SUPPLEMENTAL QUALITY ASSURANCE PROVISION (SQAP)

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
	ENERGY QAP E1.16	AUGUST 2014	

E1.16 CONTRACTOR INSPECTION AND QUALITY ASSURANCE RESPONSIBILITIES (RP FUELS) (AEROSPACE ENERGY) (DLA ENERGY AUG 2014)

(a) **QUALITY CONTROL PLAN.**

(1) The Contractor is required to provide and maintain an inspection system, and a written description (Quality Control Plan (QCP)) of that system, acceptable to the Government. The Contractor has the option to provide and maintain an inspection system that, as a minimum, incorporates the requirements of ISO 9001, Quality Management Systems. If the Contractor chooses to comply with the ISO 9001 quality system requirements and format, all the specific Quality Assurance Provisions of this contract must be included in the resulting ISO document that will serve as the QCP. A copy of the QCP, in English, shall be presented to the Government Quality Assurance Representative (QAR) for their review and acceptance prior to the commencement of production and/or services. The QCP shall be reviewed and updated when deemed necessary by the Contractor or the Government, to include changes necessary to prevent the recurrence of quality problems. The Contractor must sign and date the original QCP, as well as each subsequent revision. Revisions shall also be presented to the QAR for review and acceptance prior to implementation. When acceptable to the Government, the original QCP, and any revisions, shall be signed and dated by the QAR.

(2) The Contractor shall require subcontractors (unless otherwise instructed by the Government) to provide and maintain inspection systems and QCPs that are acceptable to the Government.

(3) The QCP shall include an identification of key operational positions, a schematic diagram of plant facilities pertinent to the inspection system indicating all inspection points, and a description covering the following operations relating to the supplies to be furnished under the contract:

(i) **PROCESSING/BLENDING.** To include, but not be limited to, identification of component base stocks used to produce finished product. Procedures to be used for adding, prior to batching, all required additives at all locations.

(ii) **SAMPLING.** Shall include procedures and frequencies for all sampling and testing that will be performed to meet the requirements listed in the below table titled Minimum Sampling and Testing Requirements.

(iii) **CALIBRATION.** Program for testing and measuring equipment shall be in accordance with ISO 10012, Measurement Management Systems - Requirements for Measurement Processes and Measuring Equipment, or equivalent local regulation as appropriate. A program for calibrating meters used to determine quantity shall comply with the API MPMS, Chapters 4, 5 and 6, or equivalent foreign standard. For items not covered by ASTM, API or IP publications, the applicable manufacturer's recommended calibration method, or methods outlined in the applicable industry publication, shall be used if acceptable to the Government.

(iv) **STORAGE AND HANDLING.** Include procedures for storage and handling to include a description of storage and handling equipment including tanks, lines, valves, and manifolds used. It shall also include identification of dedicated/common product system including description of line segregation and controls to assure capability for proper gauging, sampling, draining of water, filtration, circulation, drying; and identification of any other process/system used in maintaining product integrity during storage and handling.

(v) **LOADING AND SHIPPING, GENERAL.** Shall include, but not be limited to, procedures for product movement and related quality/ quantity checks from shipping tank(s) to conveyances in order to maintain product integrity. Systems with single valve (excluding twin seal single valves) isolation require specific procedures be included in the QCP to assure product integrity after the last single valve and prior to conveyance fill line.

(vi) **CORRECTIVE ACTION.** Shall include actions to be followed to effect correction of any deficiency affecting product quality or quantity determination, such as handling of off-specification product (waivers, conveyance rejections, etc.).

(4) The QCP shall identify one individual to serve as a point of contact for quality/quantity matters relating to the inspection system described in the plan.

(5) The Contractor is responsible for all inspection systems, QCPs, and product quality and quantity.

(6) The Government QAR will be available to review and discuss the Contractor's proposed QCP; however, the Contractor shall remain responsible for developing and describing acceptable quality control procedures.

(b) **QUALITY ASSURANCE REQUIREMENTS.**

SUPPLEMENTAL QUALITY ASSURANCE PROVISION (SQAP)			DEFENSE LOGISTICS AGENCY ENERGY 8725 JOHN J. KINGMAN RD FORT BELVOIR, VIRGINIA 22060-6222		
DISTRIBUTION STATEMENT - A	PREPARED BY YOUNG.JAMES.E.11195 24551 Digitally signed by YOUNG.JAMES.E.1119524551 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=DLA, cn=YOUNG.JAMES.E.1119524551 Date: 2014.08.26 10:01:25 -05'00'	DATE 08/26/2014	ITEM ENERGY QAP E1.16		
APPROVED FOR PUBLIC RELEASE	REVIEWED BY MOORE.DAMON.C.111 7159180 Digitally signed by MOORE.DAMON.C.1117159180 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=DLA, cn=MOORE.DAMON.C.1117159180 Date: 2014.09.02 08:41:35 -05'00'	DATE 09/02/2014	NSN		CODE ID NO. 52838
DISTRIBUTION IS "UNLIMITED"	APPROVED BY OPPENHEIM.LEE.B.122 9310131 Digitally signed by OPPENHEIM.LEE.B.1229310131 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=DLA, cn=OPPENHEIM.LEE.B.1229310131 Date: 2014.09.03 11:38:20 -04'00'	DATE 09/02/2014	SIZE A	SCALE 1:1	DRAWING NUMBER

SUPPLEMENTAL QUALITY ASSURANCE PROVISION (SQAP)

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
	ENERGY QAP E1.16	AUGUST 2014	

(1) Sampling procedures shall be in accordance with API Manual of Petroleum Measurement Standards (MPMS), Chapter 8, Section 1, ASTM D 4057, Sampling of Petroleum and Petroleum Products, and/or Section 2, ASTM D 4177, Automatic Sampling of Petroleum and Petroleum Products.

(2) Contractor storage tanks that will be used for storing Government-owned RP fuels under this contract shall have last contained a similar product, aviation fuel, kerosene, non-aromatic solvent, unleaded gasoline or arctic diesel and shall be completely free of water, scale and previous product. Tanks must be equipped with valves that can be locked or sealed so that they can be locked or sealed when receiving or delivery operations are not in progress. Mild steel tanks used for storing RP fuels shall be epoxy coated with a material approved under specification MIL-PRF-4556. Tanks shall have the capability to be pumped dry.

(3) Systems used for loading and transferring this product shall be dedicated or properly isolated common systems incorporating blind flanges, spectacle plates, or double valves between them to prevent contamination. Single valves designed to provide the same protection are also acceptable if positive isolation is assured. Line systems used for receipt, transfer and filling of conveyances shall be constructed of stainless steel, aluminum or mild steel (if mild steel lines are used it is preferred they be internally epoxy coated; however, mild steel lines that are not lined with epoxy are acceptable). Lines will have a low point drain to enable complete draining of entire line or for obtaining line samples. Dedicated line is defined as a piping system that shall be used exclusively for RP-1 or RP-2. Valve bodies in RP fuel systems will be constructed of stainless steel or aluminum. All gaskets/seals shall be Teflon, viton or nitrile (seals, seats and gasket material of zinc, bronze, brass or copper bearing materials are not acceptable). Carbon steel valves are permitted, provided they are internally plated with chromium. Electroplated nickel is permitted for double-seated plug valves and on nodular iron diaphragm control valves within the tank dike area. Do not furnish or install cast iron or copper alloy valves in liquid petroleum service.

(4) The QAR shall be notified of any corrective action taken to correct any deficiencies affecting product quality or quantity determination.

(5) The Contractor shall perform all specification and contract required inspection and acceptance tests of the supplies to be furnished under this contract, or shall have such tests performed in a laboratory acceptable to the Government.

(6) The Contractor shall inspect all shipping conveyances used for distributing product to DLA Energy customers prior to loading to determine suitability for loading as follows: RP fuels conveyances shall have last carried a product identified in MIL-STD-3004, Table XXVI, or as approved by DLA Energy-FEQA, and shall have evidence that the below referenced conveyance conditioning requirements have been met. Conveyance discharge hose shall be clean and capped, and pump housing shall be clean and dry. All conveyance outlets will be capped. Regardless of the conditioning requirement, the Contractor shall inspect conveyance prior to loading to insure conveyances are visually free of all liquid, residue and sediment.

(i) The following inspection and flush shall be performed prior to loading tank trucks:

(A) Inspect truck prior to flushing. Verify conveyance is visibly clean, dry and has been prepared for loading. Remove caps from loading connections and visually inspect interior surfaces to ensure cleanliness. Interior surfaces shall be free from the presence of moisture, corrosion, scale, dirt, grease and foreign matter. Inspect all transfer equipment (pump and hose) for visual cleanliness as well.

(B) Inspect tanker for general over-the-road readiness (tires, lights, no loose or missing components), and verify readiness for loading.

(C) Flush tank truck by pumping approximately 30 gallons of RP fuel into the tank truck through the discharge manifold until product appears on the tank floor. Discharge the flush sample through the truck's pump and hose into a clean drum or other suitable product collection container that is dedicated to RP fuel service. A visual water and cleanliness inspection in accordance with ASTM D 4176 will be performed on a flush sample (sample shall be pulled from the truck being flushed). A flush sample, when swirled, should be clear and bright. The sample should be free of water and of unusual quantities of suspended matter.

(D) A second flushing shall be accomplished in the event of a water and cleanliness inspection failure. In the event of a second visual failure, contact the Contracting Officer for further instructions.

(E) RP fuel used for flushing tank trucks shall be stored in a dedicated Contractor provided collection container for return to on-site DLA-owned RP fuel inventories in the following manner:

(*1*) Flushed product shall be initially collected in a clearly marked RP fuel collection container dedicated to contain only RP fuel recovered from tank truck flushing operations. The collection container shall have a minimum holding capacity of 300 gallons and must be equipped with a drain valve that allows low-point draining of water and sediment from the container bottom; it is the Contractor's responsibility to assure the container meets all federal, state and local environmental regulations. **NOTE:** To assure the container is not used for storing anything other than RP fuel, it must be clearly labeled and the access point must be locked. The lock shall have the key or combination controlled as to avoid

SUPPLEMENTAL QUALITY ASSURANCE PROVISION (SQAP)	DEFENSE LOGISTICS AGENCY ENERGY 8725 JOHN J. KINGMAN RD FORT BELVOIR, VIRGINIA 22060-6222			
DISTRIBUTION STATEMENT - A APPROVED FOR PUBLIC RELEASE DISTRIBUTION IS "UNLIMITED"	SIZE A	SCALE 1:1	CODE ID NO. 52838	DRAWING NUMBER

inadvertent product commingling;

(*2*) Product recovered from flushing operations and placed in the collection container shall be allowed to settle a minimum of 24 hours prior to draining the container bottom of all water and sediment;

(*3*) After the collection container is full and after draining water and sediment from the container low point and achieving a clear and bright sample, an all-level sample shall be drawn from the container and tested for appearance, particulate content, specific gravity, and flash point;

(*4*) Results must meet MIL-DTL-25576 requirements in order to qualify for return to DLA-owned RP fuel inventories; and

(*5*) Prior to returning (or during return) of RP fuel to bulk tanks from the collection container, the product must be filtered through at least one API/EI 1581 filter separator. If product in the collection container fails testing, contact the Contracting Officer for further guidance prior to returning it to DLA-owned inventories. Quantities of RP fuel collected/returned to RP fuel storage shall be documented and reported on Monthly Inventory Transaction Reports (MITRs) submitted to DLA Energy.

(7) Loading of conveyances shall resume after the preload suitability inspection and flush sampling have passed.

(8) Fully loaded conveyances shall have quality tests performed in accordance with the below table titled Minimum Sampling and Testing Requirements prior to releasing for shipment. If the sample fails the requirements specified in MIL-DTL-25576, contact the Contracting Officer for further instructions.

(9) Prior to releasing the conveyance from the loading rack, check tank exterior, valves, flanges and welds for leakage. Perform final inspection of shipping conveyance and seal connections annotating seal numbers on shipping documents.

(10) Conveyance load out lines shall be equipped with filters that shall be located as near the loading or filling point as posible. Fill point filters shall be filter/separator types conforming to API/EI 1581 and shall be located on the fill line upstream of the fill nozzle header (allow 30 seconds relaxation time between the filter separator and the issue nozzle).

(11) The following minimum procedures are applicable when filling drums:

(i) Only new (unused) steel drums shall be filled under this contract. Drums used shall be 55 gallon capacity meeting, as a minimum, the Performance-Oriented Packaging (POP) wall thickness and testing criteria for the UN1A1 specification packaging of Packing Group (PG) III hazardous materials, as specified in Title 49 of the Code of Federal Regulations (49 CFR).

(ii) The dedicated line and filling system will be flushed and drained with product to be loaded or filled immediately prior to initial use or when the line sample shows contamination or degradation; drum fill rack must be sampled in accordance with the table below.

(iii) Drums shall be internally coated (including bungs) with epoxy conforming to MIL-PRF-4556. Prior to filling drums, remove bungs and inspect interior of each drum with a suitable droplight. Interior shall be free of rust, dirt, oil, water and all foreign matter. Damage to the epoxy coating, including blisters, cuts, bare spots and other defects will be cause for rejection of the drum.

(iv) The exterior of the drum shall be protected from external corrosion in adverse climates through the use of appropriate surface preparations and application of a corrosion preventive coating compatible with RP fuels.

(v) Fill each drum with 53 +/- 1 gallon and verify in accordance with the DETERMINATION OF QUANTITY clause of this contract.

(12) If the Contractor and the QAR disagree as to the suitability for loading of Government-furnished conveyance for supplies to be accepted at origin, the determination of the QAR shall govern. If the SHIPMENT AND ROUTING clause is included in the contract, the Government-furnished transportation equipment that is unsatisfactory for loading shall be reported by the Contractor in accordance with the provisions contained in that clause.

(i) When requested by the U.S. Government, the Contractor shall furnish two 1-gallon samples from any batch produced or bulk tank leased under this contract. Such samples shall be furnished without charge to the Government and shall be packed, marked, and shipped by the Contractor, at its expense, to a laboratory designated by the Contracting Officer. The Government will require the Contractor to submit no more than four sample submissions per year.

(ii) The Contractor shall keep all quality and quantity records complete and available to the Government during the performance of this contract and for three years after final payment under this contract.

(iii) Immediately following award of this contract, the Contractor shall notify the QAR of the source or sources of the supplies to be furnished under any item calling for delivery f.o.b. destination. The Contractor shall also notify the QAR of any changes in source in sufficient time to permit inspection by the Government.

(iv) The inspection system and related operations provided or performed pursuant to this clause shall be subject to surveillance by the QAR. Prior to performing Contractor inspections or product sampling and testing, the Contractor is responsible for notifying the assigned QAR of planned

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
	ENERGY QAP E1.16	AUGUST 2014	

procedure in sufficient time to permit inspection by the Government.

TABLE

MINIMUM SAMPLING AND TESTING REQUIREMENTS

LOCATION	SAMPLE FREQUENCY	TYPE OF SAMPLE	REQUIRED TESTING (All tests to be performed IAW MIL-DTL-25576)
1 Production Shipping Tank(s) (1)	Each batch after production run(2)	2-gallon all-level or single tank composite	Full specification analysis in accordance with MIL-DTL-25576 (3)
2. DFSP Storage Tank(s)	Once every 90 calendar days	2-gallon all-level or single tank composite	Full specification analysis in accordance with MIL-DTL-25576(3)
3. Tank Truck, IMC, Rail Car Receipts Into DFSP Storage Tanks(s)	Each conveyance at receiving point prior to off-loading	All-level from conveyance	Visual appearance to assure product is free of water and sediment prior to off-loading(4)
4. Tank Truck, IMC, Rail Car Load-outs From DFSP Tank(s) (5)	Each conveyance immediately after filling	All-level from conveyance	Visual appearance, particulate content, specific gravity and flash point
5. Drum Fill Rack	Prior to start of drum fill operation	From nozzle	Visual appearance, particulate content, specific gravity and flash point
6. Drums Filled From Production (Not Already Full Specification Certified Batch)	Sample taken from every filled drum	Drum thief all-level or composite	10% of filled drums (minimum of one drum when lot consists of less than 10 drums) shall have full specification analysis performed in accordance with MIL-DTL-25576. Remaining (other 90%) drum samples shall be tested for visual appearance, particulate content, specific gravity and flash point
7. Drums Filled From Certified Batch	10% of drums (minimum of one drum when lot consists of less than 10 drums)	Drum thief all-level or composite	Visual appearance, particulate content, specific gravity and flash point

NOTES FOR TABLE:

(1) IF CONTRACTOR PRODUCTION IS INTO BULK SHIPPING CONTAINERS AND NOT FIXED STORAGE TANKS, THE SHIPPING CONTAINER SHALL BE FULL SPECIFICATION CERTIFIED PRIOR TO SHIPPING.

(2) NO PRODUCTION BATCH SHALL BE RELEASED FOR SHIPMENT UNTIL CERTIFIED BY THE CONTRACTOR TO MEET FULL SPECIFICATION REQUIREMENTS. RESULTS TO BE VERIFIED BY QAR PRIOR TO SHIPMENT.

(3) AFTER TESTING AN UPPER, MIDDLE, AND LOWER SAMPLE TO VERIFY BATCH CONFORMANCE TO HOMOGENEITY REQUIREMENT. HOMOGENEITY CAN BE ASSUMED WHEN UPPER, MIDDLE, AND LOWER SAMPLE TEST RESULTS FOR SPECIFIC GRAVITY (AND FSII, IF FSII IS PRESENT) FALL WITHIN THE REPRODUCIBILITY LIMIT ESTABLISHED BY THE TEST METHOD.

(4) PRIOR TO OFF-LOADING EACH CONVEYANCE, THE RECEIVING POINT SHALL VERIFY CERTIFICATE OF ANALYSIS THAT ACCOMPANIED SHIPMENT SHOWS THAT VISUAL, PARTICULATE CONTENT, GRAVITY AND FLASH POINT TESTING WERE PERFORMED ON SHIPMENT AND RESULTS MET SPECIFICATION REQUIREMENTS.

(5) PRIOR TO FILLING TANK TRUCKS, PERFORM FLUSHING AND SAMPLING.