Salient Characteristics

FOR

Water Tanker Kit

Scope: The primary purpose of the Water Tanker Kit is to retrofit an articulated off-highway truck to provide rapid, high-volume water distribution for heavy construction support, soil compaction, and environmental compliance. Currently, the 801st RED HORSE Training Squadron does not have a large volume water distributor in its inventory. The acquisition of this tanker kit is operationally critical, as dust mitigation is a mandatory requirement for ALL CONSTRUCTION ACTIVITIES within Clark County.

6,000-Gallon Water Tanker Kit:

1. General & Chassis Compatibility
    a. Must be an articulated off-highway water tanker kit to include a tank body and spray system
    b. Must be designed for and compatible with a Caterpillar (CAT) 730 (30-Ton) 6x6 Articulated Truck Chassis
2. Tank Construction & Capacity
    a. Minimum 6,000 U.S. gallons
    b. Tank must be of heavy-duty carbon/mild steel plate construction
    c. Tank must include a comprehensive internal baffling system (both longitudinal and transverse baffles) to safely control water surge and lower the center of gravity
    d. Must include a top-mounted manhole/manway (minimum 30 to 36 inches) equipped with a safety screen or trash grate
3. Pump & Plumbing System
    a. Externally mounted, hydraulically driven centrifugal water pump. Must be capable of high-volume output (minimum 1,000 to 1,250 GPM capability)
    b. Hydraulically actuated remote drain or discharge valve located at the rear of the tank (minimum 3 to 4 inches)
4. Spray Equipment & Water Cannon
    a. Rear Spray Bar: Equipped with at least two (2) independently controlled, hydraulically operated fan spray heads
    b. Side Sprays: Minimum of two (2) side-mounted spray heads
    c. Front Bumper Spray: Dual front bumper-mounted sprayers with in-cab controls

   d. Water Cannon / Monitor: Remote-controlled turret monitor/water cannon mounted on the tank, operated via an in-cab joystick
5. Ancillary Watering Equipment
   a. Hose Reel: Rear-mounted hose reel (manual or spring-rewind) equipped with a minimum of 50 feet of hose (1" to 1.5" diameter) and an adjustable nozzle
6. Controls & Operator Interface
   a. Centralized in-cab operator control system (electric-over-hydraulic) for safely operating the water pump, individual spray heads, and water cannon without leaving the cab
7. Maintenance & Protection
   a. Internal tank corrosion protection system (e.g., 100% interior epoxy coating or a system of replaceable sacrificial magnesium anodes)
   b. Visual water level indicator (e.g., sight gauge at the rear or an electronic in-cab indicator)
8. Installation, Integration, and Function Testing
   a. The vendor shall provide complete, turnkey installation and mounting of the water tanker kit onto the specified Caterpillar (CAT) 730 articulated truck chassis. This includes all necessary structural mounting hardware, elastomeric mounts (if applicable), and full integration of all electrical, hydraulic, and pneumatic systems required for operation
   b. The vendor must retain and return all original equipment, parts, and hardware removed from the chassis during the installation of the water tanker kit to the Government (801st RED HORSE Training Squadron)
   c. Post-installation, the fully assembled tank must be filled to its maximum 6,000-gallon capacity to verify structural integrity and ensure a 100% leak-free state across the tank body, plumbing, pump system, and valves
   d. The vendor must conduct a full functional test of all watering systems prior to delivery/acceptance. This includes:
      i. Proper hydraulic pressure and flow rates from the centrifugal water pump
      ii. Accurate, delay-free response of all electric-over-hydraulic in-cab controls
      iii. Full deployment and operational spray patterns of all installed spray heads (front bumper, side, and rear)
      iv. Full range of motion (pan/tilt) and flow stream of the remote-controlled water cannon/monitor
      v. Smooth operation of the hose reel and manual nozzle

e. Upon successful completion of function testing, the vendor must provide all applicable operator, maintenance, and parts manuals for the water tank system and its integrated components

Warranty:

1. Standard Manufacturer's Warranty: The complete water tanker kit, including all installed equipment, parts, and structural components, must be covered by the standard manufacturer's commercial warranty
2. Registration & Claim Instructions: Upon delivery and acceptance, the vendor shall provide all necessary documentation and information required to properly register the equipment for warranty coverage. Additionally, the vendor must provide clear, written instructions detailing the standard operating procedure for submitting and claiming warranty repair work or parts replacement

Training:

Upon delivery and final acceptance of the fully integrated water tanker kit, the vendor must provide comprehensive initial operator's training to designated 801st RED HORSE Training Squadron personnel. This training shall cover the safe and proper operation of all installed equipment, including the electric-over-hydraulic in-cab controls, water pump engagement, water cannon/monitor functionality, individual spray head operation, and basic daily preventative maintenance procedures

Shipping and Transportation:

Logistics and Freight: The vendor shall be responsible for all logistics, shipping, and transportation costs associated with the integration of the water tanker kit. The vendor's proposal must explicitly include provisions for either of the following execution methods:

1. On-Site Installation: Shipping and transportation of the new water tanker kit and all associated installation equipment directly to Nellis Air Force Base (AFB) for on-site installation.
2. Off-Site Installation: Complete round-trip transportation of the Government-owned Caterpillar (CAT) 730 Articulated Truck from Nellis AFB to the vendor's certified installation facility, and the subsequent safe return delivery of the fully integrated and tested vehicle back to Nellis AFB.