### **Training and Evaluation Outline Report**

Status: Approved 22 Feb 2021 Effective Date: 22 Feb 2021

Task Number: 05-PLT-5300

Task Title: Construct Expedient Coupled Pipeline Supports

**Distribution Restriction:** Approved for public release; distribution is unlimited.

**Destruction Notice: None** 

**Foreign Disclosure: FD1 -** This training product has been reviewed by the training developers in coordination with the MSCoE foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

### Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary	Source Information
	ATP 3-34.40	General Engineering (http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/atp3_34x40.pdf)	Yes	Yes	
	ATP 4-43	Petroleum Supply Operations	Yes	No	
	ATP 5-19	RISK MANAGEMENT, with change 1 dated 8 Sep 2014	Yes	No	

**Conditions:** The element receives a directive to construct expedient coupled pipeline supports. A gap exists along the pipeline route and must be crossed. The crossing exceeds the maximum unsupported span of the pipeline. A critical gap crossing kit, materials and equipment to construct supports are available. Work site security is provided.

Note: The Commander must still determine at what level of training they would want the element to perform. Crawl, walk or run. This can only be determined after consideration as to the units training level.

The Commander prior to evaluating an element in the conduct of the task must determine if it will be conducted in a Live, Virtual, or Constructive environment, additionally it must also be determined which condition as described below that the element will conduct the task. The selection made for this task is at a trained level of proficiency. The commander must determine which of the environments below will best suit the unit and the proficiency level at which the unit is. When conducting crawl or walk level training units should not increase the intensity until the unit has achieved the standards and then unit trainers should include variables that increase proficiency in all conditions.

Note: The condition statement for this task is written assuming the highest training conditions reflected on the Task Proficiency matrix required for the evaluated unit to receive a "fully trained" (T) rating.

Note: Condition terms definitions:

Dynamic Operational Environment: Three or more operational and two or more mission variables change during the execution of the assessed task. Operational variables and threat Tactics, Techniques, and Procedures (TTPs) for assigned counter-tasks change in response to the execution of Blue Forces (BLUFOR) tasks.

Complex Operational Environment: Changes to four or more operational variables impact the chosen friendly COA/mission. Brigade and higher units require all eight operational variables of Political, Military, Economic, Social, Infrastructure, Information, Physical environment, and Time (PMESII-PT) to be replicated in varying degrees based on the task being trained.

Single threat: Regular, irregular, criminal or terrorist forces are present.

Hybrid threat: Diverse and dynamic combination of regular forces, irregular forces, and/or criminal elements all unified to achieve mutually benefiting effects.

This task should not be trained in MOPP 4.

**Standards:** The element constructs expedient coupled pipeline supports that meets the weight requirements to support the pipeline without failing in accordance with unit TACSOP, plans and specifications. No later than the time established on the construction directives.

Note: Leaders are defined as the Platoon Leaders, Platoon Sergeants, Squad Leaders, and Team Leaders.

Live Fire: No

## **Objective Task Evaluation Criteria Matrix:**

Plan and Prepare		d Prepare	Execute					Assess		
Operation Environme	al ent	Training Environment (L/V/C)	Leaders Present at Training/Required	Present at Training/Required	External Eval	Performance Measures	Critical Performance Measures	Leader Performance Measures	Evaluator's Observed Task Proficiency Rating	Commander's Assessment
			<u> </u>	<u> </u>					be	
Dynamic			>=85%		Y	>=91%		>=90%	Т	Т
Dynamic (Single Threat)		A	75-84%	>=80%	Yes	80- 90%	All	80- 89%	T-	T-
	Day	IAW unit CATS statement.	65-74%	75-79%		65- 79%		89%	Р	Р
Static (Single Threat)		ent.	60-64%	60-74%	No	51- 64%			P-	P-
			<=59%	<=59%		<=50%	<all< td=""><td>&lt;=79%</td><td>U</td><td>U</td></all<>	<=79%	U	U

Remarks: None
Notes: None

Safety Risk: Medium

### **Task Statements**

# **DANGER**

Leaders have an inherent responsibility to conduct Risk Management to ensure the safety of all Soldiers and promote mission accomplishment.

### **WARNING**

Risk management is the Army's primary decision-making process to identify hazards, reduce risk, and prevent both accidental and tactical loss. All Soldiers have the responsibility to learn and understand the risks associated with this task.

## **CAUTION**

Identifying hazards and controlling risks across the full spectrum of Army functions, operations and activities is the responsibility of all Soldiers.

### **Performance Steps and Measures**

**NOTE:** Assess task proficiency using the task evaluation criteria matrix.

NOTE: Asterisks (\*) indicate leader steps; plus signs (+) indicate critical steps.

+\* 5. The element leader submits reports according to the unit standing operating procedure (SOP).

STEP/MEASURE	GO	NO-GO	N/A
+* 1. The element leaders conduct troop-leading procedures.			
a. Conducts preliminary construction planning.			
b. Requests augmentation support if required.			
+* c. Identifies the gap location and determines the necessary materials and equipment.			
+ 2. The unit performs work site layout.			
+ a. Marks and stakes center line of pipe route on both sides of gap.			
+ b. Marks and places stakes offset 2 feet on both sides of the centerline of the pipe route on both sides of the gap.			
+ c. Connects stakes across the gap from one another with string line.			
+ d. Levels the string line with the pipe routing.			
+ e. Locates the first set of posts offset from the center of the gap by 8 feet and marks it with a stake.			
+ f. Locates the second set of posts on the other side of the center of the gap 16 to 17 feet apart from the first set and marks it with a stake.			
+ g. Marks each successive set of posts with a stake in 19-foot intervals in each direction from the center of the gap.			
+ h. Locates the second post of each gap crossing structure by offsetting a stake 48 inches on the opposite side of the pipeline path from the first post.			
+ 3. The unit performs critical gap kit construction.			
a. Cuts 8-foot lengths (or shorter) of 4-inch pipe for posts.			
+ b. Drives posts as far into the ground as possible.			
+ c. Ensures that posts extend 10 inches above the string line.			
+ d. Welds the upper crosspiece in place at a 3.5- by 5-inch angle (uses the string line and level to align these pieces).			
e. Adds X-bracing if necessary.			
+ f. Completes all post assemblies.			
+ g. Restrings the string line, keeping the string line 1 inch above the crosspieces and offset 6 inches from the desired pipeline path.			
+ h. Welds the roller assemblies into place using the string line as a reference.			
+ i. Strings and couples the pipe, starting in the center and working toward each side of the gap.			
+ j. Ensures couplings are positioned between critical gap structures without resting on the roller assemblies.			
+ k. Ensures pipeline is supported with a minimum clearance of two feet above the high water level.			
+ 4. The unit performs quality assurance.			
a. Inspects for deficiencies.			
+ b. Repairs deficiencies.			
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Task Performance Summary Block									
Training Un	ITERATION								
			1		2	;	3		4
Date of Training per	r Iteration:								
Day or Night Tra	aining:	Day /	Night	Day	/ Night	Day /	Night	Day /	Night
		#	%	#	%	#	%	#	%
Total Leaders Authorized	% Leaders Present								
Total Soldiers Authorized	% Soldiers Present								
Total Number of Performance Measures	% Performance Measures 'GO'								
Total Number of Critical Performance Measures	% Critical Performance Measures 'GO'								
Live Fire, Total Number of Critical Performance Measures	% Critical Performance Measures 'GO'								
Total Number of Leader Performance Measures	% Leader Performance Measures 'GO'								
MOPP LEVEL									
Evaluated Rating pe T, T-, P, P-,	Evaluated Rating per Iteration T, T-, P, P-, U								

Mission(s) supported: None

MOPP 4: Never

MOPP 4 Statement: None

NVG: Never

**NVG Statement:** None

## Prerequisite Collective Task(s):

Step Number	Task Number	Title	Proponent	Status
	05-CO-5250	Perform Construction Operations	05 - Engineers (Collective)	Approved
	05-PLT-5215	Install a Coupled Pipeline	05 - Engineers (Collective)	Approved

## **Supporting Collective Task(s):**

Step Number	Task Number	Title	Proponent	Status
1.	71-CO-5100	Conduct Troop Leading Procedures	71 - Mission Command (Collective)	Approved
2.	05-CO-5001	Perform Project Management	05 - Engineers (Collective)	Approved
5.	05-CO-0018	Conduct Report Procedures	05 - Engineers (Collective)	Approved

#### **OPFOR Task(s):**

Task Number	Title	Status
71-CO-8502	OPFOR Execute an Ambush	Approved
71-CO-8504	OPFOR Execute a Reconnaissance Attack	Approved

### Supporting Individual Task(s):

Step Number	Task Number	Title	Proponent	Status
	052-120-5107	Plan the Construction of Utility Systems for Non- Permanent Structures	052 - Engineer (Individual)	Approved
	052-239-3001	Prepare a Bill of Materials	052 - Engineer (Individual)	Approved
	052-239-3029	Schedule Work	052 - Engineer (Individual)	Approved
	052-239-3030	Read Construction Prints	052 - Engineer (Individual)	Approved
	052-239-3036	Supervise the Installation of Pipelines	052 - Engineer (Individual)	Approved
	052-248-1040	Interpret Plumbing Prints and Drawings	052 - Engineer (Individual)	Approved

### Supporting Drill(s): None

### Supported AUTL/UJTL Task(s):

Task ID	Title
ART 4.1.7.2.6	Construct Petroleum Distribution Systems

#### **TADSS**

TADSS ID	Title	Product Type	Quantity
No TADSS specified			

#### **Equipment (LIN)**

LIN	Nomenclature	Qty
W94536	Trailer Bolster: General Purpose 4 Ton 4 Wheel WE	1
X48914	Truck Lift Fork: Diesel Driven 6000 Lb Capacity Rough Terrain	1
W76816	Tractor Full Tracked Low Speed: Diesel Med DBP wBULDOZ wSCARIF Winch	1
T60081	Truck Cargo: 4x4 LMTV W/E: M1078	1
T61908	Truck Cargo: MTV W/E: M1083	1
W34648	Tool Kit, Carpenters, Engineer Squad with Chest	1
W48759	Tool Kit Pipefitters: 2-12 to 4 Inch Pipe	1

#### Materiel Items (NSN)

NSN	LIN	Title	Qty
No materiel items specified			

**Environment:** Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card.

**Safety:** In a training environment, leaders must perform a risk assessment in accordance with current Risk Management Doctrine. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW current CBRN doctrine.