St. Mary's County Non-Public School Bus
PRE-TRIP INSPECTON GUIDELINES

INTRODUCTION

A pre-trip inspection of a school bus should be conducted each day by the bus driver before the AM and PM routes, or at anytime the bus goes out of service (example: at a ball game). Besides decreasing maintenance costs, the few minutes invested by the driver may result in positive dividends in the saving of lives, property, and down time. A vehicle inspection is one of the things that if performed properly can reduce the potential for breakdowns by helping to make sure the vehicle is operating in its best condition. The bus drivers are not expected to be mechanics, but by following some simple guidelines and using a prepared Checklist, drivers can better determine the vehicle's readiness for use.

Bus drivers are responsible for what happens during the operation of their vehicle while on their assigned route(s). They should take pride in all their efforts, especially those that improve safety and help reduce or eliminate the risk associated with the performance of their jobs. The driver should assure that the vehicle is free from physical or mechanical conditions that present clear and apparent danger to the well being of the passengers. Performing a good pre-trip inspection is part of being a professionally licensed driver. The objectives of these guidelines to contractors and their drivers are:

To learn how to detect symptoms of possible trouble;

To identify interior and exterior maintenance tasks; and

To learn how to perform a systematic pre-trip inspection of a school bus.

It is important to stress to the drivers that they should follow a set pattern that their contractor has instituted. Each contractor is responsible for ensuring that their exists a set pattern or procedure that their drivers use to maintain consistency. The following guidelines include a cursory listing of items that should be checked by the driver while performing a Pre-Trip Inspection.

1. GENERAL INSPECTION OF BUS APPEARANCE

a. Approach the vehicle and check for any fluid leaks on the ground under the bus. Theses leaks may have come from the engine, transmission, fuel tank, or differential.

b. Check for possible vandalism that could be evidenced by color-defaced, debris on the ground, flat tires, or open doors or hoods.

2. UNDER-THE-HOOD INSPECTION

a. Check for excessive oil or grease deposits.
b. Check fluid levels: engine oil, power steering, power brakes, automatic transmission, engine coolant, and windshield washer solvent.
c. Check belts: belts that service the fan, power steering unit, power brake unit, and compressor or vacuum pump. The belts should be checked by twisting, turning, and looking for cracks or fraying. The driver should check for looseness of belts. There should be no more than ¾ inch play in the belts.
d. Check wiring harness: check places where wiring insulation may be rubbing through because of engine vibration.
e. Check all hoses: check by twisting, turning, pinching, squeezing, feeling, and looking. Check for contact with other parts, chipping and cracking. Radiator, heater, and compressor/vacuum pump hoses should be checked.

3. OUTSIDE-THE-BUS INSPECTION

a) *Tires* – Should be checked to see if they are under-inflated, flat, worn excessively, or damaged (minimum 4/32 tire tread depth on front and 2/32 on back).
b) *Wheels* – Should be checked for loose or missing nuts, excessive corrosion, cracks, or other damage and check lock ring.
c) *Fluid Leaks* – Look carefully at the inner wheels and tires for evidence of wetness and check outside center hub.
d) *Warning Systems and Lights* – Check running lights, back-up lights, all signs and signals, reflectors, turn signals, stop lights, flashers, and crossing gate. Be sure all signs, lights, and reflectors are clean so they will give maximum protection.
e) *Glass* – Check all bus windows for cracks and be sure they are clean. It is essential that the driver's vision is not impaired by dirt or film. Check for broken or cracked lens.
f) *Mirrors* – Should be checked to be sure they give the view required for safety. They must be clean, properly aimed, and tightly adjusted.
g) *Exhaust System* – Should be checked for sagging exhaust pipes, tailpipes, and mufflers. The driver should look for visible exhaust and listen for excessive exhaust noise, vibration, and rattles.
h) *Emergency Door and Exits* – Should be checked to see that they operate properly and can be securely closed and sealed. The emergency door should be checked from both the inside and outside. Check warning buzzer for proper operation.
i) *Suspension System* – Check all shock absorbers, spring leafs, mounts, and hangers.
j) *Fuel Tanks* – Properly secured with no leaks.
k) *Air Brakes* – Check hoses for leaks, air chambers, and slack adjusters; brake rod should not move more than approximately one inch.

4. INTERIOR INSPECTION

a) *Vacuum or Air Pressure Gauge* – These should indicate adequate capacity to operate your brakes. Do not operate the bus until the reserve vacuum or air pressure reaches manufacturer's recommendations. Cut-out compressor between 100-125 psi. With engine off, depress brake repeatedly for low pressure. Check emergency brake light, buzzer or pop-out valve control should activate before air pressure drops below 40-50 psi.

b) *Service Brake Warning Light* – In a vehicle equipped with a dual brake system, if this light comes on during a hard brake application, it could indicate that at least one of the brake systems is not operating properly.

c) *Oil Pressure Warning Light* – This light may go on as the bus is being started, but should go off after the engine starts. If it does not, the engine should be turned off and reported immediately.

d) *Oil Pressure Gauge* – Should indicate adequate pressure. If not, the engine should be turned off. Report immediately and do not drive the bus.

e) *Alternator Warning Light* – If this light remains on after the engine is running, it indicates a malfunction in the charging system. Report the condition at once.

f) *Ammeter* – Should not continue to show a discharge after the engine is running. If it continues to show discharge, report at once.

g) *Water Temperature Gauge or Warning Light* – These instruments indicate the temperature of the coolant in the engine. If your bus has a gauge, the indicator should read cool or warm. If it indicates hot, the engine should be stopped immediately and the problem reported. The same action should be taken if the temperature warning light comes on.

h) *Monitor for Lights* – This instrument, which is mounted on the front upper inner panel above the driver or in front dash instrument panel. The monitor gives positive indication of individual lamp operation.

i) *Fuel Gauge* – Should indicate a safe margin of fuel for the day's operation. Every effort should be made not to let the gauge read less than ¼ of a tank of fuel.

j) The following should be checked for proper operation, adjustment, or condition:

- □ Directional Signals
- □ Stop Lights and Signals
- □ Special Warning Lights
- □ Emergency Flashers
- □ Running Lights
- □ Headlights
- □ Interior Lights
- □ Stop Arm Control, Crossing Gate Control
- □ Windshield Fan and Defroster
- □ Heater
- □ Horn
- □ Service Door and Control
- □ Rear View – Side Mirrors
- □ Cross-over Mirrors
- □ Disabled Vehicle Warning Devices
- □ Driver's Seat
- □ Driver's Seat Belt
- □ Fire Extinguisher (fire suppression system if applicable)
- □ First-Aid Kit and Body Fluid Clean-up Kit
- □ Windshield Wipers
- □ Passenger Seat (backs and bench seats)

INTERIOR INSPECTION (CON'T)

k) Steering Play—Should be checked and not have more than a 5-10 degree free play (approximately two inches at the rim of a 20" steering wheel).

5. ROAD CHECK

A. *Test the Parking Brake* – Make sure the parking brake is holding, but always release it before starting out.
B. *Check Transmission Operation* – With the transmission engaged, the bus should start out smoothly in response to depressing the accelerator. The transmission should not produce any unusual metallic noises, nor should it skip.
C. *Check the Brakes* – Do not wait until you are out on the highway to check the brakes. Test them at a low speed, bringing the bus to a complete stop. Your bus should stop in a straight line without skidding, swerving, or pulling to one side. The brakes should not grab or lock or make excessive noise. Report any excessive pedal pressure or abnormal or unusual braking behavior. If the condition prevents safe braking, do not operate the bus until the condition has been repaired. Check the air pressure or vacuum gauge periodically to be sure that adequate pressure is maintained. If vehicle is equipped with hydraulic disc brakes, depress brake pedal with the engine off, listen to ensure the proper operation of the electrical back-up system.
D. *Check the Engine* – Be alert to unusual noises, vibrations, or lack of normal response. Be sure to report any unusual engine behavior. Never race a cold engine.
E. *Check the Steering* – Is it responsive? Does there appear to be too much play or jerking in the steering system? Is the power steering quiet? Report any unusual or substandard steering conditions.
F. *Check the Suspension* – Does one end of the bus sag? Is there excessive bounce or does the bus bottom-out when going over bumps or chuckholes? Does it weave or sway excessively when turning or cornering? If so, it could be due to faulty shock absorbers or broken springs. Report any unusual ride or handling characteristics.

REMINDER TO ALL CONTRACTORS & BUS DRIVERS

Please make sure that pre and post-inspection sheet(s) are completed daily. Contact your contractor if you feel your vehicle needs to be repaired or serviced. Anything you notice that is out of the ordinary should be reported as soon as is practical. It is better to report any unusual condition and have it be checked than not to report it.

"An inspected bus is a safe bus."