

Training and Evaluation Outline Report

Status: Approved

04 Aug 2020

Effective Date: 07 Oct 2020

Task Number: 10-GRP-4067

Task Title: Coordinate Engineering/Construction Support for Petroleum Facilities

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Foreign Disclosure: FD1 - This training product has been reviewed by the training developers in coordination with the Fort Lee, VA 23801 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 4-43	Petroleum Supply Operations	Yes	Yes	
	FM 3-0	Operations (This item is published w/Basic incl change 1)	Yes	No	
	FM 4-0	Sustainment Operations	Yes	No	
	JP 4-03	Joint Bulk Petroleum and Water Doctrine	Yes	No	

Conditions: The brigade/group headquarters (HQ) is preparing to deploy (or is deployed) to an area of operations (AO) and is required to Coordinate Engineering/Construction Support for Petroleum Facilities to provide petroleum sustainment to designated commands/units. Staff elements are established and are prepared to support the higher HQ operational mission. The brigade/group has primary access to main supply routes, external logistical support, and is accessible to all supported customer units. Mission execution information has been made available to staff planners (in hard copy or digital format on the network) and include engineer site analysis documents, staff estimates, command operations plans/orders, maps and overlays in accordance with (IAW) command policies and procedures. The command HQs may be the senior logistics HQs in the theater/AO and is prepared to operate as such. Continuous digital and analog communication systems have been established and the staff has been provided the rules of engagement (ROE).

Threat capabilities have been replicated and are described as full spectrum which include opposing forces with near-peer enablers that should include cyber, degraded space, electronic warfare (EW), integrated air defense, counter and precision fires, chemical, biological, radiological, nuclear (CBRN) environments, information warfare, and air threats. These conditions may cause chaos, fear, violence, fatigue, and complexity which require the integration of all warfighting functions across all domains against a peer threat. Soldiers must be prepared to operate in degraded or disrupted communication environments and identify mission, enemy, terrain and weather, troops and support, available time and civil considerations (METT-TC) factors. The enemy has long range strike capability and can be used against civilian infrastructure and resources which support military operations. All authorized equipment is on hand and operational. Unit personnel are available to conduct all day and night operations. The unit has adequate time to prepare and unit leaders are present. This task should not be trained in MOPP 4.

Standards: The brigade/group Coordinate Engineering/Construction Support for Petroleum Facilities within the specified time frame in accordance with (IAW) the commanders guidance, directives from higher headquarters (HQ), the mission OPORD, tactical standing operating procedures (TSOP), approved Army and joint publications and the approved Army standards outlined in the Task Evaluation Criteria Matrix.

LEADER STATEMENT: An Army leader is anyone who by virtue of assumed role or assigned responsibility inspires and influences people to accomplish organizational goals. Leadership is not limited to or synonymous with an assigned duty, position, or given rank as it also manifests itself in both informal and collective forms. Informal leadership provides knowledge, experience, and technical expertise while collective leadership results through the combined effects and synergies of leaders at different levels and experience collaborating to achieve a common purpose. Informal and collective leadership can include positions with an expanded scope of responsibility, significance and operational / mission implications. Therefore, for the purpose of training this task, Leaders are not only defined as officers, warrant officers, noncommissioned officers, and Army civilians but also include individuals who are Subject Matter Experts (SME) which possess the requisite knowledge and skill set to perform a particular task (i.e., conduct an operation, provide logistics, or operate specific equipment, etc.) at the tactical through strategic level as the situation and/or mission dictates.

Live Fire: No

Objective Task Evaluation Criteria Matrix:

Plan and Prepare		Execute					Assess		
Operational Environment	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
BDE & Above									
Dynamic and Complex (All OE Variables and Hybrid Threat)	Night	At the discretion of the Commander.	>=85%	>=80%	Yes	All	80-90%	T	T
			75-84%						
Dynamic and Complex (All OE Variables and Single Threat)	Day		65-74%	75-79%	No	<All	80-89%	P	P
			60-64%	60-74%					
Dynamic and Complex (<All OE Variables and Single Threat)	Day		<=59%	<=59%			<=79%	U	U

Remarks: Task steps and performance measures are intended to be arranged in a logical order. However, they are not intended to be interpreted as a “required order” for performance. Not every performance task steps and/or performance measures of collective task will be applicable to every unit. Prior to evaluation, coordination should be made between the evaluator, the unit itself, and the evaluated units’ higher headquarters (if required) to determine the task step(s) and/or performance measure(s) that must be performed during the evaluation or identify performance steps/measures that do not apply to the unit and may be omitted and identified as N/A during the evaluation. However, when evaluating this task, only the CRITICAL performance steps and measures will be used to calculate the overall percentage total in the training evaluation criteria matrix.

Training begins with the execution of pre-combat checks and inspections. Training ends when designated training objectives for the particular training events or exercises are performed to Army standard. Unit leadership should conduct an After Action Report (AAR) to determine future training requirements for the unit.

Task Evaluation Criteria Matrix Operational Environment (OE) Definitions:

Static—a static training environment has aspects of operational variables needed to stimulate mission variables that are fixed throughout the units’ execution of the task.

Dynamic—a dynamic training environment has operational variables and threat Tactics, Techniques, and Procedures (TTP) for assigned counter-tasks that change in response to the execution of friendly force tasks.

Complex—a complex training environment requires a minimum of four—terrain, time, military (threat), and social (population)—or more operational variables; brigade and higher units require all eight operational variables to be replicated in varying degrees based on the task being trained.

Single threat—a single threat in a training environment is a conventional force, irregular force, criminal element, or terrorist force.

Hybrid threat—a hybrid threat in a training environment uses diverse and dynamic combination of conventional forces, irregular forces, terrorist forces, and criminal elements unified to achieve mutually benefitting effects.

Task steps and measures were developed using the Plan, Prepare, Execute, and Assess (PPEA) construct to reinforce the operations process and is implied throughout the Training & Evaluation Outline (T&EO) as applicable.

Notes: Task steps are not necessarily arranged in a required sequential order for performance. During training of this task, command and staff ABCS systems are stimulated (with constructive or virtual systems) to replicate high volumes of data which replicate the rigor of unified land operations.

1. **DISRUPTED COMMUNICATION NETWORKS:** Leaders need to be able to command their formations when communication networks are disrupted, while on the move, and without perfect situational awareness. Training to become proficient in the use of analog data tracking systems, voice communications, and unaided navigation techniques requires significant amounts of repetition, particularly when integrating all of the elements of combat power. Habitual relationships, practiced standard operating procedures, and the use of battle drills can mitigate some of the risk and friction inherent in lost situational awareness.

2. **REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS:** Feedback is welcome to help improve this collective task. If errors are found, or if someone would like to recommend improvements to the performance steps and procedures in this collective task, please let us know. The preferred method is to submit a DA Form 2028 (Recommended Changes to Publications and Blank Forms) with recommended changes via email to usarmy.lee.tradoc.mbx.cascom-g3-collective@mail.mil. Recommended changes will be reviewed, validated to ensure approved Army or joint doctrine supports recommendation(s), and implemented as appropriate.

Safety Risk: Low

Task Statements

Cue: Brigade/Group staff and supporting elements are working to develop the planning and coordinating of engineering and construction support for petroleum facilities in the area of operations (AO).

DANGER

Notice should alert users of the possibility of immediate death or permanent injury. Soldiers must avoid situations that could affect mission accomplishment. Leaders must establish and provide training safety procedures. Although damage to equipment may occur, the major concern is the probability of death or permanent injury if the warning is ignored.

WARNING

Notice should be given to alert users of the possibility of immediate personal injury or damage to equipment.

CAUTION

Leaders must be alert to human error and know the capabilities and limitations of their formations, the equipment and vehicles they use during training exercises. Following the proper safety procedures during training preserves troop strength by preventing personnel losses through accidents.

Performance Steps and Measures

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

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

STEP/MEASURE

GO	NO-GO	N/A
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Plan

* 1. The commander and staff execute mission command and the operations process to plan, prepare, execute, and assess operations of bulk petroleum operations and facilities.

+* 2. The commander/OIC provide intent and guidance to the staff on the process of coordinating engineering/construction support for petroleum facilities.

3. The BDE/GRP SPO with assistance from staff members develop plans for constructing tactical terminals and storage facilities.

a. Identifies general location of the command/brigade command posts (CPs) where required.

b. Identifies areas of all sub-elements, including tentative defensive boundaries during bulk petroleum/potable water operations.

c. Coordinates tentative layout plan with higher HQ staff elements.

d. Brief leadership and staff sections on details of tentative layout plan with adjustment options.

4. Plan for bulk petroleum and bulk potable water distribution and associated facilities with engineer command.

Prepare

5. Support operations section develop concept of operations for division to theater level bulk petroleum and bulk potable water operations.

6. Support operations prepares plans for conduit/pipeline construction and repair/expansion.

7. Support operations Liaison section coordinates with petroleum agencies as well as Host Nation (HN) support when directed or delegated responsibilities for construction requirements.

a. Coordinates with BDE/GRP staff elements and host nations on the availability of building materials.

b. Coordinates with HN for use of existing buildings and facilities.

c. Coordinates with HN to determine contracting authority.

Execute

8. Command and staff direct bulk petroleum movement activities including over-the-shore POL distribution systems and storage requirements when conducting petroleum group operations.

9. Support operations staff ensures that construction plans/orders and other related mission execution information address important petroleum and water sustainment activities.

a. acquisition and distribution of construction materials.

b. restoration of sustainment infrastructure, including repair of water supply and sewage treatment structures.

c. Implement the planning and performing of water treatment and quality surveillance IAW policies and procedures.

10. Provide supervision and guidance to subordinate organizations on quality surveillance, unit safety directives and programs during execution of bulk petroleum/potable water operations.

+ 11. S3 and SPO staff elements coordinate efforts in the development of facilities and pipeline operations.

a. Unit petroleum and water subject matter experts provide technical guidance during engineer construction or placement of petroleum pipeline, bulk petroleum and bulk potable water infrastructure.

b. Ensures that assigned or attached unit engineers in the operational area identify support requirements for labor, materials availability, transportation, and equipment.

c. Identifies vehicle and personnel constraints that could hinder construction/maintenance of petroleum pipeline terminals or facilities.

d. Identifies limitations and conditions for maintaining petroleum and water storage facilities that may presently have tactical or strategic importance.

e. Group staff collaborates with support agencies to purchase construction materials from the HN with assistance from higher headquarters and the procurement/contracting staff.

Assess

12. The BDE/Group staff continues to update and refine support requirement plans as mission dictates.

13. Conducted After Action Review (AAR) upon conclusion of all operations and training events.

14. Collected status reports from all subordinate and adjacent unit, performed analysis and provide routine status reports to higher HQs IAW policies and procedures.

Task Performance Summary Block										
Training Unit			ITERATION							
			1		2		3		4	
Date of Training per Iteration:										
Day or Night Training:			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 per Iteration T, T-, P, P-, U										

Mission(s) supported: None

MOPP 4: Never

MOPP 4 Statement: Commanders at all levels are responsible for integrating effective CBRN defense measures into their training and operations considerations. Commanders must recognize the significant increase in time required for mission execution in MOPP 4 and anticipate the effects of that degradation on subsequent missions. Leaders must also understand the increased drinking water requirements. The use of MOPP involves risk; the better commanders are at analyzing their units' needs for protection, the lower their units' risks. MOPP analysis enables leaders to select the appropriate MOPP level. During MOPP analysis, the commander considers factors such as mission, work rate and its duration, probable warning time, terrain, weather, time of day, unit training, additional protection available, and alarm placement.

NVG: Never

NVG Statement: Night vision goggles are not required to conduct this task. However, they may be required when performing other sustainment unit operations, during movement, or other assigned duties.

Prerequisite Collective Task(s): None

Supporting Collective Task(s):

Step Number	Task Number	Title	Proponent	Status
1.	71-BDE-5100	Conduct the Operations Process for Command and Control (C2)	71 - Mission Command (Collective)	Approved
7.	10-BDE-4064	Coordinate Host Nation Petroleum Resources	10 - Quartermaster (Collective)	Approved
8.	10-GRP-0212	Conduct Expeditionary and Sustainment Petroleum Group Operations	10 - Quartermaster (Collective)	Approved

OPFOR Task(s): None

Supporting Individual Task(s):

Step Number	Task Number	Title	Proponent	Status
7.	101-23A-7003	Determine Joint, Combined, and Host Nation Petroleum Requirements and Capabilities	101 - Quartermaster (Individual)	Approved
7.	101-23A-7008	Determine Joint, Combined, and Host Nation Water Requirements and Capabilities	101 - Quartermaster (Individual)	Approved
9.	101-92W-4006	Plan Water Treatment Operations	101 - Quartermaster (Individual)	Approved
10.	101-92L-4410	Plan Quality Surveillance Operations for Petroleum Facilities.	101 - Quartermaster (Individual)	Approved

Supporting Drill(s): None

Supported AUTL/UJTL Task(s):

Task ID	Title
ART 4.1.7	Provide General Engineering Support
ART 4.1.7.2.6	Construct Petroleum Distribution Systems
ART 4.1.3.3.3	Provide Petroleum Quality Assurance and Quality Surveillance

TADSS

TADSS ID	Title	Product Type	Quantity
No TADSS specified			

Equipment (LIN)

LIN	Nomenclature	Qty
No equipment specified		

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. It is the responsibility of all Soldiers and Department of the Army civilians to protect the environment from damage. Army personnel must take care of the environment; that is, practice environmental stewardship. All operations conducted on Army installations will comply with federal, state, local and host nation environmental requirements and Army regulations. Army personnel will sustain compliance at all sites in the U.S. and abroad, establishing good relationships with communities and regulators.

Environmental risk management consists of the following steps:

- a. Identify Hazards. Identify potential sources for environmental degradation during analysis of METT-TC factors. This requires identification of environmental hazards. An environmental hazard is a condition with the potential for polluting air, soil, or water and or destroying cultural and historical artifacts.
- b. Assess the Hazard. Analyze potential severity of environmental degradation using the Environmental Risk Assessment. Severity of environmental degradation is considered when determining the potential effect an operation will have on the environment. The risk impact value is defined as an indicator of the severity of environmental degradation. Quantify the risk to the environment resulting from the operation as extremely high, medium, or low, using the environmental risk assessment matrixes.
- c. Make Environmental Risk Decisions. Make decisions and develop measures to reduce high environmental risks.
- d. Brief Chain of Command. Brief chain of command (to include installation environmental office, if applicable), on proposed plans and pertinent high-risk

environmental matrixes. Risk decisions are made at a level of command that corresponds to the degree of risk.

Reference: GTA 05-08-002, Environmental-Related Risk Assessment

For additional information see ATP 3-34.5.

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. Leaders must verify the structural soundness of all training and evaluation plans from a safety viewpoint. Leaders must conduct training at levels consistent with the abilities of the Soldiers being trained. They must instill an awareness of individual safety in all subordinate leaders and Soldiers. All Soldiers must constantly be alert for and avoid situations that may result in injury or death.

Be aware of the following:

a. At the training site, leaders must establish training safety overview procedures. Safety procedures should emphasize the adherence to standards, consideration of environmental factors (for example, wet bulb), risk assessment, and factors contributing to and aiding in the prevention of accidents. Responsible individuals must know how to balance the risks against the training requirements and monitor conditions for safety and health hazards (to eliminate or control them). Leaders must ensure the welfare of their Soldiers in all situations.

b. Leaders must establish a buddy system for safety measures. Soldiers should maintain a safety watch on each other, with emphasis on individual safety training, and first aid responsibilities. All unsafe conditions and unsafe acts must be recognized and reported. Soldiers must be alert to human error and know the capabilities and limitations of the equipment and vehicles they use. Following the proper safety procedures preserves troop strength by preventing personnel losses through accidents.

See FM 5-19, Composite Risk Management.