



Division 02

Apparatus and Equipment

Chapter 27 – Procedure for Replacements/Additions/Changes to the Fire/EMS Department Fleet

February 2009

POLICY

This General Order shall outline the requirements and process for the replacement of existing apparatus and/or the addition of apparatus to the Prince George's County Fire/EMS Department fleet with a new, refurbished, or used vehicle.

DEFINITIONS

Apparatus Specifications – Specifications for new, used, and refurbished apparatus, to operate within the fleet of the Prince George's County Fire/EMS Department, shall be in accordance with standards established by the Fire Chief.

Existing Vehicles – Any apparatus that is currently under County maintenance. Such apparatus shall be considered “grandfathered.”

Fleet – Group of vehicles which are maintained and/or fueled by the Prince George's County Fire/EMS Department.

M Number – The five-digit number which is assigned to a vehicle when it is introduced into the Fire/EMS Department fleet and remains with the vehicle until it is removed from the fleet.

MVA Form VR-26 – Application for Approval of Emergency Vehicles or Service Vehicles obtained from the Maryland Motor Vehicle Administration.

NFPA 1901 – National Fire Protection Association Standard for Automotive Fire Apparatus.

NFPA 1911 – National Fire Protection Association Standard for Service Tests of Fire Pump Systems on Fire Apparatus.

NFPA 1914 – National Fire Protection Association Standard for Testing Fire Department Aerial Devices.

NFPA 1932 – National Fire Protection Association Standard on Use, Maintenance, and Service Testing of Fire Department Ground Ladders.

Removal from the Fleet – When County Fleet Management is directed by Fire/EMS Department Apparatus Maintenance (AM) to remove a vehicle (M number) from all vehicle maintenance services, fuel services, and, when applicable, insurance coverage.

This action shall normally be as a result of the vehicle being permanently placed out-of-service by the owner, determined to be beyond reasonable repair, or at the discretion of the Fire Chief, or his/her designee.

Transfer of Ownership – When a vehicle, which is part of the fleet, owned by one entity within the Fire/EMS Department, is sold to another entity within the Department.

PROCEDURES

1. Existing Vehicles



Existing vehicles shall be considered "Grandfathered" into current vehicle specifications. Upon such time that an existing vehicle is removed from the fleet, said vehicle must comply with the specifications for new apparatus, if authorized, to return to the fleet.

2. Requests for Vehicle Changes to the Fleet

It shall be the responsibility of the Volunteer Chief/President to submit a written request to the Prince George's County Fire Commission prior to any additional change to the existing fleet of vehicles under County maintenance services, fuel services, and, when applicable, insurance coverage. The Prince George's County Fire Commission shall forward their recommendation to the Fire Chief for final disposition.

The vehicle specifications must be submitted to the Fire/EMS Department's Fleet Manager to be reviewed for compliance with County requirements for new apparatus. The Fleet Manager shall forward his/her recommendation and comments to the Fire Chief for final disposition.

A written request shall be submitted to the Emergency Operations Commander justifying the need for the addition/change. The Emergency Operations Commander shall forward his/her comments and recommendations to the Fire Chief approving or denying the addition/change based on Departmental need.

Conditional approval shall be granted or a denial issued by the Fire Chief upon review of the documentation above.

Final recommendation, upon inspection of the vehicle for compliance with County specifications by the Fire/EMS Department's

Fleet Manager, shall be forwarded to the Fire Chief for disposition.

3. Addition/Replacement with New Apparatus

It is recommended that vehicle specifications be reviewed by Apparatus Maintenance prior to purchase or repair to obtain a preliminary review of the vehicle's compliance with vehicle standards.

The vehicle must comply with the most current standards established by the Fire Chief. The current requirements are set forth in the attached November 15, 1994, memo to All Volunteer Chiefs and Presidents, "Apparatus Specifications Review."

An inspection by Apparatus Maintenance must be requested when the vehicle is considered ready for service.

A copy of a stamped Maryland Motor Vehicle Administration Form #VR-26, approving the vehicle as an emergency vehicle, must be provided.

Final recommendation, upon inspection of the vehicle for compliance with County specifications by the Fire/EMS Department's Fleet Manager, shall be forwarded to the Fire Chief for disposition.

4. Addition/Replacement with Used Apparatus

It is recommended that a vehicle inspection be conducted by Apparatus Maintenance prior to purchase or repair to obtain a preliminary review of the vehicle's compliance with vehicle standards.

The vehicle must comply with the most current standards established by the Fire Chief. The current requirements are set forth in the attached November 15, 1994, memo to



All Volunteer Chiefs and Presidents,
“Apparatus Specifications Review.”

Department’s fleet will be assigned an M
Number by Apparatus Maintenance.

An inspection by Apparatus Maintenance
must be requested when the vehicle is
considered ready for service.

The vehicle’s M Number will be referred to
for fuel, maintenance, repair, and insurance
issues.

A copy of a stamped Maryland Motor
Vehicle Administration Form #VR-26,
approving the vehicle as an emergency
vehicle, must be provided.

All vehicles which are part of the fleet are
expected to be kept in compliance with all
applicable County and Departmental Orders,
Procedures, and Directives. Failure to
comply may result in the removal of the
vehicle from the fleet.

Successful results of the oil analysis of the
engine, drive-line components, and any
associated hydraulics.

A vehicle which has been determined to be a
total loss as a result of an accident will be
removed from the fleet.

A copy of the State of Maryland Vehicle
Inspection must be provided.

Any vehicle which has its M Number
removed from the County vehicle and fuel
inventories is no longer considered to be a
part of the fleet.

Aerial Devices – Certification that the aerial
device has been inspected and tested by an
aerial testing company in accordance with
NFPA 1914 within thirty (30) days of the
purchase, and that the vehicle has remained
out-of-service since that test.

**6. Transfer of Ownership of a Vehicle
Within the County**

Any vehicle which has a current M Number
and is sold to another entity within the
County will be considered to be an “existing
vehicle,” and therefore “grandfathered” in
regards to apparatus requirements.

Pumping Devices – Certification that the
pump has been inspected and tested by a
pump testing company in accordance with
NFPA 1911 within thirty (30) days of the
purchase, and that the vehicle has remained
out-of-service since that test.

An inspection by Apparatus Maintenance
must be requested when the vehicle is
considered ready for service. Apparatus
maintenance will weigh the vehicle to record
the in-service weight.

Ground Ladders – Certification that each
ground ladder has been inspected and tested
by a ladder testing company in accordance
with NFPA 1932 within thirty (30) days of
the purchase, and that the ladder has remained
out-of-service since that test.

A copy of a stamped Maryland Motor
Vehicle Administration Form #VR-26,
approving the vehicle as an emergency
vehicle, must be provided.

5. General Provisions

A copy of the State of Maryland Vehicle
Inspection must be provided.

All vehicles which are designated as part of
the Prince George’s County Fire/EMS



If the vehicle does not have a current M Number, all of the requirements for used apparatus must be met.

7. Non-Fleet Vehicles

No individual or entity within the Fire/EMS Department shall place a unit in service without the express permission of the Fire Chief, or his/her designee.

Vehicles which are utilized by Fire/EMS personnel to respond within the County to emergency incidents that are not part of the fleet may be subject to a safety inspection at the discretion of the Fire Chief. Failure to comply will result in said vehicle being prohibited from providing emergency response within Prince George's County.

REFERENCES

N/A

FORMS/ATTACHMENTS

Memo to All Volunteer Chiefs and Presidents dated November 15, 1994, "Apparatus Specifications Review."

INTER-OFFICE MEMORANDUM

PRINCE GEORGE'S COUNTY, MARYLAND

November 15, 1994

TO: All Volunteer Chiefs and Presidents
FROM: *Lemuel A. Roberts*
Lemuel A. Roberts, Acting Fire Chief
RE: Apparatus Specifications Review

A complete review of the apparatus specifications has been completed. I would like to thank the members of the Apparatus Specifications Review Committee for their research and input into this most worthwhile project. This could not have been accomplished without the cooperation and expertise of the members who served on the Committee. The commitment remains, since the implementation of the Committee, to constantly improve the safety afforded to our personnel. The requirements, as adopted, will have to be met prior to any new apparatus being placed in-service under County maintenance, insurance, and in the engagement of operational functions.

As engineering designs, codes, and maintenance-related factors change, an update will be provided on the mandatory requirements. Those stations contemplating the purchase of apparatus are encouraged to have the Bureau of Apparatus Maintenance review their specifications prior to purchase.

Attached are copies of the new specifications. Additional information concerning this process can be obtained from the Bureau of Apparatus Maintenance at 322-4566. Your cooperation and assistance is most appreciated.

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Attachments

PUMPER

Apparatus Specifications

Definition

Fire apparatus with a permanently mounted fire pump, a water tank and hose body that meet or exceed the NFPA 1901 standard. The primary purpose of this type of apparatus is to combat structural and associated fires.

Required

- * Must be in compliance with the NFPA 1901 standard as adopted by Prince George's County and Prince George's County Volunteer Fire and Rescue Association standards.
- * Dealer and manufacturer must be registered with the State of Maryland.
- * Provide a sufficient number of seats in order that all persons riding shall be seated and secured to the vehicle by three point seat belts.
- * Sound - noise level must not exceed 85 dba in the nonresponse mode at all seated positions.
- * A voice activated intercom system (similar to David Clark, Sigtronics, FireCom, etc.) shall be provided with headsets at each seated position. These headsets shall not be hooked up to the am/fm radio.
- * Weights - as a minimum, all axles, springs, suspension components, wheels/tires, steering, etc. must be of sufficient size for the projected payload plus a 5% load factor.
- * Rated engine horsepower:
 - Under 40,000 lbs. minimum of 300 h.p.
 - Over 40,000 lbs. minimum of 400 h.p.
- * Power train - must be diesel (certified for 15-W-40 SFCD motor oil) with an automatic transmission of the Allison HT or HD series with heavy duty driveline and rear differential.
- * Engine brake with low/med/high switch or transmission output retarder activated by accelerator pedal.
- * High idle switch in cab and on pump panel must be wired to operate only with the transmission in neutral.

(2)

- * Top speed of 65 mph - rear differential ratio engineered for top speed of 65 mph.
- * Fuel/water separator.
- * Radiator must be equipped with a sight gauge, translucent tank or low coolant level alarm.
- * Provide a removeable drive shaft loop or cage for each drive shaft.
- * Brakes - must be air actuated disc type brakes with automatic slack adjusters. An anti-lock brake system shall be provided which shall include an on/off switchable traction control. Standardize parking brake release - (push in to release - pull out to apply) - must have a guard.
- * Front axle parking brake in addition to drive axle parking brake.
- * Wheels - disc type construction, tubeless design.
- * Electrical Charging System - Sufficient size to handle 120% of maximum load plus 25% of intermittent loads. Must also be externally regulated.
- * Wiring - must be numbered and function coded in a 300 degree protected loom, 100% copper and capable of 150% anticipated load.
- * In addition to the roof mounted warning lights, the unit will be equipped with side warning lights, 4" minimum size as follows:
 - Located between front of bumper and center of front wheel.
 - As close to center of unit as practical.
 - Between center of rear wheel and end of tail board.
 - Units over 30 feet will have an additional light for each 10 feet of body. The lights will not be higher than 60" from ground level.
- * The front forward lights will be arranged in a three (3) level arrangement such as - front bumper, headlight line, and roof.

(3)

- * Back step buzzer button located between 48" and 60" above the ground, accessible while standing on the ground at either side.
- * A paperless tachograph compatible to the Argo Model 1332 FMS which indicates speed, brake application, miles traveled, emergency light activation, siren activation, vehicle number, time, and date. Contact the Bureau of Apparatus Maintenance for exact specifications.
- * A second speedometer within view of the officer.
- * Reinforced front bumper - 3/8" steel "C" channel running inside the completed bumper with supports running from the chassis frame to the outer edges of the bumper.
- * Fire pump rated 1250 gpm as minimum.
- * Booster Tank - must be constructed of either polypropylene or fiberglass.
- * Generators must have oil drains run to the bottom side of the chassis.

Recommendations

- * A one setting combination intake/discharge relief valve such as a Hale TPM relief valve system. Until additional manufacturers can provide a similar system at which time this will be a requirement.
- * Pump discharge - incorporate (1) discharge for four or five inch hose with Storz couplings. If a 4" discharge is provided, a 4" to 5" adapter shall be carried. If a 5" discharge is provided, a 5" to 4" adapter shall be carried.
- * Recommend Allison HD series over HT automatic transmission.
- * If equipped with air conditioning, run off of the generator.
- * Yellow caution directional system, mounted as high as practical.
- * Third brake light, mounted near center as high as practical.
- * Side facing light bars shall be as far forward as possible.

(4)

- * Extension cord buzzer button in addition to the backstep buzzer buttons.
- * Aluminum wheels.
- * Steering axle stabilizer device - similar to Safe-T-Plus.

INITIAL ATTACK FIRE APPARATUS

Specifications

Definition

Fire Apparatus designed for initial fire suppression attack on structural, vehicular, or vegetation fires, and supporting associated Fire Department operations. It consists of an attack pump, water tank, limited hose, and equipment.

Required

- * Must be in compliance with the NFPA 1902 standard as adopted by Prince George's County and Prince George's County Volunteer Fire and Rescue Association standards.
- * Dealer and manufacturer must be registered with the State of Maryland.
- * Provide a sufficient number of seats in order that all persons riding shall be seated and secured to the vehicle by three point seat belts.
- * Sound - noise level must not exceed 85 dba in the nonresponse mode at all seated positions.
- * A voice activated intercom system (similar to David Clark, Sigtronics, FireCom, etc.) shall be provided with headsets at each seated position and at the pump panel. These headsets shall not be hooked up to the am/fm radio.
- * Weights - as a minimum, all axles, springs, suspension components, wheels/tires, steering, etc. must be of sufficient size for the projected payload plus a 5% load factor.
- * High idle switch in cab and on pump panel must be wired to operate only with the transmission in neutral or park.
- * Fuel/water separator on diesel equipped vehicles.
- * Radiator must be equipped with a sight gauge, translucent tank or low coolant level alarm.
- * Provide a removeable drive shaft loop or cage for each drive shaft.
- * An anti-lock brake system shall be provided which shall include an on/off switchable traction control.

(2)

- * Wheels - disc type construction, tubeless design.
- * Electrical Charging System - Sufficient size to handle 120% of maximum load plus 25% of intermittent loads. Must also be externally regulated.
- * Wiring - must be numbered and function coded in a 300 degree protected loom, 100% copper and capable of 150% anticipated load.
- * In addition to the roof mounted warning lights, the unit will be equipped with side warning lights, 4" minimum size as follows:
 - Located between front of bumper to center of front wheel.
 - Between center of rear wheel and end of tail board.
 - Units over 30 feet will have an additional light for each 10 feet of body. The lights will not be higher than 60" from ground level.
- * The front forward lights will be arranged in a two (2) level arrangement such as - the roof and grill.
- * Back step buzzer button located between 48" and 60" above the ground, accessible while standing on the ground at either side.
- * A paperless tachograph compatible to the Argo Model 1332 FMS which indicates speed, brake application, miles traveled, emergency lights activation, siren activation, vehicle number, time, and date. Contact the Bureau of Apparatus Maintenance for exact specifications.
- * A second speedometer within view of the officer.
- * Reinforced front bumper - 3/8" steel "C" channel running inside the complete bumper with supports running from the chassis frame to the outer edges of the bumper.
- * Booster Tank - must be constructed of either polypropylene or fiberglass.
- * Generators must have oil drains run to the bottom side of the chassis.

Recommendations

- * A one setting combination intake/discharge relief valve such as a Hale TPM relief valve system until additional manufacturers can provide a similar system at which time this will be a requirement.
- * Yellow caution directional system, mounted as high as practical.
- * Third brake light, mounted near center as high as practical.
- * Extension cord buzzer button in addition to the backstep buzzer buttons.
- * Aluminum wheels.
- * Power train - diesel with an automatic transmission.
- * Steering axle stabilizer device - similar to Safe-T-Plus.

MOBILE WATER SUPPLY FIRE APPARATUS

Specifications

Definition

Fire Apparatus designed for the transport of water to emergency incident scenes.

Required

- * Must be in compliance with the NFPA 1903 standard as adopted by Prince George's County and Prince George's County Volunteer Fire and Rescue Association standards.
- * Dealer and manufacturer must be registered with the State of Maryland.
- * Provide a sufficient number of seats in order that all persons riding shall be seated and secured to the vehicle by three point seat belts.
- * Sound - noise level must not exceed 85 dba in the nonresponse mode at all seated positions.
- * A voice activated intercom system (similar to David Clark, Sigtronics, FireCom, etc.) shall be provided with headsets at each seated position and at the pump panel. These headsets shall not be hooked up to the am/fm radio.
- * Weights - as a minimum, all axles, springs, suspension components, wheels/tires, steering, etc. must be of sufficient size for the projected payload plus a 5% load factor.
- * Rated engine horsepower:
 - Under 40,000 lbs. minimum of 300 h.p.
 - Over 40,000 lbs. minimum of 400 h.p.
- * Power train - must be diesel (certified for 15-W-40 SFCD motor oil) with an automatic transmission of the Allison HT or HD series with heavy duty driveline and rear differential.
- * Engine brake with low/med/high switch or transmission output retarder activated by accelerator pedal.
- * High idle switch in cab and on pump panel must be wired to operate only with the transmission in neutral.

(2)

- * Top speed of 65 mph - rear differential ratio engineered for top speed of 65 mph.
- * Fuel/water separator.
- * Radiator must be equipped with a sight gauge, translucent tank, or low coolant level alarm.
- * Provide a removeable drive shaft loop or cage for each drive shaft.
- * Brakes - must be air actuated disc type brakes with automatic slack adjusters. An anti-lock brake system shall be provided which shall include an on/off switchable traction control. Standardize parking brake release - (push in to release - pull out to apply) - must have a guard.
- * Front axle parking brake in addition to drive axle parking brake.
- * Wheels - disc type construction, tubeless design.
- * Electrical Charging System - Sufficient size to handle 120% of maximum load plus 25% of intermittent loads. Must also be externally regulated.
- * Wiring - must be numbered and function coded in a 300 degree protected loom, 100% copper and capable of 150% anticipated load.
- * In addition to the roof mounted warning lights, the unit will be equipped with side warning lights, 4" minimum size as follows:
 - Located between front of bumper to center of front wheel.
 - As close to center of unit as practical.
 - Between center of rear wheel and end of tail board.
 - Units over 30 feet will have an additional light for each 10 feet of body. The lights will not be higher than 60" from ground level.
- * The front forward lights will be arranged in a three (3) level arrangement such as - front bumper, headlight line, and roof.

(3)

- * Back step buzzer button located between 48" and 60" above the ground, accessible while standing on the ground at either side.
- * A paperless tachograph compatible to the Argo Model 1332 FMS which indicates speed, brake application, miles traveled, emergency light activation, siren activation, vehicle number, time, and date. Contact the Bureau of Apparatus Maintenance for exact specifications.
- * A second speedometer within view of the officer.
- * Reinforced front bumper - 3/8" steel "C" channel running inside the completed bumper with supports running from the chassis frame to the outer edges of the bumper.
- * Booster Tank - shall be constructed of noncorrosive material or other materials that are protected by anode rods.
- * Minimum tank capacity shall be 1500 gallons.
- * Tank capacity will be determined by weighing tanker full, pumped empty, and reweighing.
- * There shall be two (2) direct rear fills capable of filling at a rate of 1000 gpm minimum.
- * There shall be a light to illuminate the dumping area.
- * There shall be three (3) water tank level gauges located at the rear, the pump panel and within view of the driver.
- * The rear suspension shall be a rubber spring type similar to Chalmers or Ridewell.
- * Generators must have oil drains run to the bottom side of the chassis.

Recommendations

- * A one setting combination intake/discharge relief valve such as a Hale TPM relief valve system until additional manufacturers can provide a similar system at which time this will be a requirement.
- * Recommend Allison HD series over HT automatic transmission.
- * Yellow caution directional system, mounted as high as practical.

(4)

- * Third brake light, mounted near center as high as practical.
- * Side facing light bars shall be as far forward as possible.
- * Extension cord buzzer button in addition to the backstep buzzer buttons.
- * Aluminum wheels.
- * Steering axle stabilizer device - similar to Safe-T-Plus.

AERIAL LADDER AND ELEVATING PLATFORM

Apparatus Specifications

Definition

Fire apparatus designed to provide elevated fire fighting and rescue capability from an aerial ladder or elevated platform. It consists of a power operated, self supporting aerial device permanently mounted on a suitable chassis with associated equipment and storage provisions.

Required

- * Must be in compliance with the NFPA 1904 standard as adopted by Prince George's County and Prince George's County Volunteer Fire and Rescue Association standards.
- * Dealer and manufacturer must be registered with the State of Maryland.
- * Provide a sufficient number of seats in order that all persons riding shall be seated and secured to the vehicle by three point seat belts.
- * Sound - noise level must not exceed 85 dba in the nonresponse mode at all seated positions.
- * A voice activated intercom system (similar to David Clark, Sigtronics, FireCom, etc.) shall be provided with headsets at each seated position and at the turntable. These headsets shall not be hooked up to the am/fm radio.
- * Weights - as a minimum, all axles, springs, suspension components, wheels/tires, steering, etc. must be of sufficient size for the projected payload plus a 5% load factor.
- * Rated engine horsepower:
 - Under 40,000 lbs. minimum of 300 h.p.
 - Over 40,000 lbs. minimum of 400 h.p.
- * Power train - must be diesel (certified for 15-W-40 SFCD motor oil) with an automatic transmission of the Allison HT or HD series with heavy duty driveline and rear differential.
- * Engine brake with low/med/high switch or transmission output retarder activated by accelerator pedal.

(2)

- * High idle switch in cab and on pump panel or turntable must be wired to operate only with the transmission in neutral.
- * Top speed of 65 mph - rear differential ratio engineered for top speed of 65 mph.
- * Fuel/water separator.
- * Radiator must be equipped with a sight gauge, translucent tank, or low coolant level alarm.
- * Alarms - in addition to the NFPA required alarm, aerial ladder trucks shall be equipped with a low engine oil pressure/high engine coolant temperature alarm on the turntable.
- * Provide a removeable drive shaft loop or cage for each drive shaft.
- * Brakes - must be air actuated disc type brakes with automatic slack adjusters. An anti-lock brake system shall be provided which shall include an on/off switchable traction control. Standardize parking brake release - (push in to release - pull out to apply) - must have a guard.
- * Front axle parking brake in addition to drive axle parking brake.
- * Wheels - disc type construction, tubeless design.
- * Electrical Charging System - Sufficient size to handle 120% of maximum load plus 25% of intermittent loads. Must also be externally regulated.
- * Wiring - must be numbered and function coded in a 300 degree protected loom, 100% copper and capable of 150% anticipated load.
- * In addition to the roof mounted warning lights, the unit will be equipped with side warning lights, 4" minimum size as follows:
 - Located between front of bumper to center of front wheel.
 - As close to center of unit as practical.
 - Between center of rear wheel and end of tail board.

(3)

- Units over 30 feet will have an additional light for each 10 feet of body. The lights will not be higher than 60" from ground level.
- * The front forward lights will be arranged in a three (3) level arrangement such as - front bumper, headlight line, and roof.
- * Back step buzzer button located between 48" and 60" above the ground, accessible while standing on the ground at either side.
- * A paperless tachograph compatible to the Argo Model 1332 FMS which indicates speed, brake application, miles traveled, emergency light activation, siren activation, vehicle number, time, and date. Contact the Bureau of Apparatus Maintenance for exact specifications.
- * A second speedometer within view of the officer.
- * Reinforced front bumper - 3/8" steel "C" channel running inside the completed bumper with supports running from the chassis frame to the outer edges of the bumper.
- * Generators must have oil drains run to the bottom side of the chassis.

Recommendations

- * Recommend Allison HD series over HT automatic transmission.
- * If equipped with air conditioning, run off the generator.
- * Yellow caution directional system, mounted as high as practical.
- * Third brake light, mounted near center as high as practical.
- * Side facing light bars shall be as far forward as possible.
- * Extension cord buzzer button in addition to the backstep buzzer buttons.
- * Aluminum wheels.
- * Steering axle stabilizer device - similar to Safe-T-Plus.

(4)

- * Third brake light, mounted near center as high as practical.
- * Side facing light bars shall be as far forward as possible.
- * Extension cord buzzer button in addition to the backstep buzzer buttons.
- * Aluminum wheels.
- * Steering axle stabilizer device - similar to Safe-T-Plus.

RESCUE SQUAD

Apparatus Specifications

Required

- * Must be in compliance with all applicable sections of Chapters 1,2,3,6,8 and 9 of the NFPA 1901 standard as adopted by Prince George's County and Prince George's County Volunteer Fire and Rescue Association standards.
- * Dealer and manufacturer must be registered with the State of Maryland.
- * Provide a sufficient number of seats in order that all persons riding shall be seated and secured to the vehicle by three point seat belts. If the manufacturer can not provide three point seat belts for the "walk in" style squads, a letter must be provided stating so.
- * Sound - noise level must not exceed 85 dba in the nonresponse mode at all seated positions.
- * A voice activated intercom system (similar to David Clark, Sigtronics, FireCom, etc.) shall be provided with headsets at each seated position. These headsets shall not be hooked up to the am/fm radio.
- * Weights - as a minimum, all axles, springs, suspension components, wheels/tires, steering, etc. must be of sufficient size for the projected payload plus a 5% load factor.
- * Rated engine horsepower:
 - Under 40,000 lbs. minimum of 300 h.p.
 - Over 40,000 lbs. minimum of 400 h.p.
- * Power train - must be diesel (certified for 15-W-40 SFCD motor oil) with an automatic transmission of the Allison HT or HD series with heavy duty driveline and rear differential.
- * Engine brake with low/med/high switch or transmission output retarder activated by accelerator pedal.
- * High idle switch in cab and on pump panel must be wired to operate only with the transmission in neutral.
- * Top speed of 65 mph - rear differential ratio engineered for top speed of 65 mph.

(2)

- * Fuel/water separator.
- * Radiator must be equipped with a sight gauge, translucent tank or low coolant level alarm.
- * Provide a removeable drive shaft loop or cage for each drive shaft.
- * Brakes - must be air actuated disc type brakes with automatic slack adjusters. An anti-lock brake system shall be provided which shall include an on/off switchable traction control. Standardize parking brake release - (push in to release - pull out to apply) - must have a guard.
- * Front axle parking brake in addition to drive axle parking brake.
- * Wheels - disc type construction, tubeless design.
- * Electrical Charging System - Sufficient size to handle 120% of maximum load plus 25% of intermittent loads. Must also be externally regulated.
- * Wiring - must be numbered and function coded in a 300 degree protected loom, 100% copper and capable of 150% anticipated load.
- * In addition to the roof mounted warning lights, the unit will be equipped with side warning lights, 4" minimum size as follows:
 - Located between front of bumper and center of front wheel.
 - As close to center of unit as practical.
 - Between center of rear wheel and end of tail board.
 - Units over 30 feet will have an additional light for each 10 feet of body. The lights will not be higher than 60" from ground level.
- * The front forward lights will be arranged in a three (3) level arrangement such as - front bumper, headlight line, and roof.
- * Back step buzzer button located between 48" and 60" above the ground, accessible while standing on the ground at either side.

(3)

- * A paperless tachograph compatible to the Argo Model 1332 FMS which indicates speed, brake application, miles traveled, emergency light activation, siren activation, vehicle number, time, and date. Contact the Bureau of Apparatus Maintenance for exact specifications.
- * A second speedometer within view of the officer.
- * Reinforced front bumper - 3/8" steel "C" channel running inside the completed bumper with supports running from the chassis frame to the outer edges of the bumper.
- * Generators must have oil drains run to the bottom side of the chassis.
- * Walk in style squads which have personnel riding in the squad body must have a secondary means of escape, i.e. roof hatch, body to cab pass thru, etc.

Recommendations

- * Recommend Allison HD series over HT automatic transmission.
- * If equipped with air conditioning, run off of the generator.
- * Yellow caution directional system, mounted as high as practical.
- * Third brake light, mounted near center as high as practical.
- * Side facing light bars shall be as far forward as possible.
- * Extension cord buzzer button in addition to the backstep buzzer buttons.
- * Aluminum wheels.
- * Steering axle stabilizer device - similar to Safe-T-Plus.

AMBULANCE SPECIFICATIONS

Required

- * Must be in compliance with the current Federal KKK 1822 specifications.
- * Dealer and manufacturer must be registered with the State of Maryland.
- * Sound - noise level must not exceed 85 dba in the nonresponse mode at all seated positions.
- * Ambulances which exceed 90 dba in either the response mode or nonresponse mode must be equipped with a voice activated intercom system (similar to David Clark, Sigtronics, FireCom, etc.) with two (2) headsets in the cab and one (1) in the patient compartment. These headsets shall not be hooked up to the am/fm radio.
- * Weights - as a minimum, all axles, springs, suspension components, wheels/tires, steering, etc. must be of sufficient size for the projected payload plus a 5% load factor.
- * Anti-lock brake system must be provided.
- * Provide a removeable drive shaft loop or cage.
- * Back step buzzer button located between 48" and 60" above the ground, accessible while standing on the ground at either side.
- * Emergency lights - as a minimum Whelen system 14S strobe light system.
- * A paperless tachograph compatible to the Argo Model 1332 FMS which indicates speed, brake application, miles traveled, emergency light activation, siren activation, vehicle number, time, and date. Contact the Bureau of Apparatus Maintenance for exact specifications.
- * Disposable onboard suction containers.
- * Ferno-Washington Model 35A or equivalent cot.
- * An engine hour meter.
- * Visual and audible alarms to indicate low engine oil pressures and/or high engine coolant temperature.

(2)

Recommendations

- * Yellow caution directional system, mounted as high as practical.
- * Third brake light, mounted near center as high as practical.
- * Extension cord buzzer button in addition to the backstep buzzer buttons.
- * Steering axle stabilizer device - similar to Safe-T-Plus.
- * Heavier chassis such as IH or Freightliner.