

**COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF GENERAL SERVICES  
DIVISION OF PURCHASING AND SUPPLY  
SPECIFICATIONS FOR 24' REFRIGERATOR TRUCK**

**PURPOSE:**

The purpose of this specification is to establish a purchasing requirement for a two axle conventional cab 25,950 lbs. to 25,999 lbs. GVW refrigerator body truck for use by Virginia State University, Agencies, and other Public Bodies of the Commonwealth of Virginia. Vehicle described in this specification is for transportation of perishable goods requiring a refrigerated environment.

The following specifications are intended to define the minimum level of quality and performance of the requested equipment, and may be exceeded. Vehicle offered by bidder may contain equipment that is in addition to the basic vehicle equipment required in the specifications below, or which exceeds the basic equipment stated in the specifications below. Maximum GVW limit of 25,999 lbs. may not be exceeded. The specifications are not meant to be restrictive as to brand name or manufacturer. All equipment bid may be the brand name and model, or shall be equivalent to brand names and/or any other specification elements using the Use of Brand Names clause (see General Terms and Conditions) in making an equivalence determination.

**SCOPE:**

The specifications below describe the general requirements for **ONE (1)** new 24 foot refrigerated box truck, to be used by the Virginia State University for transportation of perishable fruit. The vehicle supplied must comply with all U. S. Department of Transportation, National Highway Traffic Safety Administration, Bureau of Motor Carrier Safety, Federal Motor Vehicle Safety Standards, EPA emissions regulations, and State of Virginia rules and regulations in effect at the time of purchase.

**BIDDER REQUIREMENTS:**

The equipment offered in answer to this invitation for bid must be new and unused current production models of the equipment required. No prototype, or demonstrator, or rebuilt product will be accepted, and offering of such a product will be cause for bid rejection.

Bidder must provide with bid completed specifications information of vehicle offered. In addition, information must be filled in at the appropriate places in the specifications form. Bidders may use the lines in the right column across from specifications to provide clarifying information. A blank line in the right column indicates bidder compliance with the specification item. All blank lines in the specifications text in the left column requiring information must be filled out with appropriate data. Bidders shall indicate any deviations with appropriate reasons and documentation. The Commonwealth reserves the right to obtain technical data and to request clarification when deemed necessary. **Failure on the part of the bidder to provide all requested documentation may be cause to reject the bid as non-responsive.**

Delivery of the vehicle must be made by **June 15, 2011**. Deliver vehicles to Virginia State University, Central Receiving Facility, 5755 Myster Macklin Street, Petersburg, VA 23806. Delivery may be made between the hours of 8:00 AM to 5:00 PM, Monday thru Friday.

Vehicle must be put in service by a representative of the contractor at the delivery location. The representative must demonstrate that the vehicle and all installed equipment are operating correctly, with no defects in materials or installation. The representative must operate all the installed equipment on each vehicle, and instruct Virginia State University personnel in operation, safety requirements, and maintenance of the installed equipment.

Provide a documented final inspection of the completed vehicle, showing all critical areas inspected and approved. Provide a copy of the final inspection document with the invoice.

Products provided must include warranty to provide the best practical no-cost protection to the Commonwealth for correction or replacement as needed for defects in manufacturing, assembly, or parts to cover truck and all installed equipment. Provide documentation of best warranty provided with vehicle.

**Specifications Data**

**Clarifying Information**

**I: TRUCK CHASSIS INFORMATION:**

Vehicle Configuration: Straight truck, Conventional Cab, 4x2,  
Ford F750, GM/Chev C7C042, Hino 268A or equivalent  
*Chassis Manufacturer and Model:* \_\_\_\_\_

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\_\_\_\_\_  
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Gross Vehicle Weight Rating: 25,950 lbs. minimum to 25,999  
lbs. maximum GVWR. *State chassis GVWR:* \_\_\_\_\_  
Front axle: 9,000 lbs. GAWR minimum, non-driving  
Rear axle: 19,000 pounds GAWR, minimum  
Back of cab to center of rear axle: 185 inches to 195 inches CA  
Gross combination weight rating: N/A, no tow pkg. required

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**FRAME:**

Frame to be reinforced as required for full chassis GVWR.

- Frame rear AF dimension to be for 24' box truck application

Frame channels are to be full depth for full length.

Provide front tow hook(s) or eye(s), reinforced to both frame rails, at front of vehicle.

- Tow hook(s) and fastening method must be capable of withstanding extraction of full GVW vehicle from soft mud entrapment.

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**ENGINE, TRANSMISSION, AND DRIVE LINE:**

Provide diesel engine, minimum 200 HP, 49 State EPA emissions compliant.

*Specify engine Mfg., Model, HP @ RPM, Max Torque @ RPM*

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Key operated electric shutdown  
Magnetic engine oil drain plug  
Spin-on fuel filter  
120 Volt engine block heater, approximately 1000 watts  
Heated fuel/water separator  
Low oil pressure/high coolant temperature engine shutdown system with dash light and alarm

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Automatic transmission with (5) or (6) forward speeds:

- Allison 2500 series automatic transmission
- PTO option not required

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Radiator with welded or permanently bonded construction, to provide adequate cooling for prolonged engine idling, and full GVW road travel engine operation, at 100°F ambient temperature.

- Coolant anti-freeze protection to -20°F or lower
- Coolant hoses should have constant torque clamps

Horizontal exhaust pipe

Fuel tank: minimum 50 gallons capacity:

State fuel tank type and capacity: \_\_\_\_\_

FRONT AXLE AND SUSPENSION:

Minimum 9,000 lbs. GAWR capacity non-driving front axle

Power steering

Shock Absorbers

Front axle GAWR minimum capacity front suspension

Axle manufacturer standard wheel seals, or oil lubricated front wheel seals with sight lens and synthetic oil lubricant

REAR AXLE AND SUSPENSION:

19,000 pounds GAWR minimum capacity rear axle

Rear axle ratio to be matched with final output gear ratio of transmission, to provide a maximum road speed of approximately 70 MPH with 11R 22.5 rear tires per this specification.

Minimum rear axle GAWR capacity spring suspension

Rear shock absorbers

Axle manufacturer standard wheel seals, or oil lubricated wheel seals with sight lens and synthetic oil lubricant

Rear axle spacers as needed to provide level frame

BRAKES:

Provide dual air brakes system for straight truck application.

- Must include full multi-channel antilock ABS system, controlling all wheels braking

State front brakes: \_\_\_\_\_

State rear brakes: \_\_\_\_\_

Spring actuated, air release parking brakes, rear wheels

Automatic slack adjusters front and rear

Dust shields, front and rear

Non-asbestos brake lining material

Air compressor, minimum 13.2 CFM, with receiver tank(s)

- System must be sized to meet chassis air requirements

Heated air dryer

Pull cables on all air reservoirs

WHEELS AND TIRES:

Front wheels to be (2) hub piloted steel disk or aluminum, 22.5 x 8.25

Rear wheels to be (4) hub piloted steel disk or aluminum 22.5 x 8.25

Front tires- (2) 11R22.5G highway tread, or equivalent radial, load rated for full axle GAWR

Rear tires- (4) 11R22.5G ply highway tread, or equivalent radial, load rated for full axle GAWR  
(1) Spare tire, mounted on a hub piloted steel wheel

ELECTRICAL:

12 Volts DC negative ground electrical system  
Wiring for chassis lights must be stranded copper, and protected in loom.  
Circuit breaker or equivalent electrical circuit protection  
Provide minimum of (2) batteries for starting, 750 CCA minimum  
Provide a battery charging / jump starting positive stud in vicinity of batteries, easily accessible  
100 amp alternator, minimum  
Instrument package with non-resetting hour meter, to show total engine hours  
Manufacturer standard headlights  
Intermittent windshield wipers, with windshield washer  
Solid state turn signals flasher  
Solid state electrical back-up alarm

CAB:

Conventional cab, standard regular cab  
Cruise control  
Tilt steering wheel  
Power windows and door locks  
Cab interior dome light with switch  
12 volt power port in cab  
All standard instrumentation  
Cab access for driver and passenger sides, to include grab handles and steps for safe entrance and exit of cab  
Dual west coast retractable mirrors, rectangular, approximately 16"x 7" size, heated, 102" wide  
(2) 6" or 8" diameter convex mirrors, installed below rectangular mirrors, one each side  
Dual electric horns, or air horn  
Standard interior trim, with standard interior color – light  
Heater with defroster  
Cab air conditioning  
Cab sound insulation package for maximum available noise reduction  
Manufacturer standard seating  
AM-FM radio with CD player  
Driver and passenger interior sun visors  
Minimum (2) keys

MISCELLANEOUS:

10 lb fire extinguisher, first aid kit, triangular reflectors, flare kit  
Provide single color paint, using manufacturer standard paint, as follows:

- Preferred cab paint color is mfg. standard white.
- If white is not available, an alternate cab color may be

acceptable.

- Cab color provided: \_\_\_\_\_
- Steel wheels shall be standard black or painted to match cab. Aluminum wheels are natural finish or polished.

Provide a full tank of diesel fuel in fuel tank when delivered to Virginia State University

Perform pre delivery inspection (PDI) of chassis before shipment

**II: 24' REFRIGERATOR TRUCK BODY:**

**GENERAL:**

- Outside Length: 24 feet, minimum
- Outside Width: 96 inches, (8')
- Interior Height: 92 inches +/- 1 inch
- Insulation: 3 inches minimum sides and ceiling  
4 inches minimum front wall and floor

**STRUCTURAL:**

- Cross Sills: 3" I-beam or heavy duty structural channel, on 12 inch centers
- Long Sills: 4" I-beam or heavy duty structural channel
- Floor: Extruded aluminum hat channel, box channel, or inverted "T" structure
- Drains: Minimum (2) floor drains with kazoos
- Exterior Sides: Aluminum, .040 inch thick, minimum, with structural posts on centers of 16" maximum, and frost breaks as required to control heat transfer.
- Front Wall: Structural reinforcement in front wall as required to support refrigeration unit and service platform
- Roof: One piece aluminum, .032 inch minimum thick, with roof bows support on 24 inch centers, minimum spacing
- Rear Frame: Stainless steel
- Rear Door: Insulated two (2) panel full opening swing doors, no side door

**BODY FEATURES:**

- Interior Lining: One piece seamless "Kemlite" or equivalent
- Cargo Control: One or two rows of E-track on sides only
- Bumper: ICC bumper, with one pair 12 inch heavy duty dock bumpers
- Scuff Protection: Extruded aluminum scuff shield, sides and front
- Grab Handles: Two (2) grab handles, one curb side and one street side, accessible when swing doors are opened
- Access Platform: Service platform for refrigeration unit, mounted at front of body
- Mud Flaps: No-sail mud flaps at rear wheels

ELECTRICAL:

Interior Lighting: One (1) ceiling dome light at center, with switch at rear door \_\_\_\_\_  
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Exterior Lighting: lighting package to meet FMVSS 108 and Virginia state requirements \_\_\_\_\_  
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Wiring: All wiring to be stranded copper, and shielded in loom, or within a pre-assembled wiring harness. \_\_\_\_\_  
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 Locate wiring away from heat sources, or properly heat shielded. \_\_\_\_\_  
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 No "Scotch-Lock" type parallel connectors are acceptable. \_\_\_\_\_  
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 No wire splicing crimp butt connectors are allowed within wiring harnesses. Wires are to be one piece between termination points. \_\_\_\_\_  
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 Wire terminations exposed to exterior conditions must be of the heat-shrink bonding insulation type. \_\_\_\_\_  
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Wiring Support: All wiring is to be adequately supported for full length, with no hanging loops or valleys. \_\_\_\_\_  
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REFRIGERATION EQUIPMENT:

Refrigeration module shall be a diesel engine powered self-contained unit, with integral compressor, and all systems to provide continuous refrigeration and interior temperature control, and is installed at front of the body over the truck cab. Provide Thermo-King T-800R, or Carrier Supra 750, or equivalent: \_\_\_\_\_  
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- All standard equipment \_\_\_\_\_
- Electrical standby power capability for connection to 230 volts, 3 phase, 60 Hz external power supply \_\_\_\_\_
- Refrigeration unit controls in cab, with display indicators \_\_\_\_\_
- Complete installation, including all hardware and equipment to draw fuel from the chassis fuel tank. \_\_\_\_\_

**DELIVERY SECTION**

DELIVERY TIME ARO FOR 24' REFRIGERATOR TRUCK \_\_\_\_\_  
 CAN THE VEHICLE BID MEET THE JUNE 15, 2011 DELIVERY DATE? \_\_\_\_\_

<b>TOTAL PRICE SECTION</b>	
<b>TOTAL PRICE FOR (1) 24 FT. REFRIGERATION TRUCK PER SPECIFICATIONS, INCLUDING DELIVERY AND IN-SERVICE DEMONSTRATION.....</b>	<b>TOTAL PRICE:</b>
	\$ _____