposed to hazards of manually handling explosives. Critically needed prime explosive storage space to comply with the ballistic acceptance procedures in SB 742-1, ammunition surveillance procedures for finished goods produce will be lacking at INAAP if this project is not provided. ADDITIONAL : It is estimated that an annual savings of \$355,972 will be realized. Presently, INAAP has 238 Class 1.3 facilities. Increased production schedules for 1986-88 will require that all 238 Class 1.3 facilities be utilized equally and that an estimated 1,217 load or unload operations will be required annually. Additionally, approximately 150 hours will be saved for quality assurance, content surveillance, inventory check and maintenance personnel. /S/ TRANNIE W. SANDERSON TRANNIE W. SANDERSON LTC, CM Commanding <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1988</td> <td>INDEX: 1575</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1988</td> <td>INDEX: 1605</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1988	INDEX: 1575	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623
ESTIMATED CONSTRUCTION START:	APRIL	1988	INDEX: 1575											
ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605											
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623											

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana		
4. PROJECT TITLE Mobilization Group 1 Addition Shiphse/Rds-Phase IV		5. PROJECT NUMBER TEMP 5330/15
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY		0 (\$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.....		0 (\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....		0 (\$000)
E. PLANNING AND DESIGN DATA (ESTIMATE)		
1. STATUS		
a. DATE DESIGN STARTED.....		FEB 86
b. PERCENT COMPLETE AS OF JANUARY 15 1987..		100
c. PERCENT COMPLETE AS OF OCTOBER 1 1987..		100
d. DATE DESIGN COMPLETED.....		DEC 86
2. BASIS		
a. STANDARD OR DEFINITIVE DESIGN	YES	NO X
b. WHERE DESIGN WAS MOST RECENTLY USED: INAAP		
3. COST (TOTAL - \$000)		
a. PRODUCTION OF PLANS AND SPECS		21
b. ALL OTHER DESIGN COSTS.....		21
c. TOTAL COST (c) = (a) + (b) OR (d) + (e).....		12
d. CONTRACT.....		9
e. IN HOUSE.....		9
4. CONSTRUCTION START DATE (PLANNED).....		JUN 88

1. COMPONENT ARMY		FY 19 ⁸⁸ MILITARY CONSTRUCTION PROJECT DATA		2. DATE JAN 1987	
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana					
4. PROJECT TITLE Mobilization Group 1 Addition Shiphse/Rds-Phase IV				5. PROJECT NUMBER TEMP 5330/15	
F. EQUIPMENT ASSOCIATED WITH THIS PROJECT WHICH WILL BE PROVIDED FROM OTHER APPROPRIATIONS					
EQUIPMENT		PROCURING		FY OF COST	
NOMENCLATURE		APPROPRIATION		APPROP (\$000)	
Portable Ramps (1)		PA, A 4211		88 16.6	

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA		2. DATE JAN 1987
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--11220 Tennessee			
4. PROJECT TITLE Modernization MOD Bldg N-3 for A-5 Drying			5. PROJECT NUMBER 0073000
F. EQUIPMENT ASSOCIATED WITH THIS PROJECT WHICH WILL BE PROVIDED FROM OTHER APPROPRIATIONS			
EQUIPMENT	PROCURING	FY OF	COST
NOMENCLATURE	APPROPRIATION	APPROP	(\$000)
Drying Process Equipment	PAA	1987	2,900

1. COMPONENT ARMY	FY 19 88 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1987
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--11220 Tennessee		4. PROJECT TITLE Modernization MOD Bldg N-3 for A-5 Drying		
5. PROGRAM ELEMENT 78011A	6. CATEGORY CODE 226 90	7. PROJECT NUMBER 0073000	8. PROJECT COST (\$000) 1,700	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY New Construction	LS	--	--	1,522 (1,522)
SUPPORT FACILITIES Utilities, Paving, Walks	LS	--	--	115 (115)
SUBTOTAL				1,522
CONTINGENCY PERCENT (5.00%)				76
TOTAL CONTRACT COST				1,598
SUPERVISION, INSPECT & OVHD (5.50%)				89
TOTAL REQUEST				1,687
TOTAL REQUEST (ROUNDED)				1,700
INSTALLED EQUIPMENT-OTHER APPROP				(2,900)
10. Description of Proposed Construction New construction, alterations, support facilities and utilities as required to modernize A-5 Drying Process.				
11. REQUIREMENT: 0 SF ADEQUATE: 0 SF SUBSTD: 0 SF PROJECT :				
Modernize Composition A-5 Drying Process.				
REQUIREMENT : This project is required to modernize an existing drying process to reduce labor and operating space requirements and make existing facilities available for production of other A-Compositions and PBX-Compositions. The proposed modernization is needed to meet FYDP production requirements.				

1. COMPONENT ARMY	FY 19 <u>88</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1987												
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--11220 Tennessee														
4. PROJECT TITLE Modernization MOD Bldg N-3 for A-5 Drying		5. PROJECT NUMBER 0073000												
CURRENT SITUATION : Composition A-5 explosive is now dried using drying beds which require extra labor, utilities and facility space. The plant cannot meet the FYDP production requirements without additional, faster drying methods. The FYDP production for Composition A-5 alone would require all existing drying beds. IMPACT IF NOT PROVIDED : If this project is not provided, the plant cannot meet the FYDP production requirements and excessive operating costs will continue for the explosive produced using the existing drying bed process. /S/ JAMES F. BALD, JR JAMES F. BALD, JR LTC, OD Commanding <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>JULY</td> <td>1988</td> <td>INDEX: 1590</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>AUGUST</td> <td>1989</td> <td>INDEX: 1640</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>SEPTEMBER</td> <td>1990</td> <td>INDEX: 1686</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	JULY	1988	INDEX: 1590	ESTIMATED MIDPOINT OF CONSTRUCTION:	AUGUST	1989	INDEX: 1640	ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER	1990	INDEX: 1686
ESTIMATED CONSTRUCTION START:	JULY	1988	INDEX: 1590											
ESTIMATED MIDPOINT OF CONSTRUCTION:	AUGUST	1989	INDEX: 1640											
ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER	1990	INDEX: 1686											

1. COMPONENT ARMY	FY 19⁸⁸ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--11220 Tennessee		
4. PROJECT TITLE Modernization MOD Bldg N-3 for A-5 Drying		5. PROJECT NUMBER 0073000

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY	505
	(\$000)
B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY.....	3
	(PEOPLE)
C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY.....	4798
	(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....	9281
	(\$000)
E. PLANNING AND DESIGN DATA (ESTIMATE)	
1. STATUS	
a. DATE DESIGN STARTED.....	JAN 86
b. PERCENT COMPLETE AS OF JANUARY 15 1987..	50
c. PERCENT COMPLETE AS OF OCTOBER 1 1987..	100
d. DATE DESIGN COMPLETED.....	MAR 87
2. BASIS	
a. STANDARD OR DEFINITIVE DESIGN YES NO X	
b. WHERE DESIGN WAS MOST RECENTLY USED:	
NA	
3. COST (TOTAL - \$000)	
a. PRODUCTION OF PLANS AND SPECS	40
b. ALL OTHER DESIGN COSTS.....	70
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	110
d. CONTRACT.....	77
e. IN HOUSE.....	33
4. CONSTRUCTION START DATE (PLANNED).....	FEB 88

1. COMPONENT ARMY	FY 19 88 MILITARY CONSTRUCTION PROJECT DATA			2. DATE 1987
3. INSTALLATION AND LOCATION LOUISIANA ARMY AMMUNITION PT Louisiana		4. PROJECT TITLE Mobil Group I REPLACEMENT REPL BARRICADES, AREA D		
5. PROGRAM ELEMENT	6. CATEGORY CODE 149 30	7. PROJECT NUMBER TEMP 5314-21	8. PROJECT COST (\$000) 590	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY				
SUPPORT FACILITIES Other	LS	--	--	506 (506)
SUBTOTAL				506
CONTINGENCY PERCENT (10.00%)				51
TOTAL CONTRACT COST				557
SUPERVISION, INSPECT & OVHD (5.50%)				31
TOTAL REQUEST				588
TOTAL REQUEST (ROUNDED)				590
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10. Description of Proposed Construction				
Remove and replace four barricades at explosives production support buildings (D-1220 and D-1222). Existing structures are wooden revetted and earth filled, 15 ft high by various lengths.				
11. REQUIREMENT: EA ADEQUATE: 0 EA SUBSTD: 535 EA PROJECT : Remove existing deteriorated barricades and replace with new structures 15 ft high x 48 ft wide x various lengths (220 or 315 ft long). Barricades will meet criteria established by AMC-R 385-100. REQUIREMENT : Barricades are required to provide adequate explosion protection for personnel and facilities in accordance with AMC-R 385-100. Current barricades meet safety requirements but require extensive maintenance because of deterioration.				

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION LOUISIANA ARMY AMMUNITION PT Louisiana														
4. PROJECT TITLE Mobilization Group 1 REPLACEMENT REPL BARRICADES, AREA D		5. PROJECT NUMBER TEMP 5314-21												
CURRENT SITUATION : Existing earthen barricades are supported by wood pilings and timber headers. The wooden support structure are severely rotted and will ultimately allow the barricade to fall. Repair of the revetment structure was considered but determined not to be feasible. IMPACT IF NOT PROVIDED : Failure to approve this project will ultimately result in the collapsing of existing barricades. Production will be restricted due to inadequate explosion protection for workers and facilities. Plant will not be able to operate with current quantity/distance limitations. ADDITIONAL : Explosion protection barricades protect workers, buildings and production equipment and prevent propagation of blast to other explosive production buildings in case of a mishap. GARY F. ANDREW LTC, OrdC COMMANDING <table data-bbox="302 1312 1547 1417"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>MARCH</td> <td>1988</td> <td>INDEX: 1572</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>JUNE</td> <td>1988</td> <td>INDEX: 1585</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>SEPTEMBER</td> <td>1988</td> <td>INDEX: 1600</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	MARCH	1988	INDEX: 1572	ESTIMATED MIDPOINT OF CONSTRUCTION:	JUNE	1988	INDEX: 1585	ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER	1988	INDEX: 1600
ESTIMATED CONSTRUCTION START:	MARCH	1988	INDEX: 1572											
ESTIMATED MIDPOINT OF CONSTRUCTION:	JUNE	1988	INDEX: 1585											
ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER	1988	INDEX: 1600											

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 24 1987
3. INSTALLATION AND LOCATION LOUISIANA ARMY AMMUNITION PT Louisiana		
4. PROJECT TITLE Mobilization Group 1 REPLACEMENT REPL BARRICADES, AREA D		5. PROJECT NUMBER TEMP 5314-21
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY (\$000) B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY..... (PEOPLE) C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY..... (\$000) D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... (\$000) E. PLANNING AND DESIGN DATA (ESTIMATE) 1. STATUS a. DATE DESIGN STARTED..... b. PERCENT COMPLETE AS OF JANUARY 15 1987.. c. PERCENT COMPLETE AS OF OCTOBER 1 1987.. d. DATE DESIGN COMPLETED..... 010985 100 100 301287 2. BASIS a. STANDARD OR DEFINITIVE DESIGN b. WHERE DESIGN WAS MOST RECENTLY USED: LOUISIANA AAP YES NO 3. COST (TOTAL - \$000) a. PRODUCTION OF PLANS AND SPECS b. ALL OTHER DESIGN COSTS..... c. TOTAL COST (c) = (a)+(b) OR (d)+(e)..... d. CONTRACT..... e. IN HOUSE..... 4. CONSTRUCTION START DATE (PLANNED)..... 150388		

1. COMPONENT ARMY	FY 19 88 MILITARY CONSTRUCTION PROJECT DATA			2. DATE 01 1987
3. INSTALLATION AND LOCATION MILAN ARMY AMMUNITION PLANT Tennessee		4. PROJECT TITLE COND. & STG. FAC AREA ZZ		
5. PROGRAM ELEMENT	6. CATEGORY CODE 000 00	7. PROJECT NUMBER TEMP 5317-19	8. PROJECT COST (\$000) 540	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY COND. & STG. FAC AREA ZZ	LS	--	--	485 (485)
SUPPORT FACILITIES				
SUBTOTAL				485
CONTINGENCY PERCENT (5.00%)				24
TOTAL CONTRACT COST				509
SUPERVISION, INSPECT & OVHD (5.60%)				29
TOTAL REQUEST				538
TOTAL REQUEST (ROUNDED)				540
INSTALLED EQUIPMENT-OTHER APPROP				0)
10. Description of Proposed Construction				
WORK CONSISTS OF PROVIDING FOUR (4) EARTH COVERED MAGAZINES. THREE (3) SMALL MAGAZINES WILL BE USED TO STORE EXPLOSIVE COMPONENTS OF DIFFERENT COMPATABILITY GROUPINGS WHILE AWAITING TESTING. ONE (1) MAGAZINE WILL BE USED TO HOUSE CONDITIONING EQUIPMENT WHERE AMMUNITION COMPONENTS ARE CONDITIONED PRIOR TO TESTING. NO OLD FACILITIES WILL BE DEMOLISHED. CONSTRUCTION AREA NOT SITED WITHIN A FLOOD PLAIN.				
11. REQUIREMENT: 750 SF ADEQUATE: 0 SF SUBSTD: 0 SF PROJECT : STORAGE AND CONDITIONING SPACE, WHERE STORAGE COMPATIBILITY OF AMMUNITION, EXPLOSIVE COMPONENTS AND EXPLOSIVES WILL NOT BE A PROBLEM AND SECURITY OF ALL ITEMS WILL NOT BE COMPROMISED.				

1. COMPONENT ARMY	FY 19 <u>88</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION MILAN ARMY AMMUNITION PLANT Tennessee														
4. PROJECT TITLE COND. & STG. FAC AREA ZZ	5. PROJECT NUMBER TEMP 5317-19													
REQUIREMENT : TO CORRECT SECURITY DEFICIENCIES WITH REGARD TO EXISTING FACILITIES CURRENTLY UTILIZED FOR STORAGE OF AMMUNITION, EXPLOSIVES AND TEST WEAPONS. NEW FACILITIES ARE ALSO NEEDED TO CONSOLIDATE THE LOCATION OF CONDITIONING EQUIP- MENT AND RESOLVE COMPATIBILITY PROBLEMS. CURRENT SITUATION : TEMPORARY SECURITY MEASURES HAVE BEEN TAKEN TO ALLOW LIMITED STORAGE OF TEST WEAPONS AS WELL AS SOME AMMUNITION AND EXPLOSIVES IN EXISTING TEST AREA FACILITIES. THIS TEMPORARY CONDITION CAUSES EXTRA OPERATING REQUIREMENTS THAT IMPEDE TEST AREA FUNCTIONS. IMPACT IF NOT PROVIDED : PROBLEMS CONCERNING SECURITY. STORAGE COMPATIBILITY AS WELL AS LIMITED STORAGE SPACE COULD RESULT IN THE SUSPENSION OF SOME ACTIVITIES AT THE TEST AREA. J. R. ROBERTS LTC COMMANDING <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1988</td> <td>INDEX: 1575</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1988</td> <td>INDEX: 1605</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1988	INDEX: 1575	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623
ESTIMATED CONSTRUCTION START:	APRIL	1988	INDEX: 1575											
ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605											
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623											

1. COMPONENT ARMY	FY 19⁸⁸ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION MILAN ARMY AMMUNITION PLANT Tennessee		
4. PROJECT TITLE COND. & STG. FAC AREA ZZ		5. PROJECT NUMBER TEMP 5317-19

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY (\$000)

B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY..... (PEOPLE)

C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY..... (\$000)

D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... (\$000)

E. PLANNING AND DESIGN DATA (ESTIMATE)

1. STATUS

a. DATE DESIGN STARTED.....

b. PERCENT COMPLETE AS OF JANUARY 15 1987..

c. PERCENT COMPLETE AS OF OCTOBER 1 1987..

d. DATE DESIGN COMPLETED.....

JUN 36

95

100

JAN 37

2. BASIS

a. STANDARD OR DEFINITIVE DESIGN

b. WHERE DESIGN WAS MOST RECENTLY USED:

YES

NO

3. COST (TOTAL - \$000)

a. PRODUCTION OF PLANS AND SPECS

b. ALL OTHER DESIGN COSTS.....

c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....

d. CONTRACT.....

e. IN HOUSE.....

4. CONSTRUCTION START DATE (PLANNED).....

1. COMPONENT ARMY		FY 19 88 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1987	
3. INSTALLATION AND LOCATION Radford Army Ammunition Pt Virginia				4. PROJECT TITLE Mobil Group 1 REPLACEMENT REPLACE FIVE (5) BARRICADES		
5. PROGRAM ELEMENT		6. CATEGORY CODE 226 80	7. PROJECT NUMBER TEMP 532616		8. PROJECT COST (\$000) 1,000	
9. COST ESTIMATES						
ITEM			U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY REPLACE 5 BARRICADES			LS	--	--	885 (885)
SUPPORT FACILITIES						
SUBTOTAL						885
CONTINGENCY PERCENT (5.00%)						45
TOTAL CONTRACT COST						930
SUPERVISION, INSPECT & OVHD (5.50%)						50
TOTAL REQUEST						980
TOTAL REQUEST (ROUNDED)						1,000
INSTALLED EQUIPMENT-OTHER APPROP						
10. Description of Proposed Construction						
COMPLETELY REMOVE AND RECONSTRUCT BARRICADES FOR FIVE (5) ACTIVE PROPELLANT OPERATING BUILDINGS. NOT SITED IN A FLOOD PLAIN.						
11. REQUIREMENT: SF ADEQUATE: SF SUBSTD: 0 SF PROJECT : REPLACE TWO MULTI-STORY AND THREE SINGLE-STORY, DOUBLE REVETTED WOODEN, EARTH FILLED BARRICADES WITH ONE MULTI-STORY AND FOUR SINGLE-STORY BARRICADES. THE PROJECT MUST REMOVE AND RE-INSTALL UTILITIES, PROCESS PIPING AND DUCTWORK PASSING THROUGH OR ATTACHED TO THE BARRICADES. ALSO, THE FLOORS AND ROOFS THROUGH THE BARRICADE PORTALS ARE TO BE REPLACED. DETERIORATED ESCAPE CHUTES AND SUPPORT FRAMING ARE TO BE REPLACED AND THE SURFACE DRAINAGE IS TO BE DIVERTED AWAY FROM THE BARRICADE FOUNDATION. UPGRADE THE ELECTRICAL LIGHTING AND WIRING TO MEET THE LATEST CODES. NOTE: RATHER THAN UPGRADE THE 1940'S OPEN WIRING AND NONCONFORMING ELECTRICAL AT ALL THE FACILITIES AT RAAP AT ONE TIME, IT HAS PREVIOUSLY BEEN DECIDED TO CORRECT THE CONDITIONS WHEN MAJOR WORK IS PERFORMED ON INDIVIDUAL BUILDINGS. NEW						

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987									
3. INSTALLATION AND LOCATION Radford Army Ammunition Pt Virginia											
4. PROJECT TITLE Mobilization Group 1 REPLACEMENT REPLACE FIVE (5) BARRICADES		5. PROJECT NUMBER TEMP 532616									
PROJECT : (CONT) .. WIRING AND CONDUIT ON BARRICADES CORRECTS THE MAJORITY OF THE REQUIREMENTS. REQUIREMENT : THIS PROJECT IS THE NINTH PHASE OF AN ANNUAL REPLACEMENT PROGRAM FOR THE BARRICADES AT THIS PLANT WHICH WERE ERECTED IN THE 1940-41 PERIOD. THIRTY-THREE BARRICADES IN PHASE I (FY-80) THROUGH PHASE V (FY-84) HAVE BEEN COMPLETED. REPAIRS TO MANY OF THESE BARRICADES HAVE BECOME EXCESSIVE AND CANNOT KEEP UP WITH THE RATE OF DETERIORATION, AND THE STRUCTURAL INTEGRITY CANNOT BE ASSURED. CURRENT SITUATION : 240 BARRICADES ARE REQUIRED AT THIS PLANT TO MEET CURRENT PRODUCTION SCHEDULES AND FOR MOBILIZATION. A PORTION OF THESE CAN BE MAINTAINED FOR THE NEXT 20 YEARS. THE REMAINING ONES SHOULD BE REPLACED BECAUSE OF DECAYING OF THE MAJOR STRUCTURAL COMPONENTS. A REPLACEMENT PROGRAM HAS BEEN STARTED TO RENEW THE BARRICADES AT THESE BUILDINGS, A FEW EACH YEAR, BEGINNING WITH THE ONES THAT ARE IN GREATEST NEED OF REPLACEMENT. IMPACT IF NOT PROVIDED : WITHOUT ADEQUATE BARRICADES, RAAP COULD NOT CONTINUE TO OPERATE WITHIN EXISTING INTRALINE QUANTITY DISTANCES. ADDITIONAL : NOT REQUIRED. G. J. Savitske LTC, CMLC COMMANDER <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>MAY 1988</td> <td>INDEX: 1608</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>JANUARY 1989</td> <td>INDEX: 1655</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>SEPTEMBER 1989</td> <td>INDEX: 1694</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	MAY 1988	INDEX: 1608	ESTIMATED MIDPOINT OF CONSTRUCTION:	JANUARY 1989	INDEX: 1655	ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER 1989	INDEX: 1694
ESTIMATED CONSTRUCTION START:	MAY 1988	INDEX: 1608									
ESTIMATED MIDPOINT OF CONSTRUCTION:	JANUARY 1989	INDEX: 1655									
ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER 1989	INDEX: 1694									

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Radford Army Ammunition Pt Virginia		
4. PROJECT TITLE Mobilization Group 1 REPLACEMENT REPLACE FIVE (5) BARRICADES		5. PROJECT NUMBER TEMP 532616
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY 0 (\$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..... 0 (\$000)		
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... 0 (\$000)		
E. PLANNING AND DESIGN DATA (ESTIMATE)		
1. STATUS		
a. DATE DESIGN STARTED.....		Jul 85
b. PERCENT COMPLETE AS OF JANUARY 15 1987..		70
c. PERCENT COMPLETE AS OF OCTOBER 1 1987..		100
d. DATE DESIGN COMPLETED.....		Mar 87
2. BASIS		
a. STANDARD OR DEFINITIVE DESIGN YES NO		
b. WHERE DESIGN WAS MOST RECENTLY USED:		
3. COST (TOTAL - \$000)		
a. PRODUCTION OF PLANS AND SPECS		
b. ALL OTHER DESIGN COSTS.....		
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....		
d. CONTRACT.....		
e. IN HOUSE.....		
4. CONSTRUCTION START DATE (PLANNED).....		Apr 88

1. COMPONENT ARMY	FY 19 88 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1987
3. INSTALLATION AND LOCATION Radford Army Ammunition Pt Virginia		4. PROJECT TITLE MobilGroup 1 Replacement Replace Barricades at Explosive Op		
5. PROGRAM ELEMENT	6. CATEGORY CODE 226 80	7. PROJECT NUMBER TEMP 2700-02	8. PROJECT COST (\$000) 540	

9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY Replace Barricades	LS	--	--	465 (465)
SUPPORT FACILITIES				
SUBTOTAL				465
CONTINGENCY PERCENT (10.00%)				47
TOTAL CONTRACT COST				512
SUPERVISION, INSPECT & OVHD (5.50%)				28
TOTAL REQUEST				540
TOTAL REQUEST (ROUNDED)				540
INSTALLED EQUIPMENT-OTHER APPROP				(0)

10. Description of Proposed Construction

 Completely remove and re-construct barricades for three (3) active propellant operating buildings. Not sited in a flood plain.

11. REQUIREMENT: SF **ADEQUATE:** SF **SUBSTD:** 0 SF
PROJECT :
 Replace one multi-story and two single-story, double revetted wooden, earth filled barricades with one multi-story and two single-story barricades. The project must remove and re-install utilities, process piping and ductwork passing through or attached to the barricades. Also, the floors and roofs through the barricade portals are to be replaced. Deteriorated escape chutes and support framing are to be replaced and the surface drainage is to be diverted away from the barricade foundation. Upgrade the electrical lighting and wiring to meet the latest codes. Note: Rather than upgrade the 1940's open wiring and nonconforming electrical at all the facilities at RAAP at one time, it has previously been decided to correct the conditions when major work is performed on individual buildings. New wiring and conduit on

1. COMPONENT ARMY	FY 19<u>88</u>MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION Radford Army Ammunition Pt Virginia														
4. PROJECT TITLE Mobilization Group 1 Replacement Replace Barricades at Explosive Operating Buildings		5. PROJECT NUMBER TEMP 2700-02												
PROJECT : (CONT).. barricades corrects the majority of the requirements. REQUIREMENT : This project is part of an annual replacement program for the barricades at this plant which were erected in the 1940-'41 period. Thirty-three barricades in Phase I (FY-80) through Phase V (FY-84) have been completed. Repairs to many of these barricades have become excessive and cannot keep up with the rate of deterioration, and the structural integrity cannot be assured. CURRENT SITUATION : 240 barricades are required at this plant to meet current production schedules and for mobilization. A portion of these can be maintained for the next 20 years. The remaining ones should be replaced because of decaying of the major structural components. A replacement program has been started to renew the barricades at these buildings, a few each year, beginning with the ones that are in greatest need of replacement. IMPACT IF NOT PROVIDED : Without adequate barricades, RAAP could not continue to operate within existing intraline quantity distances. G. J. Savitske LTC, OrdC Commander <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>JANUARY</td> <td>1988</td> <td>INDEX: 1567</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>JULY</td> <td>1988</td> <td>INDEX: 1590</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>JANUARY</td> <td>1989</td> <td>INDEX: 1616</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	JANUARY	1988	INDEX: 1567	ESTIMATED MIDPOINT OF CONSTRUCTION:	JULY	1988	INDEX: 1590	ESTIMATED CONSTRUCTION COMPLETION:	JANUARY	1989	INDEX: 1616
ESTIMATED CONSTRUCTION START:	JANUARY	1988	INDEX: 1567											
ESTIMATED MIDPOINT OF CONSTRUCTION:	JULY	1988	INDEX: 1590											
ESTIMATED CONSTRUCTION COMPLETION:	JANUARY	1989	INDEX: 1616											

1. COMPONENT ARMY	FY 19⁸⁸ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Radford Army Ammunition Pt Virginia		
4. PROJECT TITLE Mobilization Group 1 Replacement Replace Barricades at Explosive Operating Buildings		5. PROJECT NUMBER TEMP 2700-02

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY	0
	(\$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.....	0
	(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....	0
	(\$000)

E. PLANNING AND DESIGN DATA (ESTIMATE)

1. STATUS	
a. DATE DESIGN STARTED.....	OCT 86
b. PERCENT COMPLETE AS OF JANUARY 15 1987..	70
c. PERCENT COMPLETE AS OF OCTOBER 1 1987..	100
d. DATE DESIGN COMPLETED.....	MAR 87

2. BASIS	
a. STANDARD OR DEFINITIVE DESIGN	YES NO
b. WHERE DESIGN WAS MOST RECENTLY USED:	

3. COST (TOTAL - \$000)	
a. PRODUCTION OF PLANS AND SPECS	
b. ALL OTHER DESIGN COSTS.....	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	
d. CONTRACT.....	
e. IN HOUSE.....	

4. CONSTRUCTION START DATE (PLANNED).....	JAN 88
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1. COMPONENT ARMY	FY 19 85 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1987
3. INSTALLATION AND LOCATION Twin Cities Army Ammo Pt Minnesota		4. PROJECT TITLE MobilGroup 2 Modernization Igloo Storage		
5. PROGRAM ELEMENT	6. CATEGORY CODE 421 80	7. PROJECT NUMBER TEMP 2800-8	8. PROJECT COST (\$000) 2,600	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY 42180	EA	4	411000	1,644 (1,644)
SUPPORT FACILITIES				644
Electric Service	LS	--	--	(20)
Paving, Walks, Curbs & Gutters	LS	--	--	(120)
Site Imp(474)Demo()	LS	--	--	(474)
42180	LS	--	--	(30)
SUBTOTAL				2,288
CONTINGENCY PERCENT (5.00%)				114
TOTAL CONTRACT COST				2,402
SUPERVISION, INSPECT & OVHD (8.40%)				202
TOTAL REQUEST				2,604
TOTAL REQUEST (ROUNDED)				2,600
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10. Description of Proposed Construction DESCRIPTION Construct 4 concrete earth-covered, steam-heated, permanent igloos (3100 sf each) for propellant powder storage. Each igloo is to have a mechanical dock leveler, all utilities, road and rail access, and full security and safety systems. Existing salvage area is to be relocated as necessary, and existing wood frame magazines are to be demol- ished.				
11. REQUIREMENT: 12,400 SF ADEQUATE: 0 SF SUBSTD: 12,400 SF PROJECT : Construct four propellant powder storage igloos, and demolish existing substandard wood frame structures.				
REQUIREMENT : This project is required to provide powder storage facilities that will meet the criteria of Army security and safety reg- ulations.				

1. COMPONENT ARMY	FY 19 ⁸⁸ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1991												
3. INSTALLATION AND LOCATION Twin Cities Army Ammo Pt Minnesota														
4. PROJECT TITLE Mobilization Group 2 Modernization Igloo Storage		5. PROJECT NUMBER TEMP 2800-8												
CURRENT SITUATION : Present facilities are substandard, temporary wood structures that do not meet safety/security standards, and have been used under waivers which will no longer be granted. IMPACT IF NOT PROVIDED : If this project is not approved, use of the existing facilities will be possible only if waivers are granted -- since the structures are not in compliance with AR 190-11 and DARCOMR 190-3. ADDITIONAL : The project described in this 1391 is part of a total project for six storage igloos. This portion of the work -- for four igloos -- is intended to be constructed in FY88. The remaining two igloos and associated support facilities are proposed to be done in FY89. Estimated costs for the FY89 work are: 2igloos = \$822000, support facilities = 64000, and contingency and SIOH = 95000 -- for a fy89 total of \$981000. /S/ Theodore E. Schulte Theodore E. Schulte Commanders Representative <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1988</td> <td>INDEX: 1575</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1988</td> <td>INDEX: 1605</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1988	INDEX: 1575	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623
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ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605											
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623											

1. COMPONENT ARMY	FY 19⁸⁸ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Twin Cities Army Ammo Pt Minnesota		
4. PROJECT TYPE Mobilization Group 2 Modernization Igloo Storage		5. PROJECT NUMBER TEMP 2800-8
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY		404 (\$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.....		(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....		(\$000)
E. PLANNING AND DESIGN DATA (ESTIMATE)		
1. STATUS		
a. DATE DESIGN STARTED.....		NOV 86
b. PERCENT COMPLETE AS OF JANUARY 15 1987..		60
c. PERCENT COMPLETE AS OF OCTOBER 1 1987..		100
d. DATE DESIGN COMPLETED.....		FEB 87
2. BASIS		
a. STANDARD OR DEFINITIVE DESIGN	YES X NO	
b. WHERE DESIGN WAS MOST RECENTLY USED:		
NA		
3. COST (TOTAL - \$000)		
a. PRODUCTION OF PLANS AND SPECS		
b. ALL OTHER DESIGN COSTS.....		70
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....		70
d. CONTRACT.....		
e. IN HOUSE.....		70
4. CONSTRUCTION START DATE (PLANNED).....		APR 88

1. COMPONENT ARMY		FY 19 88 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1987	
3. INSTALLATION AND LOCATION Lone Star Army Ammunition Pt Texas				4. PROJECT TITLE Modernization Chem Lab Rehabilitation		
5. PROGRAM ELEMENT		6. CATEGORY CODE 226 90	7. PROJECT NUMBER TEMP 2700-03		8. PROJECT COST (\$000) 550	
9. COST ESTIMATES						
ITEM			U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY Chem Lab Rehabilitation			LS	--	--	473 (473)
SUPPORT FACILITIES						
SUBTOTAL						473
CONTINGENCY PERCENT (10.00%)						47
TOTAL CONTRACT COST						520
SUPERVISION, INSPECT & OVHD (5.50%)						29
TOTAL REQUEST						549
TOTAL REQUEST (ROUNDED)						550
INSTALLED EQUIPMENT-OTHER APPROP						(10)
10. Description of Proposed Construction						
Rehabilitate this plant's production chem lab. to include replacement of 1) six work tables including drain troughs, sinks; 2) eight fume exhaust hood stations; 3) window air conditioning system in the instrument room with a central environmental unit; 4) deteriorated conductive flooring. Also includes modification of the heating system, installation of an air exchanger in the storage room, and construction of a storage facility for hazardous gas cylinders. Site plan/safety submission not required. Hazard analysis not required. Procurement of or in-house manufacture of any equipment or item will meet current OSHA, Army, Federal, State, or Local regulation or law, whichever is more stringent. Heating and air conditioning required.						
11. REQUIREMENT: 6,049 SF ADEQUATE: 0 SF SUBSTD: 6,049 SF						

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Lone Star Army Ammunition Pt Texas		
4. PROJECT TITLE Modernization Chem Lab Rehabilitation		5. PROJECT NUMBER TEMP 2700-03
PROJECT : Rehabilitation of existing I-13 Chemical Laboratory REQUIREMENT : Required to perform analysis of various production chemical mixes for explosives content and environmental tests. CURRENT SITUATION : The existing Chem Lab was constructed in 1941/42. It is an unsafe antiquated, and deteriorated facility where various chemicals and explosives are handled daily. The facility in its present deteriorated condition is totally inadequate to provide a clean and safe environment for laboratory personnel. IMPACT IF NOT PROVIDED : There are no alternatives to this project if the existing Chem Lab is to be rehabilitated into an efficient, safe operating facility. In actuality, there are two alternates; one, continue to use the existing facility as is. This is not practical due to the deteriorated obsolete and unsafe condition of the existing facility. Two, build a new facility. This is impractical due to the much larger expenditures that would be required. The rehabilitation of the existing facility is the only practical alternative. ADDITIONAL : This project has been reviewed for historic impact and complies with the intent of PL 89-665 and Executive Order 11593. All appropriate measures will be taken to ensure that the health of the worker is protected within all existing state and federal laws and regulations. This project has been		

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Lone Star Army Ammunition Pt Texas		
4. PROJECT TITLE Modernization Chem Lab Rehabilitation	5. PROJECT NUMBER TEMP 2700-03	
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1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987									
3. INSTALLATION AND LOCATION Lone Star Army Ammunition Pt Texas											
4. PROJECT TITLE Modernization Chem Lab Rehabilitation		5. PROJECT NUMBER TEMP 2700-03									
reviewed and it has been determined that an Environmental Impact Statement pursuant to PL 91-190 is not required. /S/ DOUGLAS R. BAKER DOUGLAS R. BAKER LTC ORDC COMMANDING <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL 1988</td> <td>INDEX: 1575</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>DECEMBER 1988</td> <td>INDEX: 1612</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>SEPTEMBER 1989</td> <td>INDEX: 1645</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL 1988	INDEX: 1575	ESTIMATED MIDPOINT OF CONSTRUCTION:	DECEMBER 1988	INDEX: 1612	ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER 1989	INDEX: 1645
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ESTIMATED MIDPOINT OF CONSTRUCTION:	DECEMBER 1988	INDEX: 1612									
ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER 1989	INDEX: 1645									

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Lone Star Army Ammunition Pt Texas		
4. PROJECT TITLE Modernization Chem Lab Rehabilitation	5. PROJECT NUMBER TEMP 2700-03	

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY (\$000)

B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY..... (PEOPLE)

C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY..... (\$000)

D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... (\$000)

E. PLANNING AND DESIGN DATA (ESTIMATE)

1. STATUS OCT 85

a. DATE DESIGN STARTED..... 100

b. PERCENT COMPLETE AS OF JANUARY 15 1987.. 100

c. PERCENT COMPLETE AS OF OCTOBER 1 1987.. DEC 86

d. DATE DESIGN COMPLETED.....

2. BASIS

a. STANDARD OR DEFINITIVE DESIGN YES NO

b. WHERE DESIGN WAS MOST RECENTLY USED:

3. COST (TOTAL - \$000)

a. PRODUCTION OF PLANS AND SPECS

b. ALL OTHER DESIGN COSTS.....

c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....

d. CONTRACT.....

e. IN HOUSE.....

4. CONSTRUCTION START DATE (PLANNED).....

1. COMPONENT ARMY	FY 19 88	MILITARY CONSTRUCTION PROJECT DATA		2. DATE JAN 1988
3. INSTALLATION AND LOCATION Ravenna Army Ammunition Pt Ohio		4. PROJECT TITLE Mob #1 GROUP 3 Modernization Intru Alarm Sys/Locks/Hasps		
5. PROGRAM ELEMENT	6. CATEGORY CODE 880 40	7. PROJECT NUMBER TEMP 2800-3	8. PROJECT COST (\$000) 2,600	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY				2,236
ALARM SYSTEM CONSTRUCTION	LS	--	--	(1,781)
ALARM SYSTEM EQUIP COSTS	LS	--	--	(292)
AMC ENGR SUPPORT, VECP, FEE	LS	--	--	(163)
SUPPORT FACILITIES				
SUBTOTAL				2,236
CONTINGENCY PERCENT (10.00%)				224
TOTAL CONTRACT COST				2,460
SUPERVISION, INSPECT & OVHD (5.50%)				135
TOTAL REQUEST				2,595
TOTAL REQUEST (ROUNDED)				2,600
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10. Description of Proposed Construction Provide and install approved locks and hasps in accordance with AR 190-11 on seven hundred seventy-six (776) earth-covered and aboveground storage magazines. Storage magazines are located in areas throughout the facility. Provide an intrusion detection system on thirty-eight (38) earth-covered storage igloos with control console located at security police headquarters. Storage igloos are all located in Block C. Project will provide for exterior lighting on each igloo including all electric service and communications cable necessary to service the IDS equipment and the lights. FE-5 fencing shall be provided around the IDS area with necessary gates and road extensions.				
11. REQUIREMENT: 38 BX ADEQUATE: 0 BX SUBSTD: 38 BX				

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE DEC 1987
3. INSTALLATION AND LOCATION Ravenna Army Ammunition Pt Ohio		
4. PROJECT TITLE Mobilization GROUP 3 Modernization Intru Alarm Sys/Locks/Hasps		5. PROJECT NUMBER TEMP 2800-3
PROJECT : This project includes the purchase and installation of approved high-security locks and hasps in accordance with AR 190-11 on 776 earth-covered and/or aboveground storage magazines. On 38 selected sites the earth-covered storage magazines will require IDS equipment, lights, and fencing to satisfy AA&E Category II storage requirements. REQUIREMENT : This project is required to comply with the security requirements of DOD Manual 5100.76M which requires approved locks and hasps IAW AR 190-11 for all arms, ammunition, and explosive storage. The 38 selected sites must comply with the security requirements of DOD Manual 5100.76M for the storage of Category II AA&E which requires IDS, lights, and security fencing. This project will eliminate the need for two-hour frequency patrols of the Category II storage area and will also improve the security of sensitive AA&E. CURRENT SITUATION : Currently Category II AA&E are stored in underground magazines which are not in compliance with regulations requiring high security locks and hasps, intrusion detection equipment, lighting, and fencing. Other Category III and IV AA&E are stored in underground and/or aboveground magazines which are not in compliance with regulations requiring high security locks and hasps. A need to waive existing regulations will have to be granted if the proposed work is not accomplished. IMPACT IF NOT PROVIDED : Failure to approve this project will mean this installation will not be in compliance with the previously stated regulations. A waiver or exception will have to be granted. On Category II storage security patrols will have		

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION Ravenna Army Ammunition Pt Ohio														
4. PROJECT TITLE Mobilization GROUF 3 Modernization Intru Alarm Sys/Locks/Hasps		5. PROJECT NUMBER TEMP 2800-3												
to be maintained at two-hour intervals until project is complete and operational or waiver is granted. /S/ Robert J. Kasper Robert J. Kasper Commanding Officers Rep. <table> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1988</td> <td>INDEX: 1575</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1988</td> <td>INDEX: 1605</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1988	INDEX: 1575	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623
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ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623											

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Ravenna Army Ammunition Pt Ohio		
4. PROJECT TITLE Mobilization GROUP 3 Modernization Intru Alarm Sys/Locks/Hasps		5. PROJECT NUMBER TEMP 2800-3

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY	154.4
	(\$000)
B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY.....	4
	(PEOPLE)
C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY.....	\$000
	(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....	\$000
	(\$000)

E. PLANNING AND DESIGN DATA (ESTIMATE)

1. STATUS

a. DATE DESIGN STARTED.....	SEPT 86
b. PERCENT COMPLETE AS OF JANUARY 15 1987..	95
c. PERCENT COMPLETE AS OF OCTOBER 1 1987..	100
d. DATE DESIGN COMPLETED.....	FEB 87

2. BASIS

a. STANDARD OR DEFINITIVE DESIGN	YES	NO
b. WHERE DESIGN WAS MOST RECENTLY USED:		

3. COST (TOTAL - \$000)

a. PRODUCTION OF PLANS AND SPECS	
b. ALL OTHER DESIGN COSTS.....	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	
d. CONTRACT.....	
e. IN HOUSE.....	

4. CONSTRUCTION START DATE (PLANNED).....

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA			2. DATE 10/1/80
3. INSTALLATION AND LOCATION VOLUNTEER ARMY AMMO PLANT Tennessee		4. PROJECT TITLE Modernization Security Fencing		
5. PROGRAM ELEMENT	6. CATEGORY CODE 872 10	7. PROJECT NUMBER TEMP 5882800	8. PROJECT COST (\$000) 740	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY Procure/Install Sec Fencing	LF	44,600	14.88	664 (664)
SUPPORT FACILITIES				
SUBTOTAL				664
CONTINGENCY PERCENT (5.00%)				33
TOTAL CONTRACT COST				697
SUPERVISION, INSPECT & OVHD 5.5%				38
TOTAL REQUEST				735
TOTAL REQUEST (ROUNDED)				740
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10 Description of Proposed Construction				
This project will consist of replacing/rehabilitating security fencing from a designated point on the west side of the installation to gate 1A - a distance of approximately 12.9 miles. Most of the existing fencing is approximately 40 years old. Newer sections consisting of approximately 2.8 miles which have been rehabilitated may, where feasible, be retained in the current status. In addition, the fencing around the two water pump stations which consists of approximately 0.6 miles of fence will be replaced. The removed fencing is to be delivered to the salvage yard for disposal. The new fencing and hardware are to be in compliance with the latest revision of STD 646. It shall be of type FE-6, 7 foot fabric with appropriate hardware. Gates 5A, 6, and 7 and four gates at the pump stations are to be replaced in kind with matching hardware in accordance with STD 646.				

1. COMPONENT ARMY	FY 19 <u>88</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION VOLUNTEER ARMY AMMO PLANT Tennessee		
4. PROJECT TITLE Modernization Security Fencing	5. PROJECT NUMBER TEMP 5882800	
DESCRIPTION OF PROPOSED CONSTRUCTION (CONT).. Terrain along the bottom of the fence shall be graded to provide a surface which is within 2 inches of the bottom of the fabric for the entire length. This grading shall be accomplished in such a way as to optimize drainage to prevent washing under and near the fence. Clear zones shall extend 12 feet on the outside and 30 feet on the inside of the fence (available real estate permitting). Material is to be in accordance with Federal Specification RR-F-1f with installation as specified and in accordance with accepted industry best practice. Grounding is to be in accordance with STD 646. Temporary fencing sections are to be provided sequentially as increments of the existing fence are removed and the new erected. This is to be done in such a way as to maintain the required security throughout the entire construction period. 11. REQUIREMENT: 68,100 LF ADEQUATE: 23,500 LF SUBSTD: 44,600 LF PROJECT : Replacement/rehabilitation of 44,600 LF of security (perimeter) fencing. REQUIREMENT : Completion of this project is required to bring the security (perimeter) fence into compliance with security specifications referenced in the DSAR letter of 8 Dec. 1982 regarding security upgrade projects. CURRENT SITUATION : Increasing maintenance problems are being experienced. The fence has many weak sections where the fabric is in very poor condition and is beyond the point of economically feasible routine maintenance. It does not meet the current minimum height requirement in several areas.		

1. COMPONENT ARMY	FY 19 ⁸⁸ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 198												
3. INSTALLATION AND LOCATION VOLUNTEER ARMY AMMO PLANT Tennessee														
4. PROJECT TITLE Modernization Security Fencing	5. PROJECT NUMBER TEMP 5882800													
IMPACT IF NOT PROVIDED : If not provided, the installation will remain in non-compliance of the minimum height requirement in several areas. Sections of the fence have deteriorated to the extent that breaching would not be difficult. Increasing maintenance costs and further deterioration of installation security will become problems of significant magnitude. /S/ James E. Fry James E. Fry Civilian Commander's Representative <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1987</td> <td>INDEX: 1523</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>JULY</td> <td>1987</td> <td>INDEX: 1539</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>OCTOBER</td> <td>1987</td> <td>INDEX: 1555</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1987	INDEX: 1523	ESTIMATED MIDPOINT OF CONSTRUCTION:	JULY	1987	INDEX: 1539	ESTIMATED CONSTRUCTION COMPLETION:	OCTOBER	1987	INDEX: 1555
ESTIMATED CONSTRUCTION START:	APRIL	1987	INDEX: 1523											
ESTIMATED MIDPOINT OF CONSTRUCTION:	JULY	1987	INDEX: 1539											
ESTIMATED CONSTRUCTION COMPLETION:	OCTOBER	1987	INDEX: 1555											

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION VOLUNTEER ARMY AMMO PLANT Tennessee		
4. PROJECT TITLE Modernization Security Fencing	5. PROJECT NUMBER TEMP 5882800	

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY (\$000)

B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY..... (PEOPLE)

C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY..... (\$000)

D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... (\$000)

E. PLANNING AND DESIGN DATA (ESTIMATE)

1. STATUS

a. DATE DESIGN STARTED.....	AUG 86
b. PERCENT COMPLETE AS OF JANUARY 15 1987..	95
c. PERCENT COMPLETE AS OF OCTOBER 1 1987..	100
d. DATE DESIGN COMPLETED.....	JAN 87

2. BASIS

a. STANDARD OR DEFINITIVE DESIGN	YES	NO
b. WHERE DESIGN WAS MOST RECENTLY USED:		

3. COST (TOTAL - \$000)

a. PRODUCTION OF PLANS AND SPECS	
b. ALL OTHER DESIGN COSTS.....	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	
d. CONTRACT.....	
e. IN HOUSE.....	

4. CONSTRUCTION START DATE (PLANNED).....

1. COMPONENT ARMY	FY 19 88 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1989
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri		4. PROJECT TITLE Security Improvements		
5. PROGRAM ELEMENT	6. CATEGORY CODE 872 15	7. PROJECT NUMBER TEMP 2800-07	8. PROJECT COST (\$000) 1,150	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY Road, Fencing & Turnstile Installation	LS	--	--	1,045 (1,045)
SUPPORT FACILITIES				
SUBTOTAL				1,045
CONTINGENCY PERCENT (5.00%)				52
TOTAL CONTRACT COST				1,097
SUPERVISION, INSPECT & OVHD (5.50%)				60
TOTAL REQUEST				1,157
TOTAL REQUEST (ROUNDED)				1,150
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10. Description of Proposed Construction Task 1 - To provide access road to Building 35 which will be outside the restricted area. Provide a fenced corridor to restrict employee access to restricted areas when going to and from Building 65. Provide and install security turnstiles (13), badge readers and associated electronics to limit access to restricted areas to authorized personnel. Task 2 - Provide locks and hasps for Energetic Material Storage buildings (31). Task 3 - Provide IDS equipment for energetic Material Storage Control and communications link to guard headquarters. Task 4- Provide and install Closed Circuit Television Systems (CCTV) to monitor areas in several buildings. Where complete rounds are processed or stored and for monitoring the restricted area access on the corridor to				

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri		
4. PROJECT TITLE Security Improvements	5. PROJECT NUMBER TEMP 2800-07	
DESCRIPTION OF PROPOSED CONSTRUCTION (CONT).. Building 65. Task 5 - Provide security for certain ADP areas. Task 6 - Provide remote duress alarms in high priority areas (Command Group, GOCO Operator Management Offices, and certain remote guard locations). 11. REQUIREMENT: 1 EA ADEQUATE: EA SUBSTD: 0 EA PROJECT : This project consists of six (6) security improvement tasks as described in paragraph 10F. REQUIREMENT : This project is required to provide necessary security of restricted areas by routing personnel around such areas or by improving personnel monitoring through such areas. This project is required to eliminate security waivers in areas where the corrective action brings the affected area of buildings into total compliance with security requirements. This project is required to provide necessary security of energetic materials, completed rounds of ammunition in process or storage, ADP areas and command group areas. Due to the nature of this requirement, there are no acceptable alternatives to this project. CURRENT SITUATION : Security measures in areas encompassed by this project are presently inadequate according to current security requirements. Responsiveness to unauthorized intrusions is limited with current security measures. IMPACT IF NOT PROVIDED : Current security measures will continue to be utilized with limited effectiveness and responsiveness. Security requirement waivers will continue to be necessary. Security according to current requirements can not be		

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri														
4. PROJECT TITLE Security Improvements	5. PROJECT NUMBER TEMP 2800-07													
IMPACT IF NOT PROVIDED : (CONT).. obtained in areas in question. ADDITIONAL : This project will result in some reductions in security personnel. /S/ DENNIS E. O'BRIEN DENNIS E. O'BRIEN LTC, OD Commanding Officer <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1988</td> <td>INDEX: 1575</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1988</td> <td>INDEX: 1605</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1988	INDEX: 1575	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623
ESTIMATED CONSTRUCTION START:	APRIL	1988	INDEX: 1575											
ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1988	INDEX: 1605											
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1989	INDEX: 1623											

1. COMPONENT ARMY	FY 1988 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri		
4. PROJECT TITLE Security Improvements		5. PROJECT NUMBER TEMP 2800-07

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY (\$000)

B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY..... (PEOPLE)

C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY..... (\$000)

D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... (\$000)

E. PLANNING AND DESIGN DATA (ESTIMATE)

1. STATUS OCT 86

a. DATE DESIGN STARTED..... 10

b. PERCENT COMPLETE AS OF JANUARY 15 1987.. 100

c. PERCENT COMPLETE AS OF OCTOBER 1 1987.. OCT 87

d. DATE DESIGN COMPLETED.....

2. BASIS

a. STANDARD OR DEFINITIVE DESIGN YES NO

b. WHERE DESIGN WAS MOST RECENTLY USED:

3. COST (TOTAL - \$000)

a. PRODUCTION OF PLANS AND SPECS

b. ALL OTHER DESIGN COSTS.....

c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....

d. CONTRACT.....

e. IN HOUSE.....

4. CONSTRUCTION START DATE (PLANNED)..... APR 88

DEPARTMENT OF THE ARMY
JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1988/1989

FY 1989 - PRODUCTION BASE SUPPORT

APPROPRIATION: Procurement of Ammunition, Army

ACTIVITY 2 - Production Base Support

<u>Army Ammunition Installation</u>	<u>Project No.</u>	<u>Project Title</u>	<u>Cost Estimate (\$000)</u>	<u>Page No.</u>
Holston Army PT, Tennessee	5892055	Modernization Explosive Loading Dock	3.350	78
Lake City Army PT, Missouri	5892495	Demolition Relocate & Mod TNR Process	2.150	82
Lake City Army PT, Missouri	5892498	Alteration Covered Walkway Pyro Storage	1.350	86
Indiana Army PT, Indiana	5892547	Modernization Lighting Protection	1.850	90
Holston Army PT, Tennessee	0072000	Modernization MOD Line 10, Comp A-5	5.300	93
Indiana Army PT, Indiana	5895330-13	Addition Shiphse/ Rds-Phase V	.300	97
Indiana Army PT, Indiana	5895330-51	EMCS	.840	101
Kansas Army PT, Kansas	5895329-19	Construction Commercial Truck Do	.230	105
Lake City Army Missouri	5895332-17	Replace Oil Storage Tank	.290	108
Milan Army PT, Tennessee	5895317-18	Maz Mat Stg Bldg-Area S	.810	112
Milan Army PT, Tennessee	5895317-20	Replace Inflatable Shelter	.270	115

DEPARTMENT OF THE ARMY
JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1988/1989

FY 1989 - PRODUCTION BASE SUPPORT
(Cont'd)

APPROPRIATION: Procurement of Ammunition, Army

ACTIVITY 2 - Production Base Support

<u>Army Ammunition Installation</u>	<u>Project No.</u>	<u>Project Title</u>	<u>Cost Estimate (\$000)</u>	<u>Page No.</u>
Radford Army PT, Virginia	5895326-16	Replacement Replace (5) Barricades	1.300	118
Radford Army PT, Virginia	5892519	Safety Modernization Upgrade Primary Overhead Electrica	14.200	121
Radford Army PT, Virginia	5895326-15	Replacement Replace Bridge No. 930	.370	125
Twin Cities PT, Minnesota	5895201-22	Addition Package Boilers	.560	128
Lake City Army PT, Missouri	892245	Addition Pyrotechnic Safety Enhance	.830	132
Lone Star Army PT, Texas	5892245	Addition Alteration Production Control Fac	.410	136
Longhorn Army PT, Texas	582245	Modernization Pyro Safety Enhancement	.820	140
Kansas Army PT, Kansas	532918	Enlarge Railroad Docks	.230	144
Longhorn Army PT, Texas	2701-08	Alteration Red Exp to Energ Mat'l	.390	146
Twin Cities Army PT, Minnesota	2800-8	Igloo Storage	3.000	151
Holston Army PT, Tennessee	2701-2	Alteration Electrical SF Corrections	2.400	154

1. COMPONENT ARMY	FY 19 89 MILITARY CONSTRUCTION PROJECT DATA		2. DATE JAN 1987	
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--12034 Tennessee			4. PROJECT TITLE Modernization Explosive Loading Dock	
5. PROGRAM ELEMENT	6. CATEGORY CODE 226 16	7. PROJECT NUMBER TEMP 2055	8. PROJECT COST (\$000) 3,350	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY?				
Loading dock Barricades	LS	--	--	2,593
Loading Dock Facility	LS	--	--	694)
Rails, Walks, Roads	LS	--	--	890)
Utilities	LS	--	--	634)
Battery Charging Station	LS	--	--	274)
				101)
SUPPORT FACILITIES				
Site Imp(311)Demo()	LS	--	--	311
				311)
SUBTOTAL				
CONTINGENCY PERCENT (10.00%)				2,904
TOTAL CONTRACT COST				290
SUPERVISION, INSPECT & OVHD (5.50%)				3,194
TOTAL REQUEST				176
TOTAL REQUEST (ROUNDED)				3,370
INSTALLED EQUIPMENT-OTHER APPROP				3,350
				316)
10. Description of Proposed Construction Construct new loading dock for shipment of explosives. Scope of work includes: demolition of existing loading dock; construction of new loading dock; construction of explosion protection barricades; installation of utilities; access roads railroad spur; and general site improvements as required. Project includes battery charging station for electric forklifts.				
11. REQUIREMENT: SF ADEQUATE: SF SUBSTD: 0 SF PROJECT :				
Construct a new explosives loading dock with a 250,000 pound explosives load limit. Provide road, parking area, railroad spur, barricade and modern packaging equipment.				

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--12034 Tennessee		
4. PROJECT TITLE Modernization Explosive Loading Dock		5. PROJECT NUMBER TEMP 2055
REQUIREMENT : The new dock will replace an indadequate, deteriorated facility. Construction of a new loading dock is essential to provide the capability to simultaneously outload a larger variety of products and to permit palletization of finished explosives resulting in a more efficient operation and the ability to meet FYDP and mobilization requirements. CURRENT SITUATION : Currently two of the loading docks at Holston are seriously deteriorated. The timber floors in these docks will not support forklifts nor handle palletized loads due to the small size of the buildings. IMPACT IF NOT PROVIDED : Improvement of the industrial readiness posture for loading finished explosvies will not be realized if this project is not funded. The capability to handle a larger variety of products and to palletize the finished explosvies will not be achieved. ADDITIONAL : An environmental assessment will be prepared. It is expected that there will be no significant impact to the environment. A site/Safety Plan has been submitted and approved.		

1. COMPONENT ARMY	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--12034 Tennessee														
4. PROJECT TITLE Modernization Explosive Loading Dock		5. PROJECT NUMBER TEMP 2055												
This project is necessary to meet FYDP and mobilization requirements. Reference SRP-7. /S/ JAMES F. BALD, JR JAMES F. BALD, JR LTC, OD Commanding <table border="0"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>JUNE</td> <td>1990</td> <td>INDEX: 1674</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>JULY</td> <td>1991</td> <td>INDEX: 1719</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>SEPTEMBER</td> <td>1992</td> <td>INDEX: 1766</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	JUNE	1990	INDEX: 1674	ESTIMATED MIDPOINT OF CONSTRUCTION:	JULY	1991	INDEX: 1719	ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER	1992	INDEX: 1766
ESTIMATED CONSTRUCTION START:	JUNE	1990	INDEX: 1674											
ESTIMATED MIDPOINT OF CONSTRUCTION:	JULY	1991	INDEX: 1719											
ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER	1992	INDEX: 1766											

1. COMPONENT ARMY	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--12034 Tennessee		
4. PROJECT TITLE Modernization Explosive Loading Dock		5. PROJECT NUMBER TEMP 2055
SUPPLEMENTAL DATA A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY 165 (\$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..... 6846 (\$000) D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... NA (\$000) E. PLANNING AND DESIGN DATA (ESTIMATE) 1. STATUS a. DATE DESIGN STARTED..... MAR 87 b. PERCENT COMPLETE AS OF JANUARY 15 1988.. 60 c. PERCENT COMPLETE AS OF OCTOBER 1 1988.. 100 d. DATE DESIGN COMPLETED..... MAY 88 2. BASIS a. STANDARD OR DEFINITIVE DESIGN YES NO X b. WHERE DESIGN WAS MOST RECENTLY USED: 3. COST (TOTAL - \$000) a. PRODUCTION OF PLANS AND SPECS 192 b. ALL OTHER DESIGN COSTS..... 192 c. TOTAL COST (c) = (a)+(b) OR (d)+(e)..... 192 d. CONTRACT..... 192 e. IN HOUSE..... 4. CONSTRUCTION START DATE (PLANNED)..... MAR 89		

1. COMPONENT ARMY	FY 19 89 MILITARY CONSTRUCTION PROJECT DATA			2. DATE 11/1/88
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri		4. PROJECT TITLE MobilGroup 1 Demolition Relocate & Mod TNR Process		
5. PROGRAM ELEMENT	6. CATEGORY CODE 226 16	7. PROJECT NUMBER TEMP T892495	8. PROJECT COST (\$000) 2,150	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY				
TNR Manufacturing Bldg.	LS	--	--	(450)
Explosive Neutralizing Bldg.	LS	--	--	(250)
Liquid Chemical Station & Storag	LS	--	--	(159)
Enclosed Cartways	LS	--	--	(115)
SUPPORT FACILITIES				
Electric Service	LS	--	--	(450)
Water, Sewer & Gas	LS	--	--	(15)
Paving, Walks, Curbs & Gutters	LS	--	--	(91)
Storm Drainage	LS	--	--	(3)
Site Imp (1) Demo()	LS	--	--	(21)
Communication	LS	--	--	(2)
Other	LS	--	--	(390)
SUBTOTAL				1,946
CONTINGENCY PERCENT (5.00%)				97
TOTAL CONTRACT COST				2,043
SUPERVISION, INSPECT & OVHD (5.50%)				112
TOTAL REQUEST				2,155
TOTAL REQUEST (ROUNDED)				2,150
INSTALLED EQUIPMENT-OTHER APPROP				(2,591)
10. Description of Proposed Construction The primary facilities consist of two new fire-resistant, non-combustible buildings of permanent construction. The first facility will be an explosive manufacturing building (2,700 square feet) and the second facility a hazardous waste treatment building (1,350 square feet). The explosive manufactured in the building will be Trinitroresorcinol (TNR) a styphnic acid. The TNR produced is used to manufacture Lead Styphnate, a major component in the primer mixture used at the installation. The hazardous waste treatment building will neutralize the wash water waste and then neutralize the waste explosives. Demolition consists of the existing Buildings 82, 83, 94D, T-226 and T-85A. Building 82 is presently utilized for acid and explosive neutralization. Building 83 is presently used for TNR manufacturing. Building 94D, T-226 and T-85A are support facilities for chemical storage, metal powder storage and general supply storage respectively. The existing grounds will be returned to its natural terrain.				
11. REQUIREMENT: 4,050 SF ADEQUATE: 0 SF SUBSTD: 3,800 SF				

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri		
4. PROJECT TITLE Mobilization Group 1 Demolition Relocate & Mod TNR Process		5. PROJECT NUMBER TEMP T892495
PROJECT : This project will increase employee safety, decrease environmental impact, eliminate the use for an unsound structure, and improve the control of process variables in the manufacturing of Trinitroresorcinol (TNR). REQUIREMENT : Employee safety will be improved by use of automatic feed equipment, a ventilation system and a remote automatic control room. The automatic feed equipment will reduce the operators' exposure to the 98% Sulfuric Acid and 96% Nitric Acid which are used in the production process. The improved ventilation system will reduce operators' exposure to nitrous oxides and other hazardous fumes. The remote control room will reduce the chance that an operator could be exposed to acid or exposure to an explosion of the reactor kettles due to a runaway reaction. The environmental impact will be decreased by changing the process and using wet scrubbers on the improved ventilation system. The enhanced process reduces fumes and the scrubber will remove the nitrous oxides and other hazardous fumes to the atmosphere. The explosive neutralization facility will better desensitize the explosive waste. The new acid resistant building will be constructed and new production equipment will be furnished for this facility to replace the existing facilities, which the Army Corps of Engineers reported as unsound. The operator will be permitted to remotely monitor all process variables accurately that effect the product in the isolated control room. CURRENT SITUATION : The TNR is currently manufactured using the same buildings, process and process equipment used in 1942 when the facilities were installed. Continued exposure of the facilities to nitric acid, sulfuric acid and the fumes evolved from these acids has caused the structural members and concrete foundations to deteriorate to such a degree that renovation is uneconomical. Waste from the process is largely sulfuric and nitric acids. The new process dramatically reduces this acidic condition. The present explosive waste is labor intensive and minimal process control. The waste is then pumped to an evaporation lagoon. The fumes from the process are currently discharged directly to the atmosphere. Employees are now exposed to toxic fumes on the average of twice per operating shift. Employees are now manually loading the toxic and acidic chemicals to the reaction kettle in producing the TNR. This exposes them to the hazards of fumes, spills or detonation. Presently all processes require manual operation for loading, washing, packing and neutralization.		

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1989												
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri														
4. PROJECT TITLE Mobilization Group 1 Demolition Relocate & Mod TNR Process		5. PROJECT NUMBER TEMP T892495												
IMPACT IF NOT PROVIDED : If this project is not approved, it will result in the continued use of deteriorating facilities and manual procedures that endanger life and property. LCAAP is the only Government installation capable of processing TNR. ADDITIONAL : This project is programmed in Modernization as Project No. 5892495. JPO:kah 23806 Dennis E. O'Brien Lieutenant Colonel Commanding Officer <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1989</td> <td>INDEX: 1650</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1990</td> <td>INDEX: 1666</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1989	INDEX: 1650	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1990	INDEX: 1666
ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623											
ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1989	INDEX: 1650											
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1990	INDEX: 1666											

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri		
4. PROJECT TITLE Mobilization Group I Demolition Relocate & Mod TNR Process		5. PROJECT NUMBER TEMP T892495
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY		9,000 (\$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.....		2,295,000 (\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....		2,470,000 (\$000)
E. PLANNING AND DESIGN DATA (ESTIMATE)		
1. STATUS		
a. DATE DESIGN STARTED.....		MAY 86
b. PERCENT COMPLETE AS OF JANUARY 15 1988..		100
c. PERCENT COMPLETE AS OF OCTOBER 1 1988..		100
d. DATE DESIGN COMPLETED.....		DEC 87
2. BASIS		
a. STANDARD OR DEFINITIVE DESIGN	YES	NO
b. WHERE DESIGN WAS MOST RECENTLY USED:		
3. COST (TOTAL - \$000)		
a. PRODUCTION OF PLANS AND SPECS		
b. ALL OTHER DESIGN COSTS.....		
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....		
d. CONTRACT.....		
e. IN HOUSE.....		
4. CONSTRUCTION START DATE (PLANNED).....		APR 89

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 15 1987
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri		
4. PROJECT TITLE Mobilization Group I Alteration Covered Walkway Pyro Storage		5. PROJECT NUMBER TEMP T892498
REQUIREMENT : (CONT).. consistent surface to walk and transport over. The elimination of these harsh conditions will remove the need for Grounds Support services to clean and maintain the walkways during inclement weather. The halting of I-136 igniter cake production during rain, due to fire hazard of water reacting with strontium peroxide. No other facilities at Lake City AAP are capable of manufacturing pyrotechnic materials. Consideration was given to a major consolidation of the storage and manufacturing facilities for pyrotechnic production. This proposal was determined not to be cost effective, when compared to this walkway project. CURRENT SITUATION : Operating personnel presently are exposed to inclement weather while pushing or carrying explosive pyrotechnic mixtures. Production processes will be delayed due to potential fire hazard and the need for snow and ice removal. Ground Support services are required to clean and maintain the walkways from weather maintenance. Wind blown rain or snow increases the exposure potential of the pyrotechnic materials. Continued exposure to wind chills below freezing is hazardous to the operating personnel transporting the explosive pyrotechnic materials. IMPACT IF NOT PROVIDED : If this project is not approved, it will result in the continued potential fire hazard with the igniter cake from rain exposure. Production delays will continue from the need to remove and clean walkways of snow and ice between the facilities. Operating personnel will continue to be exposed to hazards from the pyrotechnic materials reaction to weather and the inclement weather itself. ADDITIONAL : The construction of walkway enclosures will resolve the problems associated with personnel and material exposure during different types of inclement weather. The elimination of these harsh conditions will remove the need for Ground Support services to clean and maintain the walkways during and after inclement weather. This enables a smooth and unobstructed flow of materials in the pyrotechnic manufacturing and ammunition production areas.		

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JUN 87												
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri														
4. PROJECT TYPE Modernization Group 1 Alteration Covered Walkway Pyro Storage		5. PROJECT NUMBER TEMP T892498												
This project is programmed in Modernization as Project No. 5892498. JPO:kah 23820 Dennis E. O'Brien Lieutenant Colonel Commanding Officer <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1989</td> <td>INDEX: 1650</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1990</td> <td>INDEX: 1666</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1989	INDEX: 1650	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1990	INDEX: 1666
ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623											
ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1989	INDEX: 1650											
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1990	INDEX: 1666											

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri		
4. PROJECT TITLE Utilization Group 1 Alteration Covered Walkway Pyro Storage		5. PROJECT NUMBER TEMP T892498
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY 1,200 (\$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..... 1,245,000 (\$000) D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... 1,405,000 (\$000) E. PLANNING AND DESIGN DATA (ESTIMATE) 1. STATUS a. DATE DESIGN STARTED..... b. PERCENT COMPLETE AS OF JANUARY 15 1988.. c. PERCENT COMPLETE AS OF OCTOBER 1 1988.. d. DATE DESIGN COMPLETED..... MAY 86 100 100 DEC 87 2. BASIS a. STANDARD OR DEFINITIVE DESIGN b. WHERE DESIGN WAS MOST RECENTLY USED: YES NO 3. COST (TOTAL - \$000) a. PRODUCTION OF PLANS AND SPECS b. ALL OTHER DESIGN COSTS..... c. TOTAL COST (c) = (a)+(b) OR (d)+(e)..... d. CONTRACT..... e. IN HOUSE..... 4. CONSTRUCTION START DATE (PLANNED)..... APR 89		

1. COMPONENT ARMY		FY 19 89 MILITARY CONSTRUCTION PROJECT DATA		2. DATE	
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana			4. PROJECT TITLE Modernization Lightning Protection		
5. PROGRAM ELEMENT	6. CATEGORY CODE 422 80	7. PROJECT NUMBER TEMP 5892547	8. PROJECT COST (\$000) 1,850		
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY					
SUPPORT FACILITIES Lightning Protection		LS	--	--	1,576 (1,576)
SUBTOTAL					1,576
CONTINGENCY PERCENT (10.00%)					158
TOTAL CONTRACT COST					1,734
SUPERVISION, INSPECT & OVHD (5.50%)					95
TOTAL REQUEST					1,829
TOTAL REQUEST (ROUNDED)					1,850
INSTALLED EQUIPMENT-OTHER APPROP					(0)
10. Description of Proposed Construction					
Install new and upgrade existing lightning protection systems for compliance with AMCR 385-100. Work to include installation of lightning arrestors and associated cabling; installation of new and/or the upgrade of existing ground grid systems; and installation of system testing points for trailer loading and unloading areas at 7 trailer pads, 26 service magazines, 6 crating sheds, 10 igniter rest houses, 48 shiphouses, 173 igloos, 13 rail spurs, and 4 loading docks.					
11. REQUIREMENT: SF ADEQUATE: SF SUBSTD: SF PROJECT : To provide updated lightning protection for mobile material handling equipment in accordance with AMCR 385-100.					

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JUL 1987									
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana											
4. PROJECT TITLE Modernization Lightning Protection		5. PROJECT NUMBER TEMP 5892547									
REQUIREMENT : This project is required to correct lightning protection deficiencies. CURRENT SITUATION : Currently, lightning protection is not adequate to provide protection to mobile material handling equipment being used during loading or unloading of ammunition items/components. IMPACT IF NOT PROVIDED : If this project is not provided, mobile material handling equipment will not have lightning protection, with consequent risk to both personnel and equipment. ADDITIONAL : An economic analysis is not necessary for the project. All potential alternatives were examined in the development of the project and none were found to be feasible. /S/ TRANNIE W. SANDERSON TRANNIE W. SANDERSON LTC, CM Commanding <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>JANUARY 1989</td> <td>INDEX: 1616</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>FEBRUARY 1990</td> <td>INDEX: 1662</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>MARCH 1991</td> <td>INDEX: 1706</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	JANUARY 1989	INDEX: 1616	ESTIMATED MIDPOINT OF CONSTRUCTION:	FEBRUARY 1990	INDEX: 1662	ESTIMATED CONSTRUCTION COMPLETION:	MARCH 1991	INDEX: 1706
ESTIMATED CONSTRUCTION START:	JANUARY 1989	INDEX: 1616									
ESTIMATED MIDPOINT OF CONSTRUCTION:	FEBRUARY 1990	INDEX: 1662									
ESTIMATED CONSTRUCTION COMPLETION:	MARCH 1991	INDEX: 1706									

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1989
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana		
4. PROJECT TITLE Modernization Lightning Protection		5. PROJECT NUMBER TEMP 5892547

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY	0
	(\$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.....	0
	(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....	0
	(\$000)
E. PLANNING AND DESIGN DATA (ESTIMATE)	
1. STATUS	
a. DATE DESIGN STARTED.....	
b. PERCENT COMPLETE AS OF JANUARY 15 1988..	100
c. PERCENT COMPLETE AS OF OCTOBER 1 1988..	100
d. DATE DESIGN COMPLETED.....	NOV 87
2. BASIS	
a. STANDARD OR DEFINITIVE DESIGN YES NO X	
b. WHERE DESIGN WAS MOST RECENTLY USED:	
3. COST (TOTAL - \$000)	
a. PRODUCTION OF PLANS AND SPECS	
b. ALL OTHER DESIGN COSTS.....	167
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	167
d. CONTRACT.....	115
e. IN HOUSE.....	52
4. CONSTRUCTION START DATE (PLANNED).....	JUN 89

1. COMPONENT ARMY	FY 19 89 MILITARY CONSTRUCTION PROJECT DATA			2. DATE 1987				
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--11212 Tennessee		4. PROJECT TITLE Modernization MOD Line 10, Comp A-5						
5. PROGRAM ELEMENT 78011A	6. CATEGORY CODE 226 90	7. PROJECT NUMBER 0072000	8. PROJECT COST (\$000) 5,300					
9. COST ESTIMATES								
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)				
PRIMARY FACILITY				4,453				
New Construction	LS	--	--	(1,640)				
Alteration, Conversion	LS	--	--	(2,813)				
SUPPORT FACILITIES				299				
Paving, Walks, Curbs & Gutters	LS	--	--	(53)				
Utilities, Paving, Site Work	LS	--	--	(246)				
SUBTOTAL				4,752				
CONTINGENCY PERCENT (5.00%)				238				
TOTAL CONTRACT COST				4,990				
SUPERVISION, INSPECT & OVHD (5.50%)				274				
TOTAL REQUEST				5,264				
TOTAL REQUEST (ROUNDED)				5,300				
INSTALLED EQUIPMENT-OTHER APPROP				(21,247)				
10. Description of Proposed Construction								
New construction, alteration, conversion, utilities services, paving and site work as required to modernize A-Composition production facilities on Line 10. Demolish five (5) substandard buildings (14,480 SF).								
<table style="width: 100%; border: none;"> <tr> <td style="width: 35%;">11. REQUIREMENT:</td> <td style="width: 20%;">SF ADEQUATE:</td> <td style="width: 20%;">SF SUBSTD:</td> <td style="width: 25%;">0 SF</td> </tr> </table>					11. REQUIREMENT:	SF ADEQUATE:	SF SUBSTD:	0 SF
11. REQUIREMENT:	SF ADEQUATE:	SF SUBSTD:	0 SF					
PROJECT :								
Modernize A-Composition production facilities on Line 10.								
REQUIREMENT : This project is required to establish sufficient production capability to meet mobilization end-product outpost levels for A-Composition explosives and to enhance production worker safety.								

1. COMPONENT ARMY	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987									
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--11212 Tennessee											
4. PROJECT TITLE Modernization MOD Line 10, Comp A-5		5. PROJECT NUMBER 0072000									
CURRENT SITUATION : Line 10 is now configured for batch type production of B-Composition explosive and is presently in layaway. Modernization of Line 10 for A-Compositions manufacture is necessary to meet established modernization production rates. Holston is the sole producer of RDX explosives in the United States. Compositions A-3, A-4 and A-5 are coated RDX products used in press-loaded munitions. IMPACT IF NOT PROVIDED : If this project is not provided, the mobilization production levels for A-Composition explosives cannot be met and the existing batch process production facilities will continue to pose higher than necessary risks to production worker safety. /S/ JAMES F. BALD, JR JAMES F. BALD, JR LTC, OD Commanding <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL 1989</td> <td>INDEX: 1623</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>JUNE 1990</td> <td>INDEX: 1674</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>SEPTEMBER 1991</td> <td>INDEX: 1725</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL 1989	INDEX: 1623	ESTIMATED MIDPOINT OF CONSTRUCTION:	JUNE 1990	INDEX: 1674	ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER 1991	INDEX: 1725
ESTIMATED CONSTRUCTION START:	APRIL 1989	INDEX: 1623									
ESTIMATED MIDPOINT OF CONSTRUCTION:	JUNE 1990	INDEX: 1674									
ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER 1991	INDEX: 1725									

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DEPARTMENT OF THE ARMY JUSTIFICATION OF ESTIMATES FOR
FISCAL YEARS 1988/1 (U) DEPUTY CHIEF OF STAFF FOR
RESEARCH DEVELOPMENT AND ACQUISITIO JAN 87

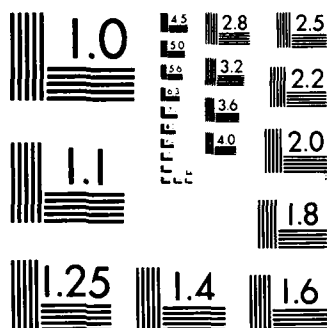
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上列の通り、 $\mathcal{H}$ は $\mathcal{H}_0$ の $\mathcal{H}$ による拡張である。



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

1. COMPONENT ARMY	FY 19⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--11212 Tennessee		
4. PROJECT TITLE Modernization MOD Line 10, Comp A-5	5. PROJECT NUMBER 0072000	
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY		
	UNK (\$000)	
B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY.....		
	UNK (PEOPLE)	
C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY.....		
	UNK (\$000)	
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....		
	(\$000)	
E. PLANNING AND DESIGN DATA (ESTIMATE)		
1. STATUS		
a. DATE DESIGN STARTED.....	AUG 86	
b. PERCENT COMPLETE AS OF JANUARY 15 1988..	100	
c. PERCENT COMPLETE AS OF OCTOBER 1 1988..	100	
d. DATE DESIGN COMPLETED.....	AUG 87	
2. BASIS		
a. STANDARD OR DEFINITIVE DESIGN YES NO X		
b. WHERE DESIGN WAS MOST RECENTLY USED: N/A		
3. COST (TOTAL - \$000)		
a. PRODUCTION OF PLANS AND SPECS	165	
b. ALL OTHER DESIGN COSTS.....	261	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	426	
d. CONTRACT.....	205	
e. IN HOUSE.....	221	
4. CONSTRUCTION START DATE (PLANNED).....		
	FEB 89	

1. COMPONENT ARMY	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--11212 Tennessee														
4. PROJECT TITLE Modernization MOD Line 10, Comp A-5		5. PROJECT NUMBER 0072000												
F. EQUIPMENT ASSOCIATED WITH THIS PROJECT WHICH WILL BE PROVIDED FROM OTHER APPROPRIATIONS <table> <thead> <tr> <th>EQUIPMENT</th> <th>PROCURING</th> <th>FY OF</th> <th>COST</th> </tr> <tr> <th>NOMENCLATURE</th> <th>APPROPRIATION</th> <th>APPROP</th> <th>(\$000)</th> </tr> </thead> <tbody> <tr> <td>Ammo Production Eq</td> <td>PAA</td> <td>87</td> <td>19700</td> </tr> </tbody> </table>			EQUIPMENT	PROCURING	FY OF	COST	NOMENCLATURE	APPROPRIATION	APPROP	(\$000)	Ammo Production Eq	PAA	87	19700
EQUIPMENT	PROCURING	FY OF	COST											
NOMENCLATURE	APPROPRIATION	APPROP	(\$000)											
Ammo Production Eq	PAA	87	19700											

1. COMPONENT ARMY	FY 19 89 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1997	
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana		4. PROJECT TITLE MobilGroup 1 Addition Shiphse/Rds-Phase V			
5. PROGRAM ELEMENT	6. CATEGORY CODE 421 81	7. PROJECT NUMBER TEMP 5330/13	8. PROJECT COST (\$000) 300		
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY Shiphse/Rds-Phase V		SF	38,202	6.70	256 (256)
SUPPORT FACILITIES					
SUBTOTAL CONTINGENCY PERCENT (10.00%) TOTAL CONTRACT COST SUPERVISION, INSPECT & OVHD (5.50%) TOTAL REQUEST TOTAL REQUEST (ROUNDED) INSTALLED EQUIPMENT-OTHER APPROP					256 26 282 16 298 300 (17)
10. Description of Proposed Construction Phase V will provide for the building of access roads, the purchase of one portable ramp and the reinforcing of floors to sixteen (16) rail shiphouses. 11. REQUIREMENT: 155,283 SF ADEQUATE: 119,914 SF SUBSTD: 35,369 SF PROJECT : To convert sixteen (16) limited access Rail Shiphouses to prime explosive storage locations. REQUIREMENT : Access roads are needed for trailer truck access to existing shiphouses that have only rail access, for end-product storage requirements. CURRENT SITUATION : Currently, the shiphouses are loaded in two stages. First, by manual transfer of propellant from an intraplant trailer to a rail jitney car and then by manual transfer from the jitney car into the shiphouse. Direct					

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana														
4. PROJECT TITLE Mobilization Group 1 Addition Shipse/Rds-Phase V		5. PROJECT NUMBER TEMP 5330/13												
CURRENT SITUATION : (CONT).. trailer access eliminates one transfer operation. Floor reinforcement is required for forklift transfer of goods. IMPACT IF NOT PROVIDED : Failure to provide this project will necessitate the continued costly manipulating and rewarehousing of explosive inventories. Additional hiring of material handling personnel will be required to keep up with the rate of Class 1.3 storage turnover and more people than necessary will be exposed to hazards of manually handling explosives. Critically needed prime explosive storage space to comply with the ballistic acceptance procedures in SB 742-1, ammunition surveillance procedures for finished goods produced will be lacking at INAAP if this project is not provided. ADDITIONAL : Presently, INAAP has 238 Class 1.3 facilities. Increased production schedules for 1986-88 will require that all 238 Class 1.3 facilities be utilized equally and that an estimated 1,217 load or unload operations will be required annually. It is estimated that an annual savings of \$415,301 will be realized. Additionally, approximately 150 hours will be saved for quality assurance, content surveillance, inventory check and maintenance personnel. /S/ TRANNIE W. SANDERSON TRANNIE W. SANDERSON LTC, CM Commanding <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1989</td> <td>INDEX: 1650</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1990</td> <td>INDEX: 1666</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1989	INDEX: 1650	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1990	INDEX: 1666
ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623											
ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1989	INDEX: 1650											
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1990	INDEX: 1666											

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana		
4. PROJECT TITLE Utilization Group 1 Addition Shiphse/Rds-Phase V		5. PROJECT NUMBER TEMP 5330/13

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY	0
	(\$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.....	0
	(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....	0
	(\$000)

E. PLANNING AND DESIGN DATA (ESTIMATE)

1. STATUS
 - a. DATE DESIGN STARTED.....
 - b. PERCENT COMPLETE AS OF JANUARY 15 1988..
 - c. PERCENT COMPLETE AS OF OCTOBER 1 1988..
 - d. DATE DESIGN COMPLETED.....

100
 100
 NOV 87
2. BASIS
 - a. STANDARD OR DEFINITIVE DESIGN YES NO X
 - b. WHERE DESIGN WAS MOST RECENTLY USED:
 INAAP
3. COST (TOTAL - \$000)
 - a. PRODUCTION OF PLANS AND SPECS
 - b. ALL OTHER DESIGN COSTS.....
 - c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....
 - d. CONTRACT.....
 - e. IN HOUSE.....

27
 27
 19
 8
4. CONSTRUCTION START DATE (PLANNED).....

JUN 89

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA		2. DATE 28 1987												
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana															
4. PROJECT TITLE Mobilization Group 1 Addition Shipse/Rds-Phase V			5. PROJECT NUMBER TEMP 5330/13												
F. EQUIPMENT ASSOCIATED WITH THIS PROJECT WHICH WILL BE PROVIDED FROM OTHER APPROPRIATIONS <table border="1"> <thead> <tr> <th data-bbox="244 520 393 552">EQUIPMENT</th> <th data-bbox="640 520 789 552">PROCURING</th> <th data-bbox="930 520 1012 552">FY OF</th> <th data-bbox="1095 520 1161 552">COST</th> </tr> <tr> <th data-bbox="227 646 426 678">NOMENCLATURE</th> <th data-bbox="599 646 822 678">APPROPRIATION</th> <th data-bbox="913 646 1012 678">APPROP</th> <th data-bbox="1078 646 1177 678">(\$000)</th> </tr> </thead> <tbody> <tr> <td data-bbox="211 709 525 741">Portable Ramps, one</td> <td data-bbox="558 709 723 741">PA, A 4211</td> <td data-bbox="930 709 963 741">89</td> <td data-bbox="1095 709 1161 741">17.0</td> </tr> </tbody> </table>				EQUIPMENT	PROCURING	FY OF	COST	NOMENCLATURE	APPROPRIATION	APPROP	(\$000)	Portable Ramps, one	PA, A 4211	89	17.0
EQUIPMENT	PROCURING	FY OF	COST												
NOMENCLATURE	APPROPRIATION	APPROP	(\$000)												
Portable Ramps, one	PA, A 4211	89	17.0												

1. COMPONENT ARMY		FY 19 89 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1987	
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana				4. PROJECT TITLE EMCS		
5. PROGRAM ELEMENT		6. CATEGORY CODE 800 00		7. PROJECT NUMBER TEMP 5330/51		8. PROJECT COST (\$000) 840
9. COST ESTIMATES						
ITEM				U/M	QUANTITY	COST (\$000)
PRIMARY FACILITY Enrgy Monitor Contrl Syst				LS	--	-- (724)
SUPPORT FACILITIES						
SUBTOTAL						724
CONTINGENCY PERCENT (10.00%)						72
TOTAL CONTRACT COST						796
SUPERVISION, INSPECT & OVHD (5.50%)						44
TOTAL REQUEST						840
TOTAL REQUEST (ROUNDED)						840
INSTALLED EQUIPMENT-OTHER APPROP						(0)
10. Description of Proposed Construction						
This project consists of replacing the existing Energy Monitoring and Control System (EMCS) with one that will provide enhanced and expanded capabilities. The EMCS (with 2,000 points) will control package boilers at 24 locations, one furnace, chiller systems in 18 buildings, air handling units in 27 buildings, compressors in 9 locations, and area lighting systems in 10 buildings. Steam consumption will be controlled with connections to main steam supply valves supplying 9 buildings, to steam reducing valves supplying 9 buildings, and with connections to valve pits in 6 additional buildings. The EMCS will also provide temperature setback capability in 15 buildings and monitor electrical metering field equipment in 46 locations. EMCS field equipment will be installed in a compatible manner with the existing equipment with wired connections to local Field Interface Devices (FIDs). FIDs will use either FM or telephone links to the Master Control Room (MCR). The MCR will contain the Central Processing Unit (CPU), peripherals, software, etc. Software provided will optimize the energy consumption of controlled equipment. Employee training will be provided.						

1. COMPONENT ARMY	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA		2. DATE JAN 1987												
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana															
4. PROJECT TITLE EMCS		5. PROJECT NUMBER 5330/51													
11. REQUIREMENT: LS ADEQUATE: LS SUBSTD: 0 LS PROJECT : This project will provide a plantwide EMCS for INAAP. REQUIREMENT : Wide-ranging energy conservation measures will be implemented, decreasing energy consumption. Implementation will help meet energy goals, mandated energy reduction requirements, supporting AMCCOM Policy 11-4 (July 1985). CURRENT SITUATION : This need is currently not being met due to the fact that no EMCS is available to provide the needed controls. IMPACT IF NOT PROVIDED : Failure to approve this project will result in continued use of large quantities of energy, the annual equivalent of 7,981 barrels of oil. ADDITIONAL : The reduced energy consumption amounts to an annual savings of 9,389 MWH/YR in electricity, 49,501 gal/yr of No. 2 fuel oil, and 2,893 MCF of natural gas. An annual FY86 dollar savings of \$55,613 in NO. 2 fuel oil, \$177,945 in natural gas and \$435 in labor is estimated. This amounts to an annual cost avoidance of \$298,786. Implementation will reduce energy consumption by 46,487 MBTU/yr.															
/S/ TRANNIE W. SANDERSON TRANNIE W. SANDERSON LTC, CM Commanding															
<table> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>JANUARY</td> <td>1989</td> <td>INDEX: 1616</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>JULY</td> <td>1989</td> <td>INDEX: 1636</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>JANUARY</td> <td>1990</td> <td>INDEX: 1660</td> </tr> </table>				ESTIMATED CONSTRUCTION START:	JANUARY	1989	INDEX: 1616	ESTIMATED MIDPOINT OF CONSTRUCTION:	JULY	1989	INDEX: 1636	ESTIMATED CONSTRUCTION COMPLETION:	JANUARY	1990	INDEX: 1660
ESTIMATED CONSTRUCTION START:	JANUARY	1989	INDEX: 1616												
ESTIMATED MIDPOINT OF CONSTRUCTION:	JULY	1989	INDEX: 1636												
ESTIMATED CONSTRUCTION COMPLETION:	JANUARY	1990	INDEX: 1660												

1. COMPONENT ARMY	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana		
4. PROJECT TITLE EMCS		5. PROJECT NUMBER TEMP 5330/51
SUPPLEMENTAL DATA A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY 29.6 (\$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..... 269.9 (\$000) D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... na (\$000) E. PLANNING AND DESIGN DATA (ESTIMATE) 1. STATUS a. DATE DESIGN STARTED..... b. PERCENT COMPLETE AS OF JANUARY 15 1988.. 100 c. PERCENT COMPLETE AS OF OCTOBER 1 1988.. 100 d. DATE DESIGN COMPLETED..... Dec 87 2. BASIS a. STANDARD OR DEFINITIVE DESIGN YES NO X b. WHERE DESIGN WAS MOST RECENTLY USED: 3. COST (TOTAL - \$000) a. PRODUCTION OF PLANS AND SPECS b. ALL OTHER DESIGN COSTS..... 76 c. TOTAL COST (c) = (a)+(b) OR (d)+(e)..... 76 d. CONTRACT..... 53 e. IN HOUSE..... 23 4. CONSTRUCTION START DATE (PLANNED)..... Jun 89		

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION INDIANA ARMY AMMUNITION PT Indiana														
4. PROJECT TITLE EMCS	5. PROJECT NUMBER TEMP 5330/51													
F. EQUIPMENT ASSOCIATED WITH THIS PROJECT WHICH WILL BE PROVIDED FROM OTHER APPROPRIATIONS <table border="0"> <thead> <tr> <th data-bbox="256 541 404 573">EQUIPMENT</th> <th data-bbox="640 541 789 573">PROCURING</th> <th data-bbox="930 541 1012 573">FY OF</th> <th data-bbox="1087 541 1156 573">COST</th> </tr> <tr> <th data-bbox="239 667 434 699">NOMENCLATURE</th> <th data-bbox="607 667 822 699">APPROPRIATION</th> <th data-bbox="913 667 1012 699">APPROP</th> <th data-bbox="1070 667 1169 699">(\$000)</th> </tr> </thead> <tbody> <tr> <td colspan="4" data-bbox="223 730 289 762">None</td> </tr> </tbody> </table>			EQUIPMENT	PROCURING	FY OF	COST	NOMENCLATURE	APPROPRIATION	APPROP	(\$000)	None			
EQUIPMENT	PROCURING	FY OF	COST											
NOMENCLATURE	APPROPRIATION	APPROP	(\$000)											
None														

1. COMPONENT ARMY	FY 19 89 MILITARY CONSTRUCTION PROJECT DATA			2. DATE 31 1987
3. INSTALLATION AND LOCATION KANSAS ARMY AMMUNITION PLANT Kansas			4. PROJECT TITLE Construction Commercial Truck Do	
5. PROGRAM ELEMENT	6. CATEGORY CODE 851 90	7. PROJECT NUMBER TEMP 532919	8. PROJECT COST (\$000) 230	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY Construct Commercial Truck Docks	LS	--	--	210 (210)
SUPPORT FACILITIES				
SUBTOTAL				210
CONTINGENCY PERCENT (5.00%)				11
TOTAL CONTRACT COST				221
SUPERVISION, INSPECT & OVHD (5.50%)				12
TOTAL REQUEST				233
TOTAL REQUEST (ROUNDED)				230
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10. Description of Proposed Construction				
Construct commercial truck docks to support warehousing operations in the 1400 Area to provide concrete dock and double truck wells between Buildings 1412-13, 1414-15 and 1415-16 complete with proper drainage, dock bumper and dock levelers.				
11. REQUIREMENT: 1s ADEQUATE: 1s SUBSTD: 0 1s PROJECT : Construct three (3) double well truck docks complete with proper drainage, dock bumper and dock levelers. REQUIREMENT : This project would provide commercial truck docks for unloading materials which would reduce material handling and reduce costs.				

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION KANSAS ARMY AMMUNITION PLANT Kansas		
4. PROJECT TITLE Construction Commercial Truck Docks in 1	5. PROJECT NUMBER TEMP 532919	
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY 0 (\$000)		
B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY..... (PEOPLE)		
C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY..... 8500 (\$000)		
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... 0 (\$000)		
E. PLANNING AND DESIGN DATA (ESTIMATE)		
1. STATUS		
a. DATE DESIGN STARTED.....	nov 86	
b. PERCENT COMPLETE AS OF JANUARY 15 1988..	100	
c. PERCENT COMPLETE AS OF OCTOBER 1 1988..	100	
d. DATE DESIGN COMPLETED.....	nov 87	
2. BASIS		
a. STANDARD OR DEFINITIVE DESIGN YES NO		
b. WHERE DESIGN WAS MOST RECENTLY USED:		
na		
3. COST (TOTAL - \$000)		
a. PRODUCTION OF PLANS AND SPECS		
b. ALL OTHER DESIGN COSTS.....	21,000	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	21,000	
d. CONTRACT.....	0	
e. IN HOUSE.....	21000	
4. CONSTRUCTION START DATE (PLANNED).....	apr 89	

1. COMPONENT ARMY		FY 19 89 MILITARY CONSTRUCTION PROJECT DATA		2. DATE JAN 1987	
3. INSTALLATION AND LOCATION LAKE CITY ARMY AMMO PLANT Missouri			4. PROJECT TITLE MobilGROUP 3 Replace Oil Storage Tank		
5. PROGRAM ELEMENT	6. CATEGORY CODE 821 90	7. PROJECT NUMBER TEMP 5332-17	8. PROJECT COST (\$000) 290		
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY Replacement of Fuel Oil Tank		LS	--	--	247 (247)
SUPPORT FACILITIES					
SUBTOTAL					247
CONTINGENCY PERCENT (10.00%)					25
TOTAL CONTRACT COST					272
SUPERVISION, INSPECT & OVHD (5.50%)					15
TOTAL REQUEST					287
TOTAL REQUEST (ROUNDED)					290
INSTALLED EQUIPMENT-OTHER APPROP					(0)
10. Description of Proposed Construction					
Disconnect all steam, oil and steam condensate pipe lines from the existing concrete storage tank. Disconnect all light circuits and the electronic fuel oil level measuring device from electrical service. Demolish the tank and foundation, and remove all heating facilities from the rubble. Dispose of all piping and concrete rubble in accordance with the latest requirements for disposal of materials coated with a potential hazardous waste. Provide a new foundation and construct an all steel 223,000 gallon storage tank on the cleared site complete with tank steam heating coils, steam suction heater, connected steam, transfer oil piping and lighting. Provide new electronic oil level measuring equipment. Test the existing soil and remove any oil-contaminated soil. The new steel tank shall be equipped with cathodic protection.					
11. REQUIREMENT: 1,000,000 GL ADEQUATE: 500,000 GL SUBSTD: 250,000 GL					

1. COMPONENT ARMY	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION LAKE CITY ARMY AMMO PLANT Missouri		
4. PROJECT TITLE Mobilization GROUP 3 Replace Oil Storage Tank		5. PROJECT NUMBER TEMP 5332-17
PROJECT : Construct a new all steel fuel oil storage tank, approximately 223,000 gallons capacity with a steam heating devices, piping, and oil level measuring equipment that complies with AMC-R 385-100, NFPA codes, State and Federal requirements. REQUIREMENT : A new steel tank of approximately 223,000 gallons capacity is required to maintain a 30 day storage capacity for fuel oil as required to comply with AR 420-49. One (1) reinforced concrete storage tank, No 79, will be disposed of as result of this project. Accomplishment of this subproject will eliminate a potential source of environmental pollution of soil and water. CURRENT SITUATION : The existing storage tank was constructed in 1942 of reinforced concrete, formed in place. The concrete has become saturated with oil over the years, and oil is seeping to the outside and down the sides of the tank creating a potential pollution and fire hazard. The leaks cannot be repaired and replacement is required. The Missouri Department of Natural Resources (MDNR) Law 10 CSR 24-4.0-20, Waste Oil, states that waste oil is a hazardous waste. A hazardous waste with a potential to pollute groundwater cannot, in the State of Missouri, be allowed to leak or spill onto the ground. The Environmental Protection Agency Hazardous Waste and Consolidated Permit Regulation (Federal Register), Subpart C--Preparedness and Prevention, 264.31 Design and Operation of Facility, states facilities must be designed, constructed, maintained, operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. IMPACT IF NOT PROVIDED : In the event this project is not approved, the production schedules assigned for mobilization could be affected adversely and the Plant will remain not in compliance with AR 420-49. Beneficial Occupancy Date: M+5 ADDITIONAL : Cost is shown in FY89 dollars. The Corps of Engineers CWE cost with escalation was used. This subproject has a completed design as PSR Project 5845332, Subproject 24. This subproject is currently programmed as PSR Project 5895332, Subproject 17.		

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA		2. DATE JAN 1987												
3. INSTALLATION AND LOCATION LAKE CITY ARMY AMMO PLANT Missouri															
4. PROJECT TITLE Mobilization GROUP 3 Replace Oil Storage Tank			5. PROJECT NUMBER TEMP 5332-17												
ADDITIONAL : (CONT)... KLC:kah 6294 /S/ DENNIS E. O'BRIEN DENNIS E. O'BRIEN LTC, OD Commanding Officer <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1989</td> <td>INDEX: 1650</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1990</td> <td>INDEX: 1666</td> </tr> </table>				ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1989	INDEX: 1650	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1990	INDEX: 1666
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ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1989	INDEX: 1650												
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1990	INDEX: 1666												

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION LAKE CITY ARMY AMMO PLANT Missouri		
4. PROJECT TITLE Mobilization GROUP 3 Replace Oil Storage Tank		5. PROJECT NUMBER TEMP 5332-17

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY (\$000)

B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY..... (PEOPLE)

C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY..... (\$000)

D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... (\$000)

E. PLANNING AND DESIGN DATA (ESTIMATE)

1. STATUS MAY 86

a. DATE DESIGN STARTED..... 100

b. PERCENT COMPLETE AS OF JANUARY 15 1988.. 100

c. PERCENT COMPLETE AS OF OCTOBER 1 1988.. DEC 87

d. DATE DESIGN COMPLETED.....

2. BASIS

a. STANDARD OR DEFINITIVE DESIGN YES NO

b. WHERE DESIGN WAS MOST RECENTLY USED:

3. COST (TOTAL - \$000)

a. PRODUCTION OF PLANS AND SPECS

b. ALL OTHER DESIGN COSTS.....

c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....

d. CONTRACT.....

e. IN HOUSE.....

4. CONSTRUCTION START DATE (PLANNED)..... APR 89

1. COMPONENT ARMY	FY 19 89 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1987
3. INSTALLATION AND LOCATION Milan Army Ammunition Plant Tennessee		4. PROJECT TITLE HAZ. MAT. STG. BLDG.-AREA S		
5. PROGRAM ELEMENT	6. CATEGORY CODE 411 90	7. PROJECT NUMBER TEMP 5317-18	8. PROJECT COST (\$000) 810	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY HAZ. MAT. STG. BLDG. AREA S	LS	--	--	734 (734)
SUPPORT FACILITIES				
SUBTOTAL				734
CONTINGENCY PERCENT (5.00%)				37
TOTAL CONTRACT COST				771
SUPERVISION, INSPECT & OVHD (5.50%)				42
TOTAL REQUEST				813
TOTAL REQUEST (ROUNDED)				810
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10. Description of Proposed Construction PROVIDE A SPECIALLY DESIGNED BUILDING THAT WILL MEET ALL STATE AND FEDERAL REQUIREMENTS FOR THE STORAGE OF HAZARDOUS AND TOXIC MATERIALS. THE PROPOSED STRUCTURE WILL BE SINGLE STORY, WITH FINISH FLOOR SET AT TRAILER HEIGHT. EXISTING AREA ROADS CAN BE UTILIZED FOR ACCESS, BUT TRUCK APRONS AT EACH CARGO DOOR WILL BE REQUIRED. ELECTRICAL SERVICE FOR LIGHTING AND HEAT SUFFICIENT TO PREVENT FREEZING WILL BE REQUIRED. NO OLD FACILITIES WILL BE DISPOSED OF. NOT SITED IN A FLOOD PLAIN.				
11. REQUIREMENT: SF ADEQUATE: 0 SF SUBSTD: 13,055 SF PROJECT : THIS PROJECT WILL PROVIDE A BUILDING THAT WILL MEET THE REQUIREMENTS OF EXISTING ARMY REGULATIONS AND DEPARTMENT OF DEFENSE DIRECTIVES FOR THE STORAGE OF HAZARDOUS AND TOXIC MATERIALS.				

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987												
3. INSTALLATION AND LOCATION Milan Army Ammunition Plant Tennessee														
4. PROJECT TITLE HAZ. MAT. STG. BLDG.-AREA S	5. PROJECT NUMBER TEMP 5317-18													
REQUIREMENT : NO APPROVED FACILITY EXISTS FOR THE STORAGE OF HAZARDOUS AND TOXIC MATERIALS. NO PROVISIONS FOR SPILL CONTAINMENT IS PROVIDED AND COMPATABILITY GROUPINGS ARE NOT SEPERATED IN THE PERSCRIBED MANNER. CURRENT SITUATION : CURRENTLY ONE (1) WAREHOUSE AND AN EARTH COVERED MAGAZINE ARE USED TO STORE ALL HAZARDOUS AND TOXIC MATERIALS USED AT THIS INSTALLATION. THE WAREHOUSE IS UNHEATED AND DOES NOT MEET THE REQUIREMENTS OF AR 200-1 FOR THE STORAGE OF HAZARDOUS AND TOXIC MATERIALS. LIKEWISE THE EARTH COVERED MAGAZINE DOES NOT MEET THE STATED REQUIREMENTS AND IS BEING USED FOR STORAGE OF ITEMS OTHER THAN THOSE FOR WHICH IT WAS DESIGNED NAMELY EXPLOSIVES AND EXPLOSIVE COMPONENTS. IMPACT IF NOT PROVIDED : THIS INSTALLATION WILL CONTINUE TO BE IN VIOLATION OF AR 200-1 AND OTHER DOD DIRECTIVES CONCERNING STORAGE OF HAZARDOUS AND TOXIC MATERIALS. /S/ KENNARD G. KARR KENNARD G. KARR LTC ORDC COMMANDING <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1989</td> <td>INDEX: 1650</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1990</td> <td>INDEX: 1666</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1989	INDEX: 1650	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1990	INDEX: 1666
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1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Milan Army Ammunition Plant Tennessee		
4. PROJECT TITLE HAZ. MAT. STG. BLDG.-AREA S		5. PROJECT NUMBER TEMP 5317-18

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY	(\$000)
B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY.....	(PEOPLE)
C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY.....	(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....	(\$000)

E. PLANNING AND DESIGN DATA (ESTIMATE)

1. STATUS		
a. DATE DESIGN STARTED.....		DEC 86
b. PERCENT COMPLETE AS OF JANUARY 15 1988..		100
c. PERCENT COMPLETE AS OF OCTOBER 1 1988..		100
d. DATE DESIGN COMPLETED.....		DEC 87

2. BASIS		
a. STANDARD OR DEFINITIVE DESIGN	YES	NO
b. WHERE DESIGN WAS MOST RECENTLY USED:		

3. COST (TOTAL - \$000)		
a. PRODUCTION OF PLANS AND SPECS		
b. ALL OTHER DESIGN COSTS.....		
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....		
d. CONTRACT.....		
e. IN HOUSE.....		

4. CONSTRUCTION START DATE (PLANNED).....	APR 89
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1. COMPONENT ARMY	FY 19 89 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JAN 1987
3. INSTALLATION AND LOCATION Milan Army Ammunition Plant Tennessee		4. PROJECT TITLE REPLACE INFLATABLE SHELTER		
5. PROGRAM ELEMENT	6. CATEGORY CODE 441 10	7. PROJECT NUMBER TEMP 5317-20	8. PROJECT COST (\$000) 270	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY REPLACE INFLATABLE SHELTER	LS	--	--	239 (239)
SUPPORT FACILITIES				
SUBTOTAL				239
CONTINGENCY PERCENT (5.00%)				12
TOTAL CONTRACT COST				251
SUPERVISION, INSPECT & OVHD (5.50%)				14
TOTAL REQUEST				265
TOTAL REQUEST (ROUNDED)				270
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10. Description of Proposed Construction				
WORK CONSISTS OF REMOVING AN EXISTING AIR SUPPORTED STRUCTURE CONSISTING OF CANVAS, BLOWERS, BLOWER MOTORS AND ALL RELATED HARDWARE. STRUCTURE WILL BE REPLACED WITH A NEW PRE-ENGINEERED METAL BUILDING. NOT SITED IN A FLOODPLAIN.				
11. REQUIREMENT: 30,350 SF ADEQUATE: 0 SF SUBSTD: 0 SF PROJECT : DRY STORAGE AREA FOR THE STORAGE OF WOODEN, METAL AND FIBER INERT AMMUNITION CONTAINERS. REQUIREMENT : EXISTING AIR STRUCTURE WAS ERECTED IN 1977 AND WILL BE 11 YEARS OLD IN FY89. THE EXPECTED LIFE OF THE FABRIC COVER WILL HAVE BEEN EXPENDED BY THEN.				

1. COMPONENT ARMY	FY 19 <u>89</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE												
3. INSTALLATION AND LOCATION Milan Army Ammunition Plant Tennessee														
4. PROJECT TITLE REPLACE INFLATABLE SHELTER	5. PROJECT NUMBER TEMP 5317-20													
CURRENT SITUATION : CURRENTLY THE AIR SUPPORTED STRUCTURE SERVES AS AN ACCEPTABLE STORAGE AREA EVEN THOUGH ALL AVAILABLE FLOOR SPACE CANNOT BE UTILIZED SINCE THE FABRIC HAS DEVELOPED LEAKS. IT IS EXPECTED THAT THE STRUCTURE WILL BE BEYOND REPAIR BY FY89. IMPACT IF NOT PROVIDED : IF STRUCTURE IS NOT REPLACED PRIOR TO COMPLETE DETERIORATION OF FABRIC, 30,000 SQUARE FEET OF DRY STORAGE AREA WILL NO LONGER BE AVAILABLE. JAN R. ROBERTS JAN R. ROBERTS LTC CML COMMANDING <table border="0"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1989</td> <td>INDEX: 1650</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1990</td> <td>INDEX: 1666</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1989	INDEX: 1650	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1990	INDEX: 1666
ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623											
ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1989	INDEX: 1650											
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1990	INDEX: 1666											

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
3. INSTALLATION AND LOCATION Milan Army Ammunition Plant Tennessee		
4. PROJECT TITLE REPLACE INFLATABLE SHELTER	5. PROJECT NUMBER TEMP 5317-20	
SUPPLEMENTAL DATA A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY (\$000) B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY..... (PEOPLE) C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY..... (\$000) D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... (\$000) E. PLANNING AND DESIGN DATA (ESTIMATE) 1. STATUS DEC 86 a. DATE DESIGN STARTED..... 100 b. PERCENT COMPLETE AS OF JANUARY 15 1988.. 100 c. PERCENT COMPLETE AS OF OCTOBER 1 1988.. DEC 87 d. DATE DESIGN COMPLETED..... 2. BASIS a. STANDARD OR DEFINITIVE DESIGN YES NO b. WHERE DESIGN WAS MOST RECENTLY USED: 3. COST (TOTAL - \$000) a. PRODUCTION OF PLANS AND SPECS b. ALL OTHER DESIGN COSTS..... c. TOTAL COST (c) = (a)+(b) OR (d)+(e)..... d. CONTRACT..... e. IN HOUSE..... 4. CONSTRUCTION START DATE (PLANNED)..... APR 89		

1. COMPONENT ARMY	FY 19 89 MILITARY CONSTRUCTION PROJECT DATA			2. DATE JUN 89
3. INSTALLATION AND LOCATION Radford Army Ammunition Pt Virginia		4. PROJECT TITLE MobilGroup 1 REPLACEMENT REPLACE FIVE (5) BARRICADES		
5. PROGRAM ELEMENT	6. CATEGORY CODE 226 80	7. PROJECT NUMBER TEMP 532616	8. PROJECT COST (\$000) 1,300	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY REPLACE 5 BARRICADES	LS	--	--	1,170 (1,170)
SUPPORT FACILITIES				
SUBTOTAL				1,117
CONTINGENCY PERCENT .0500				59
TOTAL CONTRACT COST				1,229
SUPERVISION, INSPECT & O&M (5.50%)				69
TOTAL REQUEST				1,298
TOTAL REQUEST - ROUNDED				1,300
INSTALLED EQUIPMENT- THIS APPROX				
10. Description of Proposed Construction				
COMPLETELY REMOVE AND RECONSTRUCT BARRICADES FOR FIVE (5) ACTIVE PROPELLANT OPERATING BUILDINGS. NOT SITED IN A FLOOD PLAIN.				
11. REQUIREMENT: SF ADEQUATE: SF SUBSTD: 0 SF				
PROJECT :				
REPLACE TWO MULTI-STORY AND THREE SINGLE-STORY, DOUBLE REVETTED WOODEN, EARTH FILLED BARRICADES WITH ONE MULTI-STORY AND FOUR SINGLE-STORY BARRICADES. THE PROJECT MUST REMOVE AND RE-INSTALL UTILITIES, PROCESS PIPING AND DUCTWORK PASSING THROUGH OR ATTACHED TO THE BARRICADES. ALSO, THE FLOORS AND ROOFS THROUGH THE BARRICADE PORTALS ARE TO BE REPLACED. DETERIORATED ESCAPE CHUTES AND SUPPORT FRAMING ARE TO BE REPLACED AND THE SURFACE DRAINAGE IS TO BE DIVERTED AWAY FROM THE BARRICADE FOUNDATION. UPGRADE THE ELECTRICAL LIGHTING AND WIRING TO MEET THE LATEST CODES. NOTE: RATHER THAN UPGRADE THE 1940'S OPEN WIRING AND NONCONFORMING ELECTRICAL AT ALL THE FACILITIES AT RAAP AT ONE TIME, IT HAS PREVIOUSLY BEEN DECIDED TO CORRECT THE CONDITIONS WHEN MAJOR WORK IS PERFORMED ON INDIVIDUAL BUILDINGS. NEW				

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE									
3. INSTALLATION AND LOCATION Radford Army Ammunition Pt Virginia											
4. PROJECT TITLE Mobilization Group 1 REPLACEMENT REPLACE FIVE (5) BARRICADES		5. PROJECT NUMBER TEMP 532616									
PROJECT : (CONT).. WIRING AND CONDUIT ON BARRICADES CORRECTS THE MAJORITY OF THE REQUIREMENTS. REQUIREMENT : THIS PROJECT IS THE NINTH PHASE OF AN ANNUAL REPLACEMENT PROGRAM FOR THE BARRICADES AT THIS PLANT WHICH WERE ERECTED IN THE 1940-41 PERIOD. THIRTY-THREE BARRICADES IN PHASE I (FY-80) THROUGH PHASE V (FY-84) HAVE BEEN COMPLETED. REPAIRS TO MANY OF THESE BARRICADES HAVE BECOME EXCESSIVE AND CANNOT KEEP UP WITH THE RATE OF DETERIORATION, AND THE STRUCTURAL INTEGRITY CANNOT BE ASSURED. CURRENT SITUATION : 240 BARRICADES ARE REQUIRED AT THIS PLANT TO MEET CURRENT PRODUCTION SCHEDULES AND FOR MOBILIZATION. A PORTION OF THESE CAN BE MAINTAINED FOR THE NEXT 20 YEARS. THE REMAINING ONES SHOULD BE REPLACED BECAUSE OF DECAYING OF THE MAJOR STRUCTURAL COMPONENTS. A REPLACEMENT PROGRAM HAS BEEN STARTED TO RENEW THE BARRICADES AT THESE BUILDINGS, A FEW EACH YEAR, BEGINNING WITH THE ONES THAT ARE IN GREATEST NEED OF REPLACEMENT. IMPACT IF NOT PROVIDED : WITHOUT ADEQUATE BARRICADES, RAAP COULD NOT CONTINUE TO OPERATE WITHIN EXISTING INTRALINE QUANTITY DISTANCES. ADDITIONAL : NOT REQUIRED. G. J. Savitske LTC, CMLC COMMANDER <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>MAY 1989</td> <td>INDEX: 1608</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>JANUARY 1990</td> <td>INDEX: 1655</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>SEPTEMBER 1990</td> <td>INDEX: 1694</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	MAY 1989	INDEX: 1608	ESTIMATED MIDPOINT OF CONSTRUCTION:	JANUARY 1990	INDEX: 1655	ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER 1990	INDEX: 1694
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ESTIMATED MIDPOINT OF CONSTRUCTION:	JANUARY 1990	INDEX: 1655									
ESTIMATED CONSTRUCTION COMPLETION:	SEPTEMBER 1990	INDEX: 1694									

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
3. INSTALLATION AND LOCATION Radford Army Ammunition Pt Virginia		
4. PROJECT TITLE Utilization Group 1 REPLACEMENT REPLACE FIVE (5) BARRICADES		5. PROJECT NUMBER TEMP 532616
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY 0 (\$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..... 0 (\$000) D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... 0 (\$000) E. PLANNING AND DESIGN DATA (ESTIMATE) 1. STATUS a. DATE DESIGN STARTED..... b. PERCENT COMPLETE AS OF JANUARY 15 1985... 100 c. PERCENT COMPLETE AS OF OCTOBER 1 1983... 100 d. DATE DESIGN COMPLETED..... NOV 87 2. BASIS a. STANDARD OR DEFINITIVE DESIGN YES NO b. WHERE DESIGN WAS MOST RECENTLY USED: 3. COST (TOTAL - \$000) a. PRODUCTION OF PLANS AND SPECS b. ALL OTHER DESIGN COSTS..... c. TOTAL COST (c) = (a)+(b) OR (d)+(e)..... d. CONTRACT..... e. IN HOUSE..... 4. CONSTRUCTION START DATE (PLANNED)..... Apr 89		

1. COMPONENT ARMY		FY 19 89 MILITARY CONSTRUCTION PROJECT DATA		2. DATE 11 1987	
3. INSTALLATION AND LOCATION RADFORD ARMY AMMUNITION PT Virginia			4. PROJECT TITLE MobilGroup 1 SAFETY Modernization UPGRADE PRIMARY OVERHEAD ELECTRICAL		
5. PROGRAM ELEMENT	6. CATEGORY CODE 812 40	7. PROJECT NUMBER 892519	8. PROJECT COST (\$000) 14,200		
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY UPGRADE ELEC DIST		LS	--	--	12,808 (12,808)
SUPPORT FACILITIES					
SUBTOTAL					12,808
CONTINGENCY PERCENT (5.00%)					640
TOTAL CONTRACT COST					13,448
SUPERVISOR, INSPECT & OVHD (5.50%)					740
TOTAL REQUEST					14,188
TOTAL REQUEST (ROUNDED)					14,200
INSTALLED EQUIPMENT-OTHER APPROP					0)
10. Description of Proposed Construction					
The basic system improvements are required to ensure reliable electrical power and to provide safe operation of the electrical distribution system feeding from the powerhouse. By the present day standards and codes the distribution system is considerably inadequate in both physical and electrical characteristics. Circuits going out of the powerhouse are too close together. When an electrical fault occurs on one circuit, it sometimes propagates to other circuits by electrical arcing which causes unnecessary production curtailments and hazards to plant personnel in congested areas (main road from Gate No. 1 and combined shops). NOTE: This is Phase II portion of the original Project 5872225 (Overhaul of Electrical Distribution Systems). Phase I of the project was submitted under Project 5872225. These conditions have led to an assigned Risk Assessment Code of 3. In order to alleviate this hazard and provide adequate capacity for modernization the entire distribution system must be altered to remove many of these circuits from the powerhouse. To accomplish this task, major modifications to the distribution are listed below:					

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 10/1/80
3. INSTALLATION AND LOCATION RADFORD ARMY AMMUNITION PT Virginia		
4. PROJECT TYPE Mobilization Group 1 SAFETY Modernization UPGRADE PRIMARY OVERHEAD ELECTRICAL DISTRI		5. PROJECT NUMBER 892519
DESCRIPTION OF PROPOSED CONSTRUCTION (CONT).. (1) Reduction of the number of 2.4KV circuits feeding out of the powerhouse (to reduce wiring congestion), limiting the number of 2.4KV circuits to area near the powerhouse where there are many 2.3KV motors. (2) The remaining plant area to be converted to a 12.47 KV system by expanding the existing 12.47 system with loop concept and sectionalizing switches. (3) Expand the 69KV substation capacity at 1st Rolled Powder and TNT for future projected loads in modernization and mobilization plans. (4) Upgrade the existing 12.47KV primary distribution system in the main plant area to meet the present safety manual requirements. (5) Provide high resistance grounding for the existing and proposed 480 volt substations that will continue to be fed by the 2.4KV and 12.47KV primary system in main plant area. 11. REQUIREMENT: kv ADEQUATE: kv SUBSTD: 0 kv PROJECT : To ensure continued production by correcting hazardous deficiencies of the congested distribution system at RAAP that is being served at 2.4KV from Powerhouse No. 1 through modernization of the 45-year old existing facilities. The benefits realized will reduce the congested 2.4KV circuits (from seventeen to seven) from the powerhouse, thus minimizing fault propagation from one circuit to adjacent circuits and to reduce mobilization and modernization loads on the powerhouse. Additionally, the RAC of 3 conditions on the main plant area would be eliminated. REQUIREMENT : This project has been assigned RISK ASSESSMENT CODE OF 3 which was based on the congested wiring and inadequate power requirements at the powerhouse to supply mobilization and modernization loads. Therefore, the existing conditions cannot improve unless immediate actions are taken. The original P-15 for this project was submitted in February 1980. CURRENT SITUATION : The preventive maintenance program has been greatly accelerated, major maintenance projects, such as: pole replacement, power lines replacement and modifications are being made. Extra precautions are taken for power outages, shut downs and for safety of personnel which curtails production.		

1. COMPONENT ARMY	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JUL 1989												
3. INSTALLATION AND LOCATION RADFORD ARMY AMMUNITION PT Virginia														
4. PROJECT TITLE Utilization Group 1 SAFETY Modernization UPGRADE PRIMARY OVERHEAD ELECTRICAL DISTRI		5. PROJECT NUMBER 892519												
IMPACT IF NOT PROVIDED : The electrical distribution system will continue to operate with known hazards to personnel and equipment. We will continue to have unnecessary power outages which curtails production at RAAP. ADDITIONAL : An economic analysis will not be performed; as safety and modernization, not production or project payback, is the reason for this project. However, the production capability is dependent upon successful execution of this project. G. J. SAVITSEF LTC, ORDC COMMANDER - RAAP <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>AUGUST</td> <td>1990</td> <td>INDEX: 1682</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>JANUARY</td> <td>1992</td> <td>INDEX: 1739</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623	ESTIMATED MIDPOINT OF CONSTRUCTION:	AUGUST	1990	INDEX: 1682	ESTIMATED CONSTRUCTION COMPLETION:	JANUARY	1992	INDEX: 1739
ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623											
ESTIMATED MIDPOINT OF CONSTRUCTION:	AUGUST	1990	INDEX: 1682											
ESTIMATED CONSTRUCTION COMPLETION:	JANUARY	1992	INDEX: 1739											

1. COMPONENT ARMY	FY 19⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE J 1 88
3. INSTALLATION AND LOCATION RADFORD ARMY AMMUNITION PT Virginia		
4. PROJECT TYPE Mobilization Group 1 SAFETY Modernization UPGRADE PRIMARY OVERHEAD ELECTRICAL DISTRI		5. PROJECT NUMBER 892519

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY	222,120
	(\$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.....	2,115,475
	(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....	3,530,355
	(\$000)
E. PLANNING AND DESIGN DATA (ESTIMATE)	
1. STATUS	
a. DATE DESIGN STARTED.....	OCT 86
b. PERCENT COMPLETE AS OF JANUARY 15 1988..	100
c. PERCENT COMPLETE AS OF OCTOBER 1 1988..	100
d. DATE DESIGN COMPLETED.....	NOV 87
2. BASIS	
a. STANDARD OR DEFINITIVE DESIGN YES NO	
b. WHERE DESIGN WAS MOST RECENTLY USED:	
3. COST (TOTAL - \$000)	
a. PRODUCTION OF PLANS AND SPECS	
b. ALL OTHER DESIGN COSTS.....	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	
d. CONTRACT.....	
e. IN HOUSE.....	
4. CONSTRUCTION START DATE (PLANNED).....	APR 89

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA			2. DATE 1987
3. INSTALLATION AND LOCATION Radford Army Ammunition Pt Virginia		4. PROJECT TITLE MobilGroup 1 REPLACEMENT REPLACE BRIDGE NO. 930		
5. PROGRAM ELEMENT	6. CATEGORY CODE 851 12	7. PROJECT NUMBER TEMP 9532615	8. PROJECT COST (\$000) 370	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY REPLACE BRIDGE	LS	--	--	337 (337)
SUPPORT FACILITIES				
SUBTOTAL				337
CONTINGENCY PERCENT (5.00%)				17
TOTAL CONTRACT COST				354
SUPERVISION, INSPECT & OVHD (5.50%)				19
TOTAL REQUEST				373
TOTAL REQUEST (ROUNDED)				370
INSTALLED EQUIPMENT-OTHER APPROP				(0)
10. Description of Proposed Construction				
(1) DISMANTLE AND REMOVE EXISTING WOOD BRIDGE WHICH IS RESTRICTED TO VEHICLES WITH MAXIMUM WEIGHT OF 8 TONS. (2) DESIGN AND CONSTRUCT A NEW BRIDGE TO CARRY AASHTO HS20 LIVE LOADING WITH A VERTICAL CLEARANCE FROM TOP OF RAIL TO THE UNDERSTRUCTURE OF 22 FEET, MINIMUM ROADWAY OF 24 FEET AND A 3 FOOT WALKWAY ON ONE SIDE.				
11. REQUIREMENT: 65 LF ADEQUATE: 0 LF SUBSTD: 65 LF PROJECT : REPLACEMENT OF THE EXISTING DOWNGRADED WOOD BRIDGE WITH A CONCRETE AND STEEL STRUCTURE TO CARRY AASHTO HS20 LIVE LOADING. REQUIREMENT : RETURN THE BRIDGE TO DESIGN LIVE LOADING TO BE UTILIZED BY ALL PLANT TRAFFIC AND PREVENT CLOSING THE ROAD CAUSING ALL VEHICLES TO TRAVEL LONGER ROUTES.				

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1989												
3. INSTALLATION AND LOCATION Radford Army Ammunition Pt Virginia														
4. PROJECT TITLE Mobilization Group 1 REPLACEMENT REPLACE BRIDGE NO. 930		5. PROJECT NUMBER TEMP 9532615												
CURRENT SITUATION : THE EXISTING DOWNGRADED BRIDGE IS RESTRICTED TO LIGHT TRAFFIC AND HEAVY TRAFFIC HAS TO TRAVEL LONGER ROUTES. IMPACT IF NOT PROVIDED : IF THIS BRIDGE IS NOT REPLACED AND THE SETTLEMENT CONTINUES, THE ROAD WILL BE CLOSED CAUSING ALL VEHICLES TO TRAVEL LONGER ROUTES AND WILL HAVE AN IMPACT ON PRODUCTION EFFICIENCY. ADDITIONAL : ECONOMIC JUSTIFICATION IS IN THE P-15. G. J. SAVITSKE LTC, ORDC COMMANDER-RAAP <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>JANUARY</td> <td>1989</td> <td>INDEX: 1616</td> </tr> <tr> <td>ESTIMATED MIDDPOINT OF CONSTRUCTION:</td> <td>MAY</td> <td>1989</td> <td>INDEX: 1627</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>OCTOBER</td> <td>1989</td> <td>INDEX: 1650</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	JANUARY	1989	INDEX: 1616	ESTIMATED MIDDPOINT OF CONSTRUCTION:	MAY	1989	INDEX: 1627	ESTIMATED CONSTRUCTION COMPLETION:	OCTOBER	1989	INDEX: 1650
ESTIMATED CONSTRUCTION START:	JANUARY	1989	INDEX: 1616											
ESTIMATED MIDDPOINT OF CONSTRUCTION:	MAY	1989	INDEX: 1627											
ESTIMATED CONSTRUCTION COMPLETION:	OCTOBER	1989	INDEX: 1650											

1. COMPONENT ARMY	FY 19⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE .
3. INSTALLATION AND LOCATION Radford Army Ammunition Pt Virginia		
4. PROJECT TITLE Utilization Group 1 REPLACEMENT REPLACE BRIDGE NO. 930		5. PROJECT NUMBER TEMP 9532615

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY	5
	(\$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.....	403
	(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....	0
	(\$000)
E. PLANNING AND DESIGN DATA (ESTIMATE)	
1. STATUS	
a. DATE DESIGN STARTED.....	OCT 86
b. PERCENT COMPLETE AS OF JANUARY 15 1988..	100
c. PERCENT COMPLETE AS OF OCTOBER 1 1988..	100
d. DATE DESIGN COMPLETED.....	NOV 87
2. BASIS	
a. STANDARD / DEFINITIVE DESIGN	YES
b. WHERE DESIGN WAS MOST RECENTLY USED:	
3. COST (TOTAL = \$000)	
a. PRODUCTION OF PLANS AND SPECS	
b. ALL OTHER DESIGN COSTS.....	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	
d. CONTRACT.....	
e. IN HOUSE.....	
4. CONSTRUCTION START DATE (PLANNED).....	JAN 89

1. COMPONENT ARMY	FY 19 89 MILITARY CONSTRUCTION PROJECT DATA			2. DATE
3. INSTALLATION AND LOCATION Twin Cities Army Ammo Pt Minnesota		4. PROJECT TITLE Addition Package Boilers		
5. PROGRAM ELEMENT	6. CATEGORY CODE 821 90	7. PROJECT NUMBER TEMP 5201-22	8. PROJECT COST (\$000) 560	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY				503
Install Package Boilers	LS	--	--	(120)
Constr. and Improvements	LS	--	--	(383)
SUPPORT FACILITIES				
SUBTOTAL				503
CONTINGENCY PERCENT				25
TOTAL CONTRACT COST				528
SUPERVISION, INSPECT & CMHC				29
TOTAL REQUEST				557
TOTAL REQUEST ROUNDED				560
INSTALLED EQUIPMENT-OTHER APPROP				0
10. Description of Proposed Construction				
Install two self-contained package boilers -- an 150 HP boiler in building 103, and a 200 HP boiler in a new building to be constructed adjacent to Building 502. Make necessary modifications to existing structures and equipment, to accomodate the new facilities..				
11. REQUIREMENT: 350 HP ADEQUATE: 0 HP SUBSTD: 350 HP PROJECT :				
Provide steam during non-heating season to meet process steam package boilers in or near subject buildings, rather than central steam plant.				

1. COMPONENT ARMY	FY 19⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE . 1987
3. INSTALLATION AND LOCATION Twin Cities Army Ammo Pt Minnesota		
4. PROJECT TITLE Addition Package Boilers	5. PROJECT NUMBER TEMP 5201-22	
REQUIREMENT : This project is needed now to permit complete shutdown of steam plants in Buildings 111 and 515 during the non-heating season, thereby permitting summer maintenance of central plants and outside steam lines and allowing for more economical provision of service to Buildings 103 and 502. CURRENT SITUATION : At the present time, the central steam plant is kept on line during the non-heating season to provide process steam to buildings 103 and 502. This is uneconomical, because the main boilers are operated at the low end of their performance curves, and because of the use of long transmission lines to the buildings being served. IMPACT OF AID PROGRAM : If this project is not provided, the current operation will have to continue, resulting in continued uneconomical operation and waste of energy, inconsistent with the Army's long-range energy conservation goals. WILLINGNESS : The program analysis summary provided in the March 10, 1986 P-15 indicates an IIR of 7.07.		

1. COMPONENT ARMY	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 JAN 1989												
3. INSTALLATION AND LOCATION Twin Cities Army Ammo Pt Minnesota														
4. PROJECT TITLE Addition Package Boilers		5. PROJECT NUMBER TEMP 5201-22												
Design concept is nearing completion by architect-engineer retained by Corps of Engineers, Omaha. (S) Theodore Schulte Theodore Schulte Commanders Representative OS-12 <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1623</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER</td> <td>1989</td> <td>INDEX: 1650</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL</td> <td>1990</td> <td>INDEX: 1666</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1989	INDEX: 1650	ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1990	INDEX: 1666
ESTIMATED CONSTRUCTION START:	APRIL	1989	INDEX: 1623											
ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER	1989	INDEX: 1650											
ESTIMATED CONSTRUCTION COMPLETION:	APRIL	1990	INDEX: 1666											

1. COMPONENT ARMY	FY 19⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Twin Cities Army Ammo Pt Minnesota		
4. PROJECT TITLE Addition Package Boilers		5. PROJECT NUMBER TEMP 5201-22
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY		94 (\$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.....		(\$000)
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....		(\$000)
E. PLANNING AND DESIGN DATA (ESTIMATE)		
1. STATUS		
a. DATE DESIGN STARTED.....	DEC 85	
b. PERCENT COMPLETE AS OF JANUARY 15 1988..	100	
c. PERCENT COMPLETE AS OF OCTOBER 1 1988..	100	
d. DATE DESIGN COMPLETED.....	JAN 87	
2. BASIS		
a. STANDARD & DEFINITIVE DESIGN YES ☒ NO ☐		
b. WHERE DESIGN WAS MOST RECENTLY USED: NA		
3. COST (TOTAL - \$000)		
a. PRODUCTION OF PLANS AND SPECS	NA	
b. ALL OTHER DESIGN COSTS.....	29	
c. TOTAL COST (c) = (a)+(b) OR (d)+(e).....	29	
d. CONTRACT.....	NA	
e. IN HOUSE.....	29	
4. CONSTRUCTION START DATE (PLANNED).....		APR 89

1. COMPONENT ARMY		FY 19 89 MILITARY CONSTRUCTION PROJECT DATA		2. DATE 10/87	
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri			4. PROJECT TITLE Mobil Group 1 Addition Alteration Pyrotechnic Safety Enhance		
5. PROGRAM ELEMENT	6. CATEGORY CODE 226 22	7. PROJECT NUMBER TEMP T892245	8. PROJECT COST (\$000) 830		
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY					645
Auxiliary Mixing Rooms		LS	--	--	(529)
Explosive Hazardous Waste System		LS	--	--	(80)
Control Rooms		LS	--	--	(36)
SUPPORT FACILITIES					105
Electric Service		LS	--	--	(58)
Water, Sewer & Gas		LS	--	--	(10)
Steam, Oil, & Water Heat Dist		LS	--	--	(5)
Paving, Water, Sewer, & Utilities		LS	--	--	(8)
Storm Drainage		LS	--	--	(5)
Site Prep & Grading		LS	--	--	(9)
Communications		LS	--	--	(1)
Demolition & Construction Removal		LS	--	--	(9)
SUBTOTAL					750
CONTINGENCY PERCENT					38
TOTAL CONSTRUCTION					788
SUPERVISION, INSPECTION, & MAINTENANCE					43
TOTAL PROJECT					831
TOTAL PROJECT FUNDING					830
INSTALLATION DEFICIT					4,762
10. Description of Proposed Construction					
This project is to enhance personnel safety in the pyrotechnic manufacturing area at Lake City AAP. Included will be new mixers, remote material handling systems, fast response fire suppression systems and improved new bays. The pyrotechnic manufacturing areas where tracer, igniter, and incendiary components are mixed, dried, and granulated for small caliber ammunition. Each of these items will be applied to Buildings 26A, B, and C.					
11. REQUIREMENTS: 1,100 SF ADEQUATE: 336 SF SUBSTD: 0 SF PROJECT :					
This project involves the installation of new generation equipment and facilities to improve safety in the pyrotechnics manufacturing areas at LCAAP.					
Planned safety enhancement of pyrotechnic manufacturing areas at LCAAP					

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri		
4. PROJECT TITLE Mobilization Group 1 Addition Alteration Pyrotechnic Safety Enhance		5. PROJECT NUMBER TEMP T892245
PROJECT : (CONT)... will include the addition of new mixers, remote material handling systems, fast response fire suppression systems, and improved bay design. REQUIREMENT : This project will enable the operator to remotely perform measuring, weighing, drying, granulating, and blending; tremendously reducing the operator's risk exposure. Mixers will provide improved safety through reduction of employee exposure to hazard materials. The problem with existing overhead sprinkler system is temperature sensitive. The response time is slow and independent acting for each sensing sprinkler head. Fires can spread faster than individual temperature sensitive heads can react. No other facilities at Lake City AAP are capable of manufacturing pyrotechnic materials. CURRENT SITUATION : The present facilities and equipment have operated since 1942 to produce pyrotechnic compositions for small caliber ammunition production. The present operation relies on the operator to manually perform all tasks to produce pyrotechnic mixtures. The manual operations performed by the operator are measuring, weighing, drying, granulating, and blending. IMPACT IF NOT PROVIDED : Employee exposure to hazardous materials will continue. The absence of an adequate fire suppression system to protect personnel and facilities could lead to catastrophic incident in the area. Equipment currently relied upon such as dryers, mixer, granulators, pulverizers, and blenders are experiencing increased downtime and maintenance. ADDITIONAL : This project involves the installation of new generation equipment and facilities to improve safety in the pyrotechnics manufacturing area at LCAAP.		

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 34												
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri														
4. PROJECT TITLE Mobilization Group 1 Addition Alteration Pyrotechnic Safety Enhance		5. PROJECT NUMBER TEMP T892245												
24045 JPO:rah (S) Dennis E. O'Brien Dennis E. O'Brien Lieutenant Colonel Commanding Officer <table> <tr> <td>ESTIMATED PROJECT START</td> <td>APRIL</td> <td>1989</td> <td>INDEX: 1621</td> </tr> <tr> <td>ESTIMATED PROJECT COMPLETION</td> <td>OCTOBER</td> <td>1989</td> <td>INDEX: 1656</td> </tr> <tr> <td>ESTIMATED PROJECT COMPLETION</td> <td>APRIL</td> <td>1990</td> <td>INDEX: 1666</td> </tr> </table>			ESTIMATED PROJECT START	APRIL	1989	INDEX: 1621	ESTIMATED PROJECT COMPLETION	OCTOBER	1989	INDEX: 1656	ESTIMATED PROJECT COMPLETION	APRIL	1990	INDEX: 1666
ESTIMATED PROJECT START	APRIL	1989	INDEX: 1621											
ESTIMATED PROJECT COMPLETION	OCTOBER	1989	INDEX: 1656											
ESTIMATED PROJECT COMPLETION	APRIL	1990	INDEX: 1666											

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JUN 87
3. INSTALLATION AND LOCATION Lake City Army Ammo Plant Missouri		
4. PROJECT TITLE Mobilization Group 1 Addition Alteration Pyrotechnic Safety Enhance		5. PROJECT NUMBER TEMP T892243
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE DESIRED FACILITY.....		
\$0.00		
B. NUMBER OF ADDITIONAL PERSONNEL REQUIRED TO SUPPORT THE FACILITY.....		
0 PEOPLE		
C. ESTIMATED LIFE CYCLE COST TO OPERATE AND MAINTAIN THE DESIRED FACILITY.....		
1,245 \$000		
D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT.....		
0		
E. PLANNING AND DESIGN COST ESTIMATE		
1. STAFF		
a. FULL TIME STAFF.....		
b. PERCENT COMPLETE AS OF JANUARY 1, 1987.....		
c. PERCENT COMPLETE AS OF OCTOBER 1, 1988.....		
d. DATE DESIGN COMPLETED.....		
2. FEES		
a. FEES FOR PRELIMINARY DESIGN.....		
b. ARCHITECTURAL AND ENGINEERING FEES.....		
3. COST TOTAL - \$000-		
a. PRODUCTION OF PLANS AND SPECIFICATIONS.....		
b. ALL OTHER DESIGN COSTS.....		
c. TOTAL COST = a + b.....		
d. CONTRACT.....		
e. IN HOUSE.....		
4. CONSTRUCTION START DATE (PLANNED).....		

1. COMPONENT ARMY		FY 1989 MILITARY CONSTRUCTION PROJECT DATA		2. DATE	
3. INSTALLATION AND LOCATION Lone Star Army Ammunition Pt Texas			4. PROJECT TITLE Addition Alteration Production Control Fac		
5. PROGRAM ELEMENT	6. CATEGORY CODE 226 22	7. PROJECT NUMBER TEMP 5892245	8. PROJECT COST (\$000) 410		
9. COST ESTIMATES					
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)	
PRIMARY FACILITY				316	
Building G-11 Annex	SF	1,448	23.00	1063	
Temp & Humidity Control (HVAC)	SF	3,166	66.36	2100	
SUPPORT FACILITIES				57	
Water, Sewer & Gas	LS			33	
Steam, Chilled Water & Heat Dist	LS			24	
SUBTOTAL				373	
CONTINGENCY (2% of 373)				7	
TOTAL COST (1) (2)				380	
SUPERVISION & INSPECT (5.6%)				21	
TOTAL (1) (2) (3)				401	
TOTAL REVENUE (4) (5)				11	
INITIALS & SIGNATURE - THIS APPROPRIATE				390	
10. Description of Proposed Construction					
Construction annex to an existing pyrotechnic manufacturing facility (Building G-11) to provide space for a control room and mechanical room required to support new pyrotechnic processing equipment. MIGAD plans for installation in the existing facility. Storage area for bulk raw materials will also be accomplished in the new annex, since the MIGAD will displace area currently used to store these materials. In addition, a new restroom will be provided for and located in the new annex. The existing building will require modification to the concrete dividing wall between Bays 1&2, installation of conductive flooring, provisions for washdown and waste water collection, and upgrading of steam utilities. A temperature and humidity control system will be required for Bays 1 thru 7, corridors, and in the pyrotechnic raw material storage area of the new annex.					
11. REQUIREMENT: 1,448 SF ADEQUATE: 0 SF SUBSTD: 0 SF					

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 10/27/88
3. INSTALLATION AND LOCATION Lone Star Army Ammunition Pt Texas		
4. PROJECT TITLE Addition Alteration Production Control Fac		5. PROJECT NUMBER TEMP 5892245
PROJECT : This project will enable Lone Star AAP to enhance personnel safety by providing the space to implement new technologically improved pyrotechnic processing mixing, granulating, drying, MIGRAD equipment. REQUIREMENT : In order to enhance personnel safety by providing new technological advanced pyrotechnic processing equipment, MIGRAD, additional space to house this equipment is required. This new equipment reduces operator exposure frequency to pyrotechnic material by 90%. Approximately thirteen (13) pyrotechnic mixtures are currently produced in Building G-33. Each of these bays of this building are fully utilized, with some bays performing both mixing, drying, granulating, and granulating. Bays 1 thru 7 are used for storage of raw materials and finished pyrotechnic mixtures. In order to utilize the new technology provided by the MIGRAD System, additional space is required. The existing equipment in G-33 must be retained for the manufacture of the 13 mixtures which cannot be manufactured in the MIGRAD. CURRENT SITUATION : To produce a 30 pound batch quantity of a typical pyrotechnic mixture using current methods requires that the operator be exposed to hazardous pyrotechnic material approximately 10 times per batch. The 30 pound batch, after blending, is granulated, dried, and granulated in increments. Each 5 pound quantity is handled separately by the operator during subsequent processing. The operator is exposed to the pyromixture 6 times for each of ten separate operations. By way of contrast, the new MIGRAD process requires that the operator be exposed to the pyrotechnic mixture 6 times per batch. The MIGRAD blends, granulates, and dries a 30 pound batch of pyrotechnic mixture in one cycle and discharges and separates the material into 5 lb. increments. The operator is exposed only when transporting the finished 5 lb. increments. IMPACT IF NOT PROVIDED : If this project is not approved, Lone Star AAP cannot fully implement the MIGRAD Systems needed for current pyrotechnic production requirements. The pyrotechnic operation in Building G-33 will continue as is, exposing operators to hazardous materials 10 times more frequently than what could be achieved with the new MIGRAD System.		

1. COMPONENT ARMY	FY 19 <u>89</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE 12 1 1988									
3. INSTALLATION AND LOCATION Lone Star Army Ammunition Pt Texas											
4. PROJECT TITLE Addition Alteration Production Control Bldg		5. PROJECT NUMBER TEMP 5892245									
ADDITIONAL : All appropriate measures will be taken to ensure that the health of the worker is protected within all federal and state laws and regulations. This project will be reviewed for historic impact and complies with the intent of PL 86-360 and Executive Order 11593. This project has been reviewed and approved for inclusion in an Environmental Impact Statement pursuant to PL 94-408. Douglas R. Baker ITS CRD Commanding <table border="0" style="width: 100%;"> <tr> <td>ESTIMATE PROJECT DATE</td> <td>APRIL 1988</td> <td>INDEX: 1600</td> </tr> <tr> <td>ESTIMATE PROJECT DATE</td> <td>APRIL 1988</td> <td>INDEX: 1640</td> </tr> <tr> <td>ESTIMATE PROJECT DATE</td> <td>JANUARY 1990</td> <td>INDEX: 1660</td> </tr> </table>			ESTIMATE PROJECT DATE	APRIL 1988	INDEX: 1600	ESTIMATE PROJECT DATE	APRIL 1988	INDEX: 1640	ESTIMATE PROJECT DATE	JANUARY 1990	INDEX: 1660
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ESTIMATE PROJECT DATE	JANUARY 1990	INDEX: 1660									

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 11 1987
3. INSTALLATION AND LOCATION Lone Star Army Ammunition Pt Texas		
4. PROJECT TITLE Addition Alteration Production Control Fac		5. PROJECT NUMBER TEMP 5892245
SUPPLEMENTAL DATA		
A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY (\$000) B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CARRY OUT THE FUNCTION OF THE PROPOSED FACILITY..... (PEOPLE) C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE DESIGNED FACILITY..... (\$000) D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY IF NEW FACILITY IS A REPLACEMENT..... (\$00) E. PLANNING AND DESIGN DATA - ESTIMATE 1. START a. CONSTRUCTION STARTED..... FEB 87 b. PROJECT COMPLETE AS OF JANUARY 1, 1987..... 100 c. PROJECT COMPLETE AS OF OCTOBER 1, 1987..... 100 d. CONSTRUCTION COMPLETED..... DEC 87 2. MAINT a. MAINTENANCE BEGINNING DESIGN..... N b. WHEN DESIGN WAS MOST RECENTLY CHECKED..... 3. COST (TOTAL = \$000) a. PRODUCTION OF PLANS AND SPEC..... b. ALL OTHER DESIGN COSTS..... c. TOTAL COST (c) = (a)+(b) OR (d)+(e)..... d. CONTRACT..... e. IN HOUSE..... 4. CONSTRUCTION START DATE (PLANNED).....		

1. COMPONENT ARMY		FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA		2. DATE	
3. INSTALLATION AND LOCATION Longhorn Army Ammunition Pt Texas			4. PROJECT TITLE Modernization Pyro Safety Enhancement		
5. PROGRAM ELEMENT 2-4211	6. CATEGORY CODE 226 22	7. PROJECT NUMBER TEMP 5892245	8. PROJECT COST (\$000) 820		
9. COST ESTIMATES					
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)	
PRIMARY FACILITIES MIGRAD MIXER FACILITY	SF	3,728	180.00	671	
SUPPORT FACILITIES Electricity Water, Sewerage Drainage, Storm Water, Road, Road Earth Retention, Retention Structures Other	LS LS LS LS LS	-- -- -- -- --	-- -- -- -- --	39 51 131 63 113 43	
TOTAL CONTINGENCY TOTAL PROJECT SUPERVISION, INCL. TRAVEL TOTAL BIDDING TOTAL PROJECT TOTAL INITIALS				719 71 781 43 824 820 820	
10. Description of Proposed Construction					
This project is to construct a MIGRAD (Mixer, GRANulator, Dryer) mixing facility. The facility will have new technology mixers which are being developed/evaluated by Pine Bluff Arsenal per MMT Project 5-X1009. Use of the MIGRAD mixer will eliminate hazardous traying, drying, and granulating operations. There are no suitable existing facilities at Longhorn AAP to house these mixers. The MIGRAD mixers require more head room than is provided in existing facilities. Alteration of existing facilities has been disallowed since new construction to raise the roof would not be in compliance with AMC-R 385-100 dated 1 August 1985 requirements. The operations area of the new mix facility will have two mixer bays, four raw material surge bays, two finished mix surge bays, passageways, an inert cart and blender bucket conditioning area and a loading dock. The operations area of the facility is approximately 3700 sq ft. Wall design of the mixer and surge bays is to be in accordance with TM 5-1300. Requirements					

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE JAN 1987
3. INSTALLATION AND LOCATION Longhorn Army Ammunition Pt Texas		
4. PROJECT TITLE Modernization Pyro Safety Enhancement	5. PROJECT NUMBER TEMP 5892245	
DESCRIPTION OF PROPOSED CONSTRUCTION (CONT) .. and arrangement of restroom facilities, equipment rooms, fire protection deluge valve room, etc is to be determined by the Design Agency. The facility is located within an existing pyrotechnic production facility. Connections to existing utility systems and provision of access roads and equipment pads for installation of AMC equipment is included in this project. Temperature and humidity conditioning is to be provided in the mixer and surge bays and heating and cooling are to be provided in other operational areas for comfort conditioning. Conditioning of mix and surge areas for a relative humidity of 40-60% at 63 to 78 degrees F is required to reduce processing hazards. A waste collection trench and sump are to be furnished to collect wastewater, products and contain any potential spill. Restroom facilities for male and female operators will be needed. Connection to existing electrical, steam, compressed air, telephone, potable water, fire water and sewer lines will be required. These utilities are in near proximity to the proposed facility. Equipment pads and access roads are needed for installation and maintenance of 12" process support equipment. Equipment with access roads are needed. These roads will be 20' ft by 40' ft. They will be 10' ft wide at the entrance to the material to provide all wheel access. II. REQUIREMENT: NATURE OF ADEQUATE: NATURE OF ADEQUATE OF USE PROJECT: Safety needs to be improved by reducing personnel exposure to hazardous operations and materials. This can be accomplished by use of the new technology MIGRAD mixers to eliminate certain manual traveling, drying, and granulation processes. REQUIREMENT: This project is needed to provide processing improvements which will enhance safety. Numerous flashes have occurred at this, and other, pyrotechnics producing plants. These flashes have resulted in injuries, fatalities, equipment and facility damage, lost production time and		

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 2									
3. INSTALLATION AND LOCATION Longhorn Army Ammunition Pt Texas											
4. PROJECT TITLE Modernization Pyro Safety Enhancement	5. PROJECT NUMBER TEMP 5892245										
REQUIREMENT : (CONT).. increased item cost. CURRENT SITUATION : Pyrotechnic compositions are being produced using processes and equipment which are of World War II vintage. These processes often require mixing and multiple drying and granulating steps. These operations require excessive operator exposure to energetic and unpredictable materials. IMPACT IF NOT PERMITTED : Employee exposure to hazardous material and operations would remain at the current high levels. The benefits to be derived from the pacing MM&T development work would not be implemented. ADDITIONAL : A Permit to Work (PTW) form has been prepared for this project and is included in this document. The current process is a very inefficient alternative. It requires too much operator exposure to energetic material and operations. S. Joseph P. Phillip Joseph P. Phillip Lt. Col. C Commander, LHAAP <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION START:</td> <td>APRIL 1989</td> <td>INDEX: 1623</td> </tr> <tr> <td>ESTIMATED MIDPOINT OF CONSTRUCTION:</td> <td>OCTOBER 1989</td> <td>INDEX: 1650</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COMPLETION:</td> <td>APRIL 1990</td> <td>INDEX: 1666</td> </tr> </table>			ESTIMATED CONSTRUCTION START:	APRIL 1989	INDEX: 1623	ESTIMATED MIDPOINT OF CONSTRUCTION:	OCTOBER 1989	INDEX: 1650	ESTIMATED CONSTRUCTION COMPLETION:	APRIL 1990	INDEX: 1666
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ESTIMATED CONSTRUCTION COMPLETION:	APRIL 1990	INDEX: 1666									

1. COMPONENT ARMY	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE
3. INSTALLATION AND LOCATION Longhorn Army Ammunition Plant Texas		
4. PROJECT TITLE Modernization Pyro Safety Enhancement	5. PROJECT NUMBER TEMP 5892245	
SUPPLEMENTAL DATA A. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY B. NUMBER OF PERSONNEL AND MATERIALS REQUIRED TO MAINTAIN THE EXISTING FACILITY..... C. ESTIMATED LIFE-YEAR COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY..... D. ESTIMATED LIFE-YEAR COST TO OPERATE AND MAINTAIN THE EXISTING FACILITY (A)..... E. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY F. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY G. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY H. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY I. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY J. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY K. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY L. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY M. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY N. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY O. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY P. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY Q. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY R. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY S. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY T. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY U. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY V. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY W. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY X. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY Y. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY Z. ESTIMATED ANNUAL COST OF PERIOD OF PEAK FACILITY 1. CONTRACT..... 2. IN HOUSE..... 3. CONSTRUCTION START DATE (PLANNED).....		

1. COMPONENT ARMY	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE
3. INSTALLATION AND LOCATION Kansas Army Ammunition Plant Kansas		
4. PROJECT TITLE Enlarge Loading Dock	5. PROJECT NUMBER TEMP 532918	

CURRENT SITUATION

The docks were built in 1941-42 when material was handled by material handling cranes and conveyors. The state of the art has changed handling material with the use of forklift trucks, which can move sufficient quantities of bulk and palletized loads which require more loading dock space.

PROPOSED ACTION

By enlarging the docks will continue to be used, in turn, space on the rail dock will continue to result in unsafe working conditions and inefficiency in the material handling procedures.

D. L. [illegible]

[illegible]

[illegible]

1. [illegible]	2. [illegible]	3. [illegible]	4. [illegible]	5. [illegible]
6. [illegible]	7. [illegible]	8. [illegible]	9. [illegible]	10. [illegible]
11. [illegible]	12. [illegible]	13. [illegible]	14. [illegible]	15. [illegible]

1. COMPONENT ARMY		FY 19 89 MILITARY CONSTRUCTION PROJECT DATA		2. DATE	
3. INSTALLATION AND LOCATION Longhorn Army Communication Pt Texas			4. PROJECT TITLE Alteration RED EXP TO ENERG MAT'L		
5. PROGRAM ELEMENT	6. CATEGORY CODE 226 22	7. PROJECT NUMBER TEMP 2701-08	8. PROJECT COST (\$000) 390		
9. COST ESTIMATES					
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)	
PRIMARY FACILITY					
1. Alteration to existing	LS			332	
2. Alteration to existing	LS			308	
3. Alteration to existing				24	
SECONDARY FACILITY					
1. Alteration to existing					
2. Alteration to existing					
3. Alteration to existing					
4. Alteration to existing					
5. Alteration to existing					
6. Alteration to existing					
7. Alteration to existing					
8. Alteration to existing					
9. Alteration to existing					
10. Alteration to existing					
10. Description of Proposed Construction					
The project involves the modification to existing facilities and utilities to bring employee exposure to explosive or electrical hazard in compliance with AMR 41-10-100 dated 1 August 1987 apply. Efforts are: Operational shield: Provide operational shield for Building B-7 adjacent to the area. The shield is to prevent propagation of a fireball between the mixer and press bays and to provide safe egress from the press bay. Lightning Protection/Pipeline and Fence Grounding: Provide those changes necessary to bring existing facilities and utilities into compliance with the mandatory requirements of Chapter 8, AMC-R 385-100. Lightning Protection Upgrade - Significant changes in lightning protection requirements have occurred since construction of Longhorn operating buildings.					

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
3. INSTALLATION AND LOCATION Longhorn Army Ammunition Plant Texas		
4. PROJECT TITLE Alteration REP EXP TO ENERGY MAIL	5. PROJECT NUMBER TEMP 2701-08	

DESCRIPTION OF PROPOSED CONSTRUCTION

(CONT)...

Specific Requirements: Amend

a. Branching of low voltage with ground conductor type protection guidelines presently protected by inadequate system protection system provided with old standards from protection criteria.

This work includes cutting of approximately twenty underground cables, approximately two miles, and installation of new cables, including ground terminal and low voltage conductors.

b. Branching of low voltage with ground conductor type protection system, including terminal with 1000 volt, 1000 amp, 1000 volt, 1000 amp, low voltage conductors.

c. Amend the existing low voltage conductors and ground conductors, including terminal with 1000 volt, 1000 amp, 1000 volt, 1000 amp, low voltage conductors.

d. Amend the existing low voltage conductors and ground conductors, including terminal with 1000 volt, 1000 amp, 1000 volt, 1000 amp, low voltage conductors.

II. REQUIREMENT: LS ADEQUATE: LS SUBSTD: 0 LS
PROJECT :

Safety needs to be improved by (1) reduction of personnel exposure to hazardous materials, (2) providing safe egress from a pyrotechnic production

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 									
3. INSTALLATION AND LOCATION Longhorn Army Ammunition Pl Texas											
4. PROJECT TITLE Alteration RED EXP TO ENERG MAT'L	5. PROJECT NUMBER TEMP 2701-08										
ADDITIONAL : (CONT) .. building. Failure to provide temperature and humidity conditioning equipment, lightning protection upgrade, and grounding of aboveground lines and tanks would not provide the level of protection mandated by regulatory requirements. George L. Phillip George L. Phillip Major April 11, 1989 <table border="0" style="width: 100%;"> <tr> <td>EXEMPTED FROM AUTOMATIC DECLASSIFICATION</td> <td>APR 11 1989</td> <td>INDEX: 147</td> </tr> <tr> <td>EXEMPTED FROM AUTOMATIC DECLASSIFICATION</td> <td>APR 11 1989</td> <td>INDEX: 14</td> </tr> <tr> <td>EXEMPTED FROM AUTOMATIC DECLASSIFICATION</td> <td>APR 11 1989</td> <td>INDEX: 149</td> </tr> </table>			EXEMPTED FROM AUTOMATIC DECLASSIFICATION	APR 11 1989	INDEX: 147	EXEMPTED FROM AUTOMATIC DECLASSIFICATION	APR 11 1989	INDEX: 14	EXEMPTED FROM AUTOMATIC DECLASSIFICATION	APR 11 1989	INDEX: 149
EXEMPTED FROM AUTOMATIC DECLASSIFICATION	APR 11 1989	INDEX: 147									
EXEMPTED FROM AUTOMATIC DECLASSIFICATION	APR 11 1989	INDEX: 14									
EXEMPTED FROM AUTOMATIC DECLASSIFICATION	APR 11 1989	INDEX: 149									

1. COMPONENT ARMY		FY 19 ₈₉ MILITARY CONSTRUCTION PROJECT DATA		2. DATE 11-15-88	
3. INSTALLATION AND LOCATION Twin Cities Army Ammo Pt Minnesota			4. PROJECT TITLE Igloo Storage		
5. PROGRAM ELEMENT	6. CATEGORY CODE 421 80	7. PROJECT NUMBER TEMP 2800-8	8. PROJECT COST (\$000) 3,000		
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY IGLOOS		EA	2	411	822
SUPPORT FACILITIES					1,865
Electrical Service		LF	---	---	561
Paving, Walks, Curbs & Gutters		LS	---	---	336
Site Imp. (Land Dem)		LS	---	---	1,383
TRAIL FACIL MECHANICAL		LS	---	---	95
TOTAL					2,690
CONTINGENCY (5% MAX)					135
TOTAL PROJECT					2,825
SUBTOTAL N. IN INST. CODE					135
TOTAL PROJECT					2,960
TOTAL PROJECT FUNDING					3,000
INITIAL ESTIMATE TOTAL					---
10. Description of Proposed Construction					
Construct two propellant powder storage igloos, and demolish existing substandard wood frame structures, located at TCAAP. Igloos are to have a standard 14'4" leveler, all utilities, road and rail access, and full security and safety system. Existing substandard wood frame structures are to be demolished.					
11. REQUIREMENT: 6,200 SF ADEQUATE: 6,200 SF SHORTAGE: 6,200 SF PROJECT: Construct two propellant powder storage igloos, and demolish existing substandard wood frame structures. REQUIREMENT: this project is required to provide powder storage facilities at TCAAP that will meet criteria of Army security and safety regulations.					

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 									
3. INSTALLATION AND LOCATION Twin Cities Army Ammo Pt Minnesota											
4. PROJECT TITLE Igloo Storage	5. PROJECT NUMBER TEMP 2800-8										
CURRENT SITUATION : Present facilities are substantial, temporary wood structures that do not meet safety security standards, and have been used under waivers which will probably no longer be granted. IMPACT OF NOT PROJECTING : If this project is not approved, use of the existing facilities will be possible only if waivers are granted - since the structures are not in compliance with AR 19-11 and DAPCOM 19-1. ADDITIONAL : This project is part of a total project for six storage igloos. Four are to be constructed in FY88 (see Form 1391). Theodore E. Schulte Theodore E. Schulte Commanding Representative <table border="0" style="width: 100%;"> <tr> <td>ESTIMATED CONSTRUCTION COST</td> <td>APRIL 1989</td> <td>INDEX: 1623</td> </tr> <tr> <td>ESTIMATED MAINTENANCE COST</td> <td>OCTOBER 1989</td> <td>INDEX: 1650</td> </tr> <tr> <td>ESTIMATED CONSTRUCTION COST</td> <td>APRIL 1990</td> <td>INDEX: 1666</td> </tr> </table>			ESTIMATED CONSTRUCTION COST	APRIL 1989	INDEX: 1623	ESTIMATED MAINTENANCE COST	OCTOBER 1989	INDEX: 1650	ESTIMATED CONSTRUCTION COST	APRIL 1990	INDEX: 1666
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1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1989
3. INSTALLATION AND LOCATION Twin Cities Army Ammo Pt Minnesota		
4. PROJECT TITLE Igloo Storage	5. PROJECT NUMBER TEMP 2800-8	

SUPPLEMENTAL DATA

A. ESTIMATED ANNUAL COST TO OPERATE PROPOSED FACILITY 200

(\$000)

B. NUMBER OF ADDITIONAL PERSONNEL NECESSARY TO CAREY
 AND THE FUNCTION OF THE PROPOSED FACILITY.....

PEOPLE

C. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN
 THE DESIRED FACILITY.....

D. ESTIMATED LIFE-CYCLE COST TO OPERATE AND MAINTAIN
 THE EXISTING FACILITY IF NEW FACILITY IS A
 REPLACEMENT.....

E. PLANNING AND DESIGN DATA ESTIMATE

1. DATE

a. DATE OF PLAN, SPEC.....

b. DESIGN COMPLETE AS OF JANUARY 1.....

c. DESIGN COMPLETE AS OF OCTOBER.....

d. DESIGN COMPLETE.....

2. DATE

a. PLAN, SPEC, DESIGN OF DESIGN.....

b. DESIGN COMPLETE AS OF OCTOBER.....

3. COST TOTAL - \$000

a. PRELIMINARY PLAN AND SPEC.....

b. ALL OTHER DESIGN.....

c. TOTAL COST.....

d. CONTRACT.....

e. IN HOLD.....

4. CONSTRUCTION START DATE (PLANNED).....

Apr 89

1. COMPONENT ARMY	FY 19 89 MILITARY CONSTRUCTION PROJECT DATA			2. DATE
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION FT--21521 Tennessee			4. PROJECT TITLE Alteration Electrical SF Corrections	
5. PROGRAM ELEMENT	6. CATEGORY CODE 226 16	7. PROJECT NUMBER TEMP 2701/2	8. PROJECT COST (\$000) 2,400	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY New Installation	LS	--	--	1,970 1,970
SUPPORT FACILITY Explosives Operating Building	LS	--	--	161 161
TOTAL SUBTOTAL TOTAL TOTAL TOTAL TOTAL TOTAL				2,031 267 2,298 125 2,403 2,400 43
10. Description of Proposed Construction This project will correct electrical distribution deficiencies at Holston related to the spacing between distribution line poles, provide underground electrical service to explosives operating buildings, and upgrade the lightning protection system for the explosives plant and support facilities.				
11. REQUIREMENTS 12. SPECIAL REQUIREMENTS 13. SPECIAL REQUIREMENTS				
This project will correct electrical distribution deficiencies at Holston related to the spacing between distribution line poles, provide underground electrical service to explosives operating buildings, and upgrade the lightning protection system for the explosives plant and support facilities.				

1. COMPONENT ARMY	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--21521 Tennessee		
4. PROJECT TITLE Alteration Electrical Distribution	5. PROJECT NUMBER TEMP 2701/2	
PROJECT DATA (CONT.) to conform to the latest requirements of AMCR 485-100 Safety Manual dated April 1987. The project will benefit the present and future modernization, renovation, and expansion projects for Holston since correction of these problems will be gained during the project. Efficiency will be gained by installing and installing the new systems under the same project rather than programming additional projects. REQUIREMENTS: Electrical distribution and lightning protection will be installed in accordance with AMCR 485-100 for all buildings and structures. Specific requirements include: 1. Lightning protection for all buildings and structures. 2. Lightning protection for all buildings and structures. 3. Lightning protection for all buildings and structures. 4. Lightning protection for all buildings and structures. 5. Lightning protection for all buildings and structures. 6. Lightning protection for all buildings and structures. 7. 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1. COMPONENT ARMY	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE
3. INSTALLATION AND LOCATION HOLSTON ARMY AMMUNITION PT--21521 Tennessee		
4. PROJECT TITLE Alteration Electrical SF corrections	5. PROJECT NUMBER TEMP 270172	
CURRENT SITUATION : The lightning protection, bonding, and underground electrical service requirements of the Army Safety Manual are presently in violation at Holston. During construction, reactivation, or reconfiguration of existing facilities, the Army Safety Community has insisted that the plant be brought into compliance with the "latest" regulations. This has presented some difficulty in the past as the presently active project designs were initiated prior to the adoption of the new regulations. During this period the subject deficiencies were not addressed. In addition, cost constraints will prevent completion of the current projects and the necessary project funds will not be available to correct the deficiencies. Start-up of the affected facilities will not be allowed by Safety until the corrections are made which will affect Holston's ability to meet projected FYDP, stockpiling, and distribution of the year 1994. Modernization levels to which Holston is committed. IMPACT OF DEFICIENCIES : Facilities at Holston which are being modernized, reactivated or supported are not meeting the production of items in the current FYDP cannot be completed without the correction of these deficiencies as per Army Safety. Production of munitions, explosives, and compositions (PEX's) and their storage will be affected until the deficiencies are completed. ADDITIONAL : The impact assessment report will be prepared. It is expected that there will be no significant impact on the environment.		

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