

**MPO – DRAFT Fueling Spec
June 15, 2021**

SP-21 FUELING SYSTEM STORAGE & DELIVERY SYSTEM

A. General Information

1. This specification covers the procurement, manufacture, shipping, placement and turn-key operation of the proposed fueling systems for the Pocono Mountains Municipal Airport.

The fueling systems shall include all the necessary pumps, valves and components to provide an operational, turn-key system in accordance with industry standards for aviation fueling and shall comply with federal, state and local codes. These specifications are minimum standards and the engineer may consider approved equals. Price shall include all fees, permits, training and inspections required for the turn-key operation of all systems. All equipment provided for this system shall be new; no used or refurbished equipment shall be permitted.

2. The proposed fueling system includes the installation of the following components:
 - a. **AVGAS Tank System** – One (1) 12,000 Gallon UL2085 Fireguard Double Wall Tank for the storage of AVGAS. Location per plans.
 - b. **Jet-A Tank System** – One (1) 12,000 Gallon UL2085 Fireguard Double Wall Tank for the storage of Jet-A. Location per plans.
 - c. **Credit Card Reader** – Electronic point of sale (POS) terminal system manufactured specifically for aviation fueling systems. This item is addressed in a separate specification although all tank and pump items installed under this specification shall be compatible with the credit card reader system.
3. The tank system configuration shall be an enclosed canopy with roll-up door design. This design shall fully enclose the pumping system, hose reels, filter equipment, etc. behind a lockable roll-up stainless steel door and the canopy system shall be integrated with the tank. Refer to the typical photo below for the type of system required.
4. Representative photo indicating style of tank with integrated roll-up door:

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B. Industry Standards

1. The following Industry standards are listed for reference and shall govern all applicable aspects of this project. Should conflicts between standards arise, bidders shall apply the standard which is most stringent or restrictive:
 - a. Petroleum Equipment Installation Institute (PEI)
 - i. Publication RP 200
 - ii. Publication RP 300
 - b. American Petroleum Institute (API)
 - i. API Publication 1500, Storage and Handling of Aviation Fuels at Airports
 - ii. API Publication 1529, Aviation Fueling Hose
 - iii. API Publication 1542, Airport Marking for Fuel Identification
 - iv. API Publication 1581, Specifications and Qualification Procedures for Aviation Jet Fuel Filter/Separator
 - v. API Publication 1540, Design, Construction, Operation and Maintenance of Aviation Fueling Facilities.
 - c. Underwriters Laboratories, Inc. (UL)
 - i. UL 142, Steel Aboveground Tanks for Flammable and Combustible Liquids.
 - d. National Fire Protection Association (NFPA)
 - i. NFPA 30, Flammable and Combustible Liquids Code

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- ii. NFPA 70, National Electric Code (NEC).
- iii. NFPA 407, Standard for Aircraft Fuel Servicing.
- e. International Fire Code 2018
- f. Air Transportation Association (ATA)
 - i. Specification 103, Standards for Jet Fuel Quality Control at Airports.
- g. Federal Aviation Administration (FAA)
 - i. Advisory Circular 150/5230-4B, Aircraft Fuel Storage, Handling, Training, and Dispensing on Airports

C. Bidder Qualifications

1. The contractor or subcontractor responsible for the installation of the new fueling system and the removal of the existing system shall have the required certifications to perform such work as specified by the Pennsylvania Department of Environmental Protection (PADEP). These certifications shall include, at a minimum:
 - a. UMR – UST removal from service
 - b. AMMX – AST manufactured metallic storage tank installation
 - c. AMEX – AST mechanical equipment installation
 - d. ACVL – AST civil site work

Copies of current certifications shall be included with the bid. Failure to provide the required certifications with the bid may result in the Owner deeming a bidder as Non-Responsive. The Owner reserves the right to request missing Certifications during the bid review process when assessing bid responsiveness.

2. The contractor or subcontractor shall be required to provide documentation and/or references stating that they are regularly engaged in projects similar to this and that all firms used by the bidder, including the bidders own employees, contractor or subsidiary firms, that are associated with the fueling portion of this project certify that they are regularly engaged in the production and installation of such fuel storage tank systems for the past five years. Furthermore, the bidder will have completed at least two similar aviation projects in the past 5 years – or provide other acceptable references - and be familiar with the aviation standards governing this project. Suitable references of similar projects shall be submitted upon request.

D. System Manufacture

1. Tank and pumping systems shall be manufactured by a company which regularly engages in this type of business as their primary business. Approved manufacturers include:
 - a. acTerra
 - b. AFTEC
 - c. Fuel Tech Inc.
 - d. Garsite

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- e. Approved equals
- 2. The system shall be manufactured at the factory and shipped to the site complete and ready for installation. No field installation of pumping or filtration equipment shall be permitted. No field welding associated with the tank or pumping system shall be permitted. No field painting – other than touch-up – shall be permitted. On-site installation of tank accessories above the high liquid level may be permitted.

E. Submittals

- 1. Within 30 days of the project Award, the bidder shall submit the following submittals for the components of the fueling system, including:
 - a. Tank Manufacturer's technical data, including tank drawing
 - b. Shop / Fabrication Drawings including the following for each tank:
 - i. General Arrangement Drawings, Including Tank and Pumping Systems
 - ii. Piping Schematic
 - iii. Electrical Schematic
 - iv. Detailed Bill of Material
 - v. Recommended foundation plan, including electrical conduit locations.
 - c. Proposed Project Schedule including (at a minimum) milestone dates for the following:
 - i. Mobilization
 - ii. Completion of site work
 - iii. Delivery of fuel storage systems
 - iv. Installation of fuel storage and delivery systems
 - v. System Testing
 - vi. System Start-up and Commissioning
 - vii. Removal of existing fuel systems
- 2. Once the Engineer has reviewed the general tank drawings, additional submittals shall be made for individual system components, including but not necessarily limited to: piping materials and flanges; pumps; meters; valves; filters and filter vessels; static relaxation chamber; hose and nozzle systems; grounding reels and connections; leak detection; sump systems; anti-siphon; tank gauge; fuel recycling systems; stairways, catwalk, and access systems; tank markings.

F. Tank Specifications

Tanks shall be UL2085 protected (Fireguard) labeled, manufactured by a recognized manufacturer whose primary business includes the manufacture of AST's for the storage of aviation fuels. All openings shall be made above the normal maximum liquid level in accordance with UL standards.

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1. **Avgas Tank Requirements:** One (1) 12,000 Gallon, 10-foot nominal diameter UL2085 double wall tank meeting the requirements of NFPA 30. Tank shall include the following:
 - a. Cylindrical Steel Construction conforming to UL2085 for horizontal atmospheric aviation fuel storage tanks.
 - b. Tank shall be mounted on UL-approved saddles mounted to the tank.
 - c. The exterior surface of the tank shall be factory sand blasted free of any surface oxidation.
 - d. The exterior of the tank shall be coated with an epoxy primer.
 - e. The exterior of the tank shall be painted white with a white polyurethane paint with a thickness of 10 to 12 mils.
 - f. Interstitial space shall be provided and have an emergency vent per NFPA 30. The interstitial space will be monitored by a float operated gauge.
 - g. Tank shall have lifting lugs for off-loading the tank onto the concrete pad.
 - h. Interior of the tank shall be butt-welded and ground smooth 12 inches on both sides of the bottom center line of the tank. "Lap" welds on primary (internal) tank are prohibited.
 - i. Tank interior shall be epoxy coated. The inner tank shall be sand blasted and clean and dry before internally epoxy coating the tank and the epoxy coating shall be applied to mil Specification ML-C-4556-D and shall be a two (2) coat system and the dry film thickness shall be 5 to 7 mils. Final coat shall be white or near white.
 - j. The internal epoxy coating shall be:
 1. Amercoat 395
 2. Tnemec 61
 3. Approved Equal
 - k. All painting shall be factory applied. No field painting is permitted, except for required touchup painting.

2. **Jet-A Tank Requirements:** requirements for this tank under this subsection are identical to those indicated for the AVGAS tank.

G. Tank Installation & Access

1. Tank Access

- a. The tanks shall be located based on the control point(s) shown on the plans. The site layout has been designed to accommodate standard size tanks for the capacities indicated with the Code-required separations. If the Contractor believes the proposed tanks will not fit on the site as required, they shall inform the Engineer prior to ordering the tanks.
- b. Each tank shall have an OSHA-compliant top platform with handrails and shall be accessible via an OSHA-compliant metal staircase. Orientation of the staircase shall be between the tanks per the plans or also allowable on the

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east side of the AVGAS tank to serve both tanks; a shared staircase between multiple tanks is permissible provided it allows for access to each proposed tank.

- c. Access platform shall “straddle” the manways for access to the manways and a stick port opening for tank gauging.
- d. The platform and staircase shall be powder coated safety yellow.

2. Tank Slope & Anchoring

- a. The tank support systems shall be as specified above (saddles or full-length box runners). For tanks on full length runners, the tank slope shall be incorporated into the concrete pad. For tanks mounted on saddles, tank slope shall be accomplished via the use of variable-height saddles or through sloping incorporated into the site.
- b. Tank interstitial monitoring, tank sump bowls and sumping systems shall be located as follows:
 - a. AVGAS Tank Rear Sump
 - b. Jet A Tank Rear Sump
- c. Tank shall be anchored to the concrete bases in accordance with the tank manufactures specifications and according to local seismic codes at the project location. Proper and complete installation shall conform to the manufacturer’s specifications and checklist.
- d. Tank shall be electrically grounded per NEC and local electrical codes, whichever is more restrictive.

H. Tank Accessories

The details of this section apply to both AVGAS and Jet-A tanks, unless otherwise stated.

1. Suction Piping:

- i. The primary storage tank will be outfitted with a 3” floating suction properly sized for the require flow rate and pump capacity. The floating suction will terminate approximately 6” from the bottom of the tank. Floating suction shall be equipped with a pull-to-test cable accessible from a dedicated port atop the tank and accessible from the access platform
- ii. The primary tank shall be outfitted with a ground level readable floating suction position indicator.

2. Tank Gauging and Alarm:

- i. Tank gauges shall be placed as close as possible to the centerline of the tank.
- ii. Tank gauge shall be ground readable in feet and inches.
- iii. Tank gauging shall include an audible alarm that will sound at 90% capacity of the tank. Tank alarm shall be mounted close to the transport off-load connection, in view of the transport off-load area and shall be audible in the transport off-load area.

3. Tank Overfill Protection:

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- i. Tank shall be outfitted with overflow protection that will provide a non-shocking fail-safe positive shut-off the flow of product into the tank at 95% capacity.
 - ii. Overflow protection will utilize a float device to positively shut-off the flow into the tank.
4. Tank Fill Piping:
 - i. The tank shall a 4” off-load connection, 3” butterfly valve and 3” swing check valve. Top or splash filling of the tank shall not be allowed.
 - ii. The fill piping will include a drop tube that will terminate within 6” of the bottom of the tank and terminate with a 45-degree angle, angled toward the rear of the tank.
5. Emergency Vent Primary and Secondary (interstitial) Tank:
 - i. Tank will be outfitted with an emergency vent for the primary tank in accordance with NFPA 30.
 - ii. Tank will be outfitted with an emergency vent for the secondary tank in accordance with NFPA 30
6. Operating Vent
 - i. Tank will be outfitted with an operating vent of the type required for the product stored (AVGAS or Jet-A). Operating vent shall be a minimum of 24” above the tank top.
7. Tank Openings:
 - h. Tank openings shall be sufficient in number and size to mount the equipment described in this specification.
 - i. A minimum of two 30” openings (manways) are required. One of these openings may be utilized for specified equipment mounting, and one of the openings shall serve as a spare with no proposed equipment and shall be capped.
 - j. One spare 4” opening is also required and shall be capped for future use.
 - k. All openings shall be accessible from the proposed access platform.
8. Interstitial Opening:
 - i. Interstitial space shall be provided and have an emergency vent per NFPA 30.
 - ii. Interstitial Space shall be monitored by a float gauge.
9. Tank Sump
 - i. Tank will have an integral 6” tank sump bowl located at the rear (low point). Tank hand pump, anti-siphon valve, and the piping shall enter the top of tank on the centerline of the tank and shall terminate within 1” of the bottom of the sump bowl. Hand pump shall be mounted on a bracket at the rear of the tank and shall be located approximately 40” from the ground level for operation at ground level. The drain shall terminate approximately 12” from grade. Piping shall be stainless steel.
10. Anti-Siphon:
 - i. Tank shall have a means to prevent the release of liquid from the tank by siphon flow on the primary suction piping.
11. Manual Gauge Port:
 - i. Tank shall have a 2” water-tight gauge port located near the center of the tank, accessible from the maintenance platform, for manually “sticking” the tank to

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determine the level of product in the tank. Contractor will provide a calibrated gauge stick and strapping chart for the tank.

12. Tank Testing

- i. Tank shall be pressure tested at the factory in accordance with UL2085.
- ii. Tank shall be field tested for tank tightness after the installation of the tank at the airport.

13. Vapor Recovery – Avgas Tank Only

- a. The storage tank shall be provided with vapor recovery compliant with current EPA and PADEP requirements and will include vapor adaptor and cap. Vapor recovery connection at the tank shall be through the top of the tank.
- b. Vapor recovery connection shall be within the spill containment pan area.

I. Piping

1. Piping shall be Schedule 10, 304 Stainless Steel with 304 Stainless Steel 150 # Flanges.
2. Piping shall be air pressure tested at 50 PSI for 30 minutes.
3. All piping greater than 2" shall be welded. All welding is to occur at the site of the system manufacture; field welding is prohibited.
4. Piping 2" in diameter or less may be threaded or welded. Minimal threaded pipe shall be utilized in the construction of the fueling system.
5. Product piping shall include a low point drain and valve to drain all product from the piping. This low point shall lie within the containment area and shall be accessible without removing any system features.

J. Pumping Systems

Per NFPA 407, piping valves and fittings shall be of metal suitable for aviation fuel service and designed for working pressure and mechanically and thermally produced structural stresses to which they could be subjected. Cast iron, copper, copper alloy and galvanized steel piping, valves and fittings shall not be permitted. Fueling system butterfly valves shall be ¼ turn butterfly style rated at 250 psi. Valve bodies and lugs shall be constructed of ductile iron with stainless steel stems and Viton seals.

All electrical, wiring and grounding shall be of a type specified by, and installed in accordance with, NFPA 70. All fuel facility control boxes, wiring components, motors, starters and electrical equipment located in the hazardous area shall be explosion proof. All electrical components shall be rated Class 1 Division 1.

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Provide a Class1, Division 1 explosion-proof roof-mounted light inside the enclosed front-porch; the light shall be manually activated via an accessible switch.

Each pumping system will have a containment pan for any leaks or drips from the fueling system. The containment pan shall include a closeable ball valve and piping to the low point of the containment pan for draining product and water from the pan. The valve shall remain closed, except for draining the pan. The containment pan shall be large enough to contain the 110% of the amount of fuel in the piping and equipment of the pumping system.

Both the AVGAS and Jet-A systems shall incorporate the following equipment and capabilities. Where an item applies to only one system or differently to each system, that issue is noted.

1. Flow Rates
 - a. Off-load transports at approximately 200 GPM through filtration
 - b. Overwing fuel aircraft at 40-50 GPM
 - c. Single-point loading of mobile refuelers at approximately 150 GPM
 - d. Re-circulate product at approximately 200 GPM
2. Pump Style - 3" Positive Displacement Pump with a 7.5 HP (minimum) 3-phase explosion proof motor and explosion proof starter. Pump and motor shall be base-mounted, and the base shall be welded to the frame. The piping shall include a 2" by-pass loop to circulate fuel to prevent the pump from overheating. Base shall be welded steel channels or I-Beams.
 - a. Pump shall be upsized as needed based on the specifics of the system to provide the required system flow rates within the pump allowable working pressure range. Adjustments to the proposed power infrastructure to accommodate motors of differing sizes are incidental to the project and shall not be paid for separately.
3. Motor Starter – Explosion proof starter box with appropriately sized motor starter.
4. Pump Motor – Pump motor shall be Class I Division I Group D explosion proof motors, 208 – 230 Volt three (3) Phase, 60 Hertz. Motor shall be appropriately sized for the pumping requirements of the system.
5. Filtration
 - a. **AVGAS** - 200-240 GPM filter separator or monitor with 5-micron water absorbing filter elements, piston style differential pressure gauge, air eliminator, pressure relief, and ¾" spring load drain valve. Filter shall be appropriately sized to accommodate the off-load flow rate.
 - b. **Jet-A** - 200-240 GPM filter separator with a coalescer/separator filter elements, externally testable water defense (Gammons 1cc or Crown Products), Full flow sampling ports piped to the front of the skid, piston style differential pressure gauge, air eliminator, pressure relief, and ¾" spring load drain valve. Filter shall be appropriately sized to accommodate the off-load flow rate.

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6. Filter Vessel – Filter vessel shall be internally epoxy coated. Filter Vessel shall be an ASME code vessel and have 150# flanges, pressure relief set at 125 PSI and air eliminator. The air eliminator and pressure relief shall be drained back into the tank. Filter vessel shall be manufactured by Facet or Velcon.
 - a. The filter vessel shall be located to allow for changing of the filter elements without removal or relocation of other system elements.
7. Filter Vessel Sump Heater
 - a. **AVGAS** – Does not apply
 - b. **Jet- A** - Include a thermostatically controlled heater suitable for aviation fueling systems.
8. Spare Elements – Provide one set of spare elements for each system.
9. Off-Load Connection
 1. **AVGAS** – 3” off-load connection including 3” camlock adapter and lockable aluminum dust cover, 3” quick closing butterfly valve, 3” top cleanout 40 mesh stainless steel strainer.
 2. **Jet-A** - 4” off-load connection including 4” camlock adapter and lockable aluminum dust cover, 3” quick closing butterfly valve, 3” top cleanout 40 mesh stainless steel strainer.
10. Stage 1 Vapor Recovery
 - a. **AVGAS** - Stage 1 vapor recovery with a 3” vapor recovery connection, lockable cap, quick closing butterfly valve, with a vapor recovery line piped back into top of tank. System performance to comply with EPA and PADEP requirements.
 - b. **Jet-A** – Does not apply.
11. Static Relaxation Vessel
 - a. **AVGAS** – Does not apply
 - b. **Jet-A** – 100-gallon static relaxation vessel shall be internally epoxy coated. Filter Vessel shall be an ASME code vessel and have 150# flanges, air eliminator and a pressure relief set at 125 PSI. Air Eliminator and Pressure relief shall be piped back into the tank
12. Product Recovery Tank - Product Recovery Tank shall be self-contained and utilized to separate water and particulate from the fuel. It shall be piped to allow draining of the water and particulate into a waste bucket. The product recovery system will be piped through sump suction and filtered before returning to tank. The product recovery system shall incorporate a spring-loaded ball valve on the return line to prevent water and particulate from accidentally being released into pump suction. Nominal tank volume shall be 10 gallons. Product recovery tank may be located outside of the tank shell/pump containment area.

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13. Spring rewind grounding reel with 80 feet of coated stainless-steel cable and military style clamp. Grounding reel shall be bonded to the pumping skid.
14. Valves on the fill and suction piping at the tank head shall be API 607 fire rated valves. Valves are required on these lines and shall be fire rated.
15. Fusible Link Emergency Fire Valve: In Accordance with NFPA 407, the suction line at the tank shall have an in-line fire valve that will close when it senses temperatures in excess of 165 degrees.
16. Pumping system shall include an automatic shutdown system in accordance with NFPA 407, Section 5.1.12 which stops the fuel servicing vehicle tank loading operation when the fuel servicing vehicle tank is full. System shall be a Scully ST-15 or approved equivalent. Provide system communications cable minimum length 50 feet.
17. Hoses & Hose Reels
 - i. **AVGAS**
 1. Overwing electric Rewind Hose Reel with 1-1/4" x 100' of API-1529 hose and an OPW 295-SAC AVGAS overwing nozzle with internal check valve and dust cap.
 2. Underwing electric rewind hose reel with 2" x 75' of API-1529 aviation fueling hose and Carter or Whittaker singlepoint nozzle with hose end controller and dust cap.
 - ii. **Jet-A**
 1. Overwing electric Rewind Hose Reel with 1-1/4" x 100' of API-1529 hose and an OPW 295-SAJ "Duckbill" Jet overwing nozzle with internal check valve and dust cap.
 2. Underwing electric rewind hose reel with 2" x 75' of API-1529 aviation fueling hose and Carter or Whittaker singlepoint nozzle with hose end controller and dust cap.
 - iii. All fueling operations shall be deadman controlled in accordance with NFPA 407.
18. Positive Displacement Meter with "1/10" gallons register, non-resettable totalizer, air eliminator, and 100:1 pulsar.
- k. **Credit Card Point of Sale System:** Provide and install a credit card point of sale system for control of the self-serve function of the fueling systems. The specifications, measurement and payment for this system shall be as described in a separate Special Provision. All proposed pump systems shall be capable of being controlled by the installed system.
- I. **System Testing**

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1. Pressure Testing – All product piping shall be pressure tested with air at 50 PSI for a minimum of 30 minutes. A minimum 48-hour notification of the pressure testing shall be given to the Engineer. Test results shall be submitted to the Engineer upon completion of the test.
2. Tanks shall be factory tested per UL standards for aboveground storage tanks.
3. All Jet systems shall be flushed at the factory to remove any construction debris, using fuel identical to the tank's intended contents,

m. Signs and Markings

1. Product Piping: All product piping shall be clearly marked as to the type of product and the direction of flow.
2. Arrows – Product piping shall be labeled with the appropriate flow arrows.
3. An engraved placard shall be created and installed in the fueling area outlining specific instructions on:
 - a. The proper procedure for off-loading transports, including proper valve selection.
 - b. The proper procedure and valve placement for re-circulation of fuel.
 - c. The proper procedure for fueling directly into aircraft.

n. Decals

1. The tank shall be appropriately decaled on all sides, according to the product stored (Jet fuel, AVGAS) and marked with all safety decals and shall be in accordance with the Fire Marshall's requirements and the requirements or NFPA.
2. Tank shall be labeled with the appropriate UL labels, UL number, date of manufacture, model number, capacity and fabricator of the tank

o. Fire Extinguisher

1. Provide one each 20# Class B:C fire extinguisher in the following locations:
 - a. Proposed light pole west of site
 - b. Proposed light pole north of site
 - c. Electrical rack at North Hangar

Fire extinguishers shall be easily accessed in case of a fire and shall be protected from the weather with a cover. Fire extinguishers shall be UL listed.

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The cost of the fire extinguishers shall be incidental to the project cost.

p. Emergency Stops

1. Emergency stops shall be located per the plans and mounted in accordance with applicable NFPA requirements. Each emergency stop shall include a sign mounted 7' above grade (to bottom of sign) indicating the presence of the emergency stop and the action to activate it (push or pull). Signs shall be metal with a retroreflective coating and shall conform to the requirements of the Pennsylvania Department of Transportation. Emergency stops shall function as described on the electrical plans for this project. The cost of the emergency stops and associated signage is incidental to the installation of the tank systems.

q. Spill Containment Kit

1. Provide one 95-gallon drum spill kit with wheels. Kit should be able to clean up at least 80 gallons of fuel and shall be specifically developed to handle both 100LL AVGAS and Jet-A. The drum shall be highly visible in color and labeled "Spill Containment Kit".

The kit should include nominally: 150 pads, 12 socks (3"x4'), 6 socks (3"x8'), 10 pillows, 2 goggles, 4 pair Nitrile gloves, 10 disposable bag and an emergency response handbook. The personnel safety items, goggles and gloves plus the handbook shall be secured in a separate watertight pack and placed on top of the other materials.

Kits shall be Model SPKU95WDP by AbsorbantsOnline.com or approved equal.

The cost of the kit shall be incidental to the project cost.

r. Installation and Start-up

1. The manufacturer of the fueling system shall provide a factory trained representative to instruct the owner(s) on the operation of the fueling system. The technician shall be on-site for the arrival and off-loading of the first load of fuel into the tank to ensure there are no leaks or issues during this operation and to debug system issues as they may arise.
2. The Contractor shall be responsible for coordinating with the State Weights & Measures department to achieve calibration and approval of ALL installed meters. Acceptance of the system and approval to move to the next project Phase shall not be granted until such time as the tanks and meters have been calibrated and approved. A temporary stop work order may be granted for the time required for the State to calibrate the meters, although this shall require written justification from the Contractor. No additional payment shall be made based on project delays or stoppages resulting from coordination issues for meter calibration.
3. The Owner shall provide the initial required fuel for tank startup and testing at no charge to the Contractor. Fuel shall be provided under full-load pricing. If the Contractor requests a partial load of fuel, the pro-rated cost premium for the delivery of less than a full fuel load shall be deducted from payments due the Contractor. Any fuel deemed unusable after

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the fuel testing shall be disposed of by the Contractor at their expense, and the cost of the discarded fuel may be deducted from payments due the Contractor.

4. When required by the fuel supplier, acceptance of the AVGAS and Jet-A system(s) shall require the performance of a successful soak test. The criteria for the soak test shall be as specified by the Airport's fuel supplier. All costs associated with the soak test are the responsibility of the Contractor. A temporary stop work order may be granted for the time required to conduct the test.

s. Warranty Period

1. The tanks, pumping systems and all other components shall have a warranty for a period of one (1) year from Final Acceptance. The one (1) year warranty period shall not commence until the system is installed, tested, certified by the State for weights and measures, and accepted by the Owner.

t. Operation and Maintenance Manuals

1. The contractor shall provide one (1) hard copy of the operation and maintenance manual and one copy in PDF format. The Operation and Maintenance Manuals shall list all equipment and materials used in the manufacturer of the fueling system, including the General Arrangement, Piping Schematic and Electrical Schematic drawings for the new fueling system.

u. Payment Terms

The items described in this Special Provision will be paid at the contract lump sum price. The price shall be full compensation for furnishing all materials, and for all preparation, assembly and installation, for all labor, equipment, tools and other incidentals necessary to complete the item.

Work to construct the equipment foundations, electrical power, lighting, and control systems is included in other items of work.

Item SP-21-1 Install 12,000 Gallon AVGAS System – per lump sum

Item SP-21-2 Install 12,000 Gallon Jet-A System – per lump sum