

101-92F-2135
Supervise Petroleum Operations using an Inland Petroleum Distribution System (IPDS)
Status: Approved

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 Fort Lee, Va foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

Conditions: In an operational environment (OE) given the requirement to supervise the assembly, maintenance, and issue/receipt of petroleum products using an inland petroleum distribution system. Personnel and materials required to perform task: military occupational specialty (MOS)-qualified (92) Soldiers to assist, TPT which consists of three fuel units, Tank Farm Assemblies with two 5,000 barrel (bbl) fabric tanks each; a Tanker-Truck Receipt Manifold; a Fuel Dispensing Assembly; a Transfer Hose Line Assembly; six Fire Suppression Assemblies; an Optional Tank Configuration and a Fuel Unit Support Assembly; multi-product operational pipeline system with 800-gallons per minute (GPM) mainline pump station; 600-GPM pump; repair clamps (over coupling clamp or half saddle clamp); tools (hose line installation and repair assembly, cutting and grooving machine, and pipeline tapping equipment); oil, rags, brush, pencils; fire extinguisher; spill kit/containers; clean up equipment; risk management procedures, applicable Safety Data Sheets (SDS); personnel protective equipment (PPE); fire protection suits (coat, trousers, boots, hood, harness, and gloves); density meter; level work surface; temperature of petroleum products; corrected American Petroleum Institute (API) gravity of product; Facility Response Plan (FRP); Spill Prevention Control and Countermeasures (SPCC) plan; the units hazardous waste/hazardous material (HW/HM) management policy; Oil Discharge Contingency Plan (ODCP) (if required); daily pumping order; oral or written operations order (OPORD); unit standing operating procedures (SOP); DD Form 2927 (Petroleum Sample); DA Form 3643 (Daily Issues of Petroleum Products); DA Form 2765-1 (Request for Issue or Turn-in), locally produced reports to track Petroleum Products Pump Station Hourly Operations and Petroleum Products Pump Station Operating Log; DA Form 5464-R (Petroleum Products Pipeline Leakage Report); DA Form 2404 (Equipment Inspection Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA), and full access to all reference material. Some iterations of this task should be performed in MOPP 4.

Standards: Supervise the issue, receipt, and transfer of petroleum products from an IPDS according to the pumping order, making all entries on pump station and pipeline reports without damage to equipment, personnel, or the environment; maintaining accountability of petroleum products and performing maintenance on pipeline sections as required.

Special Conditions: None

Safety Risk: Low

MOPP 4: Sometimes

Task Statements

Cue: None

DANGER
None

WARNING
None

CAUTION
None

Remarks: None

Notes: None

Performance Steps

1. Perform risk assessment measures according to health/safety task 101-92F-1160 per supervisor's guidance.
2. Employ Environmental Stewardship measures according to shared task 101-000-0003.
3. Enforce wearing of appropriate PPE as required.
4. Supervise before-, during-, and after-operations preventive maintenance checks and services (PMCS) on system's components according to unit SOP and appropriate technical manuals (TMs). Ensure personnel record faults found while performing PMCS on DA Form 2404 or DA Form 5988-E.
5. Supervise Pipeline Operations.

- a. Review daily pumping orders. Identify starting time, quantity, route, and destination of product.

Note: Daily pumping orders will include: Type of fuel, Batch number, Destination of each batch, Amount of fuel in batch, Estimated size of interface, Estimated times of arrival of interface at terminals, Starting and stopping times of all pumping operations, Type of interface to cut, and Pipeline pump station pressures and pipeline flow rates.

- b. Ensure pump station is ready for operations.

- (1) Check grounding of pumps, check fire extinguisher, and communications.
- (2) Check to ensure mainline, bypass, and side valves on receiver and launcher are in proper position.
- (3) Check that strainer is open and ready for operation.
- (4) Ensure all safety and environmental precautions are taken.

- c. Supervise pump station operations.

- (1) Ensure pumps are operating according to unit SOP and daily pumping order.

Note: Mainline pump units operating temperature must be at 120 prior to putting on line. This is done at idle speed of approximately 800 to 1,000 RPMs. Allow 20 to 30 minutes for warm up.

- (a) Monitor pressure gauges and meters for correct readings.
- (b) Draw samples for testing.
- (c) Conduct scrapper operations as required.
- (d) Ensure DA Form 4818 is completed.
- (e) Report interface arrival.

(2) Review daily pumping order to determine arrival time of a product interface and ensure interface cut operations are performed in accordance with unit SOP.

- (3) Ensure pumps are shut down properly for conditions as stated in pumping order.

Note: Pipeline will be shutdown under packed or slack conditions according to daily pumping orders.

- (4) Maintain files on pump station operations.

Note: The following records as a minimum should be maintained: daily pumping orders, DA Form 4818, and DA Form 5464-R.

- d. Provide hourly report according to daily pumping order and unit SOP.

- (1) Batch number.
- (2) Line temperature.
- (3) Atmospheric temperature.
- (4) Suction pressure.

(5) Discharge pressure.

e. Conduct pipeline patrols.

Note: Pipeline patrols should be sent out often and at different times each day so that no one can predict when a patrol may be in a specific area.

f. Observe operations for any safety or environmental infractions and stop operations immediately if any violations are found and correct them.

g. Maintain communications with chain of command and render status reports as required by unit policy.

h. Maintain records on mainline pump station operations according to OPOD and unit SOP. Provide to supervisor upon completion of shift.

6. Supervise installation of petroleum valves and pipeline sections.

DANGER

Failure to perform this task correctly may result in damage to equipment or injury or death to personnel.

WARNING

A constant fire and hazards explosion exists on a pipeline because of the fuels. Repair teams should use an explosimeter to determine how explosive and toxic an area is before entering. When disconnecting a pipeline to replace damaged pipe or fittings or when a line break occurs, immediately shut down the line and close the closest block valves on each side of the break to capture as much of the fuel as possible before it becomes a fire hazard. Every opening could be a potential fire. Fire fighting troops should accompany repair crews on major repair assignments.

a. Ensure proper maintenance is performed on IPDS components according to unit SOP.

(1) Supervise maintenance on valves according to Army technical publications/technical manuals (ATPs/TMs).

(2) Supervise scraper operations.

(a) Conduct scraper operations according to daily pumping order and unit SOP.

(b) Notify district dispatch office when scraper is launched or received.

Note: If scraper does not launch, attempt to re-launch it by using a slightly higher pressure in the pipeline.

(c) Monitor pressure gauges and meters for correct readings.

Note: Monitor scraper location by either listening for its movement through pipeline or by logging volume of liquid pumped through pipeline. The scraper travels 1 mile for each 8,185 gallons pumped through pipeline.

(d) Monitor time it takes scraper to travel to next pumping station/receiving point.

Note: Calculate total volume needed to move scraper between launcher and receiver by multiplying distance between them by 8,185 gallons. To estimate travel time in minutes from launcher to receiver, divide volume calculated by flow rate of pipeline.

(e) Notify district dispatch office if scraper does not reach receiving point on time.

(3) Supervise pipeline patrols.

(a) Inventory equipment for patrol (such as DA Form 5465-R, spill kit/containers, shovels, absorbent material, fitting, and tools for temporary repairs).

(b) Maintain communications with district dispatch office at all times.

(c) Notify district dispatch office of any leaks, pilferage, or signs of sabotage within pipeline trace.

(d) Complete DA Form 5464-R as required.

(4) Supervise temporary repairs to pipeline.

(a) Notify district dispatch office of repairs and type of fitting that was used.

(b) Provide supervisor with completed DA Form 5464-R on repair services performed.

b. Supervise installation of IPDS aluminum pipeline sections making on-the-spot corrections as necessary according to unit SOP.

Note: All major repairs will be used under the direct supervision of the pipeline dispatch officer in charge (OIC). No work requiring connecting/replacing components will be done without the authorization of the pipeline dispatch OIC.

WARNING

A constant fire and hazards explosion exists on a pipeline because of the fuels. Repair teams should use an explosimeter to determine how explosive and toxic an area is before entering. When disconnecting a pipeline to replace damaged pipe or fittings or when a line break occurs, immediately shut down the line and close the closest block valves on each side of the break to capture as much of the fuel as possible before it becomes a fire hazard. Every opening could be a potential fire. Fire fighting troops should accompany repair crews on major repair assignments.

(1) Enforce safety measures prior to breaking pipeline.

(a) Keep all vehicles a safe distance from a leak.

(b) Approach leak from windward side.

(c) Do not approach a leak from a lower level, fuel vapor flow downhill.

(d) Know how to administer first aid for burns and how to give artificial respiration. Make sure you have adequate first-aid material, including burn ointment and blankets.

(e) Wear leak proof rubber or synthetic rubber boots when standing in fuel.

(f) Use every precaution to prevent striking sparks when removing and replacing pipe fittings.

(g) Use sparkles brass hammers when replacing snap-joint couplings.

(h) Enforce and observe NO SMOKING rules.

(i) Never try to weld pipe holes; use clamps.

(j) Cover an area with petroleum fire-preventing foam even after repairing a leak or break and salvaging the fuel. The area may remain potentially dangerous for several days. Guards should be posted and they should monitor the area for explosiveness, as required.

(2) Permanent repairs.

(a) Coupling replacement.

1 Make sure firefighting equipment is handy.

2 Stop pumping operations.

3 Close gate valves on each side of the faulty coupling.

4 When required, draw fuel from pipeline by using drain assembly or by tapping into pipeline using the tapping machine. One mile of 6-inch pipe holds approximately 195 barrels or 8,185 gallons of fuel.

5 After removing fuel in pipeline, attach a come along to each side coupling approximately 5 feet from coupling on each pipe section. Place 4x4 blocks (two on each side) between come along chain and pipe. By doing this, you will be able to remove the coupling and at the same time keep the pipeline from separating prior to putting on new coupling.

6 If required, remove over-coupling leak clamp by taking out the four large side bolts if a temporary repair was made. Catch spilled fuel in a container.

7 Remove split-ring coupling and gasket.

8 Check pipe grooves frayed ends for foreign substances that may be causing leakage.

9 Check coupling drift pins for wear and coupling gaskets for possible cause of leakage.

10 If there is no sign of damage to split-ring coupling, then replace gasket by removing old gasket and replacing it with a new gasket. Put a thin coat of grease on each gasket prior to placing gasket on split-ring coupling.

11 Ensure pipeline sections are in alignment and free of any foreign matter. Place split-ring coupling under bottom of pipe sections ensuring coupling is seated in pipe grooves. Close coupling over pipe and drive drift pin in coupling locking split-ring coupling.

12 Clean up any HW that may accrue during repairs.

13 Notify dispatcher of completion of repairs and open up gate valves slowly to put pressure back in the pipeline.

14 Start pumping again.

15 Check new coupling for leaks.

(b) Pipe replacement.

1 Move firefighting equipment into the area.

2 Stop pumping operations.

3 Close gate valves on each side of pipe section to be replaced.

4 When required, draw fuel from pipeline by using drain assembly or by tapping into pipeline using the tapping machine. One mile of 6-inch pipe holds approximately 195 barrels or 8,185 gallons of fuel.

5 After removing fuel in pipeline, break line by removing coupling at both ends of pipe section to be replaced.

6 Remove damaged pipe section and replace it with new pipe. When putting in new section of pipe, use new gaskets in split-ring coupling.

7 Clean up any HW that may accrue during repairs.

8 Notify dispatcher of completion of repairs and open gate valves slowly to put pressure back in pipeline.

9 Start pumping again.

10 Check new section of pipe and couplings for leaks.

(c) Operate Tapping Machine. When installing threaded piping components, always use Teflon tape sealant on threads prior to making connection. This will ensure a tight seal. Perform the following steps to install and operate tapping machine:

1 Determine pipeline location at which line will be tapped.

2 Install the 6-inch bolt on pipe saddle with 2-inch valve assembly at that point. Liberally apply seal grease on seal inside upper section of 6-inch saddle pipe setting it into pipe.

3 Install bleed valve into side of tee in valve assembly. Be sure to place tape sealant on threads. Leave valve in open position.

4 Remove 2-inch plug from upper section of valve assembly.

5 While holding calibrated body tube, rotate feed tube clockwise to extend boring bar until set screws are visible. Remove set screws with 1/8 hex key.

6 Attach hole saw to holder pilot.

7 Insert holder pilot into boring bar. Align holes in boring bar and holder pilot shank. Insert set screws and tighten with 1/8 hex key. Do not use grease in hole saws.

8 To retract hole saw, hold body tube and rotate feed tube counterclockwise until feed tube is at the zero mark on calibrated body tube. At this point, hole saw is completely retracted.

9 Calculate travel distance required for pilot drill tip to contact pipe. Take correct measurements to avoid tapping through bottom of pipe or making an incomplete tap.

a Measure distance "A" (top face of 2-inch tee to top of pipe).

b Measure distance "B" (bottom of adapter to pilot drill tip) and add to distance "A". This measurement should be taken prior to installing machine into tee.

c Measure thread makeup each time as it can vary. This is done by measuring threaded length on adapter prior to installation and subtracting exposed threaded length after installation. Subtract it from the sum of ("A"+"B"). This total figure should be the body tube reading as pilot drill tip contacts pipe.

10 Make a mark on calibrated body tube at measurement calculated in step 9. The feed tube should be at this measurement on the body tube as pilot drill tip contacts pipe.

11 Apply sealant tape to threaded adapter. Attach drilling machine with adapter to previously installed tee. Close and open vertical ball valve to ensure it functions properly. Be sure valve is in FULL OPEN position before continuing to the next step.

12 Rotate feed tube clockwise. Drill extends until it contacts pipe. The feed tube should be at mark placed on the body of tube in step 10.

13 The computed cutting distance is 0.50 inches. This cutting distance, plus the initial reading on the body tube when the pilot drill contacts the pipe, is the final reading on the body tube when the tap is completed. Mark this final reading on the body tube.

14 Attach ratchet handle to 1/2 hex drive. Best results will be obtained if the handle is rotated 360 degrees while cutting. Turn in a clockwise direction only. Do not OVERFEED. This can cause damage to pilot drill tip or the hole saw. The rate of advance for the hole saw is adjustable by tightening or loosening the feed adjustment knob at the top of the drilling machine. Loosen for slower feed, tighten for faster feed.

15 As the pilot drill penetrates the pipe wall, allow line fluid to completely fill valve and fitting. Be sure bleed valve is open. Blow line contents through bleed valve to purge all air. Close bleed valve when all air is purged. As tap nears completion, cutting noise may become loud and irregular. This is caused by coupon changing shape or relieving stress. If pipe is highly stressed at the tapping location, hole saw may become locked by loosened coupon. In this case, loosen feed adjustment knob and retract hole saw by turning feed tube one revolution counterclockwise. Resume tap (slow fee) to clean burr from hole.

16 When second mark is reached on body tube, tap should be complete. At this point fee tube should turn fast as drive cap (no clutch slipping) and will advance at full feed of 1/8 per revolution. The feed and rate of feed confirm that the tap is complete.

WARNING

Do not travel more than 3 1/2 inches after the pilot tip touches the pipe. If this distance is exceeded, hole saw or pilot drill will damage or penetrate the bottom of the pipe. (Refer to step 16).

17 Retract hole saw. Rotate feed tube counterclockwise. Hole saw will retract until feed tube is at zero mark on body tube or until the feed tube comes to a firm stop.

18 Close tapping valve.

19 Bleed off all pressure trapped in valve adapter by opening bleed valve on adapter.

20 Rove drilling machine.

21 Install 2-inch hex head plug into the 2-inch tee.

22 To enable coupon to slide off pilot drill, coupon must be pushed up to allow Unwire to rotate.

c. Supervise test procedures for pressurized pipeline on newly installed sections for leaks according to unit SOP.

7. Supervise Transfer Operations.

a. Ensure general safety procedures are followed.

- (1) Position fire extinguisher within 5 to 10 feet.
- (2) Post "NO SMOKING" signs within 50 feet.
- (3) Ground and bond all equipment.
- (4) Use spill containers.
- (5) Protect yourself and others from fumes and vapors.

b. Monitor operations for safety violations and environmental compliance.

c. Ensure fire-suppression equipment is present and serviceable.

d. Supervise before-operations for an intra-terminal transfer in accordance with task 101-92F-1205.

- (1) Verify the establishment of an efficient communication system.
- (2) Verify that the product is tested before pumping operations begin.
- (3) Review pumping order.
- (4) Supervise the personnel recirculating the product.
- (5) Supervise the personnel draining off all free water.

e. Supervise during-operations for an intra-terminal transfer in accordance with task 101-92F-1205.

- (1) Monitor the communication system established.
- (2) Ensure safety precautions are followed continuously.
- (3) Monitor implementation of pumping order.

WARNING

FUEL SPLASH AND SPILL - Splashes and spills can cause eye injury and skin irritation. Wear face shield and approved gloves.

HOSE WHIP - Hose may tend to move rapidly or whip if not weighed down. Pressure changes can cause hose whip and injure personnel.

OVERFILLING FABRIC TANKS - Do not overfill the fabric collapsible tanks. A spill through the vent or possibly a rupture and major spill could result.

TANKER TRUCK MOVEMENT - Do not allow truck to move away without disconnecting the hose line. A spill could result.

DISPENSING ASSEMBLY OPERATING PRESSURE - Make sure that pressure control valves are functioning. High pressure can result in hose whip, splash back, and spills.

GROUNDING AND BONDING - The system dispensing valve must be grounded and bonded to the receipt vessel prior to opening the vessel and dispensing fuel. Static electricity could cause a fire or explosion.

NO SMOKING - Enforce no smoking rules on all personnel, including drivers from outside the TPT.

VEHICLE DISCONNECT - Make sure vehicles are disconnected from the dispensing assembly before moving.

STOP VEHICLE ENGINES - Stop all vehicle engines while loading fuel.

PRESSURIZED SYSTEM - Do not break (open) any flanges or open any couplings until the system is depressurized at that location. Injury and fuel spill can result.

CAUTION

INTERNAL DIRT AND WASTE - Internal dirt, rocks, construction waste, and so forth can ruin operating equipment and cause operating failures. Eliminate such contaminants before commencing operations.

BACK FLOW - Make sure there is no flow from pipeline system into the TPT to prevent overpressure.

Trapping high pressure between closed valves can damage equipment.

8. Maintain records for accountability of petroleum products according to OPORD and unit SOP. Provide to supervisor daily upon completion of shift.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier scores NO-GO, show the Soldier what was done wrong and how to do it correctly.

Evaluation Preparation: See task Conditions and Standards

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Performed risk assessment measures according to health/safety task 101-92F-1160 per supervisor's guidance.			
2. Employed Environmental Stewardship measures according to shared task 101-000-0003.			
3. Enforced wearing of appropriate PPE as required.			
4. Supervised before-, during-, and after-operations preventive maintenance checks and services (PMCS) on system's components according to unit SOP and appropriate technical manuals (TMs). Ensured personnel recorded faults found while performing PMCS on DA Form 2404 or DA Form 5988-E.			
5. Supervised Pipeline Operations.			
6. Supervised installation of petroleum valves and pipeline sections.			
7. Supervised Transfer Operations.			
8. Maintained records for accountability of petroleum products according to OPORD and unit SOP. Provided to supervisor daily upon completion of shift.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	ATP 3-34.5	Environmental Considerations	No	No
	ATP 4-43	Petroleum Supply Operations	No	No
	DA FORM 2765-1	REQUEST FOR ISSUE OR TURN-IN	No	No
	DA FORM 3643	DAILY ISSUES OF PETROLEUM PRODUCTS	No	No
	DA FORM 5464-R	PETROLEUM PRODUCTS PIPELINE LEAKAGE REPORT (LRA)	No	No
	DA PAM 710-2-1 (Please don't use, link to the one in ATSC domain, the official one)	Using Unit Supply System (Manual Procedures)(Standalone Pub)	No	No
	DA PAM 750-8	The Army Maintenance Management System (TAMMS) Users Manual	No	No
	MIL-STD-3004D w/change 1	Department of Defense Standard Practice Quality Assurance/Surveillance For Fuels, Lubricants and Related Products	No	No
	TM 10-3835-231-13	OPERATORS, UNIT, AND DIRECT SUPPORT MAINTENANCE MANUAL FOR TACTICAL PETROLEUM TERMINAL MODEL TPT-1 (NSN 3835-01-288-4604)	No	No
	TM 10-4320-307-10	OPERATORS MANUAL FOR PUMPING ASSEMBLY (MAINLINE) DIESEL ENGINE DRIVEN, 800 GPM (NSN 4320-01-193-3430)	No	No
	TM 10-4320-324-14	OPERATORS, UNIT, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE MANUAL FOR PUMPING ASSEMBLY, FLAMMABLE LIQUID, BULK TRANSFER DIESEL ENGINE DRIVEN, WHEEL MTD, 350 GPM, 275 FT HEAD, MODEL 13229E8400 (9740)	No	No
	TM 10-4320-374-13&P	OPERATION AND FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL) FOR PUMP ASSEMBLY: DIESEL-ENGINE-DRIVEN (DED), 600 GPM FUEL PUMP ASSEMBLY (NSN 4320-01-546-6128) WATER PUMP ASSEMBLY (4320-01-546-6140)	No	No
	TM 10-5430-239-12&P	OPERATOR'S AND UNIT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND	No	No
	TM 5-3835-220-13&P	OPERATOR, UNIT, AND INTERMEDIATE DIRECT SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST) FOR TACTICAL PETROLEUM TERMINAL MODEL WBEI-10002 (NSN 3835-01-182-1976)	No	No
	TM 5-4320-305-10	OPERATORS MANUAL FOR PUMP UNIT, CENTRIFUGAL, HOSELINE, 600 GPM, DED, MODEL US612ACD-1 (NSN 4320-01-193-3429) (REPRINTED W/BASIC INCL C1-3)	No	No
	TM 5-4330-263-13&P	OPERATOR AND FIELD MAINTENANCE MANUAL WITH REPAIR PARTS AND SPECIAL TOOLS LIST FOR FILTER/SEPARATOR, LIQUID FUEL, 50-GPM (NSN: 4330-01-483-1068) 100-GPM (4330-01-525-3659) 350-GPM (4330-01-529-0584)	No	No
	TM 9-2330-356-14	OPERATORS, UNIT, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE MANUAL FOR SEMITRAILER, TANK: 5000 GALLON, BULK HAUL, SELF-LOAD/ UNLOAD M967 (NSN 2330-01-050-5632) M967A1 (2330-01-155-0046) SEMITRAILER,	No	No
	TM 9-6230-210-13&P	OPERATOR, UNIT, AND DIRECT SUPPORT, MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR FLOODLIGHT SET, TRAILER MOUNTED HIGH-LITE CORPORATION MODEL HLT-3K-5K-MIL SERIAL NUMBERS 6301A THRU	No	No

TADSS : None

Equipment Items (LIN):

LIN	Name
T05741	Testing Kit Petroleum: Aviation Fuel Contamination
T49255	Truck Lift Fork: Diesel Driven 4000 Lb Capacity Rough Terrain

P00309	PUMP CENTRF HOSELINE
EA3500	Terminal, Tactical Petroleum

Material Items (NSN) :

Step ID	NSN	LIN	Title	Qty
	3835-01-288-4650		LAUNCHER ASSEMBLY,S	1
	3835-01-288-4644		RECEIVER ASSEMBLY,S	1
	3835-01-288-5904		STRAINER ASSEMBLY,S	1
	4930-00-438-9030		Manifold, Fueling	1

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.

Prerequisite Individual Tasks :

Task Number	Title	Proponent	Status
101-92F-2158	Supervise Petroleum Operations using Fuel System Supply Point (FSSP)	101 - Quartermaster (Individual)	Analysis Completed

Supporting Individual Tasks :

Task Number	Title	Proponent	Status
101-92F-2125	Supervise Accountability of Petroleum Products	101 - Quartermaster (Individual)	ArmyU Review
101-92F-2400	Supervise Quality Surveillance on Petroleum Products	101 - Quartermaster (Individual)	Approved
101-92F-1160	React to Petroleum Products Health / Safety Hazards	101 - Quartermaster (Individual)	Approved

Supported Individual Tasks : None

Supported Collective Tasks : None

Knowledges :

Knowledge ID	Knowledge Name
101-K-P20031	Know how to complete and verify DA Form 2404, 5988-E, 5987-E, 3643, DD Form 1970 and 1898
K626	Knowledge of the Twin Agent Unit (TAU) characteristics and features
101-K-P20022	Know how to maintain security requirements for petroleum facility
K625	Knowledge of Preventive Maintenance Checks and Services (PMCS) procedures on Twin Agent Unit (TAU) IAW appropriate TM
K624	Know how to assemble, operate, and return to operational status a Tactical Petroleum Terminal (TPT) Fire suppression Set (Twin Agent Unit)
K623	Understanding of major components and layout/setup for an Tactical Petroleum Terminal (TPT) system
K711	Know how to supervise the assembly, operation, and disassembly of the Inland Petroleum Distribution System
K628	Knowledge of the Twin Agent Unit (TAU) functions and controls
K712	Know how to supervise petroleum transfer operations using the Inland Petroleum Distribution System (IPDS)
K627	Describe safety precautions taken when suppressing a Petroleum fire using a Twin Agent Unit (TAU)
101-K-46	Knowledge of Material Safety Data Sheets (MSDS) format
K7913	Recognize Inhalation Hazards
101-K-M002	Know how to identify risks and hazards.
K641	Know how to prepare petroleum accountability forms (DA Form 3643, 2765-1, and DD Form 1898)
101-K-0004	Knowledge of petroleum fire hazard
101-K-1093	Knowledge of Class III POL storage procedures
91L-K-132	Knowing the different hydraulic pipe fittings - elbows/bends, enlargement/contractions, coupler/unions, tees

101-K-0017	Knowledge of SOP/Operations Order Requirements for Handling/Disposal of Hazardous Materials
101-K-M013	Know how to inspect vehicles, equipment and supplies for serviceability/mission capability.
101-K-EA027	Know requirements for maintaining inventory records
K599	Know how to perform personal protective measures when handling petroleum products
K22417	Know how to read and interpret appropriate Army Technical Publications, Field Manuals, and Technical Manuals
K596	Knowledge of petroleum products fire hazards and sources of ignition
K598	Know how to identify petroleum products health hazards
K597	Know how to perform first aid for petroleum products related injuries
101-K-P20012	Know how to properly wear PPE and its intended usage
K620	Know how to interpret Tactical Petroleum Terminal (TPT) and Fix facility manifold systems
101-K-P20011	Knowledge of how to properly supervise soldiers
K621	Know how to perform scraper operations
101-K-P20015	Knowledge of the Environmental Stewardship Protection Program measures
K622	Know how to perform pipeline maintenance
101-K-P20013	Knowledge of safety procedures when handling petroleum products
K615	Know how to perform operator Preventive Maintenance Checks and Services on 800-GPM mainline pump
K616	Know how to operate 600-GPM Pump
K439	Understand the procedures for directing sampling and gauging of petroleum products
101-K-P20016	Knowledge of Preventive Maintenance Checks and Services (PMCS) procedures
K617	Know how to operate 800-GPM mainline Pump
101-K-P20019	Know how to prepare and operate the TAU
K438	Know how to determine reference points for gauging collapsible tanks
K618	Know how properly set valves within Tactical Petroleum Terminal (TPT) or Fix facility
031-K-627-021	Knowledge of Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120 requirements
K612	Knowledge of characteristics and features of 600-GPM Petroleum pump
K613	Know how to perform operator Preventive Maintenance Checks and Services on 600-GPM Petroleum pump
K614	Knowledge of characteristics and features of 800-GPM mainline pump
101-K-P20010	Knowledge of unit's SOP and local policy requirements and their location
101-K-P20009	Knowledge on how to enforce Risk Management procedures and control measures

Skills :

Skill ID	Skill Name
101-S-P20025	Ability to supervise soldiers while patrolling pipelines and hose lines
S1601	Ability to perform scraper operations
S1597	Ability to properly set valves within Tactical Petroleum Terminal (TPT) or Fix facility
S1595	Ability to perform Preventive Maintenance Checks and Services (PMCS) on 600-GPM petroleum pump unit IAW appropriate TM
101-S-P20015	Ability to enforce Environmental Stewardship Protection Program measures
101-S-P20022	Ability to maintain security requirements for petroleum facility
S1606	Ability to perform Preventive Maintenance Checks and Services (PMCS) on petroleum pump units (50, 100, 220, 300, 350, and 600 GPM) IAW appropriate TM
101-S-P20019	Ability to supervise the preparation and operation of the Twin Agent Unit (TAU)
101-S-1057	Ability to follow OSHA standards in storage area
S1602	Ability to perform pipeline maintenance
S1599	Ability to operate petroleum 600-GPM pump unit IAW appropriate TM
S1607	Ability to operate petroleum pump units (50-, 100-, 220-, 300-, 350-, and 600-GPM) IAW appropriate TM
S1596	Ability to perform Preventive Maintenance Checks and Services (PMCS) on 800-GPM mainline pump unit IAW appropriate TM
S1578	Ability to perform first aid for petroleum products related injuries
S-101-E-0043	Ability to coordinate with area communications support unit
101-S-P20031	Ability to complete and verify the accuracy of DA Form 2404, 5988-E, 5987-E, 3643, DD Form 1970
101-S-M011	Ability to inspect vehicles, equipment and supplies for serviceability/mission capability.
S1604	Ability to assemble, operate/suppress a fire, and return a Fire suppression unit (Twin Agent Unit) to operational status
011-409S	Maintain forms and records
S1680	Supervise petroleum transfer operations using the Inland Petroleum Distribution System (IPDS)
S1611	Ability to prepare petroleum accountability forms (DA Form 3643, 2765-1, and DD Form 1898)
S1603	Ability to perform transfer operations using an Tactical Petroleum terminal (TPT) according to pumping orders
S1577	Ability to identify petroleum products fire hazards and sources of ignition
101-S-P20011	Ability to supervise one or more soldiers
101-S-P20012	Ability to enforce the proper wear of Personal Protective Equipment (PPE)
101-S-P20013	Ability to enforce safety procedures when handling petroleum products
101-S-P20008	Ability to enforce Risk Management procedures and control measures

101-S-P20010	Ability to read, understand, and enforce the unit's SOP and local policies
S0199	Recognizing risks and hazards
S1579	Ability to identify petroleum products health hazards
S1605	Ability to perform Preventive Maintenance Checks and Services (PMCS) on Twin Agent Unit (TAU) IAW appropriate TM
S1679	Ability to supervise the assembly, operation, and disassembly of the Inland Petroleum Distribution System (IPDS)
S1109	Ability to determine reference points for gauging collapsible tanks
S1110	Ability to direct sampling and gauging of petroleum products
S1600	Ability to operate petroleum 800-GPM mainline pump unit IAW appropriate TM
S1111	Ability to direct quality surveillance of petroleum products

ICTL Data :

ICTL Title	Personnel Type	MOS Data
92F Petroleum Supply Specialist SL 20	Enlisted	MOS: 92F, Skill Level: SL2, Duty Pos: QFP