

C7. CHAPTER 7
QUALITY SURVEILLANCE
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C7.1. GENERAL

This chapter prescribes procedures to maintain the quality of Defense Working Capital Fund (DWCF) fuel throughout the supply chain and to verify the quality of fuel delivered directly to customers from contract sources. These procedures describe quality surveillance (QS) functions relative to bulk fuels, aerospace energy, into-plane, bunkers, and posts, camps, and stations (PC&S) programs. This chapter further identifies specific QS responsibilities, publications, sampling and testing procedures, intra-governmental receipt limits, inventory rotation, and tank coating or cleaning criteria. The objective of the QS program described in this chapter is to receive, store, and issue specification fuel.

C7.2. RESPONSIBILITIES

C7.2.1. Combatant Command Joint Petroleum Offices (JPOs) shall:

C7.2.1.1. Provide general theater oversight of product quality matters and related records and reports.

C7.2.1.2. Ensure formation of a theater petroleum laboratory correlation program. JPOs may subsequently designate either a DoD Component or Defense Logistics Agency (DLA) Energy to manage the correlation program.

C7.2.2. DLA Energy, Quality Operations Division (DLA Energy-QA) shall:

C7.2.2.1. Develop, publish, and maintain DoD QS policy, programs, and procedures that establish minimum standards for use.

C7.2.2.2. Receive, control, and investigate customer complaints and product quality deficiency reports in accordance with Defense Logistics Agency Regulation (DLAR) 4155.24 (Reference (r)), and Military Standard (MIL-STD) 3004 (Reference (jjj)).

C7.2.2.3. Provide defense fuel support points (DFSPs) with disposition instructions for off-specification products. Coordinate with the appropriate service control point (SCP), Defense Energy region (DER), or Federal agency prior to issuing disposition instructions.

C7.2.2.4. Develop requirements, request contract support, fund commercial laboratory services when necessary, and use DoD Component laboratories whenever practical.

C7.2.2.5. Establish and maintain a QS program for DWCF products in DLA Energy custody that meets minimum MIL-STD-3004 requirements including:

C7.2.2.5.1. Government-owned/contractor-operated (GOCO), transportation operating agreement, contractor-owned/contractor -operated (COCO), North Atlantic Treaty Organization (NATO) operated DFSPs, and foreign government facilities when integrated into a memorandum of understanding (MOU) or memorandum of agreement (MOA).

C7.2.2.5.2. Military Sealift Command (MSC)-controlled tankers that load and discharge at foreign government facilities.

C7.2.2.5.3. When DLA Energy-QA accepts QS responsibility through an interservice support agreement (ISA) with the DoD Component or an MOU between the DoD Component and foreign government.

C7.2.2.6. Assess military installation DFSP product receipt and QS procedures in coordination with the respective SCP, DER, or Federal agency.

C7.2.2.7. Fund sample testing requested by DLA Energy at a DoD Component laboratory when there is a fee-for-service agreement between that laboratory, the respective DoD Component, and DLA Energy-QA.

C7.2.2.8. Manage the theater petroleum laboratory correlation program when assigned by the JPO. Provide QA and quality control inspections and oversight at non-contract locations upon request of the JPO.

C7.2.3. DoD Components shall:

C7.2.3.1. Establish and maintain a QS program for DWCF products in DoD Component custody that meets minimum MIL-STD-3004 requirements for:

C7.2.3.1.1. Government-owned/Government-operated DFSPs and afloat pre-positioning force (APF) vessels. Chapter 9 of this Volume provides specific QS requirements for APF vessels.

C7.2.3.1.2. Contractor-operated fuel facilities that directly support contracted DoD installation operations.

C7.2.3.1.3. Foreign government DFSPs integrated into a DoD Component or foreign government MOU or MOA, or an international agreement. Chapter 17 of this Volume provides additional information to manage foreign government DFSPs.

C7.2.3.1.4. Loading and discharging of MSC-controlled tankers at U.S. Government terminals operated by a foreign government under a bilateral agreement with a DoD Component or NATO terminals operated by DoD Component personnel.

C7.2.3.1.5. DLA Energy contracted GOCOs and COCOs where DLA Energy has assigned QS to a DoD Component through an ISA.

C7.2.3.2. Provide available DWCF product quality data to DLA Energy-QA upon request, in accordance with this chapter and MIL-STD-3004.

C7.2.3.3. Manage the inventory rotation program at DoD installation DFSPs.

C7.2.3.4. Provide consolidated laboratory fee schedules to DLA Energy-QA, when appropriate, by July 1 for the next fiscal year. DoD Component laboratories that do not submit a fee-for-service schedule for the upcoming fiscal year shall provide testing services based upon rates shown on the last fee schedule provided to DLA Energy. DoD Components shall not charge laboratory fees to DLA Energy if no laboratory fee schedule exists.

C7.2.3.5. Manage the theater petroleum laboratory correlation program when assigned by the JPO.

C7.3. ISA TO SUPPORT QS

C7.3.1. DLA Energy and the DoD Components shall:

C7.3.1.1. Enter into an ISA to obtain QS support for DWCF products at contractor, foreign government, or NATO DFSPs when determined to be the most practical and efficient means.

C7.3.1.2. Execute an ISA for QS support at the lowest practical command level.

C7.3.2. DoD Instruction 4000.19 (Reference (g)) provides additional ISA guidance.

C7.4. QS PROGRAM

C7.4.1. Publications

C7.4.1.1. DLA Energy-QA shall be the central source for DWCF fuel QS guidance within DoD.

C7.4.1.2. DLA Energy-QA shall develop MIL-STD-3004, which governs QS of DoD petroleum and related products, in coordination with the DoD Components. DoD Components may supplement MIL-STD-3004 requirements at DoD locations in accordance with technical guidance of the respective DoD Component.

C7.4.2. Quality Assurance Representatives (QRs)

C7.4.2.1. The organization that has QS responsibility shall designate a QR to manage the QS program at DFSPs that store and dispense DWCF product.

C7.4.2.2. QRs shall also serve as property administrator (PA) or contracting officer representative (COR) whenever practical and economical. Chapter 3 of this Volume provides procedures for PA and COR assignment.

C7.4.2.3. QRs shall ensure contractors comply with contractual requirements at contractor-operated DFSPs. QRs shall not enter into agreements with contractors or accept voluntary services on behalf of the government without contracting officer approval.

C7.4.3. Buying Programs. DLA Energy shall provide supply, storage, and distribution of petroleum and aerospace products procured through several programs. QS procedures shall include quality and quantity controls.

C7.4.3.1. Bulk fuels program products primarily consist of aviation fuels, naval distillate fuel, bulk lube oils, and bulk fuel system icing inhibitor (FSII). DLA Energy-contracted DFSPs have specific product quality requirements incorporated into the contracts that DLA Energy QRs monitor. Government DFSPs shall establish a QS program that meets MIL-STD-3004 requirements.

C7.4.3.2. The into-plane program provides commercial and military grade aviation fuel at commercial airports throughout the world. Each into-plane contract establishes specific program product quality and service performance requirements, which include MIL-STD-1548 (Reference (ccc)) requirements. DLA Energy QRs shall monitor overall contractor product quality and service performance. DoD representatives that operate aircraft shall perform final inspection and acceptance of into-plane fuel and services. In addition, contractors shall submit fuel samples for testing in accordance with contract requirements.

C7.4.3.3. The ships' bunkers program provides commercial bunker fuel and services for military and other U.S. Government ships in geographic areas where DWCF bulk inventories are not available. QS procedures for receiving ships shall be in accordance with DoD Component guidance.

C7.4.3.4. The PC&S program provides commercially available ground fuels directly to customers. At DWCF PC&S locations, the DoD Component that has custody of the DWCF inventory shall establish a QS program that meets MIL-STD-3004 requirements. Non-DWCF PC&S locations shall comply with the QS guidance of their respective DoD Component.

C7.4.3.5. Aerospace energy programs provide aerospace energy products and services to support national and commercial space programs and national defense programs. Procurement contracts include quality assurance requirements and DLA Energy QRs provide origin contract oversight.

C7.4.4. Product Sampling and Testing

C7.4.4.1. MIL-STD-3004 prescribes fuel sampling and testing requirements for DoD activities, with testing typically performed at refinery, commercially contracted, or DoD Component laboratories. Sampling and testing of DWCF products is the responsibility of the DER or DoD Component that has QS responsibility unless otherwise transferred by written agreement.

C7.4.4.2. COCO and GOCO contracts may require the contractor to provide laboratory or testing services.

C7.4.4.3. Into-plane contracts prescribe fuel sampling and testing requirements for products procured through the into-plane program.

C7.4.4.4. DLA Energy shall contract fuel testing services for the ships' bunkers program. Testing service contractors shall provide sampling kits to ships that participate in the program. Ship personnel shall use the sampling kits to obtain continuous drip samples from bunker manifolds during receipt and forward those samples to the contractor.

C7.4.4.5. At DWCF PC&S locations, the DoD Component that has custody of the DWCF inventory shall establish and execute a sampling and testing program that meets MIL-STD-3004 requirements. Non-DWCF PC&S locations shall comply with the sampling and testing guidance of the respective DoD Component.

C7.4.4.6. DFSPs that store aerospace energy products shall sample and test DWCF inventories in accordance with contract requirements, DoD Component technical manuals, or locally developed guidelines, as appropriate.

C7.4.5. Laboratory Support

C7.4.5.1. DoD Components shall:

C7.4.5.1.1. Maintain and fund costs of the base-level QS laboratory testing program at DFSP locations where the DoD Component retains QS responsibility. The DoD Components shall maintain fuel area laboratories when practical and cost effective.

C7.4.5.1.2. Retain the option to negotiate an MOA with DLA Energy to relinquish QS laboratory testing responsibility and a fuel area laboratory. The proposed MOA may be a budget-based, personnel-based, or facility-based transfer of responsibility depending on circumstances and location.

C7.4.5.1.3. Perform laboratory testing in accordance with MIL-STD-3004 requirements at a minimum.

C7.4.5.2. DLA Energy shall:

C7.4.5.2.1. Perform and fund QS laboratory testing at DFSPs where DLA Energy has QS responsibility in accordance with MIL-STD-3004 requirements at a minimum. DLA Energy provides QS testing through commercial laboratory contracts or DLA Energy-owned laboratories.

C7.4.5.2.2. Retain the option to enter into an MOA with the DoD Components to provide laboratory testing at DFSPs where DLA Energy has QS responsibility. Transfer of responsibility can be budget-based, personnel-based, or facility-based. Funding and control of

laboratory testing will occur within 2 years or sooner when in the best interest of the Government.

C7.4.5.2.3. Designate laboratories to test DWCF product and base DoD Component, DLA Energy, or commercial laboratory selection on practicality and cost effectiveness.

C7.4.5.2.4. Provide QS training to personnel at DLA facilities as requested by the JPO.

C7.4.6. Off-Specification Product. DLA Energy-QA shall serve as the customer or depot complaint program manager, except for aerospace energy products. DFSPs and customers shall report product quality deficiencies including quality-related equipment and operational problems, to the appropriate SCP or DER. The SCP or DER shall forward validated complaints to DLA Energy-QA for resolution to include product disposition instructions and corrective action.

C7.4.6.1. Bulk Fuels Program

C7.4.6.1.1. The DoD Component or DER that has QS responsibility shall:

C7.4.6.1.1.1. Promptly report off-specification product, equipment malfunctions, and operating deficiencies related to fuel quality to DLA Energy-QA, and the appropriate DER, SCP, and JPO in accordance with DLAR 4155.24 and MIL-STD-3004.

C7.4.6.1.1.2. Report all off-specification products including products that meet the intra-governmental receipt limit (IGRL).

C7.4.6.1.1.3. Isolate off-specification product until DLA Energy-QA provides disposition instructions. Issue off-specification product only after DLA Energy-QA provides disposition instructions.

C7.4.6.1.1.4. Provide copies of all off-specification test reports to DLA Energy-QA as soon as possible with information copies to the appropriate DER, SCP, and JPO.

C7.4.6.1.2. Off-Specification Product Investigation

C7.4.6.1.2.1. The DoD Component or DER that has QS responsibility shall complete a thorough investigation of off-specification product to include suspected cause, possible corrective action, related costs, and estimated correction time. The DFSP shall forward the investigation report to DLA Energy-QA, and the appropriate DER, SCP, and JPO as soon as possible, but no later than 7 days after the initial report.

C7.4.6.1.2.2. The DER shall provide DLA Energy-QA, upon request, the cost and feasibility of obtaining product from alternate sources.

C7.4.6.1.2.3. DLA Energy-QA shall request a special QR investigation at the shipping location, as required. The responsible QR shall forward the investigation report to DLA Energy-QA within the estimated timeframe agreed upon.

C7.4.6.1.2.4. DLA Energy-QA will coordinate the ongoing investigation with the appropriate DER, SCP, and JPO as necessary. DLA Energy-QA shall notify the appropriate DER, SCP, and JPO of the investigation findings as soon as possible, but no later than 30 days after the initial report unless an otherwise agreed upon timeframe is coordinated.

C7.4.6.1.3. Off-Specification Product Disposition

C7.4.6.1.3.1. DLA Energy-QA shall perform a quality evaluation, in conjunction with the appropriate SCP or DER, and provide detailed disposition instructions to the DFSP having custody of the off-specification product. DLA Energy-QA shall coordinate with the appropriate DER, SCP, JPO, and DLA Energy offices, to include the DLA Energy Inventory Accountability Division (DLA Energy-NI) and the contracting officer, prior to issuing disposition instructions and shall provide them with an information copy.

C7.4.6.1.3.2. Product disposition action order of preference is (1) product rehabilitation; (2) product use as-is; (3) product regrade; and (4) product disposal. Product disposal is the last resort action and used only when alternatives are not viable or cost effective.

C7.4.6.1.3.3. DLA Energy-NI shall initiate appropriate inventory management actions for off-specification fuel in accordance with DoD Manual 4160.21-M (Reference (s)) and provide inventory management requirements to DLA Energy-QA to include in the disposition instructions.

C7.4.6.2. Into-Plane Program, Ships' Bunkers Program, and PC&S Program

C7.4.6.2.1. Customers shall promptly notify the respective SCP or DER concerning all product quality problems. The SCP or DER shall initiate investigative action and report suspected problems to DLA Energy-QA in accordance with DLAR 4155.24 and MIL-STD-3004.

C7.4.6.2.2. DLA Energy-QA shall direct the investigation and issue disposition instructions, when appropriate, in coordination with the SCP or DER.

C7.4.6.2.3. DFSPs and customers shall immediately notify the contracting officer and DLA Energy-QA upon identification of off-specification product prior to receipt. DLA Energy-QA shall coordinate with the contracting officer and the respective SCP or DER to provide prompt disposition instructions, which may include product rejection.

C7.4.6.3. Tanker or Barge Cargoes

C7.4.6.3.1. QRs that discover off-specification cargoes shall immediately notify DLA Energy-QA and the appropriate DER, JPO, and SCP, and provide:

C7.4.6.3.1.1. Fuel product grade.

C7.4.6.3.1.2. Quantity of off-specification product.

C7.4.6.3.1.3. Cargo number and tanker or barge name.

C7.4.6.3.1.4. Characteristics not within specification or the IGRL.

C7.4.6.3.1.5. Recommended corrective action.

C7.4.6.3.2. DLA Energy-QA shall coordinate disposition actions and instructions with DLA Energy Supply Chain Operations Division, MSC, and the appropriate DER, SCP, JPO, and DLA Energy offices. DLA Energy-QA shall provide the DFSP with disposition instructions and forward copies of all correspondence to MSC, DER, JPO, SAPO, and SCP, as required.

C7.4.6.3.3. DLA Energy-QA shall recommend claim action, when appropriate, and provide related documents to the contracting officer.

C7.4.7. IGRLs. MIL-STD-3004 governs delivery procedures for off-specification fuel products that meet IGRLs.

C7.5. INVENTORY ROTATION PROGRAM

C7.5.1. Bulk Petroleum Inventories. DFSPs shall rotate bulk petroleum inventory on a first-in/first-out basis. Exceptions to rotation policy include, but are not limited to, products that show signs of aging or deterioration and inventory rotations due to facility operation or maintenance requirements.

C7.5.2. Dormant Petroleum Inventories

C7.5.2.1. Dormant inventory is fuel stored in tanks that have not received additional fuel for 6 months.

C7.5.2.2. DFSPs shall rotate dormant inventory based on product quality unless circumstances dictate otherwise. MIL-STD-3004 prescribes dormant fuel sampling and testing frequencies.

C7.5.3. Inventory Rotation Plan

C7.5.3.1. DFSPs shall rotate dormant inventories in accordance with the following rotation timetable for budgetary and planning purposes. The timetable prescribes probable shelf life of major fuel categories and establishes recommended maximum time limits for product rotation.

C7.5.3.1.1. Gasoline - every year

C7.5.3.1.2. Fuel oils #1 and #2 - every 2 years

C7.5.3.1.3. Diesel fuel - every 3 years

C7.5.3.1.4. Jet fuel and residuals - every 5 years

C7.5.3.2. DFSPs that store dormant inventories shall submit annual inventory rotation plans to the appropriate SCP or DER for review and consolidation, using DD Form 2512, "Bulk Fuel Stock Rotation Plan." The DFSP shall provide the following information for each tank:

C7.5.3.2.1. DFSP name and location.

C7.5.3.2.2. Tank number.

C7.5.3.2.3. Scheduled cleaning date.

C7.5.3.2.4. Product type.

C7.5.3.2.5. Quantity.

C7.5.3.2.6. Recommended rotation date.

C7.5.3.2.7. Quality characteristics showing deterioration.

C7.5.3.2.8. Product test results since receipt.

C7.5.3.2.9. Rationale for rotation.

C7.5.3.2.10. Suggested rotation destination.

C7.5.3.2.11. Transportation mode.

C7.5.3.2.12. Additional pertinent data.

C7.5.3.3. An approved inventory rotation plan provides the basis for near-term budget and procurement planning but does not constitute final authority to rotate fuel. The basis for the final decision is quality, facility, and funding parameters that may accelerate or delay projected inventory rotations.

C7.5.3.4. DERs shall use special and separate fund authorizations upon inventory rotation plan approval and budgeting.

C7.5.3.5. Aerospace energy products stored at DFSPs do not require a formal inventory rotation plan due to product stability, storage, and handling considerations. DFSPs shall nevertheless attempt to rotate products on first-in/first-out basis.

C7.5.4. Inventory Rotation Responsibilities

C7.5.4.1. DLA Energy-QA shall:

C7.5.4.1.1. Manage the DWCF inventory rotation program and approve inventory rotation plans.

C7.5.4.1.2. Select the most economical and practical rotation solutions based on operational, technical, procurement, and budgetary factors.

C7.5.4.1.3. Designate the organization responsible to execute product movement in coordination with the appropriate DER, SCP, and JPO.

C7.5.4.2. DERs shall:

C7.5.4.2.1. Consolidate proposed inventory rotation plans and submit to DLA Energy-QA by the requirements due date in accordance with DLA Energy Instruction 4220.1 (Reference (u)) at Attachment 1.

C7.5.4.2.2. Initiate inventory rotation actions in accordance with an approved inventory rotation plan when responsible for QS.

C7.5.4.3. DoD Components shall:

C7.5.4.3.1. Complete and forward proposed annual inventory rotation plans to the appropriate DER.

C7.5.4.3.2. Initiate inventory rotation actions in accordance with an approved inventory rotation plan when responsible for QS.

C7.6. TANK COATING AND CLEANING

C7.6.1. Tank Coating. DoD Components shall:

C7.6.1.1. Internally coat newly constructed DFSP tanks with an appropriate and approved internal coating system. Existing tanks not coated as specified in paragraphs C7.6.1.1, C7.6.1.1.2, or C7.6.1.1.3, shall be coated when cost-effective or as a solution to a chronic quality problem.

C7.6.1.1.1. Coat additive tanks only when there is an approved coating that is additive-specific. Unless otherwise authorized by DLA Energy-QA, FSII shall be stored in

stainless steel or Teflon-coated tanks. Corrosion inhibitor blending tanks shall be of black or stainless steel construction.

C7.6.1.1.2. Coat aviation fuels, marine diesel (F76), and lube oil tank interiors 100 percent, including floor, sides, and roof underside.

C7.6.1.1.3. Coat other product tank interiors , including the floor, roof underside, and the bottom 40 inches (1000 mm) of the sides. Additional coating requires DoD Component and DLA Energy justification and approval.

C7.6.1.2. Coat all tank piping and appurtenances used for aviation fuel, marine diesel, and lube oils, with the exception of those made of aluminum or stainless steel. Coat tank piping and appurtenances used for other products as necessary.

C7.6.2. Tank Cleaning

C7.6.2.1. Figure C7.F1. provides minimum aviation fuel and F76 tank cleaning requirements. DFSPs shall clean tanks more frequently if quality data indicates product quality is deteriorating and is in jeopardy of not meeting specification requirements.

C7.6.2.2. DFSPs shall clean automotive gasoline and diesel tanks every 10 years or sooner if warranted by quality data.

C7.6.2.3. DLA Energy-QA provides cleaning authorizations based on quality data that deviate from the requirements in Figure C7.F1. in coordination with the appropriate DER, SCP, JPO and DLA Energy offices

Figure C7.F1. Tank Cleaning Requirements

TANK CLEANING REQUIREMENTS				
Tank Type	Tank Interior Uncoated		Tank Interior Coated	
	Without Inlet Filter Separator	With Inlet Filter Separator	Without Inlet Filter Separator	With Inlet Filter Separator
Operating Tanks (tanks that directly supply refueling vehicles or hydrant systems)	4 years	6 years	6 years	8 years ¹
Bulk Storage	4 years	6 years	6 years	8 years ¹
Fuel Recovery Tanks	Inspect and clean concurrently with operating or bulk storage tanks			
<p>NOTE: If the receipt system has filter separators or micronic filters installed, DFSPs shall use the receipt system for the duration of every receipt. If not, the cleaning frequency shall be 4 years rather than 6 years for uncoated tanks and 6 years rather than 8 years for coated tanks.</p> <p>¹Cleaning requirement can extend to 10 years to coincide with the American Petroleum Institute out-of-service inspection.</p>				