

GTA 10-09-001



PETROLEUM AND WATER QUICK REFERENCE

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Fort Lee Va, 23801

<https://quartermaster.army.mil/pwd>

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RESOURCES

- **ELECTRONIC TECHNICAL MANUALS:**
 - <https://liw.logsa.army.mil/etmapp/#/etm/home>
- **ARMY PUBS: (AR, DA PAMS, DA FORMS)**
 - <https://armypubs.army.mil/>
- **PETROLEUM AND WATER DEPARTMENT (PWD)**
 - https://quartermaster.army.mil/pwd/pwd_main.html
- **SHARE POINT- ADMMO DASHBOARD**
 - https://army.deps.mil/Army/CMDS/CASCOM_QM/PWD/
- **INSTRUCTIONAL VIDEOS:**
 - https://quartermaster.army.mil/pwd/pwd_main.html
- **TRAINING WITH INDUSTRY (TWI):**
 - https://quartermaster.army.mil/oqmg/enlisted_proponency/twi/
- **JOINT LOGISTICS COURSE:**
 - <https://alu.army.mil/cpce/courses/>

BULK PETROLEUM AND PACKAGED FUELS ACCOUNTABILITY

AR 710-2 PG. 56

This regulation establishes the requirements and responsibilities for consuming units in maintaining protection, control and audit trail of petroleum products.

BULK PETROLEUM AND PACKAGED FUELS ACCOUNTABILITY

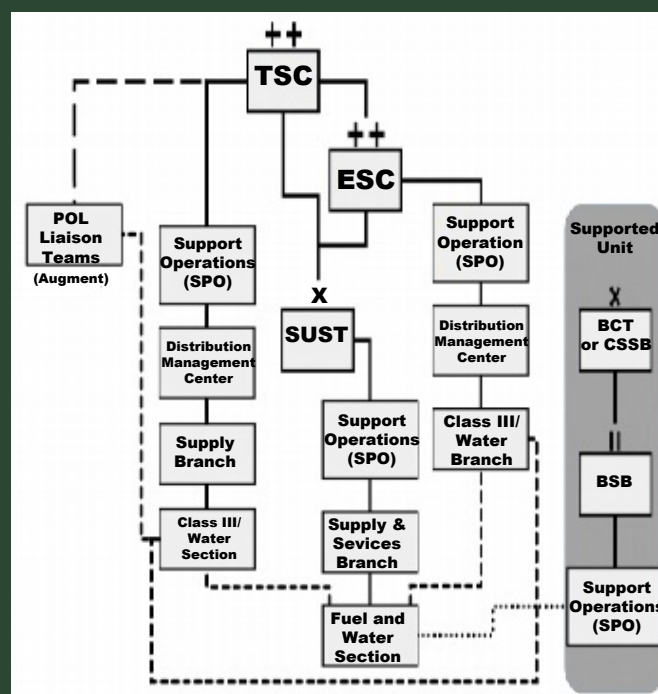
DA PAM 710-2-1 PG. 92

This regulation prescribes policy and identifies procedures and forms used in bulk petroleum, allowable losses or gains and quality surveillance procedures.

PETROLEUM SUPPLY OPERATIONS

ATP 4-43

ATP 4-43, Petroleum Supply Operations, is the United States Army reference for commanders, staff personnel, and Soldiers performing petroleum storage and distribution operations. ATP 4-43 expands the discussion of basic petroleum operations introduced in FM 4-40, Quartermaster Operations, and petroleum distribution discussed in ATP 4-93, Sustainment Brigade. Combined with these publications, ATP 4-43 provides the reader with an understanding of petroleum supply operations to include greater fidelity and detailed techniques for operations.



92F PETROLEUM SUPPLY SPECIALIST SKILL LEVELS

STP 10-92F15-SM-TG

This manual is intended for Soldiers holding MOS 92F and for trainers and first-line supervisors. It contains standardized training objectives, in the form of task summaries, to train and evaluate Soldiers on the critical tasks which support unit mission during wartime.

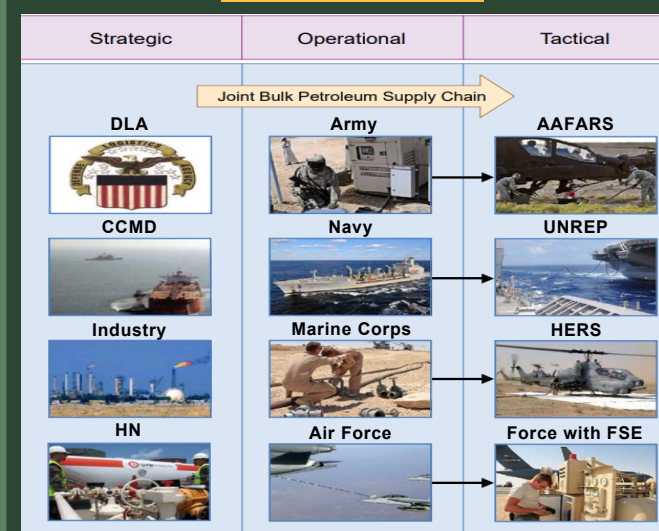
CRITICAL TASKS LISTS

- Maintain Accountability of Petroleum Products
- Direct Sling Load Operations
- Direct Sampling and Gaging Procedures
- Implement a Petroleum Fire and Safety Program
- Implement a Petroleum Environmental Stewardship Protection Program
- Direct Refuel on the Move (ROM) Operations
- Direct Forward Arming Refueling Point (FARP) Operations
- Direct Fuel System Supply Point (FSSP) Operations

JOINT BULK AND WATER DOCTRINE

Providing forces with the right fuel, in the right place, and at the right time requires planning to determine peacetime and wartime requirements, contract and allocate product, arrange for bulk storage, move products forward to and within the theater, ensure quality control, issue and account for the fuel, and maintain distribution equipment and facilities.

Joint Bulk Petroleum Logistics Environment



PETROLEUM REFERENCES

- **ATP 4-43:** Petroleum Supply Operations
- **ATP 3-04.17:** Army Techniques Publication for Forward Arming and Refueling Points
- **DA PAM 710-2-1:** Using Unit Supply System (Manual Procedures)
- **AR 710-2:** Supply Policy Below the National Level
- **AR 735-5:** Property Accountability Policies
- **AR 200-1:** Environmental Protection and Enhancement
- **AR 70-12:** Fuels and Lubricants Standardization Policy for Equipment Design, Operation, and Logistics Support
- **NATO STANAG 3149:** Minimum Quality Surveillance for Fuels
- **NATO STANAG 1135:** Interchangeability of Fuels, Lubricants, and Associated Products used by the Armed Forces of the North Atlantic Treaty Nations
- **NATO STANAG 2115:** Fuel Consumption Unit
- **CJCSM 3150.14B:** Joint Reporting Structure Logistics
- **MIL STD 3004:** Department of Defense Standard Practice Quality Assurance for Bulk Fuels, Lubricants, and Related Products
- **DoD 4140.25M:** DoD Management of Bulk Petroleum Products, Natural Gas, and Coal
- **JP 5-0:** Joint Operation Planning
- **JP 4-03:** Joint Bulk Petroleum and Water Doctrine
- **JP 3-35:** Deployment and Redeployment Operations
- **JP 4-01.6:** Joint Logistics Over the Shore

- **40 CFR Part 112:** Oil Pollution Prevention API Manual of Petroleum Measurement
- **Standards Chapter 11.1:** Volume Correction Factors; Tables 5B and 6B

GENERAL DAILY PETROLEUM EQUIPMENT TASKS

- Inspect exhaust system for cracks and leaks
- Check fluid levels. Inspect fan belts, electrical system
- Inspect fire extinguisher gauge and date
- Check for Leaks & Inspect fuel in tank
- Drain water and contaminants out of F/S
- Inspect static reel wire for cuts and fraying
- Inspect nozzle for proper operation, leakage
- Check Pressure Differential & Pressure Gauges and annotate reading
- Perform Aqua-Glo while recirculating fuel and record reading Arming and Refueling Points

GENERAL LABORATORY INSPECTIONS

- Ensure all Regulations, DA Phamplets, Training Manuals, DODISS and ASTMs are the latest publications available
- Ensure all required testing equipment is on hand and functional
- Ensure all required chemicals and related support equipment is available
- Ensure placards are properly placed on lab and trailer
- Ensure 5 gallon fuel cans are on hand for storage of slop fuel and chemicals
- Ensure PMCS is performed on laboratory, 10K Generator, ECU, Trailer Tent and Support Equipment

92L PETROLEUM LABORATORY SPECIALIST SKILL LEVELS

STP 10-92L14-SM-TG

This manual is intended for Soldiers holding MOS 92L and for trainers and first-line supervisors. It contains standardized training objectives, in the form of task summaries, to train and evaluate Soldiers on the critical tasks which support unit mission during wartime.

CRITICAL TASKS LISTS

- Operate and Maintain Mobile Laboratory and 60 KW Generator Set
- Review Laboratory Reports
- Perform Standard Test Method for Pour Point of Petroleum Oils (D-97)
- Perform Standard Test Method for Particulate Contaminant in Aviation Fuels (D-2276)
- Prepare Petroleum Laboratory Analysis Report
- Operate and Maintain PQAS Operations

LABORATORY REFERENCES

- **ASTM:** Test Method Supplement to FM 10-92L1/4
- **JP 4-03:** Joint Bulk Petroleum and Water Doctrine
- **DOD 4140.25-M:** Management of Bulk Petroleum Products, Natural Gas and Coal Volume I
- **MIL-STD-3004:** Quality Assurance/ Surveillance for Fuels, Lubricants and Related Products
- **AR 200-1:** Environmental Protection and Enhancement
- **710-2:** Supply Policy below the National Level
- **AR 750-43:** Army Test, Measurement, and Diagnostic Equipment
- **DA PAM 710-2-1:** Using Unit Supply System (Manual Procedures)
- **TM 10-6640-264-10:** Operator's Manual for Petroleum Quality Analysis System Enhanced (PQASE)
- **STANAG 2136:** Requirements For Water Potability During Field Operations and in Emergency Situations
- **STANAG 2885:** Emergency Supply of Water in Operations

92W WATER TREATMENT SPECIALIST SKILL LEVELS

STP 10-92W14-SM-TG

This manual is intended for Soldiers holding MOS 92W and for trainers and first-line supervisors. It contains standardized training objectives, in the form of task summaries, to train and evaluate Soldiers on the critical tasks which support unit mission during wartime.

CRITICAL TASKS LISTS

- Conduct and Inspect Water Reports/Logs/ Forms
- Conduct Water Analysis Testing
- Conduct Water Reconnaissance
- Perform Sling Load Operations
- Implement Environment Stewardship Measures
- Operate 1,500-GPH Tactical Water Purification System (TWPS)
- Set Up/Operate/Dismantle the 125-GPH Lightweight Water Purifier (LWP)
- Operate 3,000-GPH Reverse Osmosis Water Purification Unit (ROWPU)

GENERAL FIELD WATER INSPECTIONS

- Ensure Intake Line is located to optimize water draw
- Effluent Line discharges are contained and 25yds downstream
- Ensure Reverse Osmosis Unit is leveled
- Generators are grounded and adequate ventilation is present
- Operator Protective Equipment is serviceable to prevent contamination
- Operations and Monitoring Logs are present and being recorded
- Conduct Water System Vulnerability Assessment

WATER REFERENCES

- **JP 1-0:** Joint Personnel Support
- **JP 4-03:** Joint Bulk Petroleum and Water Doctrine
- **ADRP 3-0:** Unified Land Operations
- **AR 700-136:** Tactical Land Based Water Resources Management.
- **ATP 4-44:** Water Support Operations
- **ATP 4-25.12:** Unit Field Sanitation Teams
- **FM 4-02.17:** Preventive Medicine Services
- **FM 4-40:** Quartermaster Operations
- **FM 27-10/MCRP 5-12.1A:** The Law of Land Warfare
- **STP 10-92W14-SM-TG:** Soldier's Manual and Trainer's Guide, 92W, Water Treatment Specialist, Skills Levels 1-5
- **TC 4-02.3:** Field Hygiene and Sanitation
- **TB MED 577/NAVMED P-5010-10/AFMAN 48-138_IP:** Sanitary Control and Surveillance of Field Water Supplies
- **TM 3-34.49/NTRP 4-04.2.13/AFMAN 32-1072:** Water-Well Drilling Operations
- **DOD Directive 4705.01E:** Management of Land-Based Water Resources in Support of Contingency Operations

Recommended Water Inspections

TB Med 577

Daily

- Storage and distribution facilities
- Bulk storage
- Fabric tanks and drums

Weekly

- Supplies

Monthly

- Water purification points
- Storage and distribution Points
- Bottled water storage
- Unit potable water containers
- Bulk storage
- Fabric tanks and drums

Advanced Aviation Forward Area Refueling System (AAFARS)

Primarily Used To Refuel Rotary Wing Aircraft in Remote Locations

Adapter Kit Allows System to Use Any Fuel Source With 2"-4" Camlock Couplings

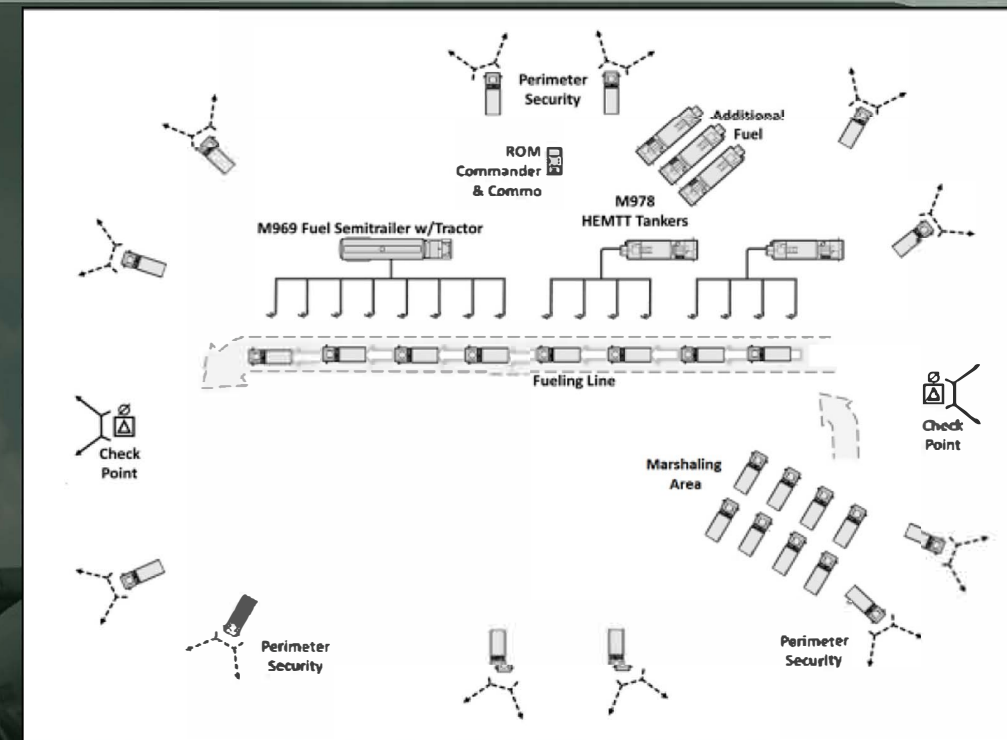
Pump GPM	225
Filter Separator GPM	240
Fuel Source	Four 500-Gallon Collapsible Drums
Connection Type	Dry-Break
Power Source	Fuel Pump Engine
Storage Requirements	2 TRICON Containers
Set-Up Requirements	4
Operational Requirements	10
Recovery Time	30 Minutes
Area Requirements	500'x300'

HEMTT Tanker Aviation Refueling System (HTARS)

Primarily Used To Refuel Rotary Wing Aircraft in Remote Locations

Pump GPM	300
Filter Separator GPM	300
Fuel Source	M978 HEMTT
Connection Type	Dry-Break
Power Source	M978 HEMTT
Storage Requirements	M978 BII Box
Set-Up Requirements	2
Operational Requirements	10
Recovery Time	15 Minutes
Area Requirements	500'x300'

Example Refuel On The Move (ROM) Layout



Minimum Testing Frequency For Common Products

PRODUCT DESCRIPTION	MINIMUM TESTING FREQUENCY (MONTHS)
Gasoline, Aviation ¹	6 ²
Gasoline, Automotive ¹	12
Turbine Fuel Aviation ¹	12
Diesel Fuel ¹	12
Kerosene ¹	12
Fuels, Burner ¹	12
Fog Oils ¹	12
Other Petroleum Products, such as oils and greases	See Note 3

NOTES:

- For Bulk Petroleum Product long-term storage testing frequencies, see MIL-STD-3004 Part 1.
- For current minimum testing frequency requirements refer to Defense Logistics Information Service (DLIS) and/or the Total Item Record (TIR). See website,

Conventional Theater Water Planning Table. Gallons Per Person/ Per Day

Function	Tropical		Arid	
	Sustaining	Minimum	Sustaining	Minimum
Universal Unit Level ^a	6.91	4.87	7.27	5.23
Role I and II Medical Treatment	0.03	0.03	0.03	0.03
Role III and IV Medical Treatment	0.88	0.88	0.88	0.88
Central Hygiene - Showers ^b	2.07	1.87	2.07	1.87
Mortuary Affairs Operations	0.03	0.03	0.22	0.22
Potable Total	9.92	7.68	10.47	8.23
Centralized Hygiene - Laundry ^b	0.26	0.12	0.26	0.12
Mortuary Affairs Operations	0.19	0.19	NA	NA
Engineer Construction	1.98	0.00	1.98	0.00
Aircraft Maintenance	0.14	0.14	0.14	0.14
Vehicle Maintenance (non-potable part of UUL)	0.36	0.36		
Non-potable Total ^c	2.93	0.81	NA	NA
Theater Total	12.86	8.49	12.86	8.49