Mr. Rick McMullen  
Coach and Equipment  
P.O. Box 35  
Brown St. Extension  
Penn Yan, NY 14527

Dear Mr. McMullen:

This is in response to your letter in which you requested the Federal Transit Administration (FTA) to determine whether the Guardian and SRW Phoenix models fall within the same family of vehicles as the previously tested DRW Phoenix model.

Review of your letter, drawings, and data submitted shows the following information:

- The DRW Phoenix model that completed testing at PTT in January 1995 (Report No. PTL-87-R9426-01) was built on a dual rear wheel Ford E-350 commercial cutaway chassis with a 176-inch wheelbase.
- The proposed SRW Phoenix is built on a single rear wheel Ford E-350 commercial cutaway chassis with an 138-inch wheelbase.
- The proposed Guardian model is built from a Ford Econoline E-350 conversion van.

The Federal Register dated November 3, 1993, established four subcategories for the testing of 5- and 4-year service life small buses: unmodified mass-produced vans, unmodified mass-produced chassis, vehicles manufactured from modified mass-produced chassis or vans, and vehicles manufactured from non mass-produced chassis or vans.

For purposes of partial testing of buses in the 5- and 4-year bus testing categories, we established the concept of a family of vehicles. This concept includes, "all bus models that are produced by a small bus manufacturer that are built using unmodified mass-produced chassis (second subcategory), supplied by one or more original equipment manufacturers (OEM), including the various chassis wheelbases that are supplied by the OEMs."

The SRW and DRW Phoenix models are both built on an unmodified
mass-produced chassis manufactured by Ford Motor Company; therefore, they both fall into the same family of vehicles.

You should be aware, however, that it is conceivable that more than one member of the family may be required to undergo testing at PTI. This may be caused by differences in the structural configuration from one family member to another that would be expected to produce test results that are significantly different from those previously obtained at PTI.

In the case of the SRW Phoenix, we have determined that the test results for this model would be expected to equal or surpass previous test results with regard to the structural integrity, performance and safety characteristics of the vehicle. Thus, additional testing will not be required of the SRW Phoenix model.

The Guardian model vehicle is based on Ford's Econoline E-350 conversion van; therefore, it does not fall within the same family of vehicles as the SRW and DRW Phoenix models. This vehicle falls into the modified mass-produced chassis or van category since a significant portion of the vehicle's body section has been replaced. Vehicles in this category, which is inclusive of your Guardian model, are subjected to full testing at PTI.

If you desire additional information, please do not hesitate to call Abdo S. Ahmed of my staff at (202) 366-8063.

Sincerely,

A. M. Tony Yen
Deputy Associate Administrator
for Technical Assistance, and
Acting Director,
Office of Engineering

cc: Dave Klinikowski
Pennsylvania Transportation Institute
Testing Requirement Guidelines for Five- and Four-Year Buses; and Partial Bus Testing Procedures for All Bus Categories

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Testing Requirement Guidelines for Five- and Four-Year Buses; and Partial Bus Testing Procedures for All Bus Categories

Background

On May 25, 1989, the FTA published a notice of proposed rulemaking (NPRM) that established The Pennsylvania Transportation Institute (PTI) bus testing facility in Altoona, Pennsylvania, and “...provides that no funds obligated by the FTA after September 30, 1989, under the Federal Transit Act...may be used to purchase a ‘new bus model’ unless a bus of such model has been tested at the facility.” The NPRM proposed testing all bus models used in mass transit. However, the FTA realized the testing facility would not be able to handle all bus categories as proposed. Therefore, the FTA incrementally implemented new and redefined categories of buses for testing and issued modifications to coincide with the facility’s readiness for each vehicle category.

The FTA recently issued (under 49 CFR Part 665) its revised Bus Testing Program; Reinstatement and Modification of Interim Final Rulemaking (IRM), dated July 28, 1992. The IRM introduced the following major changes:

- Two new bus categories, light-duty buses and modified vans, which are now are subject to testing. These two categories include five-year (or 150,000 mile minimum service life) buses and four-year (or 100,000 mile minimum service life) buses. With this addition, the FTA has included all categories of buses that it intended to cover under the original bus testing procedure NPRM.

- Partial testing, which permits less than full testing for buses being produced with major changes. Partial testing only applies for buses previously tested at PTI. The IRM defines partial testing as “the performance of those bus tests which may yield significantly different data from that obtained in previous bus testing conducted at the bus testing facility.”

- Several new definitions, which were added or modified to be consistent with the above changes.

Appendix A includes selected excerpts from the July 28, 1992, IRM.

The purpose of this document is twofold. First, this document helps manufacturers understand the definition and idea of a "family of vehicles." Second, it delineates testing requirement guidelines and partial bus testing procedures. The information presented in this document shall apply to all categories of vehicles as defined in the IRM, unless otherwise noted.
1.0 TESTING REQUIREMENT GUIDELINES FOR FIVE- AND FOUR-YEAR BUSES

Most of the vehicles built in the newly defined five- and four-year bus categories use mass produced chassis and vans. The similarity of these vehicles allows for the definition of several "families of vehicles". The following sections describe what constitutes a family of vehicles for both five- and four-year buses.

1.1 Vehicles Built Using Unmodified Mass Produced Vans

Unmodified mass produced vans do not require any testing. An unmodified mass produced van is a van that has no changes other than those installed by the original mass produced van manufacturer.

Mass produced vans with raised roofs, lifts, and/or ramps, installed by a party other than the original mass produced van manufacturer, are considered to be vans with no major changes for the purposes of the bus testing rule and will not be required to undergo testing, if those installations are completed in strict conformance with the Original Equipment Manufacturer's (OEM) modification guidelines.

1.2 Vehicles Built Using Unmodified Mass Produced Chassis

All vehicles, from each small bus manufacturer, built using an unmodified mass produced chassis are to be considered part of the same family. An unmodified mass produced chassis is a chassis whose structure remains unchanged; or is altered only in strict conformance with the OEM's modification guidelines, except those vehicles with changes covered by Section 1.3. The family of vehicles would include the various wheelbases that are supplied by a mass produced chassis manufacturer. These vehicles are part of the same family for that small bus manufacturer only.
1.3 Vehicles Built Using Modified Mass Produced Chassis and Vans

Certain changes to mass produced chassis or vans will cause a vehicle to fall out of the family of vehicles concept as set forth in Section 1.2. Such vehicles would be considered unique models for purposes of the bus testing rule. Examples of such changes include:

a. Addition of a tandem or tag axle
b. Installation of a drop floor
c. Changes to GVWR from OEM rating
d. Modifications not in compliance with the OEM's modification guidelines, such as extensions to the chassis or a significant replacement of a vehicle body section made by a party other than the original manufacturer

1.4 Vehicles Built Using Non-Mass Produced Chassis or Vans

Vehicles built using non-mass produced chassis or vans retain their own model identity and are subject to full or partial testing procedures at PTI.