SECTION C

PERFORMANCE WORK STATEMENT (PWS)

for

AIRCRAFT FUEL SERVICES

and

CRYOGENIC STORAGE AND DISTRIBUTION

under

SOLICITATION SP0600-04-R-0103

NAVAL AIR STATION

PATUXENT RIVER, MD 20878-5409

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C-1.0 GENERAL

C-1.1 General Description

The Contractor shall provide all necessary management, supervision, personnel, labor, materials, parts, general and specialized equipment, for the maintenance, repair and operation of the petroleum facilities except for Government furnished equipment specified herein (Section C-3.0). Operations include the storage and handling, issue (to include aircraft refueling/defueling, operation of base gas station, ground fuel deliveries on station as well as Solomon's Annex, NESEA and satellite station, and delivery into vessels as required by the COR), quantity/quality assurance, calibration, sampling, inventory management, transfer of product, receipt, storage and issue of liquid oxygen (LOX) and liquid nitrogen (LN2), collection, segregation, and documentation of waste oils and hazardous materials, and associated administrative functions relative to the mission of **Naval Air Station (NAS) Patuxent River, MD**, hereafter referred to as **NAS Patuxent River**. The Contractor shall perform in a manner to effectively accomplish all facets of managing, operating and maintaining the fuel facility as described in Section C-2.0 "Specific Tasks."

NOTE

All reference to fuel storage systems, receipt or transfer of product, storage and handling of product, and preventive maintenance of storage systems, and manning storage is applicable only to the area known as the VQ4 Alert Facility, from the first pipe flange on the upstream side of the system to the aircraft fuel servicing nozzle at the downstream end of the system pantograph.

C-1.2 Mission

NAS Patuxent River is an aircraft test facility, and responsible for pilot training. The Fuel Management Division is responsible for the receipt, storage, and distribution of petroleum and cryogenic products. that support includes the distribution of aviation turbine fuels (JP5 and JP8), aviation gasoline (100LL), ground products, premium unleaded gasoline (MUP), low sulfur diesel (LS2), and number two burner oil (FS2), the collection of used oils, and cryogenic (LOX and LN2) services. The delivery of all such products to units assigned to and as may transit, deploy to, or take part in exercises at NAS Patuxent River is a Contractor responsibility.

C-1.3 Contract Performance

The Contractor shall perform the tasks listed in Section C-2.0 and achieve the performance standards for each task. The Contractor shall, as outlines in Section C-1.4, submit performance based plans which will provide assurance that the Contractor will meet all performance standards outlined and comply with all applicable Federal, state, and local laws, and DOD regulations, and guidelines. Except as specified herein, the Contractor shall be responsible for obtaining copies of all applicable laws, regulations, and guidelines, including changes thereto.

The Contractor shall establish and maintain a workplace drug-testing program that complies with the *"Mandatory Guidelines for Federal Workplace Drug Testing Program"*. Executive Order 12564 of 15 Sep 1986 and section 503 of Publication 100-71, 5 USC section 7301 note, the Supplemental Appropriations Act for fiscal year 1987 dated 11 Jul 1987 apply. Also, see Section I, Clause I102.04, Drug Free Workplace.

In addition to the documentation generated under the QSP outlined by Appendix G, the Government may distribute customer satisfaction surveys, which will be used as part of the assessment of contract performance. The COR has the option to increase the frequency of surveys to address contract compliance as needed.

C-1.4 Detailed Plans

On contract award or as stated herein, the Contractor shall have 60 days to submit detailed plans to the COR of the contracted activity for review and acceptance. Required plans shall address all fuel and cryogenic management related issues as they apply to the contracted functions at NAS Patuxent River. All plans shall be considered dynamic documents that may be updated over the course of the contract. Those plans to be submitted within 60 days of contract award provide the contracted activity ample time to review them and recommend changes prior to the contract start date. For those plans not available/required on the contract start date, the Contractor shall follow existing Government procedures during the first 60 days of the contract performance period or.

Contract Compliance Plan (CCP): Pursuit to the provisions of Section E, Clause E5.03, provides a comprehensive and detailed plan that will ensure contract compliance. The Contractor shall provide a CCP, an internal, self-inspection system acceptable to the Government, which addresses methods for meeting the performance standards established in Section C-2.0. *See Section L, Clause L2.31 regarding the submission of a summary CCP for technical evaluation. The complete CCP shall be submitted to the COR of the contracted activity within 60 days of contract award and shall be in effect on contract start up.*

Product Quality Surveillance Plan (PQSP): Provide a comprehensive and detailed plan that will ensure that products handled by the Contractor remain on-specification. The PQSP shall include discussions on sampling, test methods, equipment, documentation of tests, reporting, and records keeping, and actions to be taken in case of unacceptable test results. The plan shall fully outline Contractor responsibilities to the extent that quality surveillance applies to the Contractor under this PWS, see those requirements specified in Section C-2.9. *The PQSP plan shall be submitted to the COR of the contracted activity within 60 days of contract award.*

Environmental Protection Plan (EPP): Based on the requirements noted in Section C-2.14, a comprehensive and detailed EPP shall outline procedures necessary to protect the environment in accordance with applicable DOD, USN, and local laws and regulations. *The EPP shall be submitted to the COR of the contracted activity within 60 days of contract award*.

Contract Management Contingency Plan (CMCP): The CMCP shall outline Contractor action to ensure there will be no significant interruption of services resulting from labor disputes, catastrophic failure of Contractor-owned equipment, or the effects of national emergencies within the Contractor's control. The plan shall provide specific details regarding subcontracting, the replacement of specialized, one-of-a-kind pieces of equipment anticipated to be out of service for more than 24 hours, and labor issues. In any cases, the Contractor shall be responsible for repairing or replacing inoperable equipment or obtaining additional equipment and manpower required to satisfy day-to-day and contingency demands. Upgrading or modifying equipment to meet specific off station and public, over-the-road requirements, licensing or obtaining permits for equipment and personnel to operate on public roads, and adherence to insurance requirements shall be the responsibility of the Contractor. *The CMCP shall be submitted to the COR of the contracted activity within 60 days of contract award and be in effect at contract start.*

Contract Maintenance Plan (CMP): As outlined in Section C-2.11, the CMP shall clearly outline the detailed procedures for planning, programming, accomplishing, and documenting preventive maintenance. Repairs to equipment and facilities as may be directed under Section C-4.2, Equipment, Supplies, and Services Requiring a Task Order, shall also be covered. *The CMP shall be submitted to the COR of the contracted activity within 60 days of contract award and shall be in effect at the start of the performance period.*

Contract Operations Plan (COP): The COP, a comprehensive and detailed set of procedures systematically outlining all aspects and requirements, including emergency operating and shutdown procedures and staffing plans, for the tasks specified in Section C-2.0. *The COP shall be submitted to the COR of the contracted activity within 60 days of the start of the performance period*.

Inventory Control and Accountability Plan (IC&AP): The IC&AP shall provide comprehensive and detailed procedures to ensure compliance with the requirements of DOD 4140.25M and Section C-2.8 of the PWS. *The IC&AP shall be submitted to the COR of the contracted activity within 60 days of the start of the performance period.*

Fuel and Cryogenics Safety Plan (F&CSP): A detailed plan outlining product and handling characteristic and the procedures necessary to maintain a safe working environment in accordance with applicable references and local laws and regulations. See Section C-2.13. *The F&CSP shall be submitted to the COR of the contracted activity within 60 days of the start of the performance period.*

Contract Security Plan (CSP): A comprehensive and detailed plan that clearly identifies the procedures necessary to maintain the secure all facilities as outlined in Section C 2.15. *The plan shall be submitted to the COR of the contracted activity within 60 days after contract award.*

Contract Training Plan (CTP): Provide a comprehensive and detailed CTP outlining training requirements, i.e., flightline familiarization or fire prevention. Pertinent courses required by states and local governments shall also be included in the CTP. The CTP shall reflect course titles, a brief description of the courses, training sources, the employees to be trained (by job classification), the frequency of training, and the method of monitoring plan compliance. This plan shall include all elements of Section C-2.12. *See Section L, Clause L2.31 regarding the submission of a summary CTP. The complete training plan shall be provided to the COR of the contracted activity during contract turnover as outlined in* Section C-1.5.

C-1.5 Contract Turnover

The successor Contractor shall, during the last 72 hours of the expiring contract, be provided assistance by the outgoing Contractor and the COR in the accomplishing a joint facilities turnover inspection. The inspection shall provide for a facilities walk-through and property inventory, product sampling and testing, and a complete product inventory. The outgoing Contractor, during the last two weeks of the contract, shall permit personnel of the successor Contractor access to all contracted facilities to observe operations. The outgoing Contractor shall, during the last 72 hours of the expiring contract, assist the successor Contractor, and the COR in the accomplishing a joint facility turnover inspection.

C-1.6 Planning Information

For the purposes of estimating workload, the Contractor should use a projection of **1,680,000** gallons in issues to approximately **1,650** aircraft per month. Additional workload information for specific fuel operations can be found in figures and tables throughout Section C-2.0.

Discussions with Fuels Management regarding the current and future mission of NAS Patuxent River indicate there are no known or anticipated changes to the mission or flight operations of NAS Patuxent River. This outlook does not however preclude fundamental changes in mission, flight training schedules, manpower goals, and alike. The Contractor will be notified, as changes are made and contract adjustments are deemed appropriate. Furthermore, the Contractor shall, as deemed necessary over the course of the contract, adjust personnel and equipment to meet all fluctuating seasonal workload requirements. As an aid to planning, NAS Patuxent River will provide the Contractor copies of all correspondence and message traffic regarding training, exercises, and the deployment of aircraft to and from NAS Patuxent River.

C-1.7 Personnel Staffing Objectives

The Contractor shall provide sufficient staffing to accomplish all petroleum and cryogenic receipt, storage, and issue operations and other tasks identified in Section C-2.0. The Contractor's staffing and personnel objectives shall be flexible and capable of meeting the demands of multiple aircraft servicing operations via mobile refuelers, direct refueling system, or a combination of both to provide cold refueling, as well as bulk fuel storage and distribution operations, cryogenics operations and quality surveillance of petroleum products. However, the Contractor shall schedule personnel so that no individual works more than 12 hours in one shift, followed by an 8-hour break.

C-1.8 Normal Workday Operations

Normal airfield operating hours for NAS Patuxent River is 0000 to 2400 hours seven days per week. The Contractor shall provide aircraft fuel services support for the aforementioned hours within the response times established in Section C-2.2.2. In addition, the Contractor shall maintain the capability to provide fuel support and respond to servicing demands anytime, 24 hours per day, 365 days per year. Offers shall include all labor associated with these operations in the price for the appropriate Contract Line Item Number (CLIN). Work associated with operations that are outside of normal operations, i.e.,

the essential servicing of aircraft as deemed necessary by the local command, unscheduled exercises, or real time contingencies will be reimbursable as outlined in Section C-4.3, Augmentation. The Government will reimburse the contractor only for approved augmentation worked by "service employees." Essential personnel as defined in Section C-1.10 are part of the Contractor's Management Team and shall not be considered "service employees" as defined by Section I, Clause I100.

NOTE

As used above, "maintain the capability," should not be construed to mean or imply a requirement for full time staffing outside normal duty hours.

Figure 1 lists the functions to be performed by the Contractor and the hours they shall be manned. Tasks associated with a given function, ground fuel delivery for example, will normally be accomplished within the hours specified. Empty cells indicate that a function is not normally manned for the days indicated by the column heading.

Figure 1: Hours of Operations

FUNCTION	MONDAY THRU FRIDAY	SATURDAY AND SUNDAY	HOLIDAYS	NOTE(S)
Aircraft Servicing Operations	0000-2400	0000-24000	0000-2400	(1)(10)(11)
Dispatcher	0700-2300	N/A	N/A	(2)(3)
Storage & Distribution System.	0000-2400	0000-2400	0000-2400	(4)(5)
Service Station Operations	0730-1600 2200-2300	0800-1000 1700-1800 2200-2300	0800-1000 1700-1800 2200-2300	
Waste Oil Receipt	0730-1600	On Call	On Call	(6)
Ground Fuel Delivery	0700-1530	On Call	On Call	(6)
LOX/LN2 Operations	0700-1530			(7)
Manager	0700-1600	On Call	On Call	(8)(9)

(1) Manning level shall not be less than the number of qualified operators specified in Figure 2, Minimum Manning Levels for Aircraft Services.

(2) The dispatch office shall be manned by a qualified dispatcher from 0700-2300 hours. The dispatcher may be used as a driver/operator in an emergency as directed by the COR. From 2300-0700 hours, the refueler driver(s) shall perform this function and maintain the dispatch logs provided that individual meets the qualification requirements of Section C-1.11.

(3) The Contractor shall provide a telephone answering machine to document incoming calls when the a dispatcher is not required/available.

(4) Personnel qualified to operate the VQ4 Alert Facility high speed refueling system shall be available 24 hours a day to respond to alert aircraft fuel servicing demands. However, the facility shall not be manned other than to perform daily system inspections, gauge, sample, perform PMS, receive product and service aircraft.

(5) There shall be a minimum of (1) qualified operator at the VQ4 Alert Facility storage tank during each pipeline transfer to that facility. Also, see Figure 2: Minimum Manning Levels for Aircraft Services**.** The 1 of the 4/1 Monday-Friday manning indicates VQ4 Alert Facility manning.

(6) Delivery, issues and pickup schedules shall be established by the COR. For off station deliveries, the driver shall be licensed in accordance with the State of Maryland vehicle licensing requirements for over-the-road use.

(7) The manning level shall not be less than (2) qualified LOX/LN2 operator(s) during specified normal operating hours.

(8) The Contractor shall have a full-time manager on-site as qualified under Section C-1.10.

(9) The Contractor shall have an assistant manager as described in Section C-1.10. The assistant manager shall serve in the manager's absence and for holiday, sick and vacation leave. Only in emergencies, can the assistant manager perform the duties of dispatcher, refueling operator or distribution systems operator

(10) The Contractor will provide a truck driver/operator for one to thirty (1 to 30) days a month for special projects at NAVAL SURFACE WEPONS CENTER DAHLGREN VIRGINIA. This manning is in addition to the 4/1 Monday to Friday minimum manning levels

(11) All refueling trucks and day tanks shall be inspected, re-circulated, sampled, stripped as applicable no later then 0800 daily.

Figure 2: Minimum Manning Levels for Aircraft Services.

TIME	MONDAY-FRIDAY	SATURDAY	SUNDAY	HOLIDAYS
0000-0500	1	1	1	1
0500-0700	2	1	1	1
0700-1800	4/1	2	2	2
1800-2100	4	2	2	2
2100-2300	3	2	2	2
2300-2400	1	1	1	1

Note

The minimum manning levels specified above does not relieve the contractor of the requirement to staff to ensure that all services and workloads specified in this PWS are accomplished within the time frames specified.

C-1.9 Personnel Qualifications

The Contractor shall ensure that personnel assigned to all tasks have the requisite knowledge and skills to meet minimum performance standards and comply with all applicable Federal and state laws, regulations, and code. All employees shall be able to read and understand English (be literate) to the extent they can read and understand regulations, detailed written orders, operating procedures, and training instructions and materials. Employees shall be capable writing in English and compose reports that convey complete thoughts and information. All driver/operators shall possess a Commercial Drivers License (CDL) with the appropriate hazardous materials certification applicable to the State of Maryland.

C-1.10 Essential Personnel

As outlined in Section L, Clause L2.31, a resume shall be submitted for essential personnel, the Corporate Executive Officer, the Site Manger, and the Assistant Site Manager (full time or collateral duty).

Corporate Executive Officer: To assure continuity between the contracted location/activity and corporate office, the Contractor shall employ an executive who, for the duration of the contract, can make decisions concerning this contract. He/she shall have a complete understanding of the terms and conditions of this contract and shall be experience in the operation and maintenance of fixed and mobile fuel systems to the extent outline herein.

Site Manager: The Manager shall, during the life of this contract, have the immediate authority to commit corporate resources and manpower to meet the requirements of this contract. This individual must have a complete understanding of the terms and conditions of this contract and experience in the operations and maintenance of a fuel storage facility and aircraft refueling operations. This individual must have at least four years experience in fuel POL facility and aircraft refueling operations, two of which were in a supervisory capacity. This experience must include: quality assurance; inventory management; and receiving and issuing bulk fuels by tank truck, aircraft refueling trucks, direct refueling stations, pipeline, and water borne transport. The Manager shall document and demonstrate comprehensive experience and knowledge of all major fuel distribution systems (FDS), with the knowledge and familiarity extending to The Manager shall document and demonstrate comprehensive experience and knowledge of applicable fuel characteristics and their proper handling procedures as specified by the mandatory Government regulations listed in Appendix A. The Manager must possess detailed knowledge of systems and equipment normally found on a fuel POL facility. This individual must be familiar with pipe fitting, welding techniques used in fuel handling operations and their related tools and equipment. The Manager must be experienced in operations and maintenance scheduling including cyclic preventative maintenance, grounds maintenance, fuel transfers, and personnel training.

The Manager must be capable of identifying deficiencies of work in progress (site repairs) and reporting of unsatisfactory work performance along with recommended corrective actions to the COR. The Manager shall submit any repair and

improvement projects to the COR. The Manager must be responsible/knowledgeable of hazardous management plans and oil spill reporting and thoroughly familiar with oil spill cleanup procedures, prevention and control measures, and the maintenance of the equipment used in this operation. This individual must have demonstrated safe working practices involving the use of personnel protective clothing and equipment and protective and safety devices for safe equipment operation. This individual must be able to read, interpret and understand Government regulatory manuals to facilitate proper administration of Government inventory accounting. The Manager must be able to oversee and provide guidance to POL facility personnel and shall be responsible for maintaining continuity of POL facility operations.

NOTE

All Managers and alternates must be available at the base within two (2) hours after notification that their presence is required.

Assistant Site Manager: Must meet the same qualifications as set forth above.

Replacement of Essential Personnel: Should the Contractor find it necessary to replace essential personnel on short notice, the Contractor shall, to the extent possible, provide advance notification to the COR and a resume of the proposed candidate that supports the experience requirements listed above. In an emergency, the installation of new essential personnel shall be followed by a resume of the proposed candidate within 10 working days.

C-1.11 Additional Personnel Requirements

Fuel Distribution Systems (FDS) Operators. Each of these individuals must have at least two (2) years experience in fuel POL facility operations. This experience must include transferring bulk petroleum products via tank truck and petroleum dispensing equipment and pipeline. They must have practical experience with all facets of fuel distribution systems including: storage tanks, pipeline systems, pumping stations, fuel monitors and filters, waste oil, truck fill stand operations and aircraft refueler trucks. These individuals must be familiar with abnormal occurrences and corresponding corrective measures. They must be able to convert gauges and temperatures to quantities of products and possess the demonstrated ability to perform quality assurance functions. They must be able to correlate pressures, temperatures and quantities as read from various gauges and meters normally found at a fuel POL facility. These individuals must understand and be able to apply standard blueprints (as-built drawings) and other written and oral directions and instructions pertaining to POL facility operations. They must be able to implement cyclic maintenance programs and safety programs relating to all aspects of POL facility operation. They must have demonstrated expertise in the area of oil spill cleanup procedures, prevention and control measures, related equipment operation and maintenance. They must have experience in inspecting trucks for suitability and various types of petroleum sampling to include: storage tanks, trucks, filter stands, etc. The FDS operators must assist in the training of personnel in his/her area of expertise. Hazardous waste handlers shall be “certified” as required by Federal, State or local laws as applicable.

Administrative Staff. These individuals must have experience in bookkeeping, logs, and records.

Dispatcher(S). These individuals must be qualified refueler Truck Drivers as specified in Section C-1.4.7 and have at least one-year experience in aircraft refueling operations. They must be familiar with dispatcher logs, radio communications, instructions/ regulations pertaining to fueling and defueling of civilian aircraft and Government forms used to document fuel transfers to aircraft. They must demonstrate familiarity with the layout of the airfield and the location of the aircraft parking areas. These individuals must be able to communicate in English, both orally and in writing.
Laboratory Technician. Not Applicable

Truck Drivers/Operators. The Contractor shall provide fully trained personnel to perform aircraft refueling mobile refuelers and ground fuels issues by ground products service truck. Personnel performing these duties shall be required to pass a Government competency certification test prior to operation of mobile refuelers. Government recertification of contractor personnel will be performed annually or as required by the COR. They must be familiar with applicable safety regulations for both the airfield and those covering the refueling of aircraft. These individuals must have demonstrated the ability to properly perform daily, weekly and monthly maintenance checks as required by NAVAIR 00-80T-109 for aircraft refueling equipment. Operators must be able to understand and communicate in English, orally and in writing.

Base Gas Station Operators. Each of these individuals should have experience in petroleum handling to include: the operations of gas pumps and automated service stations; the procedures for taking temperatures and gauges; and computing net quantities of fuel in storage tanks. These individuals must be able to effectively communicate in English, both orally and in writing.

Vehicle Mechanic. Shall have at least two years experience in diesel/gasoline engine vehicle maintenance at the journeyman level including planned and preventive maintenance. These individuals shall have demonstrated an ability in discrepancy detection and the initiation of corrective measures. They must be familiar with various repair materials and equipment used to facilitate proper selection and application. This knowledge and experience must be adaptable to the specific requirements of refueler maintenance, along with the associated equipment and safety procedures.

Fuel Distribution System Mechanic/Truck Driver Operator: An individual with a minimum of two year experience that maintains and repairs fuel storage and distribution systems using hand and power tools and test instruments. Inspects fuel receipt, storage and distribution facilities to detect and correct leakage, corrosion, faulty fittings, and malfunction of mechanical units such as meters, gauges, float gauges, piping, valves and pumps. Inspects electrical wiring, switches and controls for safe operating conditions, ground and adjustment. Lubricates/repacks valves, lubricates pumps, replaces gaskets and seals, and corrects pumping equipment misalignment. Cleans strainers, changes filters/monitors, services water separators, and checks meters for correct delivery and calibration. Overhauls systems components such as pressure regulating valves, disassembles, adjusts, aligns and calibrates gauges and meters or replaces them. Removes and installs equipment such as filters and piping sections to modify system or repairs system components. Maintains records of inspections and repairs. Provide fully trained personnel to perform aircraft refueling by mobile refuelers and ground fuels issues by ground products service truck. Personnel performing these duties shall be required to pass a Government competency certification test prior to operation of mobile refuelers. Government recertification of contractor personnel will be performed annually or as required by the COR. They must be familiar with applicable safety regulations for both the airfield and those covering the refueling of aircraft. These individuals must have demonstrated the ability to properly perform daily, weekly and monthly maintenance checks as required by NAVAIR 00-80T-109 for aircraft refueling equipment. Operators must be able to understand and communicate orally in English.

Fuel Distribution System (FDS) Operators/Truck Driver Operator: Each of these individuals must have at least two (2) years experience in fuel POL facility operations. This experience must include transferring bulk petroleum products via tank truck and petroleum dispensing equipment and pipeline. They must have practical experience with all facets of fuel distribution systems including: storage tanks, pipeline systems, pumping stations, fuel monitors and filters, waste oil, truck fill stand operations and aircraft refueler trucks. These individuals must be familiar with abnormal occurrences and corresponding corrective measures. They must be able to convert gauges and temperatures to quantities of products and possess the demonstrated ability to perform quality assurance functions. They must be able to correlate pressure, temperatures and quantities as read from various gauges and meters normally found at a fuel POL facility. These individuals must understand and be able to apply standard blueprints (as-built drawings) and other written and oral directions and instructions pertaining to POL facility operations. They must be able to implement cyclic maintenance programs and safety programs relating to all aspects of POL facility operation. They must have demonstrated expertise in the area of oil spill cleanup procedures, prevention and control measures, related equipment operation and maintenance. They must have experience in inspecting trucks for suitability and various types of petroleum sampling to include: storage tanks, trucks, filter stands, etc.

The FDS operators must assist in the training of personnel in his/her area of expertise. Hazardous waste handlers shall be "certified" as required by Federal, State or local laws as applicable. Provide fully trained personnel to perform aircraft refueling by mobile refuelers and ground fuels issues by ground products service truck. Personnel performing these duties shall be required to pass a Government competency certification test prior to operation of mobile refuelers. Government re-certification of contractor personnel will be performed annually or as required by the COR. They must be familiar with applicable safety regulations for both the airfield and those covering the refueling of aircraft. These individuals must have demonstrated the ability to properly perform daily, weekly and monthly maintenance checks as required by NAVAIR 00-80T-109 for aircraft refueling equipment. Operators must be able to understand and communicate orally in English.

Cryogenics Systems Supervisor/Operator: Cryogenic system supervisors and operators shall be fully knowledgeable of cryogenic products and systems as outlined in the most current version of OPNAVINST 4790.2 and references sited therein. Cryogenic system operators shall have a minimum of two (2) years of documented experience in the receipt, storage, and issue of cryogenic products (LOX/LN2), inspection and operator maintenance of cryogenics tanks, portable servicing carts, liquid to gas converter systems and/or those systems applicable to NAS Alpha. Operators shall be thoroughly familiar with Aviation Breathing Oxygen (ABO), tools, regulations, directives, quality requirements, and safety procedures. Cryogenic system supervisory personnel shall have a minimum of three (3) years of documented experience and shall have supervised a cryogenics facility and personnel for at least one (1) year within the past five (5) years.

Contract personnel that are assigned to operate ABO analyzing equipment shall be fully qualified as outlined in NAVAIR A6-332AO-GYD-000, Laboratory and Field Guide, Aviation Breathing Oxygen (ABO) Surveillance Program Laboratory Manual and Field Guide, Section IV.

C-1.12 Reserve Training

The Government reserves the right to enter and occupy contracted Government facilities and to use systems and equipment to conduct Naval Reserve Training. Full cooperation in the joint use of facilities and systems is expected; however, the Contractor is not obligated to relinquish control of facilities required to fulfill its contractual commitments, provide training services, or provide access to contractor equipment for such training evolutions. To the extent possible, the Government will provide advanced notification of reserve training schedules to the Contractor.

C-1.13 Notification of Correspondence and Visits

The Contractor shall immediately notify the COR of a visit or a notice to visit by any federal, state, or local officials or agencies, and provide copies of all correspondence resulting from such visits.

C-2.0 SPECIFIC TASKS (FIRM FIXED PRICE)

C-2.1 Tasks, General

The following defines the specific aviation fuel, ground fuel, and cryogenic services, to include ancillary services such as quality surveillance, maintenance, and accounting and administration, for which the Contractor shall be responsible. Each task is defined, outline, and cross-reference with regard to the task, hours of operation, contractor equipment requires, and Government furnished equipment, facilities, and services. All tasks reflected herein shall be performed by the Contractor.

C-2.2 Fuel Servicing Operations

Fuels servicing operations in support of aviation activities assigned to and as may transit, deploy to, or exercise from NAS Patuxent River are defined as those fuel functions directly involved in the delivery of fuel products to aircraft. Those functions are the Fuel Dispatch Center, responsible for direct contact with customers and the control of equipment and personnel, and Aircraft Refueling, the section responsible for providing qualified personnel and equipment to transport/issue products.

C-2.2.1 Fuel Dispatch Center

The Contractor shall staff the fuel management dispatch center, the focal point of the fuel management function, so that a dispatcher, qualified as outlined in Section C-1.11, is on duty for the days/hours listed in Figure 1.

Aviation fuel is issued to station and transient aircraft by mobile refueler. In addition, ground fuels and used oil are issued and collected respectively on request from organization throughout the base. Requests for all services shall be taken by the fuel dispatch center from various station organizations. All requests for fuel services shall be recorded and records kept.

The fuel dispatch center shall perform basic fuels accounting and administration functions such as the collecting and reviewing fuel receipt, issue, and inventory documents. The dispatcher shall ensure all documents are legible and accurate, and shall ready all documents/reports for submission to fuel accounting office by 0800 Monday through Friday. Weekend/holiday documents shall be submitted the next duty day following the weekend or holiday.

◊ Requirement: The Contractor shall receive and record requests for fuel servicing, dispatch personnel and equipment to meet the response times.

- ✓ The Contractor shall process requests for services using local dispatch/reporting systems.
- ✓ The Contractor shall maintain full control of aviation, ground fuel, and used oil servicing assets, dispatching personnel and equipment to meet demands within established response times.
- ✓ The Contractor shall prepare documentation and summary reports for delivery to the Fuel Division office by 0800 Monday through Friday.

➢ Minimum Performance Standards:

- ✓ One hundred percent accurately in recording requests for aviation, ground fuel, and used oil support.
- ✓ One hundred percent control of aviation, ground fuel, and used oil servicing equipment and personnel.
- ✓ No operational delays in excess of standard response time resulting from dispatch actions.
- ✓ Fully maintain systems relevant to aviation, ground fuel, and used oil equipment and personnel.
- ✓ Submit summary reports and transaction documentation to the Fuel Division office by 0800 daily, Monday through Friday.

C-2.2.2 Aircraft Fuel Servicing Operations

Aviation fuel servicing operations are defined as the delivery, or receipt by defuel, of aviation fuels by mobile refueler, fixed/mobile pantograph supplied by refueler, or fixed direct refueling systems. The Contractor shall be responsible for performing all aircraft fuel servicing operations and safeguarding fuel supplies under its control during normal and adverse conditions.

As outlined in Section C-1.8, the Contractor shall be capable of providing fuel servicing of station and transient aircraft 24 hours a day, 365 day per year, including holidays. During the normal duty hours reflected in Figure 1 and as outlined by local directives, a request for fuel services shall result in the dispatch of fuel servicing truck(s) and/or direct fuel servicing system operator(s) to the number of aircraft identified and prioritized by the requester so that each truck or operator dispatched arrives at the first aircraft for the specific work request, within **20 minutes** of the request for service. The Contractor shall continue to service subsequent aircraft in an orderly and timely manner until all fuel servicing requirements for a specific request are meet. Drivers shall not interrupt the flow of work, i.e., service aircraft other than those to which they are dispatched, without approval by the dispatch center, nor shall drivers/operators interrupt servicing operations for rest or meal breaks without proper relief or explicit approval of the fuel dispatch center. On arriving at an aircraft, operators shall take all steps and precautions necessary to service the aircraft in accordance with NAVAIR 00-80T-109, other USN regulations, and station instructions applicable to fuel servicing operations.

The Contractor shall provide the refueling equipment specified in Section C-3.2.1 and Section C-3.2.2 in sufficient numbers to undertake the workloads outlined in Figure 3 and Figure 4. The Contractor shall maintain all equipment in a safe and fully serviceable condition. Equipment inspections and sampling, i.e., daily visuals and weekly type "C" analysis shall be accomplished and documented on the vehicle inspection forms to ensure equipment is ready for service.

Aviation fuel deliveries to off station locations shall be accomplished using trucks that are configured and licensed for use on public roads. All Federal, state, and local inspections, permits, licensing and insurance requirements for the truck(s) used, shall be a responsibility of the Contractor. Operators shall be licensed as set forth in Section C-1.11, Fuel Truck Drivers/Operators.

Figure 3 presents the aircraft fuel issue workload based on a projected monthly requirement of 1,680,000 gallons of aviation fuel at NAS Patuxent River. The projection is based on an average of historical issue data reflected in Figure 3, Aviation Fuel Issues.

Figure 3: Aviation Fuel Issues

Year	Total Gallons Issued	Average Monthly Issues	Total Requests for Service	Average Monthly Request for Service
NAS Patuxent River FY97				
FY98	21,244,711	1,770,392	17,768	1,481
FY99	20,837,000	1,736,000	20,897	1,741
FY00	19,616,000	1,634,000	20,135	1,678
Total	61,697,711	1,713,464	58,800	1,633

Figure 4: Squadrons/Type of Aircraft

Squadron	Type Aircraft	Number of Aircraft Assigned	Maximum Fuel Load (1)	Average Refuel (2)
Force	Various	28		Various
TPS	Various	51		Various
Strike	F18/F14	35		1000/1200
R/W	Helicopters	33		400/500
NRL	P3	7		4000/5000
VX-1	Various	17		Various
E/F Program	F18	9		1000
VQ-4	E6B/T45	8/5		8000/13000

(1) See Military Handbook 844 (AS) or airframe specific NATOPS manuals.
(2) The average quantity of product issued in a single refueling on a day-to-day basis.

◊ Requirement: The Contractor shall maintain fuel facilities and equipment and respond to requests for mobile and direct servicing of aircraft causing operational delays.

- ✓ The Contractor shall inspect, sample, and maintain refueling equipment.
- ✓ The Contract shall respond for accomplishing servicing request in a safe and timely manner.
- ✓ The Contractor shall adhere to all operational safety rules, i.e., grounding and bonding, safety distance criteria, fire watch, and other safety guidelines as may be appropriate.
- ✓ The Contractor shall fully document all issues of product.
- ✓ Contingency plans shall ensure uninterrupted mission support.

➢ Minimum Performance Standards:

- ✓ All equipment inspected, sampled, and serviceable by 0800 daily. Inspection documentation and laboratory reports available.
- ✓ One hundred percent respond to refueling requests within 20 minutes.
- ✓ No fuel spills due to Contractor negligence or misconduct.
- ✓ Daily truck inventories one hundred percent accurate.
- ✓ Documented issues/defuel/truck fills quantity One hundred percent accurate.

- ✓ Issue documentation One hundred percent complete and legible.
- ✓ Fuel servicing safety procedures and precautions observed.

C-2.3 Bulk Fuel Operations (VQ-4)

Contractor bulk fuel operations at NAS Patuxent River are defined as the receipt, storage and handling, and issue of fuel products in bulk at the VQ-4 facility. It also provides for related functions such as quality surveillance, maintenance, and accounting, all of which are covered in other Sections of this contract. The Contractor shall be responsible for performing bulk fuel operations and safeguarding fuel supplies under normal and adverse conditions.

C-2.3.1 Product Storage

The facilities outlined within this section are those that comprise the storage system generally referred to as VQ-4. Tankage and components outside this area, the service station for instance, are covered in their respective sections.

Bulk storage consists of one (1) 30,000 gallon JP5 tanks and components as outlined in Appendix A. The Contractor shall provide the necessary staffing to undertake and document daily and cyclical inspections, to manipulate components to receive and issue product, to continually monitor systems, and to perform preventive and operator maintenance on the storage facilities. In addition, the Contractor shall be capable of performing all other functions relative to an active storage operation, i.e., inventory, quality, housekeeping, security, and environmental protection as outlined here and elsewhere within this contract.

C-2.3.2 Product Receipts

Jet fuel, JP5, is received by pipeline from the Government operated bulk fuel facilities. Incoming trucks shall be inspected and product sampled and tested in accordance with MIL-HDBK-200G and NAVAIR 00-80T-109 prior to receipt to verify product identification and quality. Quantity determination, i.e., before and after gauging of tanks and computation of receipts at 60 degrees Fahrenheit, as outlined in DOD 4140.25M applies.

Figure 5 presents the workload for product receipts based on historical receipt data and frequencies for receipts. Exhibit 1 also provides expanded JP5 historical receipt workload data in terms of gallons received per month and the number of truck delivering product.

Figure 5: Receipts

Year	Product	Mode	Number of Receipts	Total Gallons Received	Average Receipt
FY98	JP5	PL	114	2,039,165	18,000
FY99	JP5	PL	123	2,207,484	18,000
FY00	JP5	PL	124	2,225,690	18,000
Total			361	6,472,339	17,929

(1) Mode of receipt: PL for pipeline, TT for tank truck, for TW tank wagon, B for barge.

◊ Requirement: The Contractor shall receive and inventory all aviation fuel without causing operational delays.
- ✓ The Contractor shall immediately notify the COR of any operational discrepancies.
- ✓ The Contractor shall prepare all documents required for product receipt in accordance with Section I, Clause I119.06.

➢ Minimum Performance Standards:
- ✓ No fuel spills due to Contractor negligence or misconduct.
- ✓ No Contractor caused delays during tank truck receipt operations.
- ✓ All documents, including post receipt inventories, one hundred percent complete and forwarded to fuel accounting by 0800 daily.

C-2.3.3 Product Issues

C-2.4 Service Station Operations

The Contractor shall provide qualified personnel to monitor, and man as necessary, the base (military) service station. Service station operations, the dispensing of ground products from a fixed facility/system to authorized customers, are conducted at building 612. The service station, an automated system, shall be inspected, tanks inventoried, and the systems readied for customer service for the days reflected in Figure 1.

Premium unleaded gasoline (MUP) and low sulfur diesel (LS2) are stored and dispensed at the service station. The station consists of two (2) 15,000-gallon underground MUP tanks and one (1) 12,000-gallon underground LS2 tank and components as outlined in Appendix A. MUP and LS2 are received by commercial tank truck in 7,800-gallon loads as needed. All deliveries and transfers are usually made during normal operating hours. Workload factors for the service station operations are summarized below.

Figure 6: Service Station Operation

Year	Grade	Total Gallons Issued for the Year	Average Monthly Gallons Issued	Total Number of Receipts for the Year	Average Number of Monthly Receipts
FY97	MUP	212,000	17,000	29	2
FY98	"	107,332	8,900	14	1
FY99	"	172,431	14,300	22	2
FY00	"	221,487	18,457	28	2
Total	"	491,763	13,422	65	2
FY97	LS2	45,500	3,791	6	1
FY98	"	26,477	3,200	7	1
FY99	"	43,529	3,600	5	1
FY00	"	53,611	4,467	7	
Total	"	119,769	3,530	18	1

The service station tanks shall be inventoried, facilities and equipment inspected and products received, and quality surveillance performed by the Contractor. In essence, those tasks associated with the operation of a bulk storage facility shall be undertaken by the Contractor at the service station. In case of a power/mechanical failure under which the service station cannot be operated at all, the Contractor shall position a ground fuel truck(s) at the service station and man it for the hours noted in Figure 1..

◊ Requirement: The Contractor shall maintain and man as necessary the military service station so as to ensure customer support with specification products for the hours specified in Figure 1.
- ✓ The Contractor shall notify the COR immediately of any discrepancy or issue that may result in the inability to meet customer demands for products at the service station.

➢ Minimum Performance Standards:
- ✓ One hundred percent receipt quality/quantity accuracy.
- ✓ One hundred percent inventory accuracy.
- ✓ Documentation complete, legible, and forwarded by 0800 Monday through Friday.
- ✓ Facility PM accomplished and cleanliness maintained.
- ✓ Contractor capable of manual operations for the hours specified.

C-2.5 Ground Fuel Delivery

Ground fuel delivery operations are defined as the into tank delivery by a contractor operator of ground fuels, i.e., gasoline, diesel, heating oil, and jet fuel used in lieu of diesel, to authorized customers by truck. The Contractor shall be responsible for performing all ground fuel delivery operations, and safeguarding fuel supplies under its control during normal and adverse conditions. Figure 7 provides a historic picture of ground fuel deliveries for the dates/years indicated.

The Contractor shall furnish ground fuel servicing equipment configured in accordance with Section C-3.2.3 and the qualified/licensed personnel to operate and maintain such equipment to undertake ground fuel delivery operations during the hours specified in Figure 1. Ground fuels, unleaded regular gasoline (MUP), burner oil #2 (FS2), and jet fuel (JP5) used in lieu of diesel, shall be delivered as scheduled to the using activities as outlined in Figure 8. Unscheduled requests for ground fuel received by the fuel dispatch center shall be accomplished within the time limits mutually agreed upon by the requesting activity/dispatcher.

Ground fuel deliveries to off station locations shall be accomplished using trucks that are configured and licensed/permitted for use on public roads. All Federal, state, and local inspections, permits, licensing and insurance requirements for the truck(s)s used on public roads, shall be a responsibility of the Contractor. Operators shall be licensed as set forth in Section C-1.11.

A list of delivery points by specific location, building/facility number, tank characteristics, tank size, average delivery quantity, a delivery schedule, if known or established, is provided by Figure 8. Maps identifying all established and scheduled delivery points, by grade of product, will be provided by NAS Patuxent River and will become a part of the contract, see Appendix F. On contract start up, the Contractor shall survey all delivery locations and confirm delivery schedules to ensure uninterrupted customer support. The Contractor shall make ground fuel deliveries to the points identified, and respond to other requests for services received by the dispatch center during the hours listed in Figure 1. The Contractor shall update the delivery points outlined in Figure 8 and inform the Government as changes occur.

The Contractor shall document each ground fuel issue using forms and scanners provided by the Government. Until the Fuels Automated System (FAS) is used to document/track ground fuel delivery activities, the Contractor shall maintain a daily truck log of all ground fuel issues, defuels, and truck fills. The log shall, at a minimum, reflect the date/time of service or truck fill, identify the facility or equipment serviced, the grade of product issued/defueled/filled, the quantity issued/defueled/filled, and the servicing vehicle number.

Figure 7: Ground Fuel Delivery

Year	Grade	Total Gallons Issued for the Year	Average Monthly Gallons Issued	Total Number of Deliveries for the Year	Average Number of Monthly Deliveries
FY97	MUP	45,000	3,750	696	58
FY98	“	45,000	3,750	684	57
FY99	“	44,892	3,741	756	63
FY00	“	45,000	3750	696	58
Total	“	134,892	3,747	2,136	59
FY97	JP5	79,060	6,588	1,574	131
FY98	“	82,015	6,834	1,856	155
FY99	“	85,333	7,111	2,239	187
FY00	“	83,109	6,926	2,202	184
Total	“	246,408	6,844	5,669	158
FY97	FS2	Unknown	Unknown	Unknown	Unknown
FY98	“	773,557	64,463	1,988	166
FY99	“	1,044,138	87,000	1,736	145
FY00	“	665,793	55,483	1,651	138
Total	“	1,817,695	75,732	3,724	156

Figure 8: Ground Fuel Issue Points and Delivery Schedules

See **Appendix H, FS2 Deliveries** and **Appendix I, Ground Fuel Deliveries**.

◊ Requirement: The Contractor shall man and maintain the ground fuel delivery equipment to ensure customer support with specification products for the hours specified.
- ✓ The Contractor shall notify the COR immediately of any discrepancy or circumstance that may result in the inability to deliver ground fuel products.

➢ Minimum Performance Standards:
- ✓ All equipment inspected, and serviceable by 0800 daily. Inspection documentation available.
- ✓ Daily truck inventories one hundred percent accurate.
- ✓ Documented issues, defuels, and truck fills one hundred percent complete, accurate, and legible.
- ✓ Ground fuel truck logs maintained and accurate.
- ✓ Fuel servicing safety procedures and precautions observed.

C-2.6 Used Oil Collection and Handling Operations

Used oil collection and handling operations are defined as the collection, by truck, of fuel products no long suitable for their intended use, the intermediate holding of such products, and the disposition of those products in accordance with local instructions. Disposition of used oil may be via turn-in to DRMO or recycling by the method outlined below. The Contractor shall be responsible for performing all used oil collection and handling operations, and safeguarding the products collected.

The Contractor shall furnish the used oil collection and handling truck(s) as specified in Section C-3.2.4 in sufficient numbers to undertake the projected workload outlined in Figure 9. The Contractor shall collect used oil from those points identified in Figure 10 and respond to other requests for services received by the dispatch center during the hours listed in Figure 1. The Contractor shall update Figure 10 and inform the Government as changes occur. The Contractor shall maintain all equipment in a safe and fully serviceable condition. Equipment inspections shall be accomplished and documented to ensure equipment is ready for service.

Used oil collections from off station locations shall be accomplished using trucks that are configured and licensed for use on public roads. All Federal, state, and local inspections, permits, licensing and insurance requirements for the truck(s) used on public roads, shall be a responsibility of the Contractor. Operators shall be licensed as set forth in Section C-1.11.

A list of used oil collection points by specific location, building/facility number, tank characteristics, tank size, average collected, a collection schedule, if known or established, is provided by Figure 10. Maps identifying all such collection points will be provided by NAS Patuxent River and will be included in the contract under Appendix F. On contract start up, the Contractor shall survey all locations and confirm collection schedules to ensure uninterrupted customer support.

The Contractor shall document each used oil collection using forms provided by the Government. Until the Fuels Automated System (FAS) is used to document/track used oil collection activities, the Contractor shall maintain a daily truck log of all collections and disposals. The log, at a minimum, shall be used to record the date and time of collection or disposal (emptying), identify the facility or equipment from which used oil is collected, the quantity collected/disposed of, and the servicing vehicle number.

Figure 9: Used Oil Collection

Year	Total Gallons Collected for the Year	Average Monthly Collections	Total Requests for the Year	Average Monthly Requests
FY98	13,877	1,156	169	14
FY99	10,357	863	142	12
FY00	7,295	912	111	14
Total	31,529	2,931	422	40

(1) Data current through end of FY00.

Figure 10: Used Oil Collection Points and Pick-Up Schedule

Location [1] (Point/area at which product is collected)	Grade[2]	Tank Cap/Chara	Average Pick-up[3]	Schedule (Time, day(s) of the week)
All activities and sites.	Petroleum/Synthetic			As requested.

(1) Provide as much detail as possible. See maps provided under Appendix F for exact location of the pick up points.
(2) Grade of product normally handled at a specific location. Products may be clean or mixed with other products, i.e., motor oil, or hydraulic fluid.
(3) The (average) quantity collected each time the tank is emptied.

◊ Requirement: The Contractor shall man and maintain used oil collection equipment so as to ensure customer support, i.e., product collection and disposal, for the hours specified.

- ✓ The Contractor shall notify the COR immediately of any discrepancy or circumstance that may result in the inability to collect and properly dispose of products.

➢ Minimum Performance Standards:

- ✓ All equipment inspected and serviceable by 0800 daily. Inspection documentation available.
- ✓ Daily truck inventories one hundred percent accurate.
- ✓ Documented collections and truck off-loads (disposal) quantity one hundred percent accurate.
- ✓ Used oil collection documentation one hundred percent complete and legible.
- ✓ Used oil truck logs maintained and accurate.
- ✓ Fuel servicing safety procedures and precautions observed.

C-2.7 Cryogenics Storage and Distribution Operations

Cryogenics storage and distribution operations in support of activities at NAS Patuxent River are defined as the receipt, storage, handling, and issue of cryogenic products, liquid oxygen (LOX) and liquid nitrogen (LN2), and gases to authorized customer.

The Contractor shall staff to maintain cryogenic facilities, equipment, and analytical devices as outlined in the most current version of OPNAVINST 4790.2 and referenced documents and guidance. The Contractor shall man and operate the cryogenic storage and distribution facility identified in Appendix A with qualified supervisors and operators as outlined in Section C-1.11 for the days and hours specified in Figure 1. The Contractor shall be responsible for product inventories, preventive/operator maintenance of cryogenic systems, and the receipt, internal handling, and issue of products. The Contractor shall be responsible for the quality of products, the administrative/accounting functions and practices applicable to the efficient management of cryogenic storage and distribution operations, and the security of products and facilities under its control.

Figure 11: Cryogenic Operations

Year	Product	Number of Receipts	Gallons Received	Number of Issues	Gallons Issued
FY97	Liquid Oxygen (LOX)	17	61,200	1040	58,500
FY98	"	15	52,500	1040	51,100
FY99	"	14	49,000	1040	48,200
FY00	"	14	52,220	1040	52,000
Total	"	46	162,700	3,120	157,800
FY97	Liquid Nitrogen (LN2)	13	45,500	520	45,300
FY98	"	12	42,000	520	42,400
FY99	"	12	42,500	520	42,400
FY00	"	11	41,279	520	41,000
Total	"	37	130,000	1,560	130,100

The Contractor shall place orders for LOX/LN2 from the commercial vendor, coordinating all orders/deliveries with the COR. On delivery, the Contractor shall obtain samples and perform quality surveillance testing or forward samples to 1403 for testing. The Contractor shall maintain a log of samples drawn and tested or submitted to an outside laboratory for testing, and the test results. Copies of the test result forms shall be maintained on file and available to the COR on request for the duration of the contract.

The Contractor shall assist in the issue cryogenic products, liquid and gas, to customer cryogenic carts, converters, cylinders and cylinder carts, and medical cylinders on request.

The Contractor shall be responsible for the preventive maintenance of cryogenic storage and distribution systems and facilities. Operators shall inspect equipment, component, and facilities, make adjustments and operator repairs, i.e., replace filters, rupture disk, and desiccant, and maintain cleanliness applicable to a LOX environment. Discrepancies beyond the scope of preventive maintenance program shall be documented and reported to the appropriate work center or agency via the COR. Grounds maintenance shall be accomplished as outlined in Section C-2.11.3.

As outlined in Section C-3.5, the Contractor shall provide uniforms. In addition, the Contractor shall provide protective cryogenic safety gloves, aprons, and face shields used during cryogenic handling operations.

Requirement: The Contractor shall man and maintain cryogenic facilities and equipment to ensure customer support with specification cryogenic products for the hours specified.

- ✓ The Contractor shall notify the COR immediately of any discrepancy or issue that may result in the inability to issue products from the service station system.

- Minimum Performance Standards:
  - ✓ Cryogenic system fully manned for the hours specified.
  - ✓ One hundred percent receipt quality/quantity accuracy.
  - ✓ One hundred percent inventory accuracy.
  - ✓ Documentation complete and legible.
  - ✓ Facility PM accomplished and cleanliness applicable to a LOX environment maintained.

C-2.8 Inventory

Inventory is defined as the physical measurement of products in terms of volume and temperature, the documentation of those measurements, and the conversion of observed measurements to standards recognized by the petroleum industry. The Contractor shall be responsible for the inventory of petroleum and cryogenic products held by or within facilities, equipment, tanks, and vehicles the responsibility of or under Contractor control. The Contractor shall provide accurate inventories of all products as outlined by DOD 4140.25, Bulk Petroleum Management Policy, NAVSUP Volume II, Supply Ashore, and other Navy regulations and local instructions.

Inventory documentation consisting of gauge, receipt and issue documents, and other forms, logs, and reports as may be used to compile, compute, and validate accurate product inventories shall be forwarded by the fuel accounting office by 0800 Monday through Friday. Weekend/holiday inventories and documentation shall be forwarded to the fuel accounting office on the first duty day following the weekend or holiday.

◊ Requirement: The Contractor shall fully account for all cryogenic products under its control.
- ✓ The Contractor shall establish inventory procedures agreeable to the Government.
- ✓ The Contractor shall fully document all inventories.
- ✓ Daily inventory forms shall be validated/signed by the Contract manager or his/her representative.

➢ Minimum Performance Standards:
- ✓ Documentation to the Fuel Division by 0800
- ✓ One hundred percent accuracy of inventory documentation.
- ✓ All documentation neat and legible.

C-2.9 Product Quality Surveillance

The Contractor shall prepare and maintain a Product Quality Surveillance Plan (PQSP) outlining policies and procedures to ensure products under the Contractor's care remain on specification. The PQSP shall include, but is not necessarily be limited to, product receipts, storage, and issue sampling, testing of samples, the disposition of samples taken, and documentation of the quality surveillance function. On acceptance, the PQS shall be incorporated into the contract. The COR will review the PQSP as necessary during the term of the contract and communicate the need for changes to the Contractor via the DESC Contracting Officer.

No petroleum product shall be received or issued until product quality determinations and confirmation of conformance with specifications. Products shall be issued on a first-in, first-out basis unless otherwise specified or directed by the COR. Anytime product is received into a tank, regardless of source or reason, it shall be suspended from issue pending quality conformance sampling and notification of test results.

C-2.9.1 Sampling

The Contractor shall provide the appropriate sample fittings/device and sample bottles to take daily visual samples, and shall deliver samples requiring analysis to the NAS Patuxent River fuel laboratory for testing. Sampling, shall be taken in accordance with the API Manual of Petroleum Measurement Standards (MPMS), Chapter 8, Section 1, Manual Sampling of Petroleum and Petroleum Products, as supplemented by local instructions. Local instructions will dictate the location of samples to be taken, the frequency, quantity, minimum tests required and sample retention procedures applicable to NAS Patuxent River.

C-2.9.2 Testing

Not applicable since the Government performs all testing.

Figure 12: Workload Factors, Quality Assurance

Not applicable since the Government performs all testing.

C-2.9.3 Record Keeping and Reports

The Contractor shall establish and maintain a filling system relevant to quality surveillance records and keep all such records in a neat, orderly manner. Historical product quality records shall be kept on file for the duration of the contract and be made available to the COR on request. All quality surveillance records and logs are the property of the Government.

◊ Requirement:
- ✓ Quality of all petroleum products received, stored and issued meet specification requirements.
- ✓ Quality of all petroleum products is verified as suitable for their intended use.
- ✓ The COR shall be notified immediately of any suspected fuel quality issues prior to further movement.

➢ Minimum Performance Standards:
- ✓ One hundred percent visual testing.

C-2.10 Property Management and Maintenance, General

As outlined in Section I, Clause I114, Government Property, the Contractor shall establish and maintain a plan for the use, maintenance, repair, protection and preservation of the Government property provided, see Appendix A and B. As such, the Contractor shall be responsible for the normal and continuous operation of all furnished systems and the preventive and operator maintenance of those fuel facilities and equipment. The Contractor shall provide all manpower, materials, tools, instruments, devices and equipment not otherwise specified as Government-furnished but directly or indirectly called for within this contract or references cited to accomplish preventive and operator maintenance. The purchase of repair services and supplies beyond preventive/operator maintenance will be reimbursed under Section C-4.0, Logistics Support.

Preventive Maintenance. Preventive maintenance is a program of recurrent periodic or cyclic scheduled inspections and servicings designed to preserve and maintain equipment, apparatus, or facilities in such condition that they may be effectively used for their intended purpose. Preventive maintenance is normally limited to those actions taken by qualified system operators using common hand tools and specialized tools or instruments prescribed by a specific PM procedure. The codes assigned to each of the sub-sections being with Section C-2.11.1 represent the preventive maintenance schedule for the item(s) listed.

Operator Maintenance. Operator maintenance is that work accomplished during routine inspections and system use/operation. Operator maintenance includes, but is not necessarily limited to, work such as the replacement of ground wires, plugs, and clips, the replacement of seals, O-rings, gaskets not requiring component tear-down, the lubrication of components, the tightening of nuts, bolts, and screws to prevent leakage and stabilize equipment, or corrosion control and spot painting. Operator maintenance is normally limited to those actions taken by qualified system operators using common hand tools.

Other Maintenance and Repair. Except as specifically outline herein, maintenance and repair beyond that defined as preventive and operator maintenance, i.e., the unplanned repair or replacement of material or components that show abnormal wear or fail, must be approved by the COR. Reimbursable will be provided as outlined by Section C-4.2.

C-2.11 Preventive Maintenance-Facilities and Equipment

A list of government facilities and equipment is found in Appendix A and B. The Contractor shall ensure that all government property is preserved and maintained in safe and working condition. It is essential that the Contractor devote adequate time and effort to the maintenance of Government property. The CMP called for under Section C-1.4 shall provide

for the inspection, servicing, calibration of equipment, and care of facilities at specified intervals. Appendix A, Government Furnished Facilities, is a listing of equipment and facilities requiring preventive maintenance and shall serve as the basis for the CMP. The CMP shall provide a systematic approach to planning, scheduling, documenting/reporting and managing (labor, materials, time, and costs) to perform those actions that contribute to the uninterrupted function of fuel systems. The CMP shall include periodic inspection; testing, and minor repair of equipment and facilities in accordance with manufacturer's recommendations or commercially accepted practices.

Contractor Maintenance Plan (CMP). As noted in Section C-1.4, the Contractor shall submit the CMP (manual or automated format) to the COR of the contracting activity not later than 60 days after contract award. After review by the COR, the Contractor will revise/correct deficiencies so as to have the plan ready for contract start up. On acceptance, the CMP shall be incorporated into the contract. The COR will review the plan as necessary during the term of the contract and communicate the need for changes to the Contractor through the Contracting Officer.

The following items of inspection are applicable to NAS Patuxent River. The codes following each item, i.e., Gauge (Pressure, Differential, and Vacuum) (A), represent the scheduled preventive maintenance cycle. The code does not imply it is the only time an item will be observed or inspected. In all cases, discrepancies within the preventive/operator maintenance program shall be documented and corrected. Those deemed beyond the expertise of the Contractor or outside the scope of the contract shall be recorded on the applicable inspection report and forwarded to the COR for action.

C-2.11.1 Buildings and Structures (C)

The Contractor shall ensure that all buildings, structures and facilities used by or under Contractor control are kept clean and sanitary. The Contractor shall sweep, mop, and wax floors and wash windows and walls so as to present a clean, orderly appearance. Maintenance and storage buildings shall be kept in clean and orderly manner. Areas immediately around buildings for which the Contractor is responsible shall be kept free of debris. The Contractor shall not allow fire hazards, such as oily rags, loose paper, and trash to accumulate in or around buildings, structures, facilities, and areas used, occupied, or controlled by the Contractor. The Contractor shall not alter buildings without written approval from the Government.

The Contractor shall facilitate NAS Patuxent River in accomplishing its Pest Management responsibilities. Requests for pest and rodent control shall be forwarded to the COR.

The Contractor shall reset circuit breakers and switches. Other building/structure maintenance requirements, i.e., electric, carpentry, and other skilled trade work shall be forwarded to the COR. The Contractor shall not alter any structure or allow it to be altered without explicit written instructions by the COR.

C-2.11.2Trash Removal (W)

The Contractor shall pickup and disposal of trash and debris within and around the immediate areas of bulk storage, the truck parking area, the service station, and the cryogenic facility, and place all trash into government-furnished containers. The Government will dispose of the trash placed within those containers.

C-2.11.3 Grounds (C)

Not applicable.

C-2.11.4 Roads and Paved Surfaces (Q)

All roads, paved surfaces, sidewalks, and curbing shall be monitored continuously. Damage, defects, and the need for repairs shall be documented and reported to the COR.

C-2.11.5 Fences and Gates (S)

The Contractor shall inspect all fences, to include signs and markings, and gates, to include automatic gate openers, of fuel compounds for general condition. Noted discrepancies shall be recorded and a work request forwarded to the COR.

C-2.11.6 Lighting (Q)

Exterior lighting, security lighting, and exterior building lights will be inspected on a continuous basis. Discrepancies shall be recorded and a work request forwarded to the COR.

C-2.11.7 Other Facilities, Equipment, and Utilities (M)

The Contractor shall visually monitor other equipment, facilities, and utilities, i.e., storm drains, exterior water systems, power poles, lines, and transformers, and exterior telephones within Fuel Management areas continuously. Noted deficiencies shall documented and reported to the COR.

C-2.11.8 Storage Tanks (W)

The Contractor shall visually inspect the exterior of all storage tanks and tank components on a continuous basis. All inspections shall be documented and corrective action within the scope of PM/operator maintenance accomplished as deficiencies are discovered.

The Government will be responsible for the internal tank inspections and cleaning. Upon notification of a cleaning project start date, the Contractor shall, to the extent possible using installed system-pumping equipment, ready all selected tanks for cleaning and inspection by emptying them of product. On completion of tank cleaning and return to service, the Contractor shall be responsible for inspecting the exterior of the tank and components and updating the PM system/records.

C-2.11.9 Berms/Containment Systems (C)

The Contractor shall ensure that all berms are kept clean, free of debris and vegetation, and other materials that may hamper proper drainage. Drain valves shall be tested, conditions permitting, monthly. The Contractor shall remove any contents of the moats in accordance with the Spill Prevention Control and Countermeasures (SPCC) plan and the National Pollution Discharge Elimination System (NPDES) permit. Direct discharges from any berm/containment system must comply with these plans/permits. The Contractor shall maintain a log as to the dates berms are drained, observed conditions of the water drained, and who performed the drain operation.

C-2.11.10 High/Low Level Alarms and Control Valves (Q)

The Contractor shall test alarm system, i.e., horns, lights, control board statue lights and signals, and shutoff valves, as applicable, quarterly.

C-2.11.11 Automatic Tank Gauge (ATG) System (Q)

The Contractor shall monitor ATG systems on a continuous basis. ATG readings shall be validated by manual tank gauges that are accomplished weekly.

C-2.11.12 Pumps, Reduction Gears, and Pump Motors (Q)

The Contractor shall maintain all the fuel system pumps in a serviceable condition by performing inspections and PM. The Contractor shall adjusting packing and stuffing glands, inspecting mechanical seals, providing lubrication, replacing gaskets and seals not requiring component tear-down, and tightening loose nuts, bolts, and screws to prevent leaks and to stabilize equipment. Pump motors shall be inspected for proper operation and the presents of excessive noise and vibration.

C-2.11.13 Valves and Valve Motor Operators (Q)

The Contractor shall inspect and perform preventive/operator maintenance on all types of valves (gate GT, ball B, globe GL, plug P and PL (Lubricated), check C, double block and bleed DB&B, etc.). The Contractor shall inspect, clean, lubricate as needed, and operate/actuate each system valve to ensure proper function. Motor operators shall be inspected, cleaned/lubricated as needed and actuated to ensure proper operation.

Miscellaneous small valves, i.e., all types of control/isolation valves of 1½ inches or less, shall be monitored continuously, and replaced as needed.

C-2.11.14 Filter Separators and Monitors (A)

The Contractor shall inspect/monitor filter separator and fuel monitor systems and components thereof on a continuously. Systems shall be inspected, water drained, differential pressure readings taken and recorded, and components calibrated/tested as outlined by applicable manufacture's recommendations, industry standards, and military specifications.

In addition to the normal PM process, the Contractor shall be responsible for changing filter separator and fuel monitor elements, and maintaining the filter/monitor vessels, i.e., replace worn components such as gaskets, spacers, washers, and other minor parts. The Contractor shall prepare used elements for disposal in accordance with local environmental regulations.

C-2.11.15 Relaxation Chambers (Q)

The Contractor shall inspect relaxation chambers for stress fractures, leaks, and operation of the air release system. Pressure/thermal relief valves installed shall be tested as outlined in Section C-2.11.18.

C-2.11.16 Strainers (All Types) (Q)

The Contractor shall inspect and clean system strainers monthly, replacing them as necessary.

C-2.11.17 Meters (S)

The Contractor shall inspect meters on a continuing basis. Meters used for custody transfers shall be calibrated semiannually, when a meter is suspected to be out of calibration, whenever a meter is serviced, or when a meter has been damaged.

The Contractor shall calibrate meters or arrange to have calibrations performed by an agent that is trained to perform such work. Calibrations shall be performed as part of the Navy Calibration and Metrology program and traceable to National Institute of Standards and Technology (NIST) standards. The Contractor shall maintain a log of all calibrations performed. This log should be available for inspection by the COR on request.

C-2.11.18 Gauges (Pressure, Differential, and Vacuum) (A)

The Contractor shall inspect gauges continuously and as part of the scheduled PM program. The Contractor shall remove, calibrate or arrange to have calibrations performed by an agent certified for such work, and replace all such gauges in accordance with NAVFAC MO-230 (see the NIST standard noted above).

C-2.11.19 Pressure/Thermal Relief Valves (A)

The Contractor shall inspect, remove, bench test, and replace pressure/thermal relief valves in accordance with NAVFAC MO-230.

C-2.11.20 Piping/Pipelines (A)

The Contractor shall inspect piping and pipeline systems, to include all types of expansion joints. The pipeline shall be monitored by line patrol whenever it is in active use. Operations shall be suspended immediately and the Fire Department and the COR notified if a leak is detected or suspected. All pipelines shall be identified in accordance with the most current MIL-STD-161, and inspected and maintained in accordance with NAVFAC MO-230.

The Government will be responsible for pipeline replacement, major repairs, and annual hydrostatic testing. After any testing/repair, the Contractor shall inspect, pressurize, and re-inspect the affected lines to ensure the integrity of the line and repairs performed before returning the pipeline to service.

C-2.11.21 Loading Arms, Pantographs, and Nozzles (Q)

Inspect and maintain all loading arms, pantographs, and nozzles in accordance NAVFAC MO-230.

C-2.11.22 Couplers, Connectors, and Swivels (Q)

The Contractor shall inspect and monitor all such fixtures, to include quick disconnect and emergency dry breakaway couplers. Leaks, wet spots, erratic mechanical operation, and the need for excessive force to operate such equipment shall be documented and reported to the appropriate work center for repairs.

C-2.11.23 Hoses (All Types) (A)

Fuel hoses normally detached after an operation shall be drained, capped, and properly stored and protected from the elements after each use. Attached hoses such as fillstand hose, shall be properly stored, and protected to the maximum extent possible.

The Contractor shall be responsible for the proper disposal of refuel hose's (IAW) local, state and federal regulation.

The Contractor shall test and mark hoses as outlined in NAVFAC MO 230.

The Contractor shall install or replace hoses as necessary. All hoses will normally be provided by the Government; however, or the Contractor may be directed to purchase replacement hoses under Section C-4.0, LOGISTICS SUPPORT.

C-2.11.24 Pits (M)

Not applicable

C-2.11.25 Manifolds (M)

The Contractor shall inspect manifolds for leaks and general condition of equipment as part of its daily inspection process. The Contractor shall perform preventive and operator maintenance to including, but not necessarily limited to, the calibration of gauges, the actuation of valves, the tightening of nuts, bolts, and screws. The Contractor shall keep manifolds areas clean, free of debris.

C-2.11.26 Pier Facilities (Piping, Risers, and Valves) (Q)

Not applicable.

C-2.11.27 Pier Loading Arms (S)

Not applicable.

C-2.11.28 Truck Fillstands (Q)

Not applicable.

C-2.11.29 Oil/Water Separator System (M)

The Contractor shall visually inspect and measure the contents of oil/water separators. Discrepancies shall be documented and reported to the appropriate work center via the COR. Oil/water Separator systems will be maintained by Public Works.

C-2.11.30 Cathodic Protection System (M, Q & S)

Cathodic Protection systems will maintained by Public Works.

C-2.11.31 Electrical Bonds, Grounds, and Insulators (M)

Electrical bonds will be maintained by Public Works.

C-2.11.32 Shower and Eyewash Stations (W)

The Contractor shall inspect and test shower and eyewash stations for proper function.

- Workload Projection: The Contractor shall maintain all structures, Contractor or Government furnished, maintain the cleanliness of those structures, and maintain the cleanliness of areas around such structures. The Contractor shall observe, monitor, and inspect all structures, facilities, components, and equipment, document observations, and report the status of all under contractor control so as to ensure the continued operation of all fuel facilities.

❑ Requirement: All property under Contractor control shall be maintained in safe and working condition so as not to hinder or delay operations.
- ✓ The COR shall be informed immediately of abnormal wear and tear, malfunction, or breakdown of government facilities or equipment.

➢ Minimum Performance Standards:
- ✓ Facilities, and structures maintained to present a clean, orderly, and safe work environment.
- ✓ Preventive maintenance program (manual or automated) maintained and current.
- ✓ Preventive/operator maintenance performed as scheduled.
- ✓ Preventive/operator inspection and maintenance documented.
- ✓ Maintenance beyond the scope of the contract reported to the COR.

C-2.12 Personnel Training and Record Keeping

The Contractor shall establish and maintain, for the duration of the contract, a training program that is acceptable to the Government. The training program shall ensure that contract personnel receive training as defined below. A copy of the training plan shall be provided to the COR as outlined in Section C-1.4. On acceptance, the training plan shall become a part of the contract.

Figure 13: Required Contractor Training

Training
Base Driver Training to include Flightline Operations
Fire Prevention and Control
Confined Space Entry
Environmental Protection
Facility Response Plan (FRP)
Hazardous Communication
Hazardous Waste Operations and Emergency Response
Lock-Out-Tag-Out Procedures
Safe Transportation of Hazardous Materials
Fuel System Safety
Other training as may be required by state and local agencies. Defined by the contracted activity.

◊ Requirement: All personnel shall be able to recognize and handle potential hazards to avoid dangerous exposure and to develop safe working habits, practices and, skills.

➢ Minimum Performance Standards.
- ✓ Training records of all employees readily available to the COR.
- ✓ Training document, literature, aids, and information readily available.
- ✓ One hundred percent compliance with and documentation of government accepted training.

C-2.13 Contractor Safety Plan

The Contractor shall establish and maintain, for the duration of the contract, a detailed safety plan in accordance with applicable laws and regulations. The following figure lists the safety plans that the Contractor shall provide to the COR on the first day of the contract turn over period noted in Section C-1.5. All such plans shall become a part of the contract.

Figure 14: Required Contractor Safety Plans

Safety
Confined Space Entry Plan
Disaster Preparedness Plan
Fire Prevention and Protection Plan
Hazardous Waste Operations and Emergency Response Plan
Safety and Health Standards Plan

◊ Requirement: All operating personnel shall be able to recognize and handle potential hazards to avoid dangerous exposure and to develop safe working habits, practices, and skills.

- ✓ All safety plans shall be readily available to all personnel.
- ✓ The Contractor shall establish a smoking policy that prohibits smoking in other than in designated areas. The Contractor shall provide signs to be posted at the entrance to work areas that reads, "NO SMOKING EXCEPT IN DESIGNATED SMOKING AREA." The Contractor shall also designate a smoking area and provide a sign for that area which reads: "DESIGNATED SMOKING AREA."

➢ Minimum Performance Standards:

- ✓ One hundred percent documentation and compliance with government approved Safety Plans.
- ✓ One hundred percent documentation verifying all operations are conducted in accordance with government approved staffing charts.

C-2.14 Environmental Protection

In addition to the provisions of Section I, Clause I180, the Contractor performance shall be in accordance with the Government provided environmental plans listed in below. Environmental permits and licenses required to operate the fuel facilities of NAS Patuxent River will be obtained by the Government. Environmental training as listed in Section C-2-12 or as identified in Figure 15 shall be the responsibility of the Contractor.

Figure 15: Environmental Documents

Environmental	
EPA Hazardous Waste Management System Plan	40 CFR 260-268
Facility/Emergency Response Plan (OPA 90)	33 CFR 154 40 CFR 112 49 CFR 194
National Pollutant Discharge Elimination System Permit Plan	40 CFR 122
Oil Pollution Prevention Operations Manual	33 CFR 154
Spill Prevention Control and Countermeasures (SPCC) Plan	40 CFR 112
List state, county, and local requirements or state "No specific state, county or local requirements."	

◊ Requirement: Ensure that all necessary actions are taken to prevent, control, and abate environmental pollution related to fuel facilities, activities, and programs.

- ✓ If the Contractor receives a Notice of Violation, the Contractor shall immediately notify the COR.

➢ Minimum Performance Standards:

- ✓ One hundred percent compliance with environmental laws and regulations and government provided environmental documents.

C-2.15 Security

The Contractor shall be responsible for the security of those facilities, structures, vehicles, equipment, and other materials provided under this contract. The Contractor shall take the security measures outline in the figure below.

Figure 16: Security Requirements

Security
Control access to Government facilities under Contractor control.
Maintain visitors logs.
Secure all gates, buildings, facilities, and systems when not in use.

In addition, select employees performing on this contract will require Positions of Trust background investigations. The Contracting Officers Representative (COR) or the Technical Point of Contact (TPOC) will determine which positions require the Positions of Trust investigations. Contractor employees will be permitted to perform on the contract pending the completion of the background investigation if an interim favorable determination is made by NAWCAD Personnel Security Division.

The contractors Facility Security Officer (FSO) will contact the NAWCAD Industrial Security Division (301-757-2961) for the process on submitting requests for those contractor employees requiring background investigations. If the contracting facility has no FSO a responsible individual, i.e., owner, CEO, etc. will contact NAWCAD Industrial Security Division for the process."

◊ Requirement: Ensure that all fuel and cryogenic facilities and equipment are fully secured when not in use and controlled during normal duty hours.
Security requirements documented and files maintained.

➢ Minimum Performance Standards:
- ✓ All visitors to all Contractor operated facilities identified and logged.
- ✓ Random security inspections find all facilities secure.

C-2.16 Property Inventory and Accountability

At contract turnover, Section C-1.5, representatives of the Contractor and Government will conduct a joint inventory of all Government furnished facilities, systems, equipment, supplies, and other property to be furnished by the Government. They will jointly validate the list of facilities, fuel and cryogenic systems, and components listed in Appendix A and update the appendix as needed. They will also complete Appendix B to provide a complete inventory of all other Government furnished minor property. Both representatives will certify the completed appendices that will become a part of the contract.

As outlined in Section I, Clause I114, the Contractor shall account for all properties, maintain records, and submit a report of Government Furnished Equipment/Property under Contractor custody annually, as of the anniversary of the contract. The report shall be forwarded to the COR not later than 30 days from the anniversary date each year of the contract. The Contractor's report shall provide a complete inventory of Government-furnished property under its custody. The Contractor shall identify all property deleted and received since the preparation of the last inventory and provide copies of source documents, i. e., Contractor/vendors invoices, for each item of Government-furnished property. As applicable, Appendix A and B shall be updated by the Contractor.

C-2.17 Use of Government Facilities

The Contractor shall not permit or authorize personnel to store, repair, or care for personal property such as boats, motor vehicles, recreational vehicles, trailers, motorcycles, etc., on NAS Patuxent River property under Contractor control. Likewise, the Contractor shall not use station property, facilities, or buildings for the storage or repair of Contractor-owned vehicles and equipment not specified and required under this contract.

The parking of personal vehicles used for transportation to and from work will be permitted in designated vehicle parking areas during normal working hours.

C-3.0 CONTRACTOR-FURNISHED EQUIPMENT

C-3.1 General

The Contractor shall provide all the vehicles, equipment, tools, supplies, services, and other items as may be specified and necessary for the normal and continuous safe operation, maintenance, and inspection, calibration and upkeep of the equipment identified herein. All tools, equipment, instruments, devices, parts, and supplies not otherwise specified as Government furnished, but directly or indirectly called for, within this contract or references cited shall be provided by the Contractor.

C-3.2 Vehicles

The Contractor shall provide the vehicles necessary to meet the workloads identified herein within the response times outlined in Section C-2.2.2 for the petroleum related operations specified. All Contractor vehicles and components thereof shall be maintained in a fully serviceable condition by the Contractor and shall be fully capable of safely performing the tasks for which they are designed. Vehicles provided to an activity at contract start shall not be replaced or removed from the base without written notification to and approval by the Government. Standby vehicles, which are not specified or required herein, but presented for use on station, shall pass all inspections applicable to the equivalent type of equipment provided under this contract.

C-3.2.1 Prime Mover, Trucks and Tractors

Trucks and tractors provided under this contract shall not be more than eight (8) model years of age at the start date of the contract. Truck and tractor chassis shall be of a standard, first class commercial design equipped and sized to tow/carry the payload to which it will be subjected. Subject to the minimum cargo tank capacity set forth in Section C-3.2.2.1.1, loading on any axle or set of axles shall not exceed the manufactures gross vehicle working rate (GVWR)/limitations. Equipment required for use or travel off station shall be properly licensed or permitted and loaded to comply with all federal, state, and local highway/road use laws, regulations, and code. Except as specifically modified herein, each truck/tractor shall be configured and maintained to meet the requirements set forth in 49 CFR, Chapter III, Federal Highway Administration, Department of Transportation, Subchapter B, Federal Motor Carrier Safety Regulations, Part 393, Parts and Accessories Necessary for Safe Operation. All tractors of the same class shall be interchangeable with all trailers of the same class without modification to the tractor or trailer.

All Contractor furnished vehicles shall be equipped with locking gas caps, the keys for which shall be secured at the base service station.

C-3.2.1.1 General

The Contractor shall maintain trucks and tractors so that entry of carbon monoxide and noxious fumes into the vehicle cab is minimized. Rubber boots around pedals and levers shall be in tact and tight fitting. Grommets in holes through the firewall shall fit snugly. Holes in the floor panels, firewall, or elsewhere within the cab shall be repaired/closed. Heater and fresh air intakes shall be remote from the exhaust discharge. Exhaust systems shall be inspected and repaired or replaced as necessary. Engine oil and fluids shall be controlled (leaks repaired) so as to prevent the spillage of fluids anywhere.

C-3.2.1.2 Radios

The Contractor shall provide the appropriate number of radios (fixed or intrinsically safe portable/hand held) as described in Section C-3.4. The ignition system of all vehicles shall be equipped with resistors or other devices designed to minimize radio interference.

C-3.2.1.3 Electrical Wiring and Lights

All wiring beyond the rear of the truck or tractor cab shall be of adequate size to provide the required current-carrying capacity and mechanical strength. It shall be mounted to provide protection from physical damage and contact with spilled fuel by being enclosed in a metal conduit or an other oil-resistant protective covering. All circuits shall have over-current protection. Junction boxes shall be weatherproof.

C-3.2.1.4 Mirrors and Glass

All trucks and tractors shall be equipped with large, truck type exterior rear view mirrors located and mounted so as to provide the driver a clear view of the rear along both sides of the vehicle or trailer. Mirrors as well as windshields, windows, turn signals, reflectors, clearance and brake lights shall not be cracked, broken, fogged or distorted in a way that would impede the driver's vision or prevent a clear signal to other traffic.

C-3.2.1.5 Fenders and Mudguards

Fenders and mudguards shall be installed over the wheels of the tractor to fully protect the cargo tank and pumping system. Front fenders/mudguards may be tractor or trailer mounted. Non-functional skirting and flashing is prohibited.

C-3.2.1.6 Tires

All tires shall be of a non-Foreign Object Damage (FOD) type of slick (no tread) tires. Slick tires shall have wear indicators. Such tires shall be replaced when the wear indicators are no longer visible. See 49 CFR Part 393 Sub-Part G regarding specific tire restrictions.

C-3.2.1.7 Exhaust

The exhaust system of all trucks/tractors shall consist of a standard commercial muffler and a spark arrestor. The spark arrestor shall be approved under USDA Forest Service Standard 5100.1b as supplemented by the NWCG Spark Arrestor Guide, General Purpose and Locomotive (GP/Loco) Volume 1. The spark arrestor shall have a clean out plug. Where flexible exhaust pipe is used to absorb engine torque, a short section, no longer than 18 inches may be used. Exhaust systems shall be configured as follows:

NOTE

A spark arrestor is not required on trucks equipped with turbo diesel engines where 100 percent of the exhaust passes through the turbo unit.

C-3.2.1.7.1 Front/Side Mount Fuel Components

Several configurations dictate the exhaust system be forward mounted. On fuel servicing tractor/semi-trailers where the pumping system components and piping are mounted on the rear tractor chassis, on the front of the tank over the rear tractor chassis, and on cargo tank motor vehicles where components are mounted on the chassis between the cab and the tank or along the chassis under the tank and just behind the cab, the muffler and spark arrestor shall be mounted at the front of the engine with the exhaust outlet directed toward and exiting at the right extreme of the front bumper, opposite the driver’s side of the unit. The exhaust outlet shall point toward the ground at a 45-degree angle and terminate no higher than 18 inches above the ground. Exhaust piping, shielded or otherwise, shall not terminal under the truck cab or tank.

C-3.2.1.7.2 Under-Trailer/Rear Mount Fuel Components

On fuel servicing equipment configured with the pump, system components, and piping mounted under the trailer and to the rear of the trailer landing gear, or on the rear of the trailer or truck chassis (behind the tank), a shielded commercial exhaust system as described in NFPA 407 may be installed. Exhaust piping, shielded or otherwise, shall not terminate under the truck cab or tank

C-3.2.1.8 Painting and Marking

All Contractor vehicles shall be painted and marked in accordance with NAVFAC P-300. All vehicles shall be free of rusted areas, running rust, flaking paint, and excessive paint oxidation. Contractor vehicles shall be completely repainted when touch up painting exceeds 20 percent of the vehicle's surface. Faded, non-reflective, and obscure stencils, placards, and logos shall be replaced. For painting, tractors and trailers are considered separate units.

C-3.2.1.8.1 Placards

A DOT placard applicable to the grade of product being transported shall be placed on the left quarter of the front bumper. A placard holder or a rigid plate shall be used for the bumper mounted placard. See sections applicable to the cargo tank for side and rear placard requirements.

C-3.2.1.8.2 Company Logo

Truck/tractor doors shall be marked with a permanently affixed company name or logo. The name or logo shall be applied in a professional manner, reflective of company pride and professionalism. Stenciled or spray painted logos or magnetic placards shall not be used.

C-3.2.1.9 Spill Remediation Kit

Each Contractor truck, tractor, and utility vehicle shall be equipped with a 10-gallon spill clean up/remediation kit that is readily available to the vehicle operator.

C-3.2.1.10 Equipment Controls

Except to operate the clutch, set the transmission in the appropriate gear, and engage the PTO, all pump system controls and activity necessary to operate those controls and the pumping system shall be from the operator position outside the cab of the vehicle being operated. Once the unit is set to operate, the drive should not be required to enter the cab except to disengage the PTO.

C-3.2.2 Refuelers, General

Contractor provided refuelers (fuel-servicing trucks/trailers configured to issue filtered product, and defuel and filter product being returned to the cargo tank) shall meet the specifications outlined herein. The design and construction of new refuelers shall be such that the cargo tank meets DOT 406 specifications; however, cargo tanks that meet MC 306 specifications are acceptable. Refueler components shall be applied in accordance with the most current edition of NFPA 407, Standards for Aircraft Fuel Servicing. Should a conflict between specifications arise, the more stringent requirement shall apply. All components, except the PTO drive mechanism and the tractor to trailer electrical, air, and hydraulic lines, shall be contiguous to the cargo tank/frame (semi-trailers), or the entire prime mover/refueler shall be a cargo motor tank. A hydraulic cooling system, if installed, may be tractor or trailer mounted. Regardless of the refueler/truck configuration, all connections, i.e., recirculation, bottom loading, defuel stub, overfill protection devices, grounds, deadman controls, or otherwise shall be located on the left, the drivers side, of the vehicle.

This specification identifies the requirement for refuelers configured to defuel. How equipment is designated and used will be as mutually agreed upon by the Contractor and contracting activity.

C-3.2.2.1 Cargo Tank

All aviation refueling cargo tanks shall be constructed of aluminum or stainless steel. New tank construction shall conform to DOT 406 specifications as outlined in the CFR Title 49, Transportation; however, used cargo tanks that meet MC 306 specifications are acceptable. Unless specified otherwise herein, the provisions of 49 CFR 178 and the most current subpart applicable to specification DOT 406 and MC 306 apply. Furthermore, all referenced guidelines for the construction, use of materials, inspections, certifications, marking, and stamping of cargo tanks or components thereof, also apply. The cargo tank shall be one compartment with the appropriate baffles. Each baffle shall be open at the baffle/tank top to allow venting between all baffled areas at the 600 GPM fill rate. Openings at the baffle bottom/tank floor shall allow the flow of lading to the tank suction point at the 500 GPM issue rate. The entire tank shall drain completely to a low point. The tank shall be designed so that all portions are accessible for inspection, cleaning, and maintenance. Each cargo tank shall be marked with a specification and nameplate as outlined in 49 CFR 178. In addition, 49 CFR, Part 180, Subpart A, General, and Subpart E, Qualification and Maintenance of Cargo Tanks shall apply.

NOTE

MC 302, 303, or 305 specification tanks will not be considered under this contract.

C-3.2.2.1.1 Cargo Tank Capacity

Cargo tanks provided shall meet the capacities as outlined below plus the appropriate expansion space. Unless specified otherwise i.e., a designated defuel truck, all cargo tanks shall normally be filled to capacity. Loading on any axle or set of axles shall not exceed the manufacturer's gross vehicle working rate (GVWR)/limitations. Equipment required for use or travel off station shall be properly licensed or permitted and loaded to comply with all federal, state, and local highway/road use laws, regulations, and code.

EQUIPMENT	MINIMUM CAPACITY (Gallons)	MINIMUM NUMBER OF UNITS
Refueler/Defueler, JP-8	5000	2
Refueler/Defueler, JP-5 (1)	8000	7
Refueler/Defueler, JP-5	5000	1
Refueler/Defueler, 100/130LL	3000	1
Defueler	5000	1

(1) Three (3) of the 8,000 gallon JP5 refueler/defuelers shall be capable of pumping at a minimum rate of 500 GPM to a single aircraft using both hoses, a "Y" adaptor and a single point nozzles. Components shall be sized accordingly.

C-3.2.2.1.2 Sacrificial Devices

As outlined in 49 CFR 178-345-8 and 346-8, any piping that extends beyond the accident damage protection must be equipped with an emergency stop valve and a sacrificial device such as a shear section. Shear sections shall conform to the specifications of TTMA RP 86-98 as tested in accordance with the procedures set forth in TTMA 84-98.

C-3.2.2.2 Tank Venting

In addition to pressure and vacuum devices required under specification MC 306 and DOT 406, the cargo tank shall be equipped with a positive venting system rated at the 600 GPM bottom loading flow rate. The system shall open automatically when the unit is set for the movement of product into or out of the cargo tank.

C-3.2.2.3 Overfill Protection

Each cargo tank shall be equipped with an overfill protection device, system or equipment compatible with that installed on the petroleum system (fillstands) to be used. As applicable, the refueler connection/receptacle mating with the fillstand cable/connector shall be firmly mounted near the bottom-loading receptacle and may incorporate the anti-drive away feature required under Section C-3.2.2.5.1. The cable/connector receptacle shall be painted green for easy identification. Any wiring between the receptacle and the tank probe shall be encased as required by Section C-3.2.1.3. Any system installed/used shall be fully functional in the defuel mode. For probe type overfill protection systems, Scully, a minimum of three portable devices, fully compatible with the tank mounted system connection, shall be furnished by the Contractor to be used for short-term emergencies. If the contracted activity fillstand system is not equipped with an overfill protection device, system, or equipment, the Contractor shall provide fuel servicing trucks equipped with a overfill protection system that is integral to the cargo tank/refueler. That system shall stop the flow of product to the cargo tank completely at the designated full tank level.

Note

Overfill cables and connector systems shall be compatible with those existing Scully system installed at NAS Patuxent River.

C-3.2.2.4 Low Point Drain

The cargo tank shall be configured with an internal self-closing stop-valve at the lowest point(s) of the cargo tank to facilitate low point/complete draining of the tank. Alternatively, if the cargo tank discharge piping is the natural low point, a self-closing drain valve may be installed at the piping low point to facilitate low point/draining of the tank. Piping/tubing necessary to make the drain point readily accessible without having to crawling under any portion of the refueler shall be installed and terminate with an additional control valve. A cable/pull handle mechanism used to open the self-closing low point drain valve shall be installed and terminate at or near the low point drain and shall be clearly marked "LOW POINT DRAIN."

C-3.2.2.5 Piping

System piping shall be designed and installed to facilitate complete drainage of the cargo tank. Piping sections subjected to excessive movement during operation, shall be firmly mounted or braced, and fully protected by grommets where it passes through sheet metal, frames or bulkheads. The pump and bottom loading system piping shall be constructed of schedule 40 aluminum or schedule 5 stainless steel.

C-3.2.2.5.1 Bottom Loading

Cargo tanks shall be configured to bottom load at 600 GPM through an internal self-closing stop-valve. The bottom loading system shall include a manual shutoff valve, a standard D-1 nozzle receptacle, and dust cover. An anti-drive away device/system, one that will prevent the movement of the unit as long as a hose or nozzle is connected to the bottom loading system receptacle, shall be incorporated in the bottom loading system.

C-3.2.2.5.2 Recirculation

A product recirculation system shall be provided for all hoses. Product shall be drawn from the main tank valve/suction point, circulated throughout the entire fuel system and hose(s) and returned to the tank at a separate tank fitting remote to the suction point, see NAVAIR 00-80T-109, Figure 11.5. The bottom loading system may serve as the recirculation point if the product return point to the cargo tank is remote to the pump suction point.

C-3.2.2.6 Defueling

Each refueler shall be capable of defueling at 100 GPM at ground level. The defuel connection shall consist of a one and one-half inch (1½") quick disconnect adapter (male fitting) and dust cover, a control valve mounted at or near the defuel connection, and a line strainer. The strainer screen shall be readily removable for cleaning and inspection without interference with or removal of other components. Each refueler shall be configured so that all product defueled is filtered and passes through the relaxation chamber prior to returning to the cargo tank.

C-3.2.2.7 Pumping System

The pumping system shall consist of a pump, piping, connectors, valves, and other hardware identified herein. Pump bypass/controls shall provide for a low flow rate, 0 to 100 GPM via overwing nozzle, and high flow, zero to the specified flow rate (300 to 500 GPM) via the underwing (single point) nozzle. The pump system shall be adjustable so that fuel pressure measured at the underwing nozzle does not exceed 50 PSI at the specified flow rate during aircraft refueling. All controls, valve(s) and hose connection(s) shall be accessible/operable from ground level. All metals downstream of, and including the filter/separator, that are exposed to the fuel, shall be non-ferric or stainless steel material. Internally coated components are not acceptable.

C-3.2.2.7.1 Control

A calibrated pump pressure gauge, the differential gauges noted in Section C-3.2.2.8.1, an engine tachometer, and an adjustable throttle control that can be locked in position shall be centrally mounted outside the truck cab so they can be read/operated from the operator position. The pressure gauge and tachometer shall be marked to indicate maximum servicing/operating ranges.

C-3.2.2.7.2 Performance

Unless otherwise stated, refuelers shall be capable of dispensing product at 0 to 100 GPM through a 1½ inch by 60 foot hose and a 1½ inch overwing servicing nozzle or zero to 300 GPM through a 2 inch by 60 foot servicing hose, dry breakaway coupler, 55 PSI hose end regulator, and an underwing (single point) servicing nozzle. Refuelers designated to pump 500 GPM shall be capable of dispensing 0 to 500 GPM via two 2" inch by 75 foot hose, a dry breakaway, "Y" adaptor, 55 PSI hose end regulator, and an underwing (single point) servicing nozzle. Pumping systems, thus configured shall be capable of sustained flow at the rates noted until the cargo tank is empty.

C-3.2.2.8 Filter Separator

A three stage filter/separator configured with coalescer elements, separator elements, and fuel monitor elements equivalent to that covered under MIL-M-81380, MIL-F-8901, and MIL-F-53028 or meeting American Petroleum Institute (API) Publication 1581, Group II, Class C standards (stamped in accordance with American Society of Mechanical Engineers (ASME) code and marking requirements) shall be installed on each refueler. The non-ferric or stainless steel filter/separator shall be rated at the pumping rate specified and configured with the appropriate air eliminator, pressure (thermal) relief system, a water slug control valve and test mechanism, a manual sump drain, differential pressure gauges, and a sample connection. The air eliminator and pressure relief valve shall be vented to the main tank via a common line and one-way check valve to prevent back flow to the filter vessel. The water slug control valve and sump float assembly shall stop/start the flow of product when the water within the filter/separator sump reaches a predetermined level. The control valve used in conjunction with the float assembly shall include provisions that will permit manual testing of the water slug control system. The filter/separator sump drain shall be equipped with a spring-loaded ball type drain valve that is normally in the closed position.

C-3.2.2.8.1 Differential Pressure

Three quality pressure differential gauges graduated in one (1) PSI increments shall be installed so that pressure losses across the filter elements, the monitors, and the entire filter/monitor system can be recorded separately. Each gauge shall be set, calibrated, or adjusted to read at least zero under normal pumping conditions when new filter/monitor elements are installed. The gauge(s) shall be mounted and labeled so as to be readily identifiable and easily monitored by the refueler operator.

C-3.2.2.9 Relaxation Chamber

Each refueler dispensing jet fuel shall be configured with a relaxation chamber, a baffled metal tank within the piping system downstream of the filter/monitor and sized to the rated pumping capacity of the refueler. The chamber shall retain fuel within the chamber/tank for 30 seconds after its passage through the filter/monitor system and assure the complete turnover of product. A low point drain valve, accessible to the unit operator without crawling under any part of the truck/trailer, and an air elimination valve/line that vents to the main tank via a one-way check valve shall be installed. The chamber shall be designed, constructed, tested, marked, and stamped in accordance with the American Society of Mechanical Engineers (ASME) code, ASME Boiler and Pressure Vessel Code, Section VIII, Division 1.

C-3.2.2.10 Meter

Refuelers shall be equipped with positive displacement meters. Meters shall have an accuracy of that stated in the National Institute of Standards and Technology (NIST) Handbook 44. Meters shall be capable of being adjusted while under pressure without leakage or loss of product. Adjustment sensitivity shall be sufficiently fine to permit calibration changes in conformance to the accuracy requirements set forth above. The Contractor shall calibrate or have calibrated by a certified agent each meter semi-annually, after maintenance/servicing, when suspected of being out of tolerance, or when the meter has been damaged. Wire/lead seals shall be affixed to and secure all calibration adjustment devices. The Contractor shall mark each meter to indicate the date of calibration, and shall establish a system of records to validate calibration date markings.

C-3.2.2.11 Emergency Dry Breakaway Coupler(s)

An emergency dry breakaway coupler (a piping to hose coupler that will break dry and allow the servicing unit unencumbered egress) should be installed on each underwing fuel servicing hose. It should be installed at the point where the hose attaches to refueling piping or hose reel.

C-3.2.2.12 Hoses

All fuel servicing hoses shall be American Petroleum Institute (API) 1529, Grade 2, Type C hoses marked accordingly. Unless otherwise specified, refuelers shall be configured with two hoses, a one and one-half inch by fifty-foot (1½" X 50') overwing hose and a two-inch by sixty-foot (2" X 60') underwing hose. However, the three (3) JP5 refuelers designated to pump 500 GPM shall be configured with hoses of two inch by seventy-five feet (2”x 75’) in length. Hoses shall be free of internal/external electrical bond wires. One and one-half inch (1.5") hose, that generally used as a defuel hose, shall be of the hard helix or non-collapsible type. Where two hose assemblies are attached to a common outlet or source of product, each shall be controlled by a separate control valve. Filter and relaxation chamber vent hoses or tubing shall be compatible with the product being handled.

C-3.2.2.13 Hose Storage

Hose storage in the form of troughs, platforms, or hose reels shall be provided for all hoses. Hoses shall not be hung from the tank or frame. The hose storage arrangement shall be such that no sharp bends or kinks occur while hoses are stored and shall remain stowed when the vehicle is traveling over rough roads.

C-3.2.2.14 Hose-End Pressure Regulator

Refuelers shall be configured with a 55-PSI (maximum) hose-end pressure regulator attached to or as an integrated part of each underwing nozzle installed.

C-3.2.2.15 Nozzle(s)

Aircraft fuel servicing nozzles shall conform to the specifications listed herein. Depending on the type aircraft requiring service, two types of nozzles, the underwing or D-1 single point nozzle, the overwing or gravity nozzle, shall be required or used. Unless stated otherwise, refuelers shall be configured with an underwing and overwing type nozzle.

C-3.2.2.15.1 Underwing Nozzle

Nozzle, Pressure Fuel Servicing, Locking, Type D-1, the underwing or single point nozzles, as specified by the most current edition of Military Specification MIL-N-5877 and produced by companies listed in Quality Products List, QPL-5877-XX are approved for use under this contract. Each nozzle shall be connected to the issue hose by a dry break quick disconnect coupler, and shall be equipped with a screen of 100 mesh or finer which is readily accessible without the use of tools. Each nozzle shall have a dust cover that shall be in place when fuel is not being delivered.

C-3.2.2.15.2 Overwing Nozzle

An over-wing nozzle of the non-automated type commonly used to dispense aviation fuel to aircraft shall be provided. Each nozzle shall be attached to the issue hose by a dry break, quick disconnect coupler to provide for quick nozzle change and recirculation of product within the hose as outlined in Section C-3.2.2.5.2. The nozzle shall be equipped with a 100 mesh or finer screen installed in the non-flexible nozzle tube/spout. Attachments shall include a dust cap that is held in place by wire and spring system, and a permanently attached flexible bonding wire with a ground clip conforming to MIL-C-83413/7B attached near the end, and terminating with a ground plug conforming to MIL-C-83413/4

C-3.2.2.16 Swivels and Hose Couplings

All swivels and couplings used within the fuel system shall be the greaseless type; however, a light, hand application of grease, non-soluble in petroleum, to bearing races and bearing surfaces, is acceptable. Old, once lubricated swivels on which the lubrication channel has been plugged, shall not be used. Except as specifically noted herein, i.e., the defuel stub which shall be a quick disconnect adapter, hose couplings/connections shall be of the permanent, threaded type.

C-3.2.2.17 Deadman Controls

Refuelers shall be equipped with a hand held deadman control with sufficient connecting hose/cable installed in such a manner that it can be stored on a reel or removed and stowed when not in use. The deadman control shall be located/mounted at the unit control panel. In the under-wing (single point) mode, release of the deadman control handle shall completely stop the flow of fuel within a 5 percent overshoot range (in time or gallons) of the rated capacity of the refueler, i.e., 300 GPM is equal to 15 gallons or 3 seconds. Tying down or otherwise securing or bypassing the deadman control will not be tolerated. Persons doing so will result in immediate dismissal.

C-3.2.2.18 Static Bonding Cables

A static bonding cable shall be installed on a spring rewind reel with cable guide. The overall length of the static bonding cable shall be 75 feet, or the length of the longest hose being used, whichever is greater. The cable shall be of stranded steel (galvanized or stainless) wire rope 3/32-inch in diameter coated to 3/32-inch diameter with a petroleum-resistant plastic containing light sensitive dye. The cable shall terminate with a plug, MIL-C-83413/4, and a heavy duty clip, MIL-C-83413/7B.

C-3.2.2.19 Electrical Wiring and Lights

See Section C-3.2.1.3.

C-3.2.2.20 Fire Extinguishers

Each refueler shall be equipped with at least two fire extinguishers, one on the left (drivers) side readily accessible to the operator at the refueler control panel, the other on the right rear of the unit. Each extinguisher shall have an ANSI rating of not less than 20-B. Halogen extinguishers shall not be used.

C-3.2.2.21 Fenders and Mudguards

Fenders/ mudguards shall be installed over the wheels of the trailer to fully protect the cargo tank, hoses and other equipment. Nonfunctional skirting and flashing are prohibited.

C-3.2.2.22 Tires

See Section C-3.2.1.6

C-3.2.2.23 Painting and Marking

See Section C-3.2.1.8 and the following sub-paragraphs regarding the painting and markings of trailers/cargo tanks.

C-3.2.2.23.1 Alignment of Stencils

Reflective stencils as outlined in NAVFAC P-300, shall be applied and positioned in the precise manner. Cargo tank side stencils shall be proportionally placed along the horizontal centerline of the cargo tank beginning 12 inches from the front most bulkhead/tank weld and ending 12 inches from the rear most bulkhead/tank weld. Two line stencils, i.e., NO SMOKING over WITHIN 100 FEET, shall be centered vertically on the horizontal tank centerline. Rear tank stencils shall be centered on the vertical tank centerline. Stencils shall read left to right, top to bottom.

C-3.2.2.23.2 DOT Placards

DOT placards shall be placed on each side of the tank centered one inch below the FLAMMABLE stencil, and on the right quarter of the rear bumper. A placard holder or a rigid plate shall be used for the bumper mounted placard.

C-3.2.3 Ground Fuel Trucks

The Contractor shall provide ground fuel delivery trucks (single or multiple compartment tank trucks capable of issuing and defueling ground fuels). Design and construction of new ground fuel trucks shall be such that the cargo tank meets DOT 406 specifications; however, cargo tanks that meet MC 306 specifications are acceptable. Components shall be applied in accordance with NFPA 385, Standard for Tank Vehicles for Flammable and Combustible Liquids, specifications. Should a conflict between specifications arise, the more stringent requirement shall apply.

C-3.2.3.1 Prime Mover (Truck Chassis)

Except as modified below, Section C-3.2.1 and sub-sections thereto apply.

C-3.2.3.1.1 Tires

Standard commercial tires may be mounted on ground fuel trucks.

C-3.2.3.1.2 Painting and Marking

See Section C-3.2.1.8 and the sub-sections thereto.

C-3.2.3.2 Tank and Components

Ground fuel truck tanks can be of steel construction

C-3.2.3.2.1 Cargo Tank(s)

See Section C-3.2.2.1 and sub-sections thereto. Baffle openings (top vent/bottom flow) may be sized to 100 GPM. A dual product cargo tank having a **minimum capacity of 1,000 (MUP) and 1,000 gallons (JP5)** plus the appropriate expansion space, and two single product tank trucks having a **minimum capacity of 3,000 (FS2) shall be furnished**. See NFPA 385-90 regarding dual product tank separation. Unless specified otherwise, all cargo tanks shall normally be filled to capacity.

EQUIPMENT(1)	MINIMUM CAPACITY (Gallons)	MINIMUM NUMBER OF UNITS
Ground Fuel Truck, MUP/JP5	1000/1000	1
Ground Fuel Truck, FS-2 (Heating Oil)	3000	2

(1) Ground fuel trucks shall be licensed in the State of Maryland for off station, over the road use.

C-3.2.3.2.2 Tank Venting

See Section C-3.2.2.2; however, venting capacity may be reduced to the equivalent of 100 GPM.

C-3.2.3.2.3 Overfill Protection

See Section C-3.2.2.3.

C-3.2.3.2.4 Low Point Drain(s)

See Section C-3.2.2.4.

C-3.2.3.2.5 Piping

See Section C-3.2.2.5. For ground fuel trucks, system piping may be configured so that product is drawn from (issue) and returned to (fill or defuel) a common point, i.e., the same tank sump valve.

C-3.2.3.2.6 Bottom Loading Connection(s)

Ground fuel delivery trucks shall be equipped/configured for bottom loading at a minimum of 100 GPM. Otherwise, see Section C-3.2.2.5.1.

NOTE

***NFPA 385-90, Section 6-2.12* and all reference to "top-loading" of ground fuel trucks shall be disregarded. Only bottom loading of fuel trucks is authorized.**

C-3.2.3.2.7 Defueling

Ground fuel delivery trucks shall be capable of defueling the product(s) dispensed at a minimum of 25 GPM. Product shall re-enter the tank via the piping system, not the tank top manhole. The defuel connection shall be a one and one-half inch (1 1/2") quick disconnect adapter and dust cover and a control valve mounted at or near the defuel connection for jet fuel or a dry disconnect adapter assemblies as noted in Section C-3.2.3.2.6 for diesel fuel and gasoline. A line strainer, the screen of which shall be readily removable for cleaning and inspection without interference with or removal of other components, shall be mounted at the control valve/dry disconnect adapter.

C-3.2.3.2.8 Pumping System(s)

The pumping system shall consist of a pump, piping, connectors, valves, and other hardware identified herein. Pump bypass/controls shall provide a flow rate, 0 to 25 GPM via an non-automatic overwing or service station type nozzle. All controls, valve(s) and hose connection(s) shall be accessible/operable from ground level.

C-3.2.3.3.2.8.1 Control

A pump pressure gauge and an adjustable locking throttle control shall be centrally mounted outside the truck cab so they can be read/operated from the outside operator position. The pressure gauge shall be marked to indicate maximum servicing/operating ranges.

C-3.2.3.3.2.8.2 Performance

Unless otherwise stated, ground fuel trucks shall be capable of dispensing product at 0 to 25 GPM through a one hundred twenty five foot (125') hose and overwing or service station type nozzle. Pumping systems, thus configured shall be capable of sustained flow at the rates noted until the cargo tank is empty.

C-3.2.3.3.2.9 Meter(s)

See Section C-3.2.2.10; however, non-compensated, positive displacement meter(s) with gallon and one-tenth gallon registers shall be installed for each product dispensed.

C-3.2.3.3.2.10 Hose(s)

One hundred twenty five foot (125') commercial fuel hoses sized to and compatible with the specific grades of fuel to be handled shall be provided.

C-3.2.3.3.2.11 Hose Storage

See Section C-3.2.2.13.

C-3.2.3.3.2.12 Nozzle(s)

Commercial overwing or service station type fuel nozzle sized to and compatible with the specific fuel to be dispensed shall be provided.

C-3.2.3.3.2.13 Swivels and Hose Couplings

See Section C-3.2.2.16.

C-3.2.3.3.2.14 Electrical Wiring and Lights

See Section C-3.2.1.3.

C-3.2.3.3.2.15 Fire Extinguishers

See Section C-3.2.2.20.

C-3.2.3.3.2.16 Fenders and Mudguards

See Section C-3.2.2.21.

C-3.2.3.3.2.17 Painting and Marking

See Section C-3.2.2.23 and sub-sections thereto; however, smaller stencils, 4 inch on 6 inch versus 6 inch on 8 inch stencils, may be used to mark smaller ground fuel trucks.

C-3.2.4 Used Oil (Fuel) Truck(s)

Contractor provided used oil (fuel) truck(s) (fuel servicing trucks configured to defuel/take on used oil products generally not returnable to stock) shall meet the following specifications.

C-3.2.4.1 Prime Mover (Truck Chassis)

Except as modified below, Section C-3.2.1 and sub-sections thereto apply.

C-3.2.4.1.1 Tires.

Standard commercial tires may be mounted on used oil trucks.

C-3.2.4.1.2 Painting and Marking

See Section C-3.2.1.8 and the sub-sections thereto.

C-3.2.4.2 Tank and Components

Used oil truck tanks can be of steel construction

C-3.2.4.2.1 Cargo Tank(s)

See Section C-3.2.2.1 and sub-sections thereto. Baffle openings (top vent/bottom flow) may be sized to 100 GPM. The cargo tank provided shall be a dual product tank and pumping systems having a **minimum capacity of 2,000 gallons** (1000 Hydrocarbon Oils/1000 Synthetic Oils) plus the appropriate expansion space.

EQUIPMENT (1)	MINIMUM CAPACITY (Gallons)	MINIMUM NUMBER OF UNITS
Waste Oil Truck (2)	2000	1

(1) Waste oil trucks shall be licensed in the State of Maryland for off station, over the road use.

(2) The waste oil truck shall be capable of defueling (developing a minimum of a 15-foot suction lift) and pumping a variety of fluids with a viscosity ranging from 8 to 300 SSU, i.e., water, hydraulic fluids, aviation fuels, solvents, distillates, and residual oils.

C-3.2.4.2.2 Tank Venting

See Section C-3.2.2.2; however, venting capacity may be reduced to the equivalent of 100 GPM.

C-3.2.4.2.3 Overfill Protection

A tank overfill device as described in Section C-3.2.2.3 shall be installed and operable in the defuel mode.

C-3.2.4.2.4 Low Point Drain

See Section C-3.2.2.4.

C-3.2.4.2.5 Piping

See Section C-3.2.2.5.

C-3.2.4.2.6 Defueling

Used oil (fuel) trucks shall be capable of defueling products at a minimum of 25 GPM. Product shall re-enter the tank via the piping system, not the tank top manhole. The defuel connection shall be a one and one-half inch (1½") quick disconnect

type adapter (male fitting) and dust cap, and a control valve mounted at or near the defuel connection. A line strainer, the screen readily removable for cleaning and inspection without interference with or removal of other components, shall be mounted between the control valve and the quick disconnect adapter.

C-3.2.4.2.7 Pumping System

The pumping system shall consist of a pump, piping, connectors, valves, and other hardware identified herein capable of defueling from aircraft, drums, and tanks up to 20 feet below grade at a rate of 25 GPM minimum. Control valve(s) and hose connection(s) shall be accessible/operable from ground level. Each used oil (fuel) truck shall be capable of pumping the entire content of the cargo tank to a used oil tank (fuel)/container via a hose and underwing nozzle assembly.

C-3.2.4.2.7.1 Control

A calibrated pump pressure gauge, pump suction (vacuum) gauge, tachometer, and throttle controls shall be mounted so they can be read/operated from the operator position. The pressure and vacuum gauge face shall be marked in red to indicate maximum operating ranges.

C-3.2.4.2.7.2 Performance

Each used oil (fuel) truck set in the defuel mode, with the engine operating within the manufacturer's recommended RPM range, and connected to a source of fuel, shall be capable of the defuel rate noted above.

C-3.2.4.2.8 Meter

See Section C-3.2.2.10; however, the meter may be a standard non-compensating device.

C-3.2.4.2.9 Hose(s)

Defuel hose(s) shall be non-collapsible one and one-half inch (1½") hose(s) configured to the source most likely to be defueled of used oil (fuel). A hose fitted with an underwing nozzle or soft (cut end) hoses may be required.

C-3.2.4.2.10 Hose Storage

See Section C-3.2.2.13.

C-3.2.4.2.11 Nozzles

See Section C-3.2.2.15. An underwing (single point) nozzle less the hose end regulator shall be installed or available for defueling aircraft of used oil (fuel).

C-3.2.4.2.12 Swivels and Hose Couplings

See Section C-3.2.2.16.

C-3.2.4.2.13 Static Bonding Cable

See Section C-3.2.2.18; however, dual grounds applicable to "hot refueling" do not apply.

C-3.2.4.2.14 Electrical Wiring and Lights

See Section C-3.2.1.3.

C-3.2.4.2.15 Fire Extinguishers

See Section C-3.2.2.20.

C-3.2.4.2.16 Fenders and Mudguards

See Section C-3.2.2.21.

C-3.2.4.2.17 Painting and Marking

See Section C-3.2.2.23 and sub-sections thereto; however, smaller stencils, 4 inch on 6 inch versus 6 inch on 8 inch stencils, may be used to mark smaller used oil trucks.

C-3.2.5 Utility Vehicles

Two (2) each utility vehicle(s), pickups, as may be used by Contractor management, maintenance, or other personnel within the Contractor organization shall be provided. The pickups/vans provided shall be new at the start of the contract. Utility vehicles shall be painted and marked in accordance with Section C-3.2.1.8 and Section C-3.2.1.8.2 and shall reflective of the pride and professionalism of the Contractor.

C-3.3 Records, Inspections and Disposition of Property

The Contractor shall maintain records, submit to inspections, and dispose of property as follows:

C-3.3.1 Records

The Contractor shall maintain history files and maintenance records on all fuel servicing equipment provided. Such files shall contain a complete description, i.e., make, model, manufacture, serial number, of the truck, tractor, cargo tank and equipment provided, a copy of cargo tank certifications and applicable inspection documents that may be required by federal, state, and local vehicle code, and a complete maintenance history relevant to the Contractor's possession of the vehicle/equipment in question. All such records shall be available to the Government for the duration of the contract.

C-3.3.2 Inspections

As outlined in Section E, Clause E29, four (4) work days prior to the contract start date or a date mutually agreed upon by all parties, the Contractor shall have all equipment, supplies and goods specified herein available on-site for inspection by the Government. The expense of making such property available for inspection shall be borne by the Contractor. A vehicle identification worksheet furnished by NAVPETOFF shall be completed for each vehicle provided. Copies of the worksheets shall be provided to the contracting activity and the post-award inspection team leader on the first day of the equipment inspection.

An incumbent shall be capable of emptying, gas freeing and disassembling selected equipment/components on request.

First time Contractors shall have all fuel delivery vehicles gas freed for inspection and shall be capable of disassembling such equipment, or components thereof, on request.

Property deemed unacceptable by the Government shall be repaired, modified as required to meet specifications, or replaced at the Contractor's expense prior to commencement of the contract or on a date mutually agreed to and documented by the COR, NAVPETOFF and DESC within the post award inspection report. Failure by the Contractor to make remedy by the established dates shall result in a formal cure notice. Failure to meet dates established by the cure notice shall constitute grounds for termination/default.

C-3.3.3 Disposition of Property

Contractor furnished property identified herein shall be used solely in the performance of the work defined in Section C-2.0. Vehicles and property removed prior to the completion of the contract, removed because it is not capable of performing its designated function, or becomes of safety/fire hazards, shall be removed and replaced at the Contractor's expense. In any case, the lack of serviceable vehicles shall not excuse the Contractor from performing the tasks defined in Section C-2.0. The Contractor shall not store equipment in excess of the contract requirements on Government property. On termination of

the contract, all equipment shall be removed from Government property within 30 days. Thereafter, the Contractor shall be charged the prevailing commercial storage rate for each piece of equipment kept on Government property.

C-3.4 Other Equipment and Supplies

The following classes of supplies, materials, and services shall also be provided by the Contractor:

Radios: The Contractor shall provide dual channel (Fuel Dispatch Center/Control Tower), fixed radios in all trucks and also held radios, in sufficient numbers to control all mobile fuel servicing equipment, direct refueling system crews, and utility vehicles used by management and maintenance personnel. A base station, antenna, and other equipment required to establish and maintain communication shall also be provided. As applicable, the Contractor shall secure a Fuel Dispatch frequency and gain access to the tower frequency prior to the contract start date.

Telephone Services: The Contractor shall provide all commercial telephone services (voice, facsimile, or data,) and equipment required and necessary to conduct company business. See Appendix B regarding Government-furnished telephones services. The Contractor shall also provide two (2) telephone answering machine's at the dispatch desk/center.

First-Aid Supplies and Equipment: The Contractor shall provide a two-person first aid kit for each manned work center, i.e., refueling, storage, direct fuel servicing, etc.

Administrative Supplies and Equipment: Except for Government furnished forms, the Contractor shall provide all administrative supplies and equipment necessary and required to undertake the administrative and records keeping functions relevant to the contract. The Contractor shall not use Government office equipment, i.e., computers and copy machines, not specifically provided for under the terms of the contract.

Janitorial and Housekeeping, Supplies, Equipment, and Services: The Contractor shall provide all janitorial and housekeeping equipment and supplies, to include restroom supplies, necessary and required to maintain the cleanliness of building and facilities used and occupied by contract personnel. Janitorial services may be sub-contracted.

Tools: The Contractor shall provide all hand/power tools, test/measurement/calibration devices, and powered/non-powered equipment required and necessary to inspect, test, calibrate, maintain, and repair Contractor furnished vehicles and components thereof. Tools needed to maintain Government facilities and equipment to the extent required herein shall also be provided.

Spares, Contractor Furnished Equipment: The Contractor shall provide all spares, replacement parts, and components required and necessary to maintain and repair Contractor furnished vehicles and equipment.

Spares, Government Furnished Equipment: The Contractor shall provide easily/readily replaceable spares, replacement parts, and components such as issue hoses, quick disconnect and dry break couplers, nozzles, strainers, filter and monitor elements, small miscellaneous valves, and other small commonly used parts.

Consumables, Maintenance: The Contractor shall provide all consumable materials such as lubricants, greases, and oils, solvents, sealants and sealant tape, primer, paints, and brushes, small bulk packaged nuts, bolts and screws, and other items commonly used to clean, coat, preserve, mark, seal, and lubricate equipment and components.

C-3.5 Uniforms

All contract personnel, including site managers, shall wear a distinctive company uniform in performance of their duties. Pursuant to US Department of Labor wage determinations, the Contractor shall provide seasonal uniforms consisting of a shirt and pants or coveralls, a matching seasonal jacket/coat, and a matching baseball type cap (not to be worn on the flightline). Except for distinctive management dress shirts, all contract personnel shall be provided and wear the same type, style, and design of uniform. All shirts, coveralls, jackets, coats, and caps shall be emblazoned with a readily identifiable company name or logo. Laundry services or compensation for such services shall also be provided. Uniforms shall be of a

material compatible with fuel and cryogenics handling operations. Static producing synthetic materials such as nylon, polyester, dacron, rayon and banlon, or blends thereof, and silks, shall not be provided or worn as a uniform.

The Contractor shall provide all personnel safety equipment including safety shoes, safety glasses, sound suppression devices, and gloves. If applicable, other identifiable special safety equipment for specific operation, i.e., cranial protection, fire retardant overalls, and test equipment for the monitoring of oxygen deficient or explosive atmospheres in confined spaces shall also be provided.

C-4.0 LOGISTICS SUPPORT, COST REIMBURSABLE

C-4.1 General

The Contractor shall provide all supplies, materials, equipment, and emergency services not specified elsewhere within this contract or as directed by the COR. However; the Government reserves the right to accomplish any and all maintenance beyond preventive and operator maintenance using government assets, labor, or other contracts. Furthermore, the Government reserves the right to purchase any supplies, materials, and equipment described herein when the Contracting Officer determines it is in the best interest of the Government.

Reimbursement under Section C-4.2, Equipment, Supplies, and Services, Requiring a Task Order, shall be for the prime Contractor's allowable, allocable, and reasonable direct cost of any subcontracts for furnishing such equipment, supplies, and services as specified.

Reimbursement under Section C-4.3, Augmentation, shall be for allowable, allocable, and reasonable directed labor costs plus fringe benefits and payroll taxes of the prime Contractor's regular employees. Allowable, allocable, and reasonable cost will be reimbursed pursuant to applicable FAR clauses.

The Contractor shall not be reimbursed under either section for the cost of labor associated with the use of its employees during normal work hours in the performance of any task listed herein. Nor will the Contractor be reimbursed for equipment costs using Government or Contractor-furnished equipment in the performance of any task listed herein.

The Contractor shall ensure that the costs for preventive and operator maintenance are included in the appropriate CLIN on a firm-fixed price basis. The Contractor shall ensure that any associated indirect/overhead cost, if any, related to the performance of tasks under Sections C-4.2 and C-4.3 (except as otherwise specified hereinafter) are also included in the appropriate CLIN on a firm fixed price basis. Those associated costs shall include, but may not necessarily be limited to, the costs of office supplies, salary for a purchasing agent considered necessary by the Contractor, and other indirect/overhead costs considered a part of operating the fuel system. Therefore, any reference to reimbursement for indirect/overhead costs is not applicable to the reimbursement of costs of the prime Contractor under this contract. In addition, Sections C-4.2 and 4.3 shall be non-fee bearing. Therefore, references to reimbursement for fixed fee are not applicable to the reimbursement of costs of the prime Contractor under this contract. The Contractor shall provide the following:

C-4.2 Equipment, Supplies, and Services Requiring a Task Order

C-4.2.1 Contractor Purchasing System

The Contractor shall establish and maintain a purchasing system acceptable to the Government. The Contractor shall comply with the following minimum requirements:

The Contractor shall prepare a Standard Operating Procedure (SOP) regarding the Contractor's purchasing policies and procedures. The SOP should include, but will not necessarily limited to, policies and procedures on emergency purchases, subcontracts, termination of contracts, source selections, contract administration, and the maintenance of purchasing records and files. The Contractor shall submit a draft of the SOP to the DESC Contracting Officer, DESC-FPB, to arrive no later than 45 days prior to the contract start date. On review and acceptance, a copy shall be provided to the COR. Thereafter, the Contractor shall adhere to established procedures for the duration of the contract.

The Contractor shall purchase materials and services only from those companies qualified and normally engage in the type of repairs required or those that provide or manufacture the materials needed. Except for procurements of $2,500 or less, a minimum of three quotes (verbal or written) shall be obtained. The award shall be to the lowest, responsible, responsive bidder. Regardless of dollar value or urgency, the Contractor shall withhold award until it has determined that the price is fair and reasonable. Documentation regarding this determination shall be included in the task order file.

The Contractor shall procure materials and services at the most advantageous prices with due regard for prompt delivery, credits, and other benefits. The Contractor shall take all actions necessary to obtain applicable tax exemptions, reductions, and refunds. Reimbursement shall be for net cost after taking discounts, rebates, allowances, credits, tax exemptions, reductions and refunds and other benefits, any or all of which shall be fully documented.

C-4.2.2 Maintenance and Repair by Task Order

The Contractor may be directed by the COR to provide or may report to the Government the need for maintenance and repair services beyond the scope of preventive and operator maintenance outlined herein. On notification of a requirement to perform a specific maintenance task or reporting such a requirement to the Government and being directed to perform, the Contractor shall:

Provide a complete written description of the deficiency or the nature of the wear, breakage, or damage to the system needing repairs. This document should include a description of the system requiring maintenance or repairs, the specific components needing repair, replacement, or adjustment, and a preliminary list of parts and materials required.

Determine whether the work will be accomplished in house (by the Contractor) or be subcontracted.

If the work is to be accomplished in house, provide a complete list of parts, components, materials, and equipment not provided under the contract, the source of supply, and an itemized cost breakdown to include labor, if applicable or allowed. Also establish a performance period or get well date.

If to be accomplished by subcontract, provide the cost estimates as outline in Section C-4.2.1 above. As with an in house estimate, all subcontractor estimates shall include a complete list of parts, components, materials, equipment, and labor, and an itemized cost breakdown thereof. Any subcontract should also establish the performance period or get well date.

The Government will determine the availability of and provide funding.

Given the approval to proceed, the Government will provide a written task order. The Contractor shall take no action to perform maintenance or repairs until such time a written task order has been provided by the COR.

C-4.3 Augmentation

Augmentation is defined as compensation for specified work outside the scope of the contract for which drivers and system operators are retained beyond normal duty hours or called to duty to supplement the normal workforce.

NAS Patuxent River instructions specify [indicates an instruction has or will be written] the person(s), position, or office authorized to approve augmentation and the means by which the approval will be documented. Except as provided herein, all augmentation shall be approved prior to retaining employees or calling additional personnel to work. All invoices for augmentation shall be supported by copies of the augmentation approval form/log, the dispatch log validating the circumstances for augmentation, and the individual(s) time card that shows the hours worked. Extended hours for personnel such as mechanics, accountants, and administrative personnel do not qualify as augmentation. Failure to relieve personnel at the end of a normal shift for which there are available oncoming personnel or because scheduled personnel fail to show shall not be considered augmentation time. In addition, the call to duty or retention of personnel so that specially licensed operators, i.e., a CDL holder, can undertake an infrequent but contracted function shall not constitute augmentation.

Augmentation will be granted under the following conditions. Each paragraph is coded (A) to indicate automatic approval within the parameters defined or (P) to indicated pre-approval is required.

No Oncoming Relief (A). For any aircraft fuel servicing operation in progress, e.g., nozzle connected and fuel flowing, at the end of normal operating hours for which there is no oncoming/relief shift. Subsequent servicing requests, any beyond that in progress, shall be approved as outlined in Section C-4.3 above.

Continuous Receipt (P). For continuous receipt operations that will extend beyond the operating hours defined in Figure 1.

Mutual Agreement (P). As mutually agreed to by the Contractor and the approving authority to provide services during unscheduled weekend operations such as make up flight schedules. The specific hours of planned augmentation and manning levels shall be documented as noted above.

Emergency (P). When authorized by the designated authority to handle emergency fuel servicing requirements, a downed aircraft recovery for instance. The circumstances shall be fully documented.

Time Worked. Unless local policy or union agreements dictate otherwise, compensation shall be paid for the actual hours worked plus reasonable travel time for individuals called to duty.

Appendix A: Government Furnished Facilities

GOVERNMENT FACILITIES: The following is a list of Government facilities and components thereof that will be provided at NAS Patuxent River. It is an approximate list of facilities to be validated as outline in Section C-2.16.

Facility	Item/Component Description (Item, manufacture, size, rating, and other descriptive information)[1]	Qty
TRL#5	Contractor Office and Driver Rest Area, 10' X 60'	600 SF
	Air Conditioners, Wall Mounted	2
	Charger, Scanner	4
	Scanner guns	16
	Cabinet, Filing, 4 Drawer	3
	Desk and Chair	2
	Desk Secretary	1
	Bookcase, Three Part	1
	Locker, Personal	2
	Desk, 30" X 60"	3
	Locker, 10 Section	1
117	Maintenance Building	2400 SF
	Maintenance Bay 40' X 60'	100 SF
	Head and Storage Area 10' X 10'	1
	Prover Tank, 600 Gallon	1
502	Cryogenics Facility, Two Story, 23' X 42'	966 SF
	LOX/LN2 Facility Furniture/Equipment	-
	Desk	3
	Chair	8
	Telephone	3
	Water cooler	1
	Book Case	1
	Air Conditioner	1
	Filing Cabinet	1
	Locker, Double Door	3
	Locker, Double Door, Small	1
	Self, Metal	1
	Work Bench, Metal	1
	Work Table	1
	Storage Cabinet, 20 Drawer	1
	First Floor Office, 10' X 12'	120 SF
	First Floor Converter/Cylinder Storage Area, 22' X 30'	660 SF
	First Floor Workroom, 11' X 11'	110 SF
	Lower Floor Converter/Cylinder Storage Area, 40' X 21'	840 SF
	Lower Floor Head, 5' 6" X 10'	56 SF
	Lower Floor Storage Room, 7' X 8'	56 SF
	Outside Covered Storage Area	? SF
	LOX Tank, 2000 Gallon Vertical	2
	LOX Tank, 1500 Gallon Vertical	1
	LOX Tank, 500 Gallon Horizontal	1
	LN2 Tank, 2000 Gallon Vertical	3
	LN2 Tank, 500 Gallon Horizontal	1
	Converter, LN2	1
	Pumps P-1600	4

Facility	Item/Component Description (Item, manufacture, size, rating, and other descriptive information)(1)	Qty
502	Cryogenics Facility, continued	-
	Service Hose, Steel, 10’	4
	Service Hose, Aluminum, 10’	1
	Service Hose, Steel, 15’	1
	Drip Pan, 4”	3
	Drip Pan, 10”	2
	Sampler, LOX	2
2199	Direct Refueling Facility	-
	Tank, 30,000 Gallon, Horizontal Cylindrical	1
	Valve, General Twin Seal, 8’	1
	Valve, General Twin Seal, 6’	2
	Valve, Thermal (Pressure) Relief	12
	Valve, Butterfly, 6’	15
	Gauge, Pressure,	11
	Strainer Assembly, In Line Duplex	1
	Meter, Temperature Compensated	2
	Valve, Butterfly, 4”	4
	Filter Separator, 600 GPM	4
	Gauge, Differential Pressure, Gammon	4
	Valve, Thermal (Pressure) Relief	4
	Fuel Monitor, 600 GPM	2
	Gauge, Differential Pressure, Gammon	2
	Valve, Thermal (Pressure) Relief	2
	Pump Motor, Siemens, 75 HP	2
	Pump, Union, 600 GPM	2
	Fuel Recovery Tank, 250 Gallon	1
	Show/Eyewash Assembly	1
	Drain, Low Point, 11/2’ Ball Valve/Coupler Assembly	2
	Valve, Ball, 8’	2
	Pantograph, 5 X 20’ Section	1
	Hose Assembly, 4” X 10’	1
	Nozzle, D-1	1
	Deadman Control	1
612	Service Station, 10’ X 15” (With Head) Cinderblock	150 SF
	Tank, 12,000 Gallon Horizontal Underground	1
	Tank, 15,000 Gallon Horizontal Underground	2
	Pump, Service Station, 6 GPM, Dual Hose	4

(1). Within the space allocated, provide the complete and accurate description of the item being identified.

Appendix B: Government Equipment, Supplies, and Services

GOVERNMENT EQUIPMENT, SUPPLIES, AND SERVICES: In addition to the facilities and components listed in Appendix A, the Government will provide the following equipment, supplies, and services.

Fire Suppression Equipment: Except for Contractor furnished extinguishers mounted on fuel servicing trucks, all fire suppression equipment, i.e., fire extinguishers or portable/installed fire suppression equipment, will be provided, repaired, overhauled, and as necessary, replaced by the Government. The quantity and type of fire suppression equipment on station within the Fuel Management facilities will be established by the Government.

Telephone Services: The Government will provide telephone services, i.e., DSN, and on-station emergency lines, Local Area Network (LAN) connections (if applicable), and equipment required and necessary to conduct Government business, i.e., FAS, DFAMS. See Section C-.3.4 regarding Contractor-furnished telephones services.

Utilities: Electricity, natural gas/propane, heating/power production fuels, water, and sewage as required for the health and welfare of contract personnel that occupy facilities will be provided by the Government.

Fuels Products: Limited to the products stocked and issued, the Government will furnish fuel for the operation of the Contractor's fuel servicing equipment, trucks/tractors identified as fuel servicing equipment and utility/administrative vehicles (pick ups and vans).

Materiel Safety Data Sheets (MSDS): The Government will provide the appropriate MSDS for those compounds furnished by the Government.

The following additional property will be provided by the Government. See Section C-2.16 regarding property accountability.

Facility	Item/Component Description (Item, manufacture, size, rating, and other descriptive information)(1)	Qty

See the notes that follow Appendix A. PM applicable only the items marked.

Appendix C: Abbreviations and Acronyms

Abbreviation & Acronyms			
API	American Petroleum Institute	QCP	Quality Control Plan
AQL	Acceptable Quality Level	SOP	Standard Operating Procedure
AST	Aboveground Storage Tank	SPCC	Spill Prevention Control and Countermeasure Plan
ASTM	American Society for Testing Materials	TTMA	Tank-Trailer Manufactures Association
ATG	Automated Tank Gauging	USCG	United States Coast Guard
BBL	Barrel	UST	Underground Storage Tank
CDR	Contract Discrepancy Report		
CFR	Code of Federal Regulations		
CLIN	Contract Line Item Number		
COR	Contracting Officer's Representative		
DESC	Defense Fuel Supply Center		
DFAMS	Defense Fuel Automated Management System		
DFR	Defense Fuel Region		
DFSP	Defense Fuel Support Point		
DIEGME	Diethylene Glycol Monomethyl Ether (a type of FSII)		
DLA	Defense Logistics Agency		
DOD	Department of Defense		
DODAAC	Department of Defense Activity Address Code		
DSN	Defense Switched Network		
EDP	Emergency Distribution Plan		
EPA	Environmental Protection Agency		
FAR	Federal Acquisition Regulation		
FAS	Fuels Automated System		
FRP	Facility Response Plan		
FSC	Facility Spill Coordinator		
FSII	Fuel System Icing Inhibitor		
GFE	Government-Furnished Equipment		
ISSA	Inter-Service Support Agreement		
JPO	Joint Petroleum Office		
MIL-PRF	Military Performance Standard		
MILCON	Military Construction		
MPMS	Manual of Petroleum Measurement Standards		
MRP	Maintenance & Repair Project		
MSDS	Material Safety Data Sheet		
NFPA	National Fire Protection Association		
NPDES	National Pollution Discharge Elimination System		
NSN	National Stock Number		
OPA	Oil Pollution Act		
OSC	On-Scene Coordinator		
OSHA	Occupational Safety and Health Administration		
PM	Preventive Maintenance		
PMI	Preventive Maintenance Inspection		
POS	Peacetime Operating Stock		
PQA	Petroleum Quality Assurance		
PWC/D	Public Work Center/Department		
PWS	Performance Work Statement		
QASP	Quality Assurance Surveillance Plan		

Appendix D: Definitions

Barrel: A barrel is equal to 42 U.S. gallons.

Contract Date/Periods:

Contract Award Date: The date entered in block 20C, Date Signed, of the Standard Form 26, Award/Contract. This date may differ from the start/performance date.

Contract Start Date: The contract start date, performance date, or first day of the performance period is the first day of the period cited in block 15 (A through F) of the Standard Form 26, Award/Contract. The start date and performance period may be adjusted by amendment to provide the Contractor sufficient lead-time to ready equipment for the contract.

Contractor (The): The individual, group of persons, company, group of companies, or corporation specifically named and contracted by/with the Government to fulfill the terms of the specified contract document. The term "Contractor" as used herein refers to the company or corporation as a whole or any individual, attendant, technician, operator, driver, dispatcher, or laborer who may be acting on behalf of the Contractor.

Contracting Officer: Includes the Procurement Contracting Officer (PCO) and the Administrative Contracting Officer (ACO).

Contracting Officers Representative: The local Navy technical specialist, military or civilian, designated by the Contracting Officer to inspect and accept or reject the supplies and services furnished under a specified contract.

Maintenance: Unless specifically defined otherwise, the word or term "maintain or maintenance" shall mean preventive or operator maintenance as defined below.

Operator Maintenance: Operator maintenance is that work accomplished during routine inspections and during system use/operation. Operator maintenance may be, but is not necessarily limited to, work such as the replacement of ground wires, plugs, and clips, the replacement of O-rings and gaskets without tearing down the component, the tightening of nuts, bolts, and screws to prevent leakage, or corrosion control and spot painting. Operator maintenance is normally be limited to those actions taken by qualified system operators using common hand tools.

Preventive Maintenance: Preventive maintenance is a program of recurrent periodic or cyclic scheduled work designed to preserve and maintain equipment, apparatus, or facilities in such condition that they may be effectively used for their intended purpose.

Other Maintenance and Repair: Maintenance and repair beyond that defined as preventive is other maintenance and repair. This includes unplanned repair or replacement of material or components that show abnormal wear or fail. This maintenance will be approved by the COR and is reimbursable under Section C-4.1.

Appendix E: Regulations

The following is a list of the references directly/indirectly used in this, Section C, of the PWS. It is not an all-inclusive listing. It is incumbent upon the contractor to ensure full compliance with all Federal, State, USN, USMC, and local regulations. The contracting activity will provide a copy of applicable DOD, USN, USMC, and local regulation required under this contract. All other references shall be provided by the Contractor.

Regulation	Title
29 CFR	Labor
29 CFR Part 1910	Occupational Safety and Health Standards
40 CFR 112	Oil Pollution Prevention
49 CFR 171	Hazardous Materials Regulations; General information, regulations, and definitions
49 CFR 172	Hazardous materials table, special provisions, hazardous materials communications, emergency response information, and training requirements
49 CRF 173	Shippers--general requirements for shipments and packaging
49 CFR 178.345	General design and construction requirements applicable to Specification DOT 406…
49 CFR 178.346	Specification DOT 406; cargo tank motor vehicles
49 CFR 180	Continuing Qualification and Maintenance of Packaging
49 CFR 382	Controlled Substance and Alcohol Use and Testing
49 CFR 383	Commercial Driver's License Standards; Requirements/Penalties
49 DFR 387	Minimum Levels of Financial Responsibility for Motor Carriers
49 CFR 390	Federal Motor Carrier Safety Regulations; General
49 CFR 391	Qualification of Drivers
49 CFR 392	Driving of Commercial Motor Vehicles
49 CFR 393	Parts and Accessories Necessary for Safe Operation
49 CFR 395	Hours of Service for Drivers
49 CFR 396	Inspection, Repair and Maintenance
NFPA 385	Tanks Vehicles for Flammable and Combustible Liquids
NFPA 407	Aircraft Fuel Servicing
API Bulletin 1529	Aviation Fuel Hose
API Publications 1581	Specifications and Qualifications Procedures for Aviation Jet Fuel Filter Separators
DOD 4140.25-M	DOD Management of Bulk Petroleum Products, Natural Gas, and Coal
MIL-HDBK-200G	Quality Surveillance Handbook for Fuel, Lubricants and Related Products
NAVAIR 00-80T-109	Aircraft Refueling NATOPS Manual
NAVFAC P-300	Management of Transportation Equipment
ATA Catalog # L0040	Summary of Size and Weight Limits
OPNAVINST 4790.2*	The Navy Aviation Maintenance Program (NAMP)
OPNAVINST 5090.1*	Environmental and Natural Resources Program Manual

Appendix F: Maps

The NAS Patuxent River Fuel Division will provide the following maps during the contract pre bid on-site visit. The 8½ X 11 inch map or map set provided will become this appendix and a part of the contract.

1. A local area map, 25-mile radius, clearly showing major cities/towns, roads, the base, and auxiliary or outlying fields.

2. A station/local area map showing the route s to all auxiliary or outlying fields requiring aviation or ground fuel support.

3. A map of the flightline/aircraft parking areas, for the base and auxiliary or outlying fields showing parking ramps by type of aircraft, hot pit facilities, restricted areas, and other information as may be useful to the Contractor.

4. A map or map set clearly outlining ground product delivery points (by grade) and used oil collection and disposal points.

Appendix G: Quality Surveillance Plan

The primary purpose of the Quality Surveillance Plan (QSP) and this Performance Requirements Summary (PRS) is to identify those performance requirements considered most critical to acceptable contract performance and the corresponding standards of performance. The PRS also identifies the Acceptable Quality Level (AQL) for each required service. It specifies the lot size which will be used as the basis for payment calculation as well as for sampling purposes, and the quality assurance methods which the Government will use to evaluate the contractor's performance in meeting the contract requirements. Finally, the PRS shows the percentage of the contract price that each listed contract requirement represents.

Government Quality Assurance. At the end of each inspection period, the Government will compare contractor performance to the contract standards and AQL/Allowable Degree of Deviation (ADD) using the Quality Assurance Plans (QAPs). The Government will evaluate each required service based on one of the following inspection methods:

a. Random sampling using the concepts of ANCI/ASQC Z1.4-1993
b. One hundred percent inspection
c. Validated customer complaints

Criteria for Acceptable and Unacceptable Performances. The standards indicate the levels of performance deemed acceptable to the Government. Performance of a required service is considered satisfactory when the percentage of defective units (unsatisfactory outputs) found by the Government during contract surveillance does not exceed that allowed by the AQL. When the percentage of defective units discovered by the COTR exceeds that allowed by the AQL/ADD, the contractor's performance is considered unsatisfactory. When the performance is unsatisfactory, the contractor shall respond in writing to a Contract Discrepancy Report (CDR). The CDR will require the contractor to explain, in writing, why performance was unacceptable, how performance will be returned to satisfactory levels, and how recurrence of the problem will be prevented in the future. The COTR will evaluate the contractor's explanation and recommend to the Contracting Officer if full payment, partial payment, or the contract termination process is applicable. The contractor's payment for services rendered will be calculated as stated in paragraph 4.

Determination of the Number of Defective Units that Renders a Service Unsatisfactory. For services inspected by random sampling, the number is determined from the ANCI/ASQC Z1.4-1993 charts. For services inspected by other than random sampling, the reject (unacceptable) level equals the next whole number greater than the number of defectives allowed by AQL. (NOTE: If the AQL is expressed as a percentage, it must first be multiplied by the lot size to determine the number of defective units allowed by unsatisfactory performance.)

Re-performance of Unsatisfactory Work. At the Government's discretion, the contractor shall re-perform, without additional cost to the Government, all work found by the COTR to be unsatisfactorily performed. The Contracting Officer will determine the amount of time the contractor will be given to re-perform the work on a case-by-case basis. Re-performance will not improve the overall rating of the service in question.

For services sampled, the maximum contract payment per month is multiplied by the maximum payment percentage for the service to determine the maximum payment for acceptable service. This payment is multiplied by the percentage of the sample found acceptable to determine the percentage of the contract price that the contractor will be paid for the listed service. The total number of defectives found, not just those in excess of the reject level, are used to determine the percentage of the sample found unacceptable. The percentage of the sample found unacceptable subtracted from 100 percent determines the percentage of the lot found acceptable.

For services checked by One hundred percent inspection or validated customer complaint, the maximum payment percentage of the service in column 5 of the PRS is multiplied by the payment percentage of the lot found acceptable. The resulting percentage is the percentage of the monthly contract price that the contractor will be paid for the listed service. The total number of defectives found, not just the defectives in excess of the reject level, are used to determine the percentage of the lot found acceptable.

For those services that are performed less frequently than monthly, surveillance and computation of the contractor's payment will be made during or immediately following the month when that service is performed. The payment computation will be determined for the entire period since the last surveillance. Should computation of the contractor's payment result in an amount less than has already been paid for the preceding month(s) of the period since the last surveillance, the Government will deduct the overpayment from the current month's invoice.

Contractor Payment

Satisfactory Service. For satisfactory performance of a service, the Government will pay the contractor the percentage of the monthly contract price indicated for that service.

Unsatisfactory Service. For unsatisfactory performance not caused by Government interference or Government failure to provide C3 requirements, the Government will pay the contractor only for the percent of work found to be satisfactory.

Random Sampling. Payment based upon a finding of unsatisfactory service is calculated on the percentage of the sample found satisfactory. Payment will be calculated as follows: (maximum payment for satisfactory service x (% of sample found satisfactory) = payment for percentage of service found satisfactory.

EXAMPLE	
Maximum Contract Payment Per Month	$10,000.00
Maximum payment percentage for this service:	9% ($900.00)
Quantity of Units Completed:	450 (lot size)
AQL	10%
Sample size:	50
Reject level:	11(MIL-STD-105D)
Unsatisfactory units found:	20
Satisfactory units found:	30
Service is unsatisfactory	
Maximum payment for satisfactory service would be	900
% of sample found satisfactory (60 divided by 100 = 60%)	60%
Payment for percentage of service found satisfactory	$540

One hundred percent Inspection and Validated Customer Complaints. Payment for unsatisfactory service is based on the percentage of the **lot** found satisfactory. Payment will be calculated as follows: (maximum payment for satisfactory service) x (% of lot found satisfactory) = payment for percentage of service found satisfactory.

EXAMPLE	
Maximum Contract Payment Per Month	$10,000.00
Maximum payment percentage for this service:	9% ($900.00)
Quantity of Units Completed:	100 (lot size)
AQL	10%
Unsatisfactory units found:	40
Satisfactory units found:	60
Service is unsatisfactory	$900
Maximum payment for satisfactory service would be	
% of sample found satisfactory (60 divided by 100 = 60%)	60%
Payment for percentage of service found satisfactory	$540

Payment for Service with a Surveillance Period Longer than Monthly. Some of the line items listed in the PRS have a surveillance period which is longer than monthly. Throughout the surveillance period, the Government will inspect each unit completed for these line items using the inspection method specified in the PRS. Each month the Government will pay the contractor the maximum payment percentage allowed for that service, as if the service were found satisfactory. At the end of the surveillance period, the Government will compare the contractor's performance for the entire surveillance period to the AQL for that line item to determine if overall performance for the line item was satisfactory.

Satisfactory Service. Payment for satisfactory performance will be calculated as follows: (maximum payment for satisfactory service) - (payments made during the surveillance period) = total amount of adjustment at the end of the surveillance period.

Unsatisfactory Service. Payment for unsatisfactory performance will be calculated as follows:

For services inspected by random sampling: (maximum payment for satisfactory service) x (% of sample found satisfactory) - (payments made during surveillance period) = amount of adjustment at end of surveillance period.

For services inspected by One hundred percent inspection and validated customer complaints: (maximum payment for satisfactory service) x (% of lot found satisfactory) - (payments made during surveillance period) = amount of adjustment at end of surveillance period.

Nothing in the foregoing provisions will diminish or preclude Government actions pursuant to the "Default" clause or other terms and conditions of this contract.

AIRCRAFT FUEL SERVICES (MOBILE/DIRECT FUELING) INCLUDING THE DISPATCH CENTER				
Requirement/Reference	**Standard**	**Max Allowable Degree of Deviation (AQL)**	**Method of Surveillance**	**Max Percent Payment for Meeting AQL**
Staffing, C-1.7 and C-1.11.	Sufficient qualified personnel to satisfy servicing demands.	0%	100% Inspection	5
Personnel availability, C-1.2 and C-2.2.2.	Contract personnel available for the appropriate hours.	4%	100% Inspection	5
Qualifications, C-1.9, C-1.10, and C-1.11	Qualified personnel performing duties. Documentation/ training records to substantiate qualifications. Dispatcher FAS qualified.	4%	100% Inspection	5
Response times, C-2.2.2.	Servicing response times meet. Responses in excess of standard time fully explained on logs.	0%	Random, Customer Complaint	15
Documentation, C-2.8.	Fuel servicing inventory and inspection documentation complete, accurate, and forwarded to the appropriate office NLT 0800 daily.	0%	Random	4
Quality, C-2.9.	Appropriate sample taken and forwarded to the fuel laboratory. Sample logs maintained and test results kept on file.	0%	Random	10
Housekeeping and Maintenance, C-2.10.2.1.1.	Building and grounds maintained in accordance with local standards.	5%	Random	1
Training, C-2.11.	Applicable training conducted and documented. Training records complete.	4%	100% Inspection	10
Safety, C-2.12.	Fuel servicing operations conducted in accordance with NAVAIR 00-80T-109 and applicable safety regulations.	0%	100% Inspection	35
Environmental, C-2.13.	Full compliance with applicable environmental law and regulations.	0%	Random	4
Security, C-2.14.	Equipment security maintained and logs kept.	0%	Random	2
Equipment Specifications, C-3.2.	Equipment configured in accordance with specifications outline in Section C-3.2.	5%	100% Inspection	1
Equipment and Supplies, C-3.3	Equipment and supplies identified is on hand and available to contract personnel.	5%	100% Inspection	1
Uniforms and Safety Equipment, C-3.4	Uniforms provided by the Contractor. Safety equipment available and used by contract personnel.	0%	100% Inspection	1
References, Appendix E	Current reference on hand and available to contract personnel	5%	100% Inspection	1

See ANSI/ASQC Z1.4-1993, Sampling Procedures and Tables for Inspections by Attributes

FUEL DISTRIBUTION AND STORAGE				
Requirement/Reference	**Standard**	**Max Allowable Degree of Deviation (AQL)**	**Method of Surveillance**	**Max Percent Payment for Meeting AQL**
Staffing, C-1.7.	Sufficient personnel to carry out the operation(s) in progress, storage.	0%	100% Inspection	10
Bulk Storage Operations, C-2.3	Receipts and transfers performed IAW references. Operations started on time. Communications maintained during product movement operations.	4%	Random	35
Physical Inventory, C-2.8.	Daily and weekly inventories complete, accurate, and forwarded in a timely manner. Monthly inventories witnessed, complete, accurate and forwarded in a timely manner	0%	Random	5
Documentation, C-2.8.	Documentation complete, accurate, and forwarded to the appropriate office NLT 0900 daily.	0&	Random	2
Quality, C-2.9.	Appropriate samples taken and forwarded to the NAS Patuxent River fuel laboratory. Sample logs maintained/test results kept on file.	0%	Random	5
Facility/Equipment Maintenance and Calibration, C-2.10.	Maintain conducted IAW references. Applicable meters and gauges calibrated as scheduled. Documentation complete and available.	4%	Random	20
Housekeeping, C-2.10.2.1.1, and Grounds Maintenance, C-2.5.2.1.27	Building and grounds maintained IAW standards.	5%	Random	2
Training, C-2.11.	Applicable training conducted and documented. Training records complete.	4%	100% Inspection	3
Safety, C-2.12.	Operation conducted IAW applicable safety regulations.	0%	100% Inspection	5
Environmental, C-2.13.	Full compliance with applicable environmental law and regulations.	0%	Random	5
Security, C-2.14.	System security maintained and logs kept.	0%	Random	2
Equipment and Supplies, C-3.0.	Items identified on hand, maintained, and readily available to contract personnel.	5%	100% Inspection	1
References, Appendix E	Current reference on hand and available to personnel.	0%	Random	5

See ANSI/ASQC Z1.4-1993, Sampling Procedures and Tables for Inspections by Attributes

CRYOGENICS STORAGE AND DISTRIBUTION

Requirement/Reference	Standard	Max Allowable Degree of Deviation (AQL)	Method of Surveillance	Max Percent Payment for Meeting AQL
Staffing, C-1.7.	Sufficient personnel to carry out the operation(s) in progress.	0%	100% Inspection	10
Documentation, C-2.3.	Documentation complete, accurate and forwarded to the appropriate office NLT 0800 daily.	0%	Random	5
Facility/Equipment Maintenance and Calibration, C-2.7.	Maintain conducted IAW references. Applicable equipment and gauges calibrated as scheduled. Documentation complete and available.	4%	Random	40
Quality, C-2.9.	Appropriate sample taken and forwarded to the X AIMD laboratory for analysis. Sample logs maintained and test results kept on file.	0%	100% Inspection	10
Housekeeping, C-2.10.2.1.1, and Grounds Maintenance, C-2.5.2.1.27	Building and grounds maintained IAW standards.	5%	Random	5
Training, C-2.11.	Applicable training conducted and documented. Training records complete.	4%	Random	10
Safety, C-2.12.	Operation conducted IAW applicable safety regulations.	0%	100% Inspection	5
Environmental, C-2.13.	Full compliance with applicable environmental law and regulations.	0%	Random	5
Security, C-2.14.	System security maintained and logs kept.	0%	Random	5
References, Appendix E	Current reference on hand and available to personnel.	0%	Random	5

See ANSI/ASQC Z1.4-1993, Sampling Procedures and Tables for Inspections by Attributes